



# Clinton Middle School

100 West Boylston Street, Clinton, MA 01510

## MSBA Schematic Design Binder

February 23, 2024

### MSBA

Massachusetts School Building Authority  
40 Broad Street, Suite 500, Boston, MA 02111

### OWNER

Town of Clinton, MA  
242 Church Street, Clinton, MA 01510

### OPM

Dore + Whittier  
220 Merrimac Street, Building 7, 2nd Floor, Newburyport, MA 01950

### DESIGNER

Lamoureux Pagano Associates | Architects  
108 Grove Street, Suite 300, Worcester, MA 01605

Prepared by:



February 23, 2024

Veatriki Dagkalakou

MSBA Project Manager  
Massachusetts School Building Authority  
40 Broad Street, Suite 500  
Boston, MA 02109



RE: Clinton Middle School – Schematic Design Submission

Dear Veatriki,

Please accept the Module 4 Schematic Design submission for the Town of Clinton Middle School project. As OPM, we have reviewed the package, and we believe that it meets the requirements as set forth by the MSBA in Module 4.

The Town has approved the materials included in the submission and agreed that the proposed project is within the Town's budget, as documented within the Schematic Design.

We look forward to your feedback and working with you to proceed to the next phase of this project.

Sincerely,

A handwritten signature in blue ink that reads 'Trip Elmore'.

**Trip Elmore, MCPPO**

**DORE + WHITTIER**

[doreandwhittier.com](http://doreandwhittier.com)

(978) 778-5353

## MSBA Module 4

### Schematic Design

### TABLE OF CONTENTS

#### 4.1.1 DESE SUBMITTAL

- A. Cover Letter
- B. Special Education Delivery Methodology
- C. Education Space Summary
- D. Floor Plans
- E. Special Education Adjacency Table
- F. Design Enrollment Certificate

#### 4.1.2 SCHEMATIC DESIGN BINDER

- A. Introduction
  - 1. Narrative
  - 2. Updated Budget Statement
  - 3. Visual Aids
    - a. Site Plan
    - b. Floor Plans & Graphics Section
    - c. Elevation/Massing Model
    - d. Interior Renderings
  - 4. MSBA Approval to Proceed to SD
  - 5. MSBA PSR Review Responses / Correspondence
- B. Final Design Program
  - 1. Narrative
  - 2. Educational Space Summary
  - 3. Narrative of Space Summary Changes
  - 4. Educational Program Narrative
  - 5. Instructional Technology
  - 6. Functional Relationships & Adjacencies
  - 7. Security and Visual Access
  - 8. Site Development Requirements
  - 9. Visual or Aesthetic Focal Points
- C. Traffic Analysis
  - 1. Narrative
  - 2. Transportation Feasibility Assessment

## MSBA Module 4

### Schematic Design

### TABLE OF CONTENTS

- D. Environmental and Existing Building Assessment
  - 1. Environmental Narrative
  - 2. Hazardous Material Report
  
- E. Geotechnical and Geo-environmental Analysis
  - 1. Geotechnical Narrative
  - 2. Geotechnical Report
  
- F. Code Analysis
  - 1. Narrative
  - 2. Code Report
  - 3. Permitting Requirements
  
- G. Utility Analysis
  - 1. Narrative
  - 2. Flow Test
  
- H. Massing Study
  
- I. Building Systems Narratives
  - 1. Architectural & Sustainable Design Elements
    - a. FF&E Basis of Design Narrative
  - 2. Structural
  - 3. Fire Protection
  - 4. Plumbing
  - 5. HVAC
  - 6. Electrical
  - 7. Site Civil
  - 8. Site Landscape
  - 9. Food Service
  - 10. Technology
  
- J. Sustainable Building Design Guideline Documents
  - 1. Sustainability Narrative
  - 2. LEEDv4 Sustainability Scorecard
  - 3. Mass Save MOU
  - 4. Signed Designer Statement
  - 5. LEED Registration Documentation

- K. Accessibility Compliance & Historical Commission
  - 1. Accessibility Compliance
  - 2. MHC Project Notification Form (PNF) and Approval
- L. Room Data Sheets
- M. Proposed Construction Methodology
  - 1. Construction Methodology Narrative
  - 2. Office of Inspector General (OIG) Notice to Proceed
  - 3. Phasing Plans
- N. District's Anticipated Reimbursement Rate
- O. Total Project Budget
  - 1. Spreadsheet
  - 2. Summary of Cost Reconciliation between Designer and OPM Cost Estimates
  - 3. Proposed Schedule of Alternates Certification
- P. Designer Construction Cost Estimate
- Q. OPM-CM Construction Cost Estimate
- R. Updated Project Work Plan
  - 1. Updated Project Directory
  - 2. Roles & Responsibilities
  - 3. Communications & Document Control Procedures
  - 4. Designer's Work Plan
  - 5. OPM Project Schedule
  - 6. CM Project Schedule
- S. Local Actions and Approvals
  - 1. Certified SBC Meeting Minutes where SD Submittal was Approved
  - 2. PowerPoint Presentation at All-Boards Meeting
  - 3. Signed Local Actions & Approvals Certification
- T. Supporting Documents
  - 1. Press & Media Coverage
  - 2. Clinton MSBA Design Enrollment Certification

## MSBA Module 4

### Schematic Design

### TABLE OF CONTENTS

#### 3. Deed Recording Documents

#### 4.1.3 SCHEMATIC DESIGN PROJECT MANUAL

- A. SD Specifications Table of Contents  
(Refer to complete separate bound set)
- B. Proprietary Items

#### 4.1.4 SCHEMATIC DESIGN DRAWINGS

- A. List of SD Drawings  
(Refer to complete separate bound set)

## 4.1.1 DESE SUBMITTAL

---



# Clinton Middle School

100 West Boylston Street, Clinton, MA 01510

## MSBA

### 4.1.1 DESE Submittal

February 23, 2024

**MSBA** (Project # 202000640305)

Massachusetts School Building Authority  
40 Broad Street, Suite 500, Boston, MA 02111

#### **OWNER**

Town of Clinton, MA  
242 Church Street, Clinton, MA 01510

#### **OPM**

Dore + Whittier  
220 Merrimac Street, Building 7, 2<sup>nd</sup> Floor, Newburyport, MA 01950

#### **DESIGNER**

Lamoureux Pagano Associates | Architects  
108 Grove Street, Suite 300, Worcester, MA 01605

Prepared by:

 LPA | Architects

JOB #2220



## MSBA Module 4

### Schematic Design

## 4.1.1 DESE Submittal

### Table of Contents

#### 4.1.1 DESE SUBMITTAL

- A. Cover Letter
- B. Special Education Delivery Methodology
- C. Educational Space Summary
- D. Floor Plans
- E. Special Education Adjacency Table
- F. Design Enrollment Certificate

## 4.1.1 DESE SUBMITTAL

---

### A. Cover Letter

February 23, 2024

Mr. Mike McGurl  
Director of Capital Planning  
Massachusetts School Building Authority  
40 Broad Street, Suite 500  
Boston, MA 02109



RE: Clinton Middle School  
Schematic Design Submission

Dear Mr. McGurl,

The Town of Clinton is pursuing the execution of a Project Scope and Budget Agreement for the MSBA-approved schematic design of the Clinton Middle School in Clinton, MA. The Town's 2023 enrollment is 1999 students. The design enrollment for the proposed school is 700. The existing Clinton Middle School currently serves grades 5-8 and is proposed to serve grades 4-8.

In accordance with G.L. c. 70 B, MSBA staff has assembled the documents required for the review of the special education program at the Clinton Middle School project. The following are attached per the 'Submittal Requirements':

1. A letter from Superintendent Steven Meyer describing the town's special education program.
2. Proposed space summary that includes the existing facility, proposed spaces, and MSBA guidelines based on the agreed upon design enrollment. The first page of this summary indicates a total of 14,200 square feet dedicated to the delivery of special education.
3. The floor plans for new construction of the proposed 136,000 square foot Clinton Middle School
4. A completed Special Education adjacency table.

I have reviewed the attached documents and confirm that the Town's School Building Committee has officially approved the attached submittal on February 20, 2024, and verified that the Space Summary matches the floor plan and is complete and conforms to the MSBA requirements as described in Module 4- Schematic Design Guidelines.

Sincerely,

**Trip Elmore MCPPO**

**DORE + WHITTIER**

[doreandwhittier.com](http://doreandwhittier.com)

(978) 778-5353

## 4.1.1 DESE SUBMITTAL

---

- B. Special Education Delivery  
Methodology



## CLINTON PUBLIC SCHOOLS

150 School Street  
Clinton, Massachusetts  
978-365-4200  
FAX: 978-365-5037  
Email: smeyer@clinton.k12.ma.us

## SCHOOL COMMITTEE

Brendan Bailey  
Joel Bates  
Pam Gaw  
Matthew Varakis  
Tena Zapanits

Dr. Steven Meyer  
Superintendent

### 4B.2 - Special Education Delivery Methodology Letter

February 21, 2024

Dear Mr. Deninger,

Building a new school is a unique opportunity to try to build a space that can fit the needs of the students in the district, rather than trying to accommodate those needs in an outdated existing space. The educational programming plan for Clinton Middle School has tried to capture not only our current needs, but also the projected needs as we move forward. A new school is a significant investment, and one that must be able to meet the future needs of our students.

Clinton Middle School is the only middle school in the district. The current design is for the school to house grades four through eight. At this time, given our current enrollment, that would put 713 students in the new Clinton Middle School. Based on the enrollment certification from the MSBA, the school is being built for an enrollment of 700.

Clinton Public Schools is right around the state average in terms of special education enrollment. As a district, 21.9% of the students are special education students, which is slightly higher than the state average of 20.2%. However, the current CMS configuration of grades 5 through 8 only has a special education of 19.4%. It is estimated that we will be very close to the state average with the addition of the fourth grade.

The grade four through eight configuration seems to be a little unique, although one that is familiar to Clinton. However, during the design process, careful consideration was given to try to maintain a separation between the elementary grades, specifically grades 4 and 5, and the secondary grades, grades 7 and 8. This separation was also reflected in the design in regards to sub-separate programming spaces, being careful to allow for programs to remain within the 48-month window.

Clinton Public Schools feels very strongly that students need to be in the least restrictive environment and have access to high-quality Tier I instruction whenever possible. The proposal for CMS is designed around the following special education concepts:

- Co-Teaching and Inclusion - This is the primary service delivery with students being assigned to either a co-taught classroom (one special education teacher and one general education teacher) or the student being in a general education classroom supported by an instructional assistant.
- Specialized Programs - specialized instruction for Applied Behavioral Analysis (ABA), social-emotional (Therapeutic Learning Center - TLC), and life skills will be included.
- Related and small group services such as speech, OT/PT, and pull-out resource room services are also provided.

Please review the following Special Education Delivery Methodology, and feel free to contact us to address any questions or further information that you may require. We look forward to Board approval of our Project Scope and Budget Plan in April of 2024.

Thank you for your time and consideration as we work to best meet the needs of our ever-changing student population.

Sincerely,

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

Steven C. Meyer, Ed.D.  
Superintendent

A handwritten signature in blue ink, appearing to read 'Loretta Braverman'.

Loretta Braverman  
Assistant Superintendent of Pupil Services

A handwritten signature in blue ink, appearing to read 'Jennifer LaMontagne'.

Jennifer LaMontagne  
CMS Interim Principal

**Clinton Middle School**  
**Special Education Delivery Methodology**

***A description prepared for the submission to the Massachusetts  
School Building Authority***

**February 2024**

4B.2.1 Current Program

There are currently nine full-time special educators on staff. Four of these educators run pull-out sub-separate programs (Resource Room, TLC, ABA). The other five special educators are grade level liaisons with grade 5 having two and then each other grade having one. The grade level liaisons have schedules that include a combination of pull-out and push-in services to meet student needs.

Most students in CMS are primarily serviced through inclusion classes. Seventy of the current one-hundred and twelve students (63%) primarily receive inclusion support in a supported general education setting. As of right now, most of this inclusion support is provided by instructional assistants. However, as you will read in section 4B.2.2, the goal is to move to a co-taught model in the future.

Approximately 32 students, or 29% of the special education students at CMS currently receive what would be considered Resource Room support. This is a pull-out service where typically students are pulled out for one or multiple subject areas and taught by a special education teacher. One of the goals of CPS is to reduce the number of students who are receiving pull-out services by increasing the opportunities for co-taught instruction.

Currently 10 students, or 9% of the special education population at CMS are enrolled in the Applied Behavior Analyst (ABA) program. The curriculum focus includes teaching pragmatic skills to students who are typically on the Autism spectrum. This classroom is typically supported with multiple Instructional Assistants. Students in this program have a variety of needs and typically need support understanding social cues and their executive functioning skills. Sometimes students in this program may become frustrated and aggressive.

All of the currently enrolled students in this classroom are in either grade 5 or grade 6. Over the last few years, Clinton Elementary School, the only elementary school in the district, has substantially increased the number of in-house ABA programs that they are able to offer. CPS is starting to see a trend of more ABA students being able to stay in the district and access our in-house ABA programming.

Clinton Middle School also has a Therapeutic Learning Classroom (TLC). The curriculum focus includes helping to support students who have primarily social-emotional disabilities. This classroom is typically supported with multiple Instructional Assistants. While some students may spend most of their day in this classroom, typically students in the TLC program are included in regular education classes and attend those classes when regulated and able to do so. When dysregulated, they are provided education and support in the TLC room. The number of students who access this program and the frequency with which they access the program varies quite a bit throughout the school year.

In addition to the special education teachers, there are also (1) school psychologist, (2) speech language pathologists, (1) a Board-Certified Behavior Analyst (BCBA), (1) part-time occupational therapist and (1) part-time physical therapist. Each of these staff works directly with students to either provide related services or to conduct testing. Currently, they all have an office/small room to work in except the OT and PT who share a space.

The last DESE onsite review for special education and civil rights took place during the 2021-2022 school year. At that time, there were only two indicators that required corrective action. These were SE56 - Special Education Program and Services are Evaluated, and CR25 Institutional Self-Evaluation. Action steps were developed for the CIMP and the CIMP Status for both indicators was marked as Complete in the April 15, 2023, one year update.

Through our internal review of CPS special education programs, our goal remains to offer all students a free and appropriate education in the least restrictive environment. Specifically, CPS wants to offer a continuum of services so that as many students as possible students have their educational needs met in-district. Specifically, the areas that are currently under development for implementation soon include co-teaching in grades 5 and 8 and the development of a life skills program and curriculum for some of the students coming through the ABA program, as they enter grades 7 and 8.

#### 4B.2.2 Proposed Program

CPS wants to provide all students with access to high-quality tier I instructional programming as much as possible. The primary vehicle for increasing access to high-quality tier I instruction while also meeting the special needs of students is through co-teaching.

The goal of increasing the numbers of students in co-taught settings will also be to reduce the number of students in pull-out resource room settings. For example, the current grade 5 at CMS has 26 students in inclusion, 7 in ABA, and 6 in a resource room setting. However, current grade 4 at CES has 26 students in a co-taught pair of classrooms, 11 inclusion students supported by instructional assistants, 3 in a sub-separate ABA program, and none in a resource room setting. This shift in special education delivery has been in the works for years at the elementary level and is now making its way to Clinton Middle School.



As such, each neighborhood in the plan for the new Clinton Middle School has a full-size Special Education Liaison room included. This room would be used primarily as a co-taught classroom particularly for the younger grades. In grades 7 and 8, the room would either be used as a co-taught space or a pull-out classroom setting for use by the grade level special education teacher. To help support co-teacher, CPS has two special education teachers assigned to grade 5 and is planning to increase from 1 to 2 special education teachers in grade 6 for next year (FY25).

The next changes in the proposed program are to help ensure that CMS can offer a continuum of services at all grade levels, bearing in mind the proposed five-grade age span (Grades 4-8). Currently, CMS has four grades (Grades 5-8), so the 48-month age span restriction is normally not an issue; however, when adding a fifth grade to the building, that age-span needs to be accounted for.

CMS will continue to offer ABA programming and anticipates that this area will continue to grow given the current numbers in elementary school. In the current schematic, there is one full sized ABA classroom that is scheduled to be in the 4th grade neighborhood and primarily service students in grades 4 through 6. This full-sized room will also have an adjoining calming room and an office for the BCBA immediately next to the room.

Many students in the ABA program will continue to do more of a Life Skills program as they reach grades 7 and 8. The curriculum focus includes teaching students adult daily living skills. These students are typically not on a graduation pathway, and they will be in the district until they age out at 22. The primary focus of this program is to support the ability of these students to hopefully become self-sufficient at some point in their lives. The proposal is for the CMS to have one full-sized room that would be used for the life skills program. Immediately next to this room, with access from the hallway, would be the Adult Daily Living center.

The adult daily living center would provide an area to support students in the Life Skills class that would teach skills for day-to-day living. This area would need to provide model areas where students can learn such skills as using a washer/dryer, dishwasher, stovetop, oven, and other household appliances, as well as basic work skills. Ideally the ADL could function as an informal Café for the Clinton MS teachers and staff. The ADL would provide workstations to teach skills needed for working with cash registers, and learning skills such as cooking, sorting, folding, labeling, and packing items to be sold in the Café. The ADL classroom would also be used to teach day-to-day life skills such as hygiene and nutrition to special education students not in the Life Skills program.

Given the social-emotional needs of many of our students, CMS will offer two Therapeutic Learning Center (TLC) programs. One of these would service grades 4 through 6 and the other grades 7 and 8. Each TLC classroom would have a calm down area with direct visibility from the classroom, as well as an adjacent TLC office space to house an adjustment counselor who supports the program.

Each grade neighborhood will have the following Special Education Spaces:

- (1) Full-size Special Education Liaison classroom, primarily for co-taught classes.
- (1) Half-size Resource Room for pull-out services,
- (1) Half-size Small Group room for related service providers to use. It is also anticipated that these rooms will be used throughout the entire day. If available, they will also be scheduled to provide additional interventions and services such as Title I reading, English Learner services, and other interventions during the WINN block (as part of our MTSS system).

Related services are a large part of the special education program at CMS. These providers, speech and language pathologist, physical therapy, and occupational therapy all require their own specialized spaces. These areas should be able to accommodate small groups of 8 up to 12 students and include adequate secure storage for testing materials and confidential information. Considerations should be made to these areas so that they are not isolated from other instructional areas and to ensure that they are quiet for student testing. Speech and Language pathologists will utilize Small Group rooms or Resource Rooms in each of the neighborhoods. The OT/PT classroom shall be centrally located close to the Physical Education facilities. Soundproofing may be required depending on the location.

The OT/PT classroom shall be centrally located close to the Physical Education facilities and the Health Classroom and will be used by the occupational therapist and physical therapist to meet the specific needs of students. The OT/PT space would be used to support the Special Education curriculum by providing a separate area for smaller instruction. In addition to being used for OT/PT services, this space may be used by the physical educational teachers to provide alternate physical education activities that are consistent with a student's special needs. Additionally, specific adaptive PE gym classes are typically scheduled based on the number of students with these specific needs.

Each room should have a window in the entry so that administration or other staff can check on the room when the related service provider is working with a student one on one.

#### 4B.2.3 Specialized Program

In general terms, Clinton Public Schools does not participate in any specialized programs; however, CPS does send students to out-of-district placements when we lack the ability to effectively meet their education needs. Currently, CPS sends approximately 32 students to out-of-district placements.

CPS is a member of the Keystone Collaborative. Of our 32 out-of-district placements, 10 of them are with Keystone. As a collaborative member, CPS always tries to use Keystone first when there is availability in a program that meets the needs of the student. Prior to COVID, CPS used to rent out two CMS classrooms to Keystone (formerly FLLAC). However, given our

current student population and the addition of EL and support personnel, CPS is no longer able to offer classroom space for rent to the collaborative.

CPS does not participate in or provide any formal alternative programs. Clinton High School does offer a program with flexible hours that uses primarily online instruction, but it is under the same school code as the regular Clinton High School.

CPS offers Pre-K programming at Clinton Elementary School and at Clinton High School. Currently Pre-K is free for all students who can get into the program. Each year we populate our pre-k students with our special education students and then hold a lottery to fill the rest of the classes with developmentally appropriate peers. One of the goals of moving the fourth grade back to CMS is to relieve the overcrowding in CES to allow for more Pre-K programming.

## 4.1.1 DESE SUBMITTAL

---

### C. Educational Space Summary





Proposed Space Summary - Middle School

Date: 2/23/2024 Schematic Design Submittal

CLINTON PUBLIC SCHOOLS CLINTON MIDDLE SCHOOL			
ROOM TYPE	EXISTING CONDITIONS		
	ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS
Custodian's Storage		1	715
Recycling Room / Trash			0
Receiving and General Supply		1	468
Storeroom		1	741
Network / Telecom Room		1	321
<b>OTHER</b>			<b>1,582</b>
(List rooms separately below)			
Greenhouse		1	623
Food Pantry		1	104
Classroom Health/Wellness		1	855
Total Building Net Floor Area (NFA)			85,349
Proposed Student Capacity / Enrollment			
<b>NON-PROGRAMMED SPACES</b>			
Other Occupied Rooms (List rooms separately below)			
Med Storage [Meducal]			0
Unoccupied MEP / FP Spaces			
Unoccupied Closets, Supply Rooms, and Storage Rooms			
Toilet Rooms			
Circulation (corridors, stairs, ramps and elevators)			
Remaining <sup>3</sup>			
Total Building Gross Floor Area (GFA) <sup>2</sup>			130,000
Grossing Factor (GFA / NFA)			1.52

PROPOSED PROGRAM								
EXISTING TO REMAIN / RENOVATED			NEW CONSTRUCTION			TOTAL		
ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS	ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS	ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS
		0	375	1	375	375	1	375
		0	400	1	400	400	1	400
		0	333	1	333	333	1	333
		0	467	1	467	467	1	467
		0	200	1	200	200	1	200
		0			900			900
		0			0	0	0	0
		0	900	1	900	900	1	900
		0			90,388			90,388
		% of GFA	0	% of GFA	-90,388	% of GFA		45,612
		0	50	1	50	50	1	50
-	#DIV/0!		-	#DIV/0!	2,160	-	1.6%	2,160
-	#DIV/0!		-	#DIV/0!	1,013	-	0.7%	1,013
-	#DIV/0!		-	#DIV/0!	3,646	-	2.7%	3,646
-	#DIV/0!		-	#DIV/0!	29,867	-	22.0%	29,867
-	#DIV/0!	0	-	#DIV/0!	-127,124	-	6.5%	8,876
		0			0			136,000
		#DIV/0!			0.00			1.50

VARIATION TO MSBA GUIDELINES		
ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
		900
		0
900	1	900
		8,700
		45,612
50	1	50
		21,000
		0.10

MSBA GUIDELINES (DO NOT MODIFY) (Refer to Educational Facility Planning for additional information)				
ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS	COMMENTS	
375	1	375		
400	1	400		
333	1	333		
467	1	467		
200	1	200		
		0		
		81,688		Total Building Net Floor Area (NFA)
# of Grades	5			
Grade 4	1			
Grade 5	1	700		Total Enrollment (Enter Design Enrollment)
Grade 6	1	420		Lower Middle School Enrollment (Grades 4-6)
Grade 7	1	280		Upper Middle School Enrollment (Grades 7-8)
Grade 8	1			
				Complete this category with Schematic Design Submittal
		115,000		Total Building Gross Floor Area (GFA) <sup>2</sup>
		1.41		Grossing Factor (GFA / NFA)

<sup>1</sup> Individual Room Net Floor Area (NFA)


Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

<sup>2</sup> Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls.

<sup>3</sup> Remaining

Includes exterior walls, interior partitions, chases, and other areas not listed above. Do not calculate this area, it is assumed to equal the difference between the Total Building Gross Floor Area and area not accounted for above.

<p><b>Architect Certification</b></p> <p>I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.</p> <p>Name of Architecture Firm: Lamoureux Pagano Associates   Architects</p> <p>Name of Principal Architect: Eric D. Moore</p> <p>Signature of Principal Architect: </p> <p>Date: 2/23/2024</p>
---

## 4.1.1 DESE SUBMITTAL

---

### D. Floor Plans







## 4.1.1 DESE SUBMITTAL

---

- E. Special Education  
Adjacency Table

CLINTON MIDDLE SCHOOL  
Proposed Special Education Program  
New Construction

Clinton Public Schools | Clinton Middle School

2/14/2024

MSBA Guidelines Space	MSBA Guidelines SF	Proposed Room Name	Floor Plan Designation (A-Z)	Proposed SF	Proposed Space Description and Reasoning for Adjacencies
<b>Floor 1</b>					
Resource Room	950	SPED LIAISON 7&8	A-1	900	Each neighborhood has one full-sized classroom to house a grade/team level SPED Liaison special education teacher. In grades 7 and 8, the room would either be used as a co-taught space or a pull-out classroom setting for use by the grade level special education teacher. These classrooms can support up to 20 students at a time. For flexibility of scheduling and to provide adequate space to be utilized as a full inclusion classroom, these classrooms should be designated as full-sized classrooms. One of these classrooms should be located in 7th and 8th grade STEM neighborhood on the first floor.
Resource Room	950	SPED LIAISON 4TH	A-2	900	Each neighborhood has one full-sized classroom to house a grade/team level SPED Liaison special education teacher. This room would be used primarily as a co-taught classroom particularly for the younger grades but could also serve as a classroom for pull-out instruction. These classrooms can support up to 20 students at a time. For flexibility of scheduling and to provide adequate space to be utilized as a full inclusion classroom, these classrooms should be designated as full-sized classrooms. This classroom is located integrally to the 4th grade neighborhood.
Small Group Room/ Reading	500	RESOURCE ROOM	B-1	450	Each grade level and neighborhood is equipped with at least two dedicated Resource/Small Group rooms. These rooms will be used for pull-out Special Education, English Language Learner services, Speech, and Reading and Math specialists/interventionists. These rooms will support between 8-12 students and will be utilized every period throughout the day. These spaces may be half sized classrooms, and should be integrated within the neighborhoods, with corridor access as well as connecting doors to adjacent classroom spaces where feasible. This resource room is integrated centrally into the 4th Grade neighborhood and is adjacent to the collaborative work area.
Self-Contained Sped	500	SPED-LIFE SKILLS	C	900	Life Skills classroom will house one dedicated Special Education teacher and 8-12 students. The curriculum focus includes teaching students adult daily living skills. These students are typically not on a graduation pathway and they will be in the district until they age out at 22. A primary focus of this program is to support the ability of these students to hopefully become self-sufficient at some point in their lives. Given the spatial needs of the students and staff, a full-sized classroom is desired. A new or renovated school would include one Life skills classroom associated with the upper grade neighborhoods. The classroom is located on the first floor for grade level egress without requiring an elevator, and is integrated within the grade 7&8 STEM neighborhood. The Life skills classroom also requires adjacency to dedicated toilet rooms and to the Adult Daily Living classroom.
Self-Contained Sped - Toilet	60	SPED TOILET	D-1	100	Two dedicated toilet rooms will be shared between Life Skills Classroom and Adult daily living. This toilet room shall be accessible and will include a sink with an accessible counterop to practice hygiene skills.
Self-Contained Sped - Toilet	60	SPED TOILET	D-2	200	Two dedicated toilet rooms will be shared between Life Skills Classroom and Adult daily living. This toilet room shall be large enough to accommodate a hooyer lift and a high-low changing table.
*Unique to District	500	ADULT DAILY LIVING	E	450	The Adult Daily Living (ADL) Classroom would provide an area to support students in the Life Skills class that would teach skills for day-to-day living. This area would need to provide model areas where students can learn such skills as using a washer/dryer, dishwasher, stovetop, oven, and other household appliances, as well as basic work skills. Ideally the ADL could function as an informal Café for the Clinton MS teachers and staff. The ADL would provide workstations to teach skills needed for working with cash registers, and learning skills such as cooking, sorting, folding, labeling, and packing items to be sold in the Café. The ADL classroom would also be used to teach day-to-day life skills such as hygiene and nutrition to special education students not in the Life Skills program. The ADL should be located with a connecting corridor to the Life skills classroom, with spearate corridor access and should be located within one of the 7 & 8th grade neighborhoods.
*Unique to District	950	SPED ABA	F	900	The Applied Behavioral Analyst (ABA) classroom will house one dedicated Special Education teacher and 8-12 students. The curriculum focus includes teaching pragmatic skills to students who are typically on the Autism spectrum. This classroom is typically supported with multiple Instructional Assistants. Students in this program have a variety of needs and typically need support understanding social cues and their executive functioning skills. Sometimes students in this program may become frustrated and aggressive. Given the spatial needs of the students and staff, a full-sized classroom is desired, with direct access to an inclusive calm-down area and adjacency to a BCBA office. This classroom services students in Grades 4-6 and is integrated into the 4th Grade neighborhood, but directly adjacent to the stairs for access from the 5th and 6th grade neighborhoods.
*Unique to District	Select SF	OFFICE - BCBA	G	150	This office space will house an Board Certified Behavioral Analyst (BCBA) who supports students in the ABA classroom. The office should be located directly adjacent to and with direct access to the ABA classroom and to the corridor, so that the BCBA can access the office without disturbing the classroom.
*Unique to District	950	CALMING GRADE 4-6	H-1	100	The ABA classroom requires an adjacent calm-down area with direct visibility from the classroom. This space will allow a student to regulate with access to sensory materials without stigma or the need to leave the classroom setting, and will be designed as an open alcove within the classroom.

CLINTON MIDDLE SCHOOL  
Proposed Special Education Program  
New Construction

Small Group Room/ Reading	950	OT/PT	I	900	The OT/PT classroom shall be centrally located close to the Physical Education facilities and the Health Classroom, and will be used by the occupational therapist and physical therapist to meet the specific needs of students. The OT/PT space would be used to support the Special Education curriculum by providing a separate area for smaller instruction. In addition to being used for OT/PT services, this space may be used by the physical educational teachers to provide alternate physical education activities that are consistent with a student's special needs. Additionally, specific adaptive PE gym classes are typically scheduled based on the number of students with these specific needs. This classroom is located in close proximity to the Gymnasium and health/wellness classroom.
*Unique to District	Select SF	OFFICE-OT/PT	J	150	The OT/PT office will be shared by the occupational therapist and physical therapist. The office space is located directly adjacent to the OT/PT classroom.
*Unique to District	Select SF	OFFICE - PSYCHOLOGIST	K	150	This office will house the school psychologist. The office must include a desk two chairs for meetings with students. The office is located within the main administration suite, in close proximity to the guidance and medical suites.
<b>Floor 2</b>					
Resource Room	950	SPED LIAISON 7&8	A-3	900	Each neighborhood has one full-sized classroom to house a grade/team level SPED Liaison special education teacher. In grades 7 and 8, the room would either be used as a co-taught space or a pull-out classroom setting for use by the grade level special education teacher. These classrooms can support up to 20 students at a time. For flexibility of scheduling and to provide adequate space to be utilized as a full inclusion classroom, these classrooms should be designated as full-sized classrooms. This classroom is located in 7th and 8th grade Humanities neighborhood on the second floor.
Resource Room	950	SPED LIAISON 5TH	A-4	900	Each neighborhood has one full-sized classroom to house a grade/team level SPED Liaison special education teacher. This room would be used primarily as a co-taught classroom particularly for the younger grades but could also serve as a classroom for pull-out instruction. These classrooms can support up to 20 students at a time. For flexibility of scheduling and to provide adequate space to be utilized as a full inclusion classroom, these classrooms should be designated as full-sized classrooms. This classroom is located in within the 5th grade neighborhood on the second floor.
Resource Room	950	SPED LIAISON 6TH	A-5	900	Each neighborhood has one full-sized classroom to house a grade/team level SPED Liaison special education teacher. This room would be used primarily as a co-taught classroom particularly for the younger grades but could also serve as a classroom for pull-out instruction. These classrooms can support up to 20 students at a time. For flexibility of scheduling and to provide adequate space to be utilized as a full inclusion classroom, these classrooms should be designated as full-sized classrooms. This classroom is located in within the 6th grade neighborhood on the second floor.
Small Group Room/ Reading	500	RESOURCE ROOM	B-2	450	Each grade level and neighborhood is equipped with at least two dedicated Resource/Small Group rooms. These rooms will be used for pull-out Special Education, English Language Learner services, Speech, and Reading and Math specialists/interventionists. These rooms will support between 8-12 students and will be utilized every period throughout the day. These spaces may be half sized classrooms, and should be integrated within the neighborhoods, with corridor access as well as connecting doors to adjacent classroom spaces where feasible. This resource room serves the Grade 7-8 Humanities neighborhood on the second floor.
Small Group Room/ Reading	500	RESOURCE ROOM	B-3	450	Each grade level and neighborhood is equipped with at least two dedicated Resource/Small Group rooms. These rooms will be used for pull-out Special Education, English Language Learner services, Speech, and Reading and Math specialists/interventionists. These rooms will support between 8-12 students and will be utilized every period throughout the day. These spaces may be half sized classrooms, and should be integrated within the neighborhoods, with corridor access as well as connecting doors to adjacent classroom spaces where feasible. This resource room is integrated centrally into the 5th Grade neighborhood and is adjacent to the collaborative work area.
Small Group Room/ Reading	500	RESOURCE ROOM	B-4	450	Each grade level and neighborhood is equipped with at least two dedicated Resource/small group rooms. These small group rooms will be used for pull-out Special Education, English Language Learner services, Speech, and Reading and Math specialists/interventionists. These rooms will support between 8-12 students and will be utilized every period throughout the day. These spaces may be half sized classrooms, and should be integrated within the neighborhoods, with corridor access as well as connecting doors to adjacent classroom spaces where feasible. This resource room is located so as to be shared by the 5th and 6th grade neighborhoods on the second floor.
Small Group Room/ Reading	500	RESOURCE ROOM	B-5	450	Each grade level and neighborhood is equipped with at least two dedicated Resource/Small Group rooms. These rooms will be used for pull-out Special Education, English Language Learner services, Speech, and Reading and Math specialists/interventionists. These rooms will support between 8-12 students and will be utilized every period throughout the day. These spaces may be half sized classrooms, and should be integrated within the neighborhoods, with corridor access as well as connecting doors to adjacent classroom spaces where feasible. This resource room is integrated within the 6th grade neighborhood on the second floor.
Small Group Room/ Reading	500	SMALL GROUP	L-1	450	Each grade level and neighborhood is equipped with at least two dedicated Resource/Small Group rooms. These small group rooms will be used for pull-out Special Education, English Language Learner services, Speech, and Reading and Math specialists/interventionists. These rooms will support between 8-12 students and will be utilized every period throughout the day. These spaces may be half sized classrooms, and should be integrated within the neighborhoods, with corridor access as well as connecting doors to adjacent classroom spaces where feasible. This resource room serves the Grade 7-8 Humanities neighborhood on the second floor.

CLINTON MIDDLE SCHOOL  
Proposed Special Education Program  
New Construction

Small Group Room/ Reading	500	SMALL GROUP	L-2	450	Each grade level and neighborhood is equipped with at least two dedicated Resource/Small Group rooms. These rooms will be used for pull-out Special Education, English Language Learner services, Speech, and Reading and Math specialists/interventionists. These rooms will support between 8-12 students and will be utilized every period throughout the day. These spaces may be half sized classrooms, and should be integrated within the neighborhoods, with corridor access as well as connecting doors to adjacent classroom spaces where feasible. This resource room is integrated within the 6th grade neighborhood on the second floor.
*Unique to District	950	SPED - TLC	M-1	900	Therapeutic Learning Classrooms (TLC) house one dedicated Special Education teacher and 8-12 students. The curriculum focus includes helping to support students who have primarily social-emotional disabilities. This classroom is typically supported with multiple Instructional Assistants. While some students may spend most of their day in this classroom, typically students in the TLC program are included in regular education classes and attend those classes when regulated and able to do so. When dysregulated, they are provided education and support in the TLC room. Given the spatial needs of the students and staff, a full-sized classroom is desired. Each TLC classroom would have a calm down area with direct visibility from the classroom, as well as an adjacent TLC office space to house an adjustment counselor who supports the program. This TLC classroom is associated with Grades 7 and 8. and is integrated into the grade 7-8 humanities neighborhood.
*Unique to District	Select SF	OFFICE-TLC	N-1	100	This TLC office space will house an adjustment counselor (AC) who supports the program. The office should be located directly adjacent to and with direct access to the TLC classroom and to the corridor, so that the AC can access the office without disturbing the classroom.
*Unique to District	Select SF	CALMING GRADE 7-8	O	100	Each TLC classroom requires an adjacent calm-down area with direct visibility from the classroom. This space will allow a student to regulate with access to sensory materials without stigma or the need to leave the classroom setting, and will be designed as an open alcove in the corner of the classroom.
*Unique to District	950	SPED - TLC	M-2	900	TLC classrooms house one dedicated Special Education teacher and 8-12 students. The curriculum focus includes helping to support students who have primarily social-emotional disabilities. This classroom is typically supported with multiple Instructional Assistants. While some students may spend most of their day in this classroom, typically students in the TLC program are included in regular education classes and attend those classes when regulated and able to do so. When dysregulated, they are provided education and support in the TLC room. Given the spatial needs of the students and staff, a full-sized classroom is desired. Each TLC classroom would have a calm down area with direct visibility from the classroom, as well as an adjacent TLC office space to house an adjustment counselor who supports the program. This TLC classroom is associated with Grades 4-6. and is integrated between the 5th and 6th grade neighborhoods.
*Unique to District	Select SF	OFFICE-TLC	N-2	100	This TLC office space will house an adjustment counselor (AC) who supports the program. The office should be located directly adjacent to and with direct access to the TLC classroom and to the corridor, so that the AC can access the office without disturbing the classroom.
*Unique to District	Select SF	CALMING GRADE 4-6	H-2	100	Each TLC classroom requires an adjacent calm-down area with direct visibility from the classroom. This space will allow a student to regulate with access to sensory materials without stigma or the need to leave the classroom setting, and will be designed as an open alcove in the corner of the classroom.
*Unique to District	Select SF	SPED CONFERENCE	P	350	The Clinton Middle School will also require a dedicated Special Education conference room large enough for 12-15 people. This collaborative space will be used for family meetings, IEP meetings, SPED staff meeting, and evaluations with related service providers. This conference room is located within the Satellite Admin suite, directly accessible from the two story lobby and one level directly above the main administration suite.
			Total	14,200	

**Square Footage Summary:**

The proposed overall gross square footage of the new building is 136,000 SFT. Average square feet of General Classrooms is 900 NSF.

MSBA guidelines include 8,050 net square feet of dedicated special education space. The proposed program is 6,150 nsf in excess of the guidelines.

\*Indicates that space is unique to District's program and does not appear in MSBA space guidelines.

## 4.1.1 DESE SUBMITTAL

---

F. Design Enrollment  
Certificate



# Massachusetts School Building Authority

**Deborah B. Goldberg**  
*Chair, State Treasurer*

**James A. MacDonald**  
*Chief Executive Officer*

**Mary L. Pichetti**  
*Executive Director / Deputy CEO*

August 31, 2023

Mr. Michael J. Ward, Town Administrator  
Town of Clinton  
242 Church Street  
Clinton, MA 01510

Re: Town of Clinton, Clinton Middle School

Dear Mr. Ward:

On August 30, 2023, the Massachusetts School Building Authority's Board of Directors voted to approve the Town of Clinton's Preferred Schematic for the Clinton Middle School project. Based on this approval, enclosed is a Design Enrollment Certification for 700 students in grades 4-8 for your review and execution.

Please sign and return the attached certification within 21 calendar days to document the Town of Clinton's agreement on the design enrollment for the Clinton Middle School project.

If you have any questions or comments, please do not hesitate to contact Allison Sullivan ([Allison.Sullivan@MassSchoolBuildings.org](mailto:Allison.Sullivan@MassSchoolBuildings.org)).

Sincerely,



Michael McGurl  
Director of Capital Planning

Cc: Legislative Delegation  
Matthew H. Kobus, Chair, Clinton Select Board  
Brendan Bailey, Chair, Clinton School Committee  
Dr. Steven Meyer, Superintendent, Clinton Public Schools  
Trip Elmore, Owner's Project Manager, Dore & Whittier Management Partners, LLC  
Kathryn Crockett, Designer, Lamoureux Pagano Associates, Architects  
File: 10.2 Letters (Region 2)



**MASSACHUSETTS SCHOOL BUILDING AUTHORITY  
TOWN OF CLINTON  
CLINTON MIDDLE SCHOOL  
DESIGN ENROLLMENT CERTIFICATION**


As a result of a collaborative analysis with the Massachusetts School Building Authority (the "MSBA") of enrollment projections and space capacity needs for the proposed project at Clinton Middle School, the Town of Clinton hereby acknowledges and agrees that the design of the proposed project at Clinton Middle School shall be based on an enrollment of no more than 700 students in grades 4-8. The Town of Clinton further acknowledges and agrees that, pursuant to 963 CMR 2.00 *et seq.*, the MSBA shall determine the square feet per student space allowance and total square footage for grades 4-8 in a middle school serving 700 students. The Town of Clinton acknowledges and agrees that it has no right or entitlement to any particular design enrollment, square feet per student space allowance, or total square footage and that it has no right or entitlement to a design enrollment any greater than 700 students for Clinton Middle School, and further acknowledges and agrees that it shall not bring any claim or action, legal or equitable, against the MSBA, or any of its officers or employees, for the purpose of obtaining an increase in the design enrollment of Clinton Middle School that it has acknowledged and agreed to herein. The Town of Clinton further acknowledges and agrees that, among other things, the design enrollment, square feet per student space allowance, and total square footage of Clinton Middle School shall be subject to the approval of the MSBA's Board and that the final approval of a proposed project at Clinton Middle School shall be within the sole discretion of the MSBA's Board.

The undersigned, for themselves and the Town of Clinton, hereby certify that they have read and understand the contents of this Design Enrollment Certification and that each of the above statements is true, complete and accurate. The undersigned also hereby certify that they have been duly authorized by the appropriate governmental body to execute this Certification on behalf of the Town of Clinton and to bind the Town of Clinton to its terms.



\_\_\_\_\_  
Chief Executive Officer

9/1/2023  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Superintendent of Schools

8/31/23  
\_\_\_\_\_  
Date



\_\_\_\_\_  
Duly Authorized Representative of School Committee

Sept 01, 2023  
\_\_\_\_\_  
Date

## 4.1.2 SCHEMATIC DESIGN BINDER

---

- A. Introduction
- B. Final Design Program
- C. Traffic Analysis
- D. Environmental & Existing Building Assessment
- E. Geotechnical & Geo-environmental Analysis
- F. Code Analysis
- G. Utility Analysis
- H. Massing Study
- I. Building Systems Narratives
- J. Sustainable Building Design
- K. Accessibility Compliance
- L. Room Data Sheets
- M. Proposed Construction Methodology
- N. Reimbursement Rate
- O. Total Project Budget
- P. Designer Cost Estimate
- Q. OPM-CM Cost Estimate
- R. Updated Project Work Plan
- S. Local Actions and Approvals
- T. Supporting Documents

## 4.1.2 SCHEMATIC DESIGN BINDER

---

### A. Introduction

1. Narrative
2. Updated Budget Statement
3. Visual Aids
4. MSBA Approval to Proceed to SD
5. MSBA PSR Responses

The Preferred Schematic Solution, approved by the MSBA Board of Directors at the August 30, 2023 Board meeting, consists of a New Construction solution 700 student middle school, configured for grades 4–8, to replace the existing Clinton Middle School. The proposed building is located on the existing site; on the east side of the current high school primarily where the current practice fields are located. The existing Clinton Middle School will remain in use during the construction of the new facility, after which the existing middle school will be demolished and any remaining sitework completed.

The project team has been proactive in its efforts to inform and educate the local community, staff/faculty and public at large relative to the proposed project. Numerous meetings have been held and presentations made to various Boards, Committees, Faculty/Staff, and the public including:

- July 24, 2023 | School Committee Meeting: CMS/MSBA Update
- August 2, 2023 | MSBA Facilities Assessment Sub-Committee meeting
- August 21, 2023 | School Committee Meeting: CMS/MSBA Update
- August 22, 2023 | School Building Committee (SBC)/Permanent Building Committee (PBC): Schematic Design Project Update
- August 28, 2023 | Middle School Faculty/Staff: general MSBA process update
- September 11, 2023 | School Committee Meeting: CMS/MSBA Update
- September 19, 2023 | SBC/PBC: Schematic Design Project Update: Sustainability, Site Plan, and Project Delivery Methodology
- September 25, 2023 | School Committee Meeting: CMS/MSBA Update
- October 3, 2023 | Chamber Speech/Presentation to Public
- October 3, 2023 | SBC/PBC: Schematic Design Project Update: Mechanical Systems, Construction Management @ Risk
- October 16, 2023 | Tri-Council Meeting: School Councils/School Committee: general MSBA process update
- October 17, 2023 | SBC/PBC Schematic Design Project Update: Massing and Materials
- November 6, 2023 | School Committee Meeting: CMS/MSBA Update
- November 14, 2023 | SBC/PBC Schematic Design Project Update: Building Control Systems
- November 29, 2023 | Board of Selectmen Meeting (broadcasted local): FAQ document
- December 4, 2023 | School Committee Meeting: CMS/MSBA Update
- December 14, 2023 | Senior Center (to Seniors): FAQ document

- December 19, 2023 | SBC/PBC Schematic Design Project Update: FF&E and Proprietary Items
  - Also to Seniors at the Senior Center: FAQ document
- January 8, 2023 | School Committee Meeting: CMS/MSBA Update
- January 9, 2024 | SBC/PBC Schematic Design Project Update: Typical Classroom and Science Classroom
- January 22, 2023 | School Committee Meeting: CMS/MSBA Update
- January 30, 2024 | Clinton PBS/SBC meeting to discuss Geothermal/PV Systems
- February 6, 2024 | SBC/PBC Schematic Design Project Update: Cost Estimate
- February 12, 2023 | School Committee Meeting: CMS/MSBA Update
- February 13, 2024 | All-Boards Meeting: Televised in existing Clinton Middle School Cafetorium.
- February 20, 2024 | Clinton PBC/SBC meeting to vote Schematic Design approval

Minutes documenting the above can be found in Section 4.1.2,S Local Actions and Approvals and elsewhere in this SD submission.

The following is an updated description of the project:

- Grades served: 4–8
- Size of site: 15.7 acres
- GSF of proposed building: 136,000 square feet
- Total project budget: \$139,255,892. The District funding requires a town public vote followed by a ballot vote.
- Alternates: There will be 2 alternates:
  1. Turf field at new athletic field. Base scope will include sod grass with sprinkler system.
  2. Photovoltaic (PV) system on roof and parking lot canopy. Base scope will make the building “solar ready” for future PV installation.
- Construction Delivery Methodology: Ch. 149A Construction Manager @ Risk
  1. Fontaine Bros. was selected by the Town on December 13<sup>th</sup>, 2023 at the CM @ Risk.
- Sustainable design to meet LEED v4 Silver certification requirements.
- Site features: min. 124 parking spaces, one fenced playground area adjacent to grade 4 academic wing, multi-purpose athletic field, separate parent pick-up/drop off for 58 cars and bus pick-up/drop off for 5 buses with additional capacity along south access road, and a service area on the south side of the building.

Presentation graphics including rendered site plan, floor plans, and 3D views are included in section 4.1.2, A, 3 for use at the MSBA Board meeting.

During the Schematic Design process, the development of the site/building and SD submission was informed by several important issues including the following:

- Geotechnical borings at the site were conducted and are included in section 4.1.2.E Geotechnical and Geo-Environmental Analysis.
- A traffic Analysis was conducted in October 2023 and is included in section 4.1.2.C Traffic Analysis.
- A flow test was conducted in October 2023 which determined that there was adequate pressure; there is no need for a fire pump to serve the new 2-story middle school building. Refer to section 4.1.2, I for fire protection quality control narrative.
- A code review was conducted on the Schematic Design drawings and is included in section 4.1.2, F Code Analysis.
- The site design was carefully analyzed to minimize the amount of soil that would need to leave the site.
- Phased occupied construction plans were developed to assist with estimating and public presentations. Refer to section 4.1.2, M for phasing plans.
- Preliminary Furniture, Furnishings and Equipment budgets were developed to assist with the Total Project Budget.
- The Owner voted on and approved the building being fully electric as well as including a geothermal system as part of the base scope of work that will support approximately 40% of the building. Additionally, the Owner voted to include a photovoltaic system as an add alternate.

The above items are described in greater detail throughout the SD submission, and related costs have been incorporated into the SD cost estimates and Total Project Budget as appropriate. Refer to section 4.1.2, R for further information on the project work plan which includes some key dates as the project advances.

#### **DEED UPDATE**

As an update to the deed information provided in the PSR, the Town of Clinton worked with National Grid to record a previous land swap on the existing middle school property relative to overhead electric

transmission lines that were relocated to accommodate the construction of the middle school in 1976. **Refer to section 4.1.2, T Supporting Documents for the recorded plans and executed deeds that completes the land swap.**

### COMMUNITY OUTREACH OVERVIEW

The Clinton Middle School project has been a priority project for the School District for several years. The school which supports a 5–8 grade configuration has needed a new project for some time. The project originally thought to be a renovation project became more realistic as a new building in the community’s opinion. In Public and All–Boards forum presentations, they voted with stickers on their preferred options, which clearly indicated that a new building option should be pursued by the team. The new building option will provide infrastructure, education, and circulation improvements for an expanded 4–8 grade configuration thereby reducing overcrowding in the elementary school.

The project team and District Superintendent have led an extensive community outreach plan and has shared important information with the community to gain support of the project. The project’s SBC and School Committee included members from the member communities, who will ultimately be voting members to approve project funding. These members have been sharing information about the project all along to keep all stakeholders aware of the project scope, cost, and schedule.

We believe there is overwhelming support from the SBC, School Committee, Selectmen, and Finance Committee and school community at large. The District Wide vote is expected to take place after the April 2024 MSBA Board meeting in early June.

## TOTAL PROJECT BUDGET NARRATIVE

The budget that is presented in this application reflect the combined work efforts of the SBC, OPM, the Design team and Construction Manager to evaluate the academic and existing deficiencies of the existing Clinton Middle School. The Schematic Design documents have been analyzed and reconciled by two (2) independent cost estimators to ensure the project budget requirements of the School District have not been exceeded.

## ESTIMATE RECONCILIATION

Estimates for the project were prepared by A.M. Fogarty & Associates, Inc. working as a member of the Architect's team, and Fontaine Bros. Construction working for the District as Construction Manager. Both estimating teams were provided with all the materials developed by the Designer and had access to the building, site, scoping narratives, and committee minutes as needed. On Friday, February 2nd, 2024, members of the entire project team met to reconcile differences between the two estimates. This reconciliation meeting resulted in the estimators agreeing on the overall scope of the project as well as upon the projected cost.

**Clinton Middle School - Schematic Design Estimate - Cost Comparison Sheet**

CSI Division	Cost/SF	Total Amount	A.M. Fogarty	Variance
02-0000 EXISTING CONDITIONS & DEMO	136,000 sf	24.36 /sf \$ 3,312,500	\$ 3,105,000	\$ 207,500
03-0000 CONCRETE	136,000 sf	28.23 /sf \$ 3,839,756	\$ 3,351,159	\$ 488,597
04-0000 MASONRY	136,000 sf	20.30 /sf \$ 2,760,148	\$ 2,156,931	\$ 603,217
05-0000 METALS	136,000 sf	52.63 /sf \$ 7,157,300	\$ 7,267,076	\$ (109,776)
06-0000 ROUGH CARPENTRY	136,000 sf	3.44 /sf \$ 467,755	\$ 613,151	\$ (145,396)
06-2000 FINISH CARPENTRY	136,000 sf	2.82 /sf \$ 383,468	\$ 527,058	\$ (143,590)
07-0000 THERMAL & MOIST PROTECT	136,000 sf	17.86 /sf \$ 2,429,580	\$ 2,692,642	\$ (263,062)
07-5000 ROOFING	136,000 sf	19.26 /sf \$ 2,620,000	\$ 2,945,469	\$ (325,469)
07-8000 FIREPROOFING / CAULKING	136,000 sf	3.39 /sf \$ 460,800	\$ 1,109,634	\$ (648,834)
08-0000 DOORS & WINDOWS	136,000 sf	31.67 /sf \$ 4,307,740	\$ 3,876,471	\$ 431,269
09-0000 FINISHES	136,000 sf	73.32 /sf \$ 9,970,859	\$ 10,121,941	\$ (151,082)
10-0000 SPECIALTIES	136,000 sf	7.21 /sf \$ 980,010	\$ 1,098,340	\$ (118,330)
11-0000 EQUIPMENT	136,000 sf	8.15 /sf \$ 1,108,150	\$ 1,525,536	\$ (417,386)
12-0000 FURNISHINGS	136,000 sf	15.62 /sf \$ 2,123,980	\$ 1,880,655	\$ 243,325
14-0000 CONVEYING SYSTEMS	136,000 sf	1.58 /sf \$ 215,000	\$ 170,000	\$ 45,000
21-0000 FIRE SUPPRESSION	136,000 sf	8.15 /sf \$ 1,108,276	\$ 1,052,800	\$ 55,476
22-0000 PLUMBING	136,000 sf	27.98 /sf \$ 3,805,067	\$ 3,984,580	\$ (179,513)
23-0000 HVAC	136,000 sf	87.32 /sf \$ 11,875,640	\$ 12,310,034	\$ (434,394)
26-0000 ELECTRICAL	136,000 sf	60.58 /sf \$ 8,239,469	\$ 9,023,162	\$ (783,693)
27-0000 COMMUNICATIONS	136,000 sf	0.00 /sf Inc. Above	Inc. Above	
28-0000 ELECTRONIC SAFETY & SECURITY	136,000 sf	0.00 /sf Inc. Above	Inc. Above	
31-0000 EARTHWORK	136,000 sf	31.30 /sf \$ 4,257,390	\$ 3,835,102	\$ 422,288
32-0000 EXTERIOR IMPROVEMENTS	136,000 sf	59.17 /sf \$ 8,046,851	\$ 6,412,573	\$ 1,634,278
33-0000 UTILITIES	136,000 sf	32.74 /sf \$ 4,452,679	\$ 4,003,878	\$ 448,801
<b>Total Direct Cost \$ 84,048,967</b>			<b>\$ 83,063,190</b>	<b>\$ 985,777</b>
Design Contingency \$ 8,404,897			\$ 8,306,319	\$ 98,578
Escalation \$ 5,042,938			\$ 5,482,171	\$ (439,233)
Construction Contingency \$ 1,680,979			\$ 1,827,390	\$ (146,411)
Subcontractor Default Insurance \$ 1,239,722			\$ 1,233,488	\$ 6,234
Project Requirements \$ 4,425,600			\$ 4,425,600	\$ -
GC's & GR's \$ 7,169,858			\$ 7,169,858	\$ -
CM Fee \$ 2,285,979			\$ 2,230,160	\$ 55,819
<b>Project Total \$ 114,298,940</b>			<b>\$ 113,738,176</b>	<b>\$ 560,764</b>

ALTERNATES	FOGARTY
Add Alternate 1 - Add PV Canopy Structure \$ 917,900.00	
Add Alternate 2 - Turf Field ILO Sod \$ 1,016,119.00	739,657.00 276,462.00



The 2 independent estimates were reconciled to less than .5% of each other: A.M. Fogarty & Associates \$113,738,176 and Fontaine Bros. Construction \$114,298,940, the delta between the 2 construction estimates is \$560,764. The cost estimates are included in section 4.1.2, P and Q respectively.

## VALUE ENGINEERING

Based off the initial reconciled estimates both estimators were slightly over budget. The team therefore identified a series of Value Engineering options to maintain budget. Ultimately the team recommended a reduction in the Landscaping Plantings as a Value Engineering option that was presented to the SBC and voted to approve/accept on February 20th, 2024, at the PBC/SBC Meeting. The Total Project Budget is based upon the reconciled estimates with the incorporated Value Engineering item. The Value Engineering options, and approved list are listed below and included in section 4.1.2. O.

CLINTON MS - SCHEMATIC VALUE ENGINEERING LOG - 02.12.2024							
Item #	Category	Item	Estimated Direct Cost Savings	Estimated Total Cost Savings (20% Markup)	Projected Values (Accepted)		Accepted
					Tier 1	Tier 2	
1	Landscape	Landscape planting reductions (30%)	\$ 266,000	\$ 319,200	Accepted		In SD
2	Thermal	Delete underslab rigid insulation except within 4 feet of foundation walls.	\$ 250,000	\$ 300,000			
3	AV	Reduce Cafeteria Stage AV System to "basic" system (\$25k allowance)	\$ 50,000	\$ 60,000			
4	Equipment	Reduce Playground Equipment Allowance to \$300K	\$ 100,000	\$ 120,000			
5	AV	Reduce qty. (from 10 to 5) of Digital Screens/Signage in the Building	\$ 50,000	\$ 60,000			
<b>sub total</b>			\$ 716,000	\$ 859,200			
<b>Potential Additional VE Items</b>							
6	Site	Consider substituting 6" granite curb for 5" granite curb	\$ 43,500	\$ 52,200			
7	Electrical	If possible, consider deletion of Cell Amplification System	\$ 100,000	\$ 120,000			
8	Electrical	If possible, consider deletion of Environmental Sensors	\$ 68,000	\$ 81,600			
9	Mechanical	Review/reduce scope of lab waste system	TBD				
10	Roof	Consider substituting EPDM Roof in lieu of PVC	\$ 126,000	\$ 151,200			
11	Finishes	Consider restroom wall tile at wet walls only (~30% reduction)	\$ 30,000	\$ 36,000			
12	Finishes	Consider exposed ceilings at all storage and BOH spaces (3,000 sf)	\$ 20,250	\$ 24,300			
13	Finishes	Consider reduction of corridors wall tile from 7' tall to 4' wainscot	\$ 100,000	\$ 120,000			
<b>sub total</b>			\$ 487,750	\$ 585,300			
<b>Overall Total</b>			\$ 1,203,750	\$ 1,444,500			

## PROJECT BUDGET FORM (3011)

The total project budget for the Clinton Middle School Project is one hundred and thirty-nine million, two hundred and fifty-five thousand, eight hundred and ninety-two dollars (\$139,255,892.00). The estimated costs include hazardous materials abatement, limited site work, site utilities, selective demolition, construction, technology, professional fees, contingencies, escalation, and all other soft costs.

In building hazardous material is estimated at \$1,935,000 and we believe most of this scope will be eligible for reimbursement. We have included a cost breakdown below of all items in this category that was a part of the existing conditions report in the PDP submission to the MSBA. Asbestos containing floor material abatement is estimated at \$420,000 and we understand this

category is ineligible. We have no known ineligible site items like UG Storage/Oil tanks on the property but understand that they would be ineligible if identified at any time in the future.

**COST ESTIMATES:**

The cost includes removal and disposal of all accessible ACM, other hazardous material, and an allowance for removal of inaccessible or hidden ACM that may be found during renovation or demolition project

Location	Material	Approximate Quantity	Cost Estimate (\$)
Throughout	Various Types of Flooring and Mastic	70,000 SF	420,000.00
	Hard Joint Insulation	50 LF	5,000.00
	Hidden Hard Joint Insulation	1,000 LF	30,000.00
	Interior Windows	36 Total	10,800.00
	Interior Doors with Windows	72 Total	21,600.00
	Sinks	12 Total	3,600.00
	Blackboards/Tackboards	120 Total	48,000.00
	Miscellaneous Hazardous Materials	Unknown	25,000.00
	Hidden ACM	Unknown	15,000.00
	Light Fixtures	Unknown	75,000.00
Various Locations	Wood Fire Doors	10 Total	4,000.00
	Fume Hoods	3 Total	9,000.00
	Grey Duct Sealant	500 LF	25,000.00
Boiler Room	Duct Insulation	225 SF	11,250.00
	Boilers	2 Total	19,000.00
Gymnasium	Hardwood Flooring/Paper/Mastic	8,700 SF	87,000.00
Stage	Hardwood Flooring/Paper/Mastic	700 SF	7,000.00
Exterior	Transite Sewer Pipes	Unknown <sup>1</sup>	75,000.00
	Damproofing/Flashing on Walls	3,500 Tons <sup>1</sup>	700,000.00
	Roofing Material	Unknown	160,000.00
Estimated costs for NESHAP Inspection and Testing Services			14,750.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			169,000.00
<b>TOTAL:</b>			<b>\$ 1,935,000.00</b>

Site work is estimated to cost \$15,235,767. This includes provisions for existing exterior pathways and play areas and new access road circulation and parking lot in the footprint of the existing school building.

Regarding cost recovery from prior projects, the town of Clinton does not have any current or outstanding projects in the past 20 years with the State or MSBA.

Construction costs carried in the budget (3011) for the new building is estimated at \$114,295,892.

Project Budget Form 3011 is included at the end of this section. It has been reviewed with the Owner, approved by the PBC/SBC on February 20<sup>th</sup>, 2024. The total project cost for the Clinton Middle School Project is below and within the local budget established through the Feasibility Study process.

## **LOCAL TAX IMPACT AT A BORROWING SCHEDULE OF 40, 30, & 25 YEARS**

The local Tax impact estimates are also provided in this section. Please find below a copy of bond schedules showing 40/30/25 year term impacts for borrowing on the new middle school project at a local debt share amount of \$61.3 million. There is a column on the far right that has the yearly average household property tax impact.

Given that the project will be completed in 2028 and the final debt package will be secured after that date, the following information provides yearly debt exclusion cost reduction to the average homeowner for projects that will be paid off in the next couple of years:

- Clinton Elementary School - \$40.33/yr - paid on 5/1/25
- Rauscher Farm Open Space - \$24.20/yr - paid on 5/1/28
- Senior Center Renovation - \$12.10/yr - paid on 5/1/28

\*The remaining debt exclusion costs on the books will be paid off in 2030 & 2031.

## 40 YEAR BORROWING TAX IMPACT:

**Town of Clinton, Massachusetts**  
 \$61,300,000 General Obligation Middle School Bonds dated June 1, 2025  
 Assumes 40 Years, Level Debt  
 \*Interest Estimated at 5.25% - Subject to Change\*

Fiscal Year	Principal	Interest	Estimated Total Debt Service	Residential Tax Rate Impact per \$1,000 of Assessed Value (1)	Commercial/ Industrial/ Personal Property Tax Rate Impact per \$1,000 of Assessed Value (1)	Residential Tax Rate Impact for Average Single Family Home Valued at \$403,286 (1)
2026	\$ 475,000	\$ 3,218,250	\$ 3,693,250	\$ 1.52	\$ 2.52	\$ 611.44
2027	505,000	3,193,313	3,698,313	1.52	2.52	612.28
2028	530,000	3,166,800	3,696,800	1.52	2.52	612.03
2029	555,000	3,138,975	3,693,975	1.52	2.52	611.56
2030	585,000	3,109,838	3,694,838	1.52	2.52	611.70
2031	615,000	3,079,125	3,694,125	1.52	2.52	611.58
2032	650,000	3,046,838	3,696,838	1.52	2.52	612.03
2033	685,000	3,012,713	3,697,713	1.52	2.52	612.18
2034	720,000	2,976,750	3,696,750	1.52	2.52	612.02
2035	755,000	2,938,950	3,693,950	1.52	2.52	611.56
2036	795,000	2,899,313	3,694,313	1.52	2.52	611.62
2037	840,000	2,857,575	3,697,575	1.52	2.52	612.16
2038	880,000	2,813,475	3,693,475	1.52	2.52	611.48
2039	930,000	2,767,275	3,697,275	1.52	2.52	612.11
2040	975,000	2,718,450	3,693,450	1.52	2.52	611.47
2041	1,030,000	2,667,263	3,697,263	1.52	2.52	612.10
2042	1,080,000	2,613,188	3,693,188	1.52	2.52	611.43
2043	1,140,000	2,556,488	3,696,488	1.52	2.52	611.98
2044	1,200,000	2,496,638	3,696,638	1.52	2.52	612.00
2045	1,260,000	2,433,638	3,693,638	1.52	2.52	611.50
2046	1,330,000	2,367,488	3,697,488	1.52	2.52	612.14
2047	1,400,000	2,297,663	3,697,663	1.52	2.52	612.17
2048	1,470,000	2,224,163	3,694,163	1.52	2.52	611.59
2049	1,550,000	2,146,988	3,696,988	1.52	2.52	612.06
2050	1,630,000	2,065,613	3,695,613	1.52	2.52	611.83
2051	1,715,000	1,980,038	3,695,038	1.52	2.52	611.74
2052	1,805,000	1,890,000	3,695,000	1.52	2.52	611.73
2053	1,900,000	1,795,238	3,695,238	1.52	2.52	611.77
2054	2,000,000	1,695,488	3,695,488	1.52	2.52	611.81
2055	2,105,000	1,590,488	3,695,488	1.52	2.52	611.81
2056	2,215,000	1,479,975	3,694,975	1.52	2.52	611.73
2057	2,330,000	1,363,688	3,693,688	1.52	2.52	611.51
2058	2,455,000	1,241,363	3,696,363	1.52	2.52	611.96
2059	2,585,000	1,112,475	3,697,475	1.52	2.52	612.14
2060	2,720,000	976,763	3,696,763	1.52	2.52	612.02
2061	2,860,000	833,963	3,693,963	1.52	2.52	611.56
2062	3,010,000	683,813	3,693,813	1.52	2.52	611.53
2063	3,170,000	525,788	3,695,788	1.52	2.52	611.86
2064	3,335,000	359,363	3,694,363	1.52	2.52	611.62
2065	3,510,000	184,275	3,694,275	1.52	2.52	611.61
	<u>\$ 61,300,000</u>	<u>\$ 86,519,475</u>	<u>\$ 147,819,475</u>			

(1) Based on FY2024 assessed values and assumes no growth in assessed value.

**30 YEAR BORROWING TAX IMPACT:**

**Town of Clinton, Massachusetts**  
 \$61,300,000 General Obligation Middle School Bonds dated June 1, 2025  
 Assumes 30 Years, Level Debt  
 \*Interest Estimated at 4.25% - Subject to Change\*

Fiscal Year	Principal	Interest	Estimated Total Debt Service	Residential Tax Rate Impact per \$1,000 of Assessed Value (1)	Commercial/ Industrial/ Personal Property Tax Rate Impact per \$1,000 of Assessed Value (1)	Residential Tax Rate Impact for Average Single Family Home Valued at \$403,286 (1)
2026	\$ 1,050,000	\$ 2,605,250	\$ 3,655,250	\$ 1.50	\$ 2.49	\$ 605.15
2027	1,095,000	2,560,625	3,655,625	1.50	2.49	605.21
2028	1,140,000	2,514,088	3,654,088	1.50	2.49	604.96
2029	1,190,000	2,465,638	3,655,638	1.50	2.49	605.21
2030	1,240,000	2,415,063	3,655,063	1.50	2.49	605.12
2031	1,290,000	2,362,363	3,652,363	1.50	2.49	604.67
2032	1,345,000	2,307,538	3,652,538	1.50	2.49	604.70
2033	1,405,000	2,250,375	3,655,375	1.50	2.49	605.17
2034	1,465,000	2,190,663	3,655,663	1.50	2.49	605.22
2035	1,525,000	2,128,400	3,653,400	1.50	2.49	604.84
2036	1,590,000	2,063,588	3,653,588	1.50	2.49	604.87
2037	1,655,000	1,996,013	3,651,013	1.50	2.49	604.45
2038	1,725,000	1,925,675	3,650,675	1.50	2.49	604.39
2039	1,800,000	1,852,363	3,652,363	1.50	2.49	604.67
2040	1,875,000	1,775,863	3,650,863	1.50	2.49	604.42
2041	1,955,000	1,696,175	3,651,175	1.50	2.49	604.47
2042	2,040,000	1,613,088	3,653,088	1.50	2.49	604.79
2043	2,125,000	1,526,388	3,651,388	1.50	2.49	604.51
2044	2,215,000	1,436,075	3,651,075	1.50	2.49	604.46
2045	2,310,000	1,341,938	3,651,938	1.50	2.49	604.60
2046	2,410,000	1,243,763	3,653,763	1.50	2.49	604.90
2047	2,510,000	1,141,338	3,651,338	1.50	2.49	604.50
2048	2,620,000	1,034,663	3,654,663	1.50	2.49	605.05
2049	2,730,000	923,313	3,653,313	1.50	2.49	604.83
2050	2,845,000	807,288	3,652,288	1.50	2.49	604.66
2051	2,965,000	686,375	3,651,375	1.50	2.49	604.51
2052	3,095,000	560,363	3,655,363	1.50	2.49	605.17
2053	3,225,000	428,825	3,653,825	1.50	2.49	604.91
2054	3,360,000	291,763	3,651,763	1.50	2.49	604.57
2055	3,505,000	148,963	3,653,963	1.50	2.49	604.94
	<u>\$ 61,300,000</u>	<u>\$ 48,293,813</u>	<u>\$ 109,593,813</u>			

(1) Based on FY2024 assessed values and assumes no growth in assessed value.

**25 YEAR BORROWING TAX IMPACT:**

**Town of Clinton, Massachusetts**

\$61,300,000 General Obligation Middle School Bonds dated June 1, 2025

Assumes 25 Years, Level Debt

\*Interest Estimated at 4.00% - Subject to Change\*

Fiscal Year	Principal	Interest	Estimated Total Debt Service	Residential Tax Rate Impact per \$1,000 of Assessed Value (1)	Commercial/ Industrial/ Personal Property Tax Rate Impact per \$1,000 of Assessed Value (1)	Residential Tax Rate Impact for Average Single Family Home Valued at \$403,286 (1)
2026	\$ 1,470,000	\$ 2,452,000	\$ 3,922,000	\$ 1.61	\$ 2.67	\$ 649.31
2027	1,530,000	2,393,200	3,923,200	1.61	2.67	649.51
2028	1,595,000	2,332,000	3,927,000	1.61	2.68	650.14
2029	1,655,000	2,268,200	3,923,200	1.61	2.67	649.51
2030	1,720,000	2,202,000	3,922,000	1.61	2.67	649.31
2031	1,790,000	2,133,200	3,923,200	1.61	2.67	649.51
2032	1,865,000	2,061,600	3,926,600	1.61	2.68	650.07
2033	1,935,000	1,987,000	3,922,000	1.61	2.67	649.31
2034	2,015,000	1,909,600	3,924,600	1.61	2.67	649.74
2035	2,095,000	1,829,000	3,924,000	1.61	2.67	649.64
2036	2,180,000	1,745,200	3,925,200	1.61	2.67	649.84
2037	2,265,000	1,658,000	3,923,000	1.61	2.67	649.48
2038	2,355,000	1,567,400	3,922,400	1.61	2.67	649.38
2039	2,450,000	1,473,200	3,923,200	1.61	2.67	649.51
2040	2,550,000	1,375,200	3,925,200	1.61	2.67	649.84
2041	2,650,000	1,273,200	3,923,200	1.61	2.67	649.51
2042	2,755,000	1,167,200	3,922,200	1.61	2.67	649.34
2043	2,870,000	1,057,000	3,927,000	1.61	2.68	650.14
2044	2,980,000	942,200	3,922,200	1.61	2.67	649.34
2045	3,100,000	823,000	3,923,000	1.61	2.67	649.48
2046	3,225,000	699,000	3,924,000	1.61	2.67	649.64
2047	3,355,000	570,000	3,925,000	1.61	2.67	649.81
2048	3,490,000	435,800	3,925,800	1.61	2.67	649.94
2049	3,630,000	296,200	3,926,200	1.61	2.68	650.01
2050	3,775,000	151,000	3,926,000	1.61	2.68	649.97
	<u>\$ 61,300,000</u>	<u>\$ 36,801,400</u>	<u>\$ 98,101,400</u>			

(1) Based on FY2024 assessed values and assumes no growth in assessed value.



- 1 Entry Plaza with Raised Crossing
- 2 Parking Lot 124 Total Spaces, Including 6 ADA Spaces, 7 EV Spaces
- 3 Playground (Fenced)
- 4 Outdoor Classroom with Perimeter Ornamental Fencing
- 5 Rain Garden
- 6 Raised Planters for Community Gardens
- 7 Basketball Court (2)
- 8 Boardwalk through Rain Garden
- 9 Emergency Access Vehicular Gate
- 10 Loading and Service Area
- 11 Multi Purpose Field
- 12 Area for Movable Bleachers
- 13 Raised Table for Pedestrian Crossing
- 14 Flexible Greenspace for PE Classes
- 15 Outdoor Dining Plaza
- 16 Digital Entrance Sign
- ★ Bus Pick Up/Drop Off
- ★ Parent Pick Up/Drop Off
- EV Parking





LEGEND

- CORE FACILITY
- ADMINISTRATION
- BUILDING SERVICE
- ACADEMIC
- SPED
- CIRCULATION



LEGEND

- CORE FACILITY
- ADMINISTRATION
- BUILDING SERVICE
- ACADEMIC
- SPED
- CIRCULATION



































CAFETERIA





TYPICAL CLASSROOM



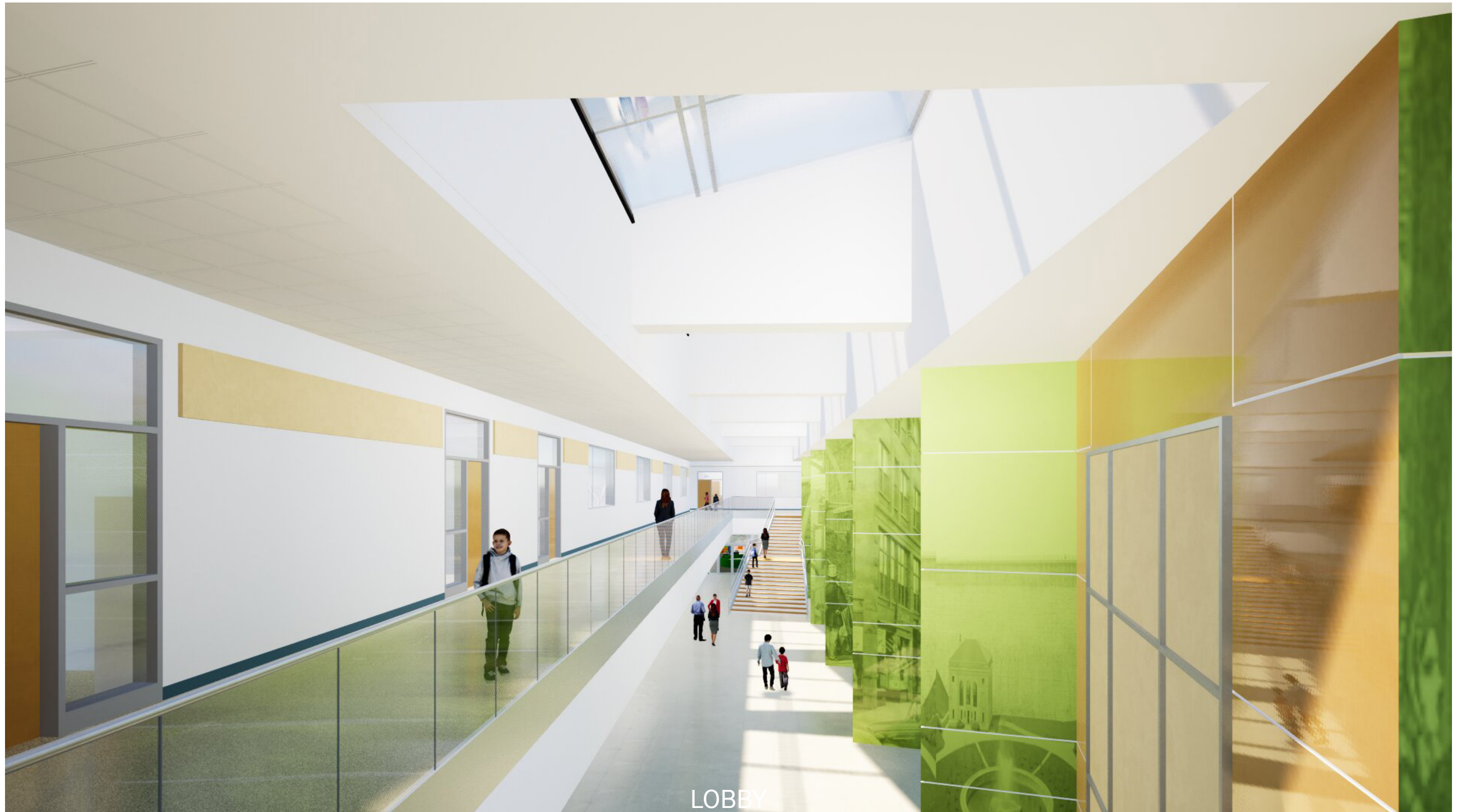


















TYPICAL SCIENCE CLASSROOM



TYPICAL SCIENCE CLASSROOM



# Massachusetts School Building Authority

**Deborah B. Goldberg**  
*Chair, State Treasurer*

**James A. MacDonald**  
*Chief Executive Officer*

**Mary L. Pichetti**  
*Executive Director / Deputy CEO*

August 30, 2023

Mr. Michael J. Ward, Town Administrator  
Town of Clinton  
242 Church Street  
Clinton, MA 01510

Re: Town of Clinton, Clinton Middle School

Dear Mr. Ward:

I am pleased to report that the Board of the Massachusetts School Building Authority (the “MSBA”) has voted to approve the Town of Clinton (the “Town”), as part of its invitation for Feasibility Study, to proceed into Schematic Design to replace the existing Clinton Middle School with a new facility serving grades 4 through 8 on the existing site (the “proposed project”).

Please note, in the future, if the Board approves a Project Scope and Budget Agreement and a Project Funding Agreement, the Board’s vote will be contingent upon the Town meeting the MSBA requirements for ownership, control and use of the proposed site, unless met prior to such vote.

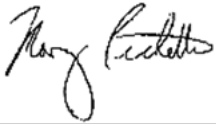
It is my understanding that the Town anticipates seeking community approval for this proposed project in April 2024. Therefore, it is critical that the Town in conjunction with its Owner’s Project Manager and Designer, submit a schedule to the MSBA as soon as possible, which should include: the work plan to complete all of the required documentation for presentation to the MSBA’s Board of Directors at a future Board meeting; the date of the Town Meetings at which the proposed project will be considered; and the anticipated design and construction schedule.

We will be contacting you soon to discuss these next steps in more detail, but in the meantime, I wanted to share with you the Board’s vote to approve the Town of Clinton to proceed into Schematic Design to replace the existing Clinton Middle School with a new facility serving grades 4 through 8 on the existing site.

I look forward to continuing to work with you as the MSBA’s grant program progresses. As always, feel free to contact me or my staff at (617) 720-4466 should you have any questions.

Page 2  
August 30, 2023  
Clinton Middle School Preferred Schematic Board Action Letter

Sincerely,



---

Mary L. Pichetti  
Executive Director

Cc: Legislative Delegation  
Matthew H. Kobus, Chair, Clinton Select Board  
Brendan Bailey, Chair, Clinton School Committee  
Dr. Steven Meyer, Superintendent, Clinton Public Schools  
Trip Elmore, Owner's Project Manager, Dore & Whittier Management Partners, LLC  
Kathryn Crockett, Designer, Lamoureux Pagano Associates, Architects  
File: 10.2 Letters (Region 2)

This document has been updated by LPA|A with comments for the purpose of preparing a coordinated response from the District, OPM, and LPA|A. Responses to comments are in red below.

**ATTACHMENT A**  
**MODULE 3 – PREFERRED SCHEMATIC REPORT REVIEW COMMENTS**

**District:** Town of Clinton  
**School:** Clinton Middle School  
**Owner’s Project Manager:** Dore & Whittier Management Partners, Inc.  
**Designer Firm:** Lamoureux Pagano Associates | Architects, Inc.  
**Submittal Due Date:** June 27, 2023  
**Submittal Received Date:** June 27, 2023  
**Review Date:** June 27, 2023 – July 12, 2023  
**Reviewed by:** V. Dagkalakou, C. Forde, J. Jumpe

**MSBA REVIEW COMMENTS**

The following comments<sup>1</sup> on the Preferred Schematic Report (“PSR”) submittal are issued pursuant to a review of the project submittal document for the proposed project presented as a part of the Feasibility Study submission in accordance with the MSBA Module 3 Guidelines.

**3.3 PREFERRED SCHEMATIC REPORT**

Overview of Preferred Schematic Submittal	Complete	Provided; <i>Refer to comments following each section</i>	Not Provided; <i>Refer to comments following each section</i>	Receipt of District’s Response; <i>To be filled out by MSBA Staff</i>
OPM Certification of Completeness and Conformity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Table of Contents	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3.1 Introduction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3.2 Evaluation of Existing Conditions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3.3 Final Evaluation of Alternatives	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3.4 Preferred Solution	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3.5 Local Actions and Approval Certification	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>1</sup> The written comments provided by the MSBA are solely for purposes of determining whether the submittal documents, analysis process, proposed planning concept and any other design documents submitted for MSBA review appear consistent with the MSBA’s guidelines and requirements, and are not for the purpose of determining whether the proposed design and its process may meet any legal requirements imposed by federal, state or local law, including, but not limited to, zoning ordinances and by-laws, environmental regulations, building codes, sanitary codes, safety codes and public procurement laws or for the purpose of determining whether the proposed design and process meet any applicable professional standard of care or any other standard of care. Project designers are obligated to implement detailed planning and technical review procedures to effect coordination of design criteria, buildability, and technical adequacy of project concepts. Each city, town and regional school district shall be solely responsible for ensuring that its project development concepts comply with all applicable provisions of federal, state, and local law. The MSBA recommends that each city, town and regional school district have its legal counsel review its development process and subsequent bid documents to ensure that it is in compliance with all provisions of federal, state and local law, prior to bidding. The MSBA shall not be responsible for any legal fees or costs of any kind that may be incurred by a city, town or regional school district in relation to MSBA requirements or the preparation and review of the project’s planning process or plans and specifications.



### 3.3.1 INTRODUCTION

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
1	Overview of the process undertaken since submittal of the Preliminary Design Program that concludes with submittal of the Preferred Schematic Report, including any new information and changes to previously submitted information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Summary of updated project schedule, including				
	a) Projected MSBA Board of Directors Meeting for approval of Project Scope and Budget Agreement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Projected Town/City vote for Project Scope and Budget Agreement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Anticipated start of construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) Target move in date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Summary of the final evaluation of existing conditions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Summary of final evaluation of alternatives	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Summary of District's preferred solution	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	A copy of the MSBA Preliminary Design Program project review and corresponding District response	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**MSBA Review Comments:**

*No review comments for this section.*

### 3.3.2 EVALUATION OF EXISTING CONDITIONS

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
1	A narrative of any changes resulting from new information that informs the conclusions of the evaluation of the existing conditions and its impact on the final evaluation of alternatives	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	If changes are substantive, provide an updated Evaluation of Existing Conditions and identify as final. Identify additional testing that is recommended during future phases of the proposed project and indicate when the investigations and analysis will be completed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**MSBA Review Comments:**

*1) In response to these review comments, please provide a narrative that describes the potential impact remaining existing conditions site work may have on the conceptual design.*

District Response: The PDP reference to unsuitable existing soils pertain to the 1996 test borings in, and immediately east of, the high school building footprint; these borings indicated substantial layers of fill and organic materials.

As noted in the PDP, the 1954 geotechnical exploration program consisted of eight (8) test borings advanced to depths of between 16–42'. These borings were located to the east of the existing middle school on what is currently baseball/softball fields (which is also the location of the proposed new middle school). The existing boring logs indicate that the material encountered in this area was primarily compact sand and gravel with some boulders and fill.

Accordingly, LPA|A does not believe there are significant deposits or layers of unsuitable soils in the proposed building area. With that said, LPA|A acknowledges that there may be isolated areas of unsuitable soils between the existing 1954 test borings and recommends that the Schematic Design cost estimate design contingency include the cost of removing/replacing minor amounts of unsuitable materials.

LPA|A also recommends that a more comprehensive subsurface geotechnical exploration program, in the areas of the proposed building footprint and site infrastructure, be conducted during the early Design Development phase in June 2024.

The potential impact to the design is that areas of unsuitable soils would need to be removed and replaced with compacted structural fill. Additionally, there may be an impact on the structural design of foundations/footings.

*2) The information provided states:*

*“A geotechnical exploration program, including test pits/borings located at the existing Clinton Middle School site as recommended by the geotechnical engineer and based on the District’s Preferred Solution, is proposed during the SD phase. Based on information on the high school and middle school construction documents previously provided by the Town, the understanding is that there may be poor soil conditions that will need to be further evaluated”.*

*Additionally, the information provided states:*

*“The Town of Clinton continues to work with National Grid (NGRID) to record a previous land swap on the existing middle school property relative to overhead electric transmission lines that were relocated to accommodate the construction of the middle school in 1976. The*

*Town’s continued understanding is that the formal recording of the deed is not expected to impact the project timeline”.*

*Furthermore, a letter was provided from the Town Administrator regarding this matter that states: “It is anticipated that these documents will be finalized and officially recorded by the end of summer”.*

*In response to these review comments, incorporate the timeline associated with completing the work identified above into the overall project schedule. Also, please note and acknowledge that all cost increases subsequent to a Project Scope and Budget Approval from the MSBA’s Board of Directors will be the sole responsibility of the District and considered ineligible for reimbursement.*

**District Response: Acknowledged. Refer to Attachment 4 for a copy of the updated project schedule and Attachment 5 for an updated letter from the Town relative to the deed recording process.**

*No further review comments for this section.*

### 3.3.3 FINAL EVALUATION OF ALTERNATIVES

Include at least three potential alternatives, with at least one renovation and/or addition option. Include the following for each alternative where appropriate:

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District’s response required</i>	Not Provided; <i>District’s response required</i>	Receipt of District’s Response; <i>To be filled out by MSBA Staff</i>
1	An analysis of each prospective site including:				
	a) Natural site limitations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Building footprint(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Athletic fields	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) Parking areas and drives	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) Bus and parent drop-off areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f) Site access and surrounding site features.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Evaluation of the potential impact that construction of each option will have on students and measures recommended to mitigate impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Conceptual architectural and site drawings that satisfy the requirements of the education program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	An outline of the major building structural systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The source, capacities, and method of obtaining all utilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	A narrative of the major building systems	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	A proposed total project budget and a construction cost estimate using the Unifomat II Elemental Classification format (to as much detail as the drawings and descriptions permit, but no less than Level 2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Provide the following Items		Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
8	Permitting requirements and associated approval schedule	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Proposed project design and construction schedule including consideration of phasing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Completed Table 1 – MSBA Summary of Preliminary Design Pricing spreadsheet	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**MSBA Review Comments:**

As part of the PSR submittal the District explored the following (9) options.

- *Option BR: Code Upgrade/Base Repair for grades 5-8 with an enrollment of 550 students at the existing Clinton Middle School.*
- **Option AR-1 (550):** *Addition/Renovation (1-story addition) for grades 5-8 with an enrollment of 550 students at the existing Clinton Middle School.*
- **Option AR-1 (700):** *Addition/Renovation (1-story addition) for grades 4-8 with an enrollment of 700 students at the existing Clinton Middle School.*
- **Option AR-1.5 (550):** *Addition/Renovation (2-story addition) for grades 5-8 with an enrollment of 550 students at the existing Clinton Middle School.*
- **Option AR-1.5 (700):** *Addition/Renovation (2-story addition) for grades 4-8 with an enrollment of 700 students at the existing Clinton Middle School.*
- **Option AR-2 (550):** *Addition/Renovation (2-story addition) for grades 5-8 with an enrollment of 550 students at the existing Clinton Middle School.*
- **Option AR-2 (700):** *Addition/Renovation (1-story addition) for grades 4-8 with an enrollment of 700 students at the existing Clinton Middle School.*
- **Option NC-1 (550):** *New Construction for grades 5-8 with an enrollment of 550 students at the existing Clinton Middle School site, at Softball Fields.*
- **Option NC-1 (700):** *New Construction for grades 4-8 with an enrollment of 700 students at the existing Clinton Middle School site, at Softball Fields. (District's Preferred Schematic).*

2) As part of the schematic design documents provide further detail that clearly describes and illustrates the separation, safety provisions, and possible construction laydown areas that will be applied during construction for the Preferred Schematic. Please acknowledge.

**District Response:** This will be addressed as part of the Schematic Design Submission.

5) In response to these review comments, provide the timeline associated with conducting a hydrant flow test, confirm that the test results will inform the scope of work proposed in the schematic design phase, and confirm costs will be accounted for in the District's proposed total project budget.

**District Response:** LPA|A confirms that the flow test will be conducted by 12/1/2023, and the results will inform the scope of work proposed for the SD phase.

6) The information provided references a Building Management System (“BMS”). In response to these review comments, confirm that building and District facilities, maintenance, and custodial personnel have been included in discussions regarding the following items:

- The selection and long-term operational and maintenance costs of the BMS and mechanical systems; and,
- That the training program will be coordinated with the District’s facility, maintenance, and custodial staff and will include sufficient training hours to learn how to operate the proposed BMS before the opening of the proposed project as well as hours post turnover.

**District Response:** LPA/A confirms that this will be reviewed in greater detail during SD.

7) As part of the schematic design documents, please provide the following:

- Identify estimated cost associated with removal of any existing fuel storage tanks;
- Complete the “CSI” tab within the MSBA’s total project budget spreadsheet; and,
- If add/deduct construction alternates are proposed, please complete the “Alternates” tab within the MSBA’s total project budget spreadsheet detailing the cost and the rationale associated with each alternate. Please acknowledge.

**District Response:** Acknowledged; this will be provided in the SD submission.

8) As part of the schematic design documents, please provide an updated project schedule that includes the timeline for all the permitting requirements with the anticipated filing dates and approval dates for the Preferred Schematic. Please acknowledge.

**District Response:** Acknowledged; this will be provided in the SD submission.

Also, please note and acknowledge that all permitting requirements and approvals must be obtained prior to construction bidding.

**District Response:** Acknowledged.

No further review comments for this section.

### 3.3.4 PREFERRED SOLUTION

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District’s response required</i>	Not Provided; <i>District’s response required</i>	Receipt of District’s Response; <i>To be filled out by MSBA Staff</i>
1	Educational Program				
	a) Summary of key components and how the preferred solution fulfills the educational program	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b) Design responses including desired features and/or layout considerations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Proposed variances to, and benefits of, any changes to the current grade configuration (if any) and a related transition plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Preferred Solution Space Summary				

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
	a) Updated MSBA Space Summary spreadsheet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Itemization and explanation of variations from the initial space summary (and MSBA review) included in the Preliminary Design Program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Preliminary NE-CHPS or LEED-S scorecard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Conceptual floor plans of the preferred solution, in color that are clearly labeled to identify educational spaces	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Clearly labeled site plans of the preferred solution including, but not limited to:				
	a) Structures and boundaries	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Site access and circulation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Parking and paving	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) Zoning setbacks and limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	e) Easements and environmental buffers	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	f) Emergency vehicle access	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	g) Safety and security features	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	h) Utilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i) Athletic fields and outdoor educational spaces (existing and proposed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	j) Site orientation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	An overview of the Total Project Budget and local funding including the following:				
	a) Estimated total construction cost	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Estimated total project cost	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Estimated funding capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) List of other municipal projects currently planned or in progress	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) District's not-to-exceed Total Project Budget	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f) Brief description of the local process for authorization and funding of the proposed project	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g) Estimated impact to local property tax, if applicable	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Completed MSBA Budget Statement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	Updated Project Schedule including the following projected dates:				

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
a)	Massachusetts Historical Commission Project Notification Form	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	MSBA Board of Directors meeting for approval to proceed into Schematic Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	MSBA Board of Directors meeting for approval of project scope and budget agreement and project funding agreement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Town/City vote for project scope and budget agreement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	Design Development submittal date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	MSBA Design Development Submittal Review (include required 21-day duration)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g)	60% Construction Documents submittal date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	MSBA 60% Construction Documents Submittal Review (include required 21-day duration)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i)	90% Construction Documents submittal date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j)	MSBA 90% Construction Documents Submittal Review (include required 21-day duration)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k)	Anticipated bid date/GMP execution date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l)	Construction start	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m)	Move-in date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n)	Substantial completion	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**MSBA Review Comments:**

*1a) Not provided. In response to these review comments, please provide a summary of the key components and how the preferred solution fulfills the educational program.*

**District Response:** Below is an outline of the key features of the preferred solution that fulfill the required educational program:

1. The building layout allows for separation of the “public” or community use areas from the “private” or academic use areas, so that the community can securely utilize the building after school hours. Shared public spaces include the Gymnasium, cafeteria, stage, and media center.
2. The building layout provides adequate separation between the grades 4–6 neighborhoods, and the grade 7 and 8 neighborhoods, effectively limiting crossover between the youngest and the oldest students.

3. The building layout provides distinct grade level neighborhoods for Grades 4, 5 and 6, equipped with sets of adjoining team-teaching classrooms, small group/resource rooms, special education support spaces and collaborative work areas.
4. The preferred solution layout provides two 7-8 grade neighborhoods, one for STEM and one for Humanities.
5. The design and location of the main administration suite provides for a secure entry sequence in alignment with district security protocols.
6. The preferred solution provides opportunities for all the site program requirements to be met, including outdoor learning, athletic and play fields, and safe site circulation.

*1c) Not provided. In response to these review comments, provide proposed variances to, and benefits of, any changes to the current grade configuration and a related transition plan.*

**District Response:** Refer to Attachment 2 for the requested Grade configuration documents. The letter from Steven Meyer dated March 7, 2023, outlines the various benefits of the proposed grade 4-8 configuration.

Clinton Public Schools last transitioned a grade in 2018 when the 4<sup>th</sup> grade was moved to CES due to the overcrowding in CMS. Once the building project is approved, CPS would start the transition process for moving the 4<sup>th</sup> grade back to CMS. Typically, this process starts by identifying teachers who would need to be transferred and informing them of this change. Then typically any teacher who felt it was a hardship to switch buildings could meet with the superintendent so that we can identify the best possible team to move. Additionally, each year there are step-up events held with the transitioning students at the end of the year, we would incorporate two grades in these events the year before the transition, even if that meant having to hold them over the summer due to occupancy restrictions.

*2a) Please refer to "Attachment B" for detailed review comments.*

**District Response:** Refer to Attachment B for district responses to detailed review comments.

*3) The information provided in the sustainability narrative states that the District intends to achieve the 4% additional reimbursement using the (new) 2023 version of the MSBA Green Schools Program, although section 3.3.3 D.1 "Updated Basis of Design Narratives: Sustainability" states a goal of 2% using the (previous) 2022 Green Schools Program. Per Project Advisory 81, the Clinton Middle School project will be required to comply with the new 2023 MSBA Green Schools policy. Refer to the Board memorandum linked in Project Advisory 81 for more information regarding the 2023 Green Schools Program requirements. Please acknowledge.*

**District Response:** Acknowledged. This will be clarified in the SD submission.



*Additionally, the MSBA notes that compliance with the MSBA Green Schools policy is based on the energy code current at the time of the Schematic Design submittal, and the version of LEED or NE-CHPS used for project registration. Also, the MSBA notes that a 10<sup>th</sup> edition of the Massachusetts Building Code based on the 2021 IBC and 2021 IECC (including any MA amendments) is currently scheduled to take effect in 2023. The Massachusetts "Stretch" energy code is scheduled to have significant revisions after July 1, 2023 (Please note the Town of Clinton is a "Stretch" code community). In response to these review comments, the design team should review the project's anticipated permit date based on the project schedule and verify coordination with the code analysis and all systems basis of design in subsequent phases.*

**District Response:** The Clinton Middle School project is anticipated to apply for a permit in 2025, and therefore will be permitted under the revised Stretch energy code revisions introduced in July 2023. Though the Town of Clinton is a "stretch" code community, currently the Town of Clinton has not submitted any town meeting warrants for the town to vote to adopt the specialized opt-in code. Code analyses and basis of design narratives will be updated for the SD submission.

*As noted above, the information provided in the sustainability narrative states that the District intends to achieve the 4% additional reimbursement using the (new) 2023 version of the MSBA Green Schools Program. In addition to achieving the higher number of Indoor Air Quality points in the LEED scorecard (which the submitted LEED scorecard appears to indicate), the project must comply with the new 2023 "Opt-in Specialized" energy code. In the response to this review, provide the following:*

- 1) describe the "compliance pathway" in the Specialized code intended for this project;*
- 2) describe the proposed methods and systems used to meet that targeted compliance pathway;*
- 3) provide updated architectural / mechanical / electrical / plumbing / sustainability design narratives that support those goals;*
- 4) confirm that the subsequent Project Scope and Budget submittal will be fully developed and coordinated to support that additional 4% additional reimbursement with the 2023 Green Schools Program.*

**District Response:** The design team has already held several meetings with our Sustainability, Mechanical, and Electrical consultants, and the Owner to discuss the impacts of the new 2023 MSBA Green Schools Program and the 2023 Energy Code revisions. Throughout Schematic Design the project team will continue to analyze the methodology, feasibility, and cost associated with meeting the Opt-in Specialized energy code and achieving the additional 4% MSBA reimbursement. Updated architectural / mechanical / electrical / plumbing / sustainability design narratives that reflect the determined approach will be provided in the Schematic Design Submission.

*4) In response to these review comments, provide interior circulation diagrams that illustrate how students will:*

- transition into the school from the drop off areas;*
- transition from the classrooms to the cafeteria; and,*
- exit the school at time of dismissal.*

**District Response:** Please refer to Attachment 3 for the requested circulation diagrams.

*Also, provide the same information for an individual that is physically challenged as the intent is to understand how students will be traveling through the building daily.*

**District Response:** Please refer to Attachment 3 for the requested circulation diagrams.

*Additionally, if the proposed building is intended to be used by the community, provide a narrative that describes how:*

- *the proposed building will be used by the community;*
- *the proposed building will be secured and monitored; and,*
- *the community will enter and use the proposed building.*

**District Response:** The Educational Program and adjacency diagrams indicate the desire for the proposed building to serve as a Community Center and to separate Public (Community use) zones from Private (Academic use) zones. The interior Public Zone areas that will be used by the Community include the Lobby, Cafeteria/Stage/Kitchen, Gymnasium/Locker Rooms, and Media Center. In addition, outdoor areas such as athletic fields/courts and outdoor learning space(s) will be frequently used by the Community. It is anticipated that Community use of interior/exterior spaces will occur when school is not in session, nights, weekends and vacations.

The building design is intended to allow for locking off the private zone grade 4–8 neighborhoods (including classrooms, common rooms and support spaces) while still providing code–required means of egress from the public zone. This would be accomplished with pairs of doors on magnetic hold–opens at the entry to each neighborhood. During the school day the doors would be held in the open position except for in the event of a fire or lockdown. After hours or on weekends the doors could be closed and locked to limit access to the neighborhoods. Exterior video surveillance cameras will be located so as to monitor entries, exits and public zone areas used by the Community. Outdoor Community use spaces will be secured with fences and gates to deter vandalism and/or unintended uses. Main entries and selected exterior doors will be provided with low site elements to protect them from vehicular intrusion.

It is intended that the Community will enter the building through the same main entry doors used by the student population. The main Vestibule will open into the Lobby, from which all interior Community use spaces can be accessed. The District will have the option to unlock the main entry and vestibule doors for events, or to keep them locked and use a secure entry sequence such as they would use for visitors during school hours.

5d-g) *In response to these review comments, please provide site plans that address the following items:*

- *Zoning setbacks and limitations;*
- *Easements and environmental buffers, if any;*
- *Emergency vehicle access; and,*
- *Safety and Security features.*

**District Response:** Refer to Attachment 1 for the documents that were shared with MSBA on July 12<sup>th</sup>, 2023, in response to MSBA’s cursory PSR review comments.

5f) *In response to these review comments, please confirm that local emergency representatives have been consulted in the planning process and associated requirements have been incorporated into the Preferred Schematic.*

**District Response:** Confirmed, please refer to meeting minutes in PSR section 3.3.3.D.4 for the Authorities having Jurisdiction Review Meeting narrative. The attendees of this meeting included the Town Building Inspector, Chief of Police, Fire Chief, and Town Administrator.

5i) *In response to these review comments, please include information that describes the process including those involved in making decisions associated with incorporating site improvement components such as landscape features, trees, plantings, irrigation, rain gardens, etc. The MSBA encourages the District to include facilities and maintenance personnel responsible for the future care and maintenance of the proposed site components in an effort to fully understand the time, care, and resources required to maintain the intended site features. Please acknowledge.*

**District Response:** Acknowledged. The design and review process, and ultimate maintenance of site features and amenities will occur during the first phase of schematic design now that the preferred solution has been selected. Personnel from the School District facilities and Clinton DPW will be participating in this process.

6e) *The information provided states: “The Town’s not to exceed Budget is approximately \$150 million.” In response to these review comments, please provide a narrative that describes how the project team will remain at or below the estimated total project budget through schematic design and beyond. Also, please note that the MSBA does not calculate a potential grant until the conclusion of schematic design and the District should take caution in communicating as the potential project develops.*

**District Response:** The project team has multiple tools to maintain the balance between facility functions and project budget constraints that can be employed at various stages in the life of a building project. These tools and actions include:

1. Early in the planning stages, as noted in the MSBA review comments, we can and have reviewed the square foot requirements represented on the space summary submitted in the PSR. In this case, the team, which includes the District, have begun to look for areas that the design team can reduce square footage to reduce costs.

2. In the Design Development phase, and again as a team, identify the ideal balance between initial cost-efficient building MEP system designs and long-term Maintenance and Operating costs, as more than 40% of a project's construction cost is in the MEP scope.
3. As is a requirement along with all milestone MSBA submissions, complete value engineering exercises to find cost effective substitutions that do not impact the long-term use and purpose of the building.
4. As the drawings are being completed, we will identify any potential items that we can treat as an alternate to differ elements of the work to remain within the project budget on bid day.

We acknowledge that the reimbursement funding grant is calculated at the end of the “schematic Design” phase and is not set until the MSBA Board meeting for the approval of the Project Scope and Budget. For planning and decision-making purposes, all references to the MSBA grant funding are estimates only and will change as the project progresses through the MSBA process.

*Additionally, please note that the MSBA updates district reimbursement rates annually and applies the reimbursement in effect at the time the MSBA Board of Directors approves a district's proposed project scope and budget. Please acknowledge.*

**District Response: Acknowledged.**

*7a) The information provided with the PDP submittal indicated a Project Notification Form (“PNF”) would be submitted to the Massachusetts Historical Commission (“MHC”) prior to the completion of the Schematic Design submission currently scheduled for February of 2024, please confirm.*

**District Response: Confirmed.**

*Additionally, in response to these review comments, please provide an updated project schedule that includes the MHC PNF submission timeline.*

**District Response: Refer to Attachment 1 for the documents that were shared with MSBA on July 12<sup>th</sup>, 2023, in response to MSBA's cursory PSR review comments.**

*Furthermore, please note MHC approval is required prior to construction bids. The District should keep the MSBA informed of any decisions and/or proposed actions and should confirm that the proposed project is in conformance with Massachusetts General Law 950, CRM 71.00. In response to these review comments, please provide the timeline associated with filing a PNF with the MHC for review and approval.*

**District Response: LPA|A confirms the existing building is not on any historical registry; see the timeline outlined above for filing the PNF prior to the Schematic Design Submission.**

*No further review comments for this section.*

### 3.3.5 LOCAL ACTIONS AND APPROVALS

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
1	Certified copies of the School Building Committee meeting notes showing specific submittal approval vote language and voting results, and a list of associated School Building Committee meeting dates, agenda, attendees and description of the presentation materials.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Signed Local Actions and Approvals Certification(s):				
	a) Submittal approval certificate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Grade reconfiguration and/or redistricting approval certificate (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Provide the following to document approval and public notification of school configuration changes associated with the proposed project:				
	a) A description of the local process required to authorize a change to the existing grade configuration or redistricting in the district	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) A list of associated public meeting dates, agenda, attendees and description of the presentation materials	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Certified copies of the governing body (e.g. School Building Committee) meeting notes showing specific grade reconfiguration and/or redistricting, vote language, and voting results if required locally	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) A certification from the Superintendent stating the District's intent to implement a grade configuration or consolidate schools, as applicable. The certification must be signed by the Chief Executive Officer, Superintendent of Schools, and Chair of the School Committee.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**MSBA Review Comments:**

*1) Please provide a certified copy of the approved meeting minutes as soon as they are available.*

**District Response: Refer to Attachment 1 and 2 for the documents.**

2b) *In response to these review comments, please provide a completed and signed Grade Reconfiguration Approval Certification that lists the School Committee meetings and public meetings in which the proposed consolidation of the two schools was discussed and approved.*

**District Response: Refer to Attachment 1 for the documents.**

3a-d) *As previously communicated to the OPM, please provide the information requested in items 3a-d.*

**District Response: Refer to Attachment 1 and 2 for the documents.**

*No further review comments for this section.*

#### **Additional Comments:**

- *The MSBA issues project advisories from time to time, as informational updates for Districts, Owner's Project Managers ("OPM"), and Designers in an effort to facilitate the efficient and effective administration of proposed projects currently pending review by the MSBA. The advisories can be found on the MSBA's website. In response to these review comments, please confirm that the District's consultants have reviewed all project advisories and they have been incorporated into the proposed project as applicable.*

**District Response: Confirmed.**

- *The MSBA offers the following information to assist the District and its OPM in completing the total project budget template that is required as part of its Schematic Design submittal.*
  - *The District must include negotiated costs for OPM and Designer fees for the remainder of the project as part of their Total Project Budget. The fees must be listed separately by the applicable line items that are included in the MSBA's Total Project Budget Template. In response to these review comments, please confirm that the District and its consultants will negotiate fees for the remainder of the project that are to be included in the District's schematic design documents to the MSBA.*

**District Response: Confirmed.**

#### **Regarding Past Projects:**

*Both the MSBA's enabling legislation, M.G.L. c. 70B, and the MSBA's regulations, 963 CMR 2.00 et seq. specifically, address the issue of past projects. MSBA records show a total MSBA payment of \$2,332,548 on March 2020 for the Clinton Middle School Project #C20003698 completed in December 1998.*

*Pursuant to these requirements and depending on the School District's ultimate plan for the School, the MSBA may recover a pro-rated portion of the financial assistance that the School District has received for previous renovation grants. The exact amount recovered will be established at the conclusion of the Schematic Design / Total Project Budget phase. Please see the MSBA website to view the MSBA's regulations, statute and closed school bulletin for additional information.*

**District Response: It is the District's understanding that this payment was associated with an SBA project that is over 20 years old and would have no bearing on this project.**

**End**

This document has been updated by LPA|A with comments for the purpose of preparing a coordinated response from the District, OPM, and LPA|A. Responses to comments are in red below.

## **ATTACHMENT B**

### **MODULE 3 – PREFERRED SCHEMATIC SPACE SUMMARY REVIEW**

**District:** Town of Clinton

**School:** Clinton Middle School

**Owner’s Project Manager:** Dore & Whittier Management Partners, Inc.

**Designer Firm:** Lamoureux Pagano Associates | Architects, Inc.

**Submittal Due Date:** June 27, 2023

**Submittal Received Date:** June 27, 2023

**Review Date:** June 27, 2023 – July 12, 2023

**Reviewed by:** V. Dagkalakou, C. Forde, J. Jumpe

---

The Massachusetts School Building Authority (the “MSBA”) has completed its review of the proposed space summary of the preferred alternative as produced by Lamoureux Pagano Associates | Architects, and its consultants. This review involved evaluating the extent to which the Clinton Middle School’s proposed space summary conforms to the MSBA guidelines and regulations.

The MSBA considers it critical that the Districts and their Designers aggressively pursue design strategies to achieve compliance with the MSBA guidelines for all proposed projects in the new program and strive to meet the gross square footage allowed per student and the core classroom space standards, as outlined in the guidelines. The MSBA also considers its stance on core classroom space critical to its mission of supporting the construction of successful school projects throughout the Commonwealth that meet current and future educational demands. The MSBA does not want to see this critical component of education suffer at the expense of larger or grander spaces that are not directly involved in the education of students.

The following review is based on the submitted new construction project option with an agreed upon design enrollment of 700 students in grades 4-8.

**The MSBA review comments are as follows:**

Please note and acknowledge that the MSBA has updated its Space Summary Templates document, which should be used in future submittals. Please refer to Project Advisory 82 for additional information.

- **Core Academic** – The District is proposing a total of 36,120 net square feet (“nsf”) which exceeds the MSBA guidelines by 50 nsf. The proposed area in this category has decreased by 2,860 nsf since the Preliminary Design Program (“PDP”) submittal. The MSBA notes the following spaces are proposed:

- **General Classrooms (Grades 4-8)** – The District is proposing (27) 900 nsf General Classrooms for grades 4-8, totaling 24,300 nsf which is below the MSBA guidelines by (1) classroom and 900 nsf. Based on the grade configuration and the number of classrooms required for each grade, the MSBA does not object to the proposed number of General Classrooms. However, in response to these review comments, please review and respond to the following items:

- As the project further develops, please note and acknowledge that 850 nsf is the minimum size for all newly constructed General Classrooms in a middle school.

**District Response: Acknowledged.**

- Confirm that the proposed project will provide a minimum of two sinks in each General Classroom for grades 4-5. Please refer to the attached memo regarding MSBA’s Staff Recommendation for 2018 STE Area Guidelines.

**District Response: Confirmed, sinks will be provided in grade 4-5 classrooms.**

- **Small Group Seminar (20-30 seats)** – The District is proposing (5) 450 nsf Small Group Seminar rooms totaling 2,250 nsf which exceeds MSBA guidelines by (3) rooms and 1,250 nsf. Based on the information provided, the MSBA accepts this variation to the guidelines. No further action required.

- **Collaborative Work Area** – The District is proposing (3) 750 nsf Collaborative Work Areas (for grades 4-5) totaling 2,250 nsf, which exceeds MSBA guidelines. Please note, the MSBA guidelines include a range in classrooms sizes which allows flexibility for districts and designers to provide spaces educational support area either in or outside of the classroom. The proposed program includes (27) 900 nsf General Classrooms, which are 50 nsf less than the upper limit included in the MSBA guidelines. This results in 1,350 nsf that could be allocated to the (1) 450 nsf Teacher Planning Area and the remaining 900 nsf could be allocated to the Collaborative Work Areas exceeding the MSBA guidelines. Please note that the remaining 1,350 nsf associated with the Collaborative Work Areas will be considered ineligible for reimbursement. Please acknowledge.

**District Response: The district proposed (27) 900 SF general classrooms as compared to the 28 (950 SF) general classrooms allowed in the MSBA guidelines. The District would like to propose to allocate the 950 SF remainder allocated for general classrooms toward the collaborative work areas. This would result in only 400 NSF considered ineligible for reimbursement.**



- **Science Classroom / Lab (Grades 7-8)** – The District is proposing (3) 1,440 nsf Science Classrooms/Labs for grades 7-8 totaling 4,320 nsf which meets the MSBA guidelines. No further action required.
- **Prep Room** – The District is proposing (3) 200 nsf Prep Rooms totaling 600 nsf associated with the (3) Science Classrooms/Labs for grades 7-8, which meets the MSBA guidelines. No further action required.
- **Central Chemical Storage Room** – The District is proposing (1) 150 nsf Central Chemical Storage Room, which meets the MSBA guidelines. No further action required.
- **Teacher Planning** – The District is proposing (1) 450 nsf Teacher Planning space, which exceeds the MSBA guidelines. Based on the information provided and the number of proposed general classrooms, the MSBA accepts this variation to the guidelines. No further action required.
- **Health/Wellness Classroom** – The District is proposing (1) 900 nsf Health/Wellness Classroom, which exceeds the MSBA guidelines. In response to these review comments, please provide the following information:
  - Describe the anticipated adjacencies.
  - Describe the scheduling and utilization of the proposed areas.
  - Describe how these areas will be supervised and staffed.
  - Provide examples of activities that will occur in these areas.
  - Please note that the District must fully describe the function, intended users and scheduling of this space.
  - Please relocate the Health Classroom to the “Other” category to align with the new Space Summary template.

**District Response:** Health education is part of the Wellness curriculum. While taking wellness, the assigned location of the class may vary depending on if it is a PE day or a health day. The Health/Wellness classroom will be utilized for a minimum of 5 periods throughout the school day, and will serve all students in grades 4–8 for one trimester of the school year. The health classroom would be shared by both PE teachers and all students would receive their health instruction in this space. The health classroom should be located close to the Gymnasium, OT/PT and Executive Functioning Classroom, as there is an opportunity for shared staff, equipment and storage space. The Health/Wellness classrooms will be staffed by the (2) full time Physical Education teachers who will use the classroom for teaching the state comprehensive health curriculum

framework in an educational setting. This is different than the physical education components. Typically while one teacher is using the gym, the other would be able to use the classroom and they would switch daily. This Health/Wellness classroom will be relocated to the “Other” Category for the SD submission.

- **Executive Functioning**– The District is proposing (1) 900 nsf Executive Functioning space, which exceeds the MSBA guidelines. In response to these review comments, please provide the following information:
  - Describe the anticipated adjacencies.
  - Describe the scheduling and utilization of the proposed areas.
  - Describe how these areas will be supervised and staffed.
  - Provide examples of activities that will occur in these areas.
  - Please note that the District must fully describe the function, intended users and scheduling of this space.

District Response: Refer to the following excerpt from page 26 of the Educational Program document included in the PSR submission:

*“Currently all 7th and 8th grade students have a course called Executive Functioning. This course teaches students social emotional skills, organization, time management and self-control. While this course is considered a “special”, it is more closely related to guidance and Special Education than the other more traditional specials. This course requires a room that has a flexible arrangement to allow for students to work as individuals, in small groups, or to move the furniture to do other activities such as stretching or yoga. Dimmable lighting and sound proofing are also required in this space. Adjacency to the Adaptive PE/OT/PT would be beneficial. Adjacent ample storage will be required to secure yoga mats, and equipment, so these two spaces could additionally share a storage area. By locating this room near the guidance suite, it could also serve as a location for guidance counselors to meet with groups of students when it is not in use for the executive functioning course.”*

This course is taught by a dedicated teacher, and the Executive Functioning classroom is occupied 5 periods per school day.

- **Special Education** – The District is proposing a total of 14,200 nsf which exceeds the MSBA guidelines by 6,150 nsf. The proposed area in this category has decreased by 3,130 nsf since the PDP submittal.

Please note that the Special Education program is subject to approval by the Department of Elementary and Secondary Education (“DESE”). The District should provide this information for this submittal with the Schematic Design

submittal. Formal approval of the district's proposed Special Education program by the DESE is a prerequisite for executing a Project Funding Agreement with the MSBA. Please acknowledge.

**District Response: Acknowledged.**

- **Art & Music / Vocations & Technology** –The District is proposing a combined total of 9,420 nsf which exceeds the MSBA guidelines by 500 nsf. The proposed area in this category has decreased by 150 nsf since the PDP submittal. MSBA encourages the District and its designer explore efficiencies that would allow for the proposed storage spaces to be accounted for in the Non-Programmed Spaces category while maintaining an overall grossing factor of 1.50. The MSBA does not object to the District including this additional space in the project; however, all square footage in excess of MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.

**District Response: Acknowledged.**

- **Health & Physical Education** – The District is proposing a total of 9,400 nsf which exceeds the MSBA guidelines by 1,000 nsf. The proposed area in this category has decreased by 1,750 nsf since the PDP submittal. The MSBA does not object to the District including this additional space in the project; however, all square footage in excess of MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.

**District Response: Acknowledged.**

- **Media Center** – The District is proposing a total of 4,405 nsf which meets the MSBA guidelines. The proposed area in this category has not changed since the PDP submittal. Additionally, the District is proposing the following space:
  - (1) 1,000 nsf Maker Space as part of the Media Center. The current version of MSBA's space summary template includes provisions, which the project team should become familiar with, for such spaces provided these spaces align, conform to MSBA guidelines for STE spaces and with the District's educational program. In order for the MSBA to consider eligibility of the proposed space provide additional information that describes how the proposed space(s) will be scheduled, staffed, and utilized. Include examples of activities that will occur in these spaces. An updated space summary is required in order for MSBA to complete review of this category.

**District Response: Refer to page 20 of the Educational Program. The maker space will essentially function as the STE space and Science lab for students in grades 4–6. The Maker Space will support activities such as providing access and opportunity for teachers to bring their students to, in order to work on hands-on projects. Beyond supporting 4–6 STE education, any upper grade level teacher can schedule their class to utilize the Maker space for science, technology, or project-based**

curriculum, the Media Specialist will oversee the use of the space and will support the scheduling of the space with the teachers, giving priority to teachers in 4–6. The District will review this space allocation in greater detail during Schematic Design.

- **Dining & Food Service** – The District is proposing a total of 10,558 nsf which exceeds the MSBA guidelines by 1,000 nsf. The proposed area in this category has not changed nsf since the PDP submittal. The MSBA does not object to the District including this additional space in the project; however, all square footage in excess of MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.  
**District Response: Acknowledged.**
- **Medical** – The District is proposing a total of 660 nsf which exceeds the MSBA guidelines by 50 nsf. The proposed area in this category has decreased by 100 since the PDP submittal. As noted in MSBA’s PDP review comments, the MSBA does not object to the District including this additional space in the project; however, all square footage in excess of MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.  
**District Response: Acknowledged**
- **Administration and Guidance** – The District is proposing a total of 3,500 nsf which meets the MSBA guidelines. The proposed area in this category has decreased by 1,850 nsf since the PDP submittal. No further action required.
- **Custodial and Maintenance** – The District is proposing a total of 2,175 nsf which meets the MSBA guidelines. The proposed area in this category has not changed since the PDP submittal. No further action required.
- **Total Building Net Floor Area** – The District is proposing a total of 90,438 nsf which exceeds the MSBA guidelines 8,750 nsf. The proposed area has decreased by 9,840 nsf since the PDP submittal. Please address the comments provided in the categories above as part of the District’s response to these comments in order for the MSBA to estimate an allowable net square footage.
- **Total Building Gross Floor Area** – The District is proposing a total of 136,000 gross square feet (“gsf”) which exceeds the MSBA guidelines by 21,000 gsf with a grossing factor of 1.50. The proposed area has decreased by 14,000 gsf since the PDP submittal. Please address the comments provided in the categories above as part of the District’s response to these comments in order for the MSBA to estimate an allowable gross square footage.
- **Non-Programmed Spaces** – Please complete the ‘Non-Programmed Spaces’ category as part of the Schematic Design submittal. Please acknowledge.  
**District Response: Acknowledged.**

Please note that upon moving forward into subsequent phases of the proposed project, the Designer will be required to provide, with each submission, a signed, updated space summary that reflects the design and demonstrates that the design remains, except as agreed to in writing by the MSBA, in accordance with the guidelines, rules, regulations and policies of the MSBA. Should the updated space summary demonstrate changes to the previous space summary include a narrative description of the change(s) and the reason for the proposed changes to the project.

**End**

As reported on the school district's most recent three end of year information, please updated to the 3 latest fiscal year periods

Category	2019-2020		2020-2021	
	FY2020		FY2021	
	Staff (FTE)	Budget	Staff (FTE)	Budget
<b>Salaries</b>				
<b>Administration</b>				
Admin. Secretary	8.50	458,802	8.50	475,544
Assistant Principal	3.00	291,506	3.00	315,309
Business Office	2.50	145,286	2.50	198,476
Curriculum Director/Coord.	0.50	43,561	0.50	50,400
Custodians/Maintenance Staff	11.00	616,223	11.00	686,988
Executive Secretary	1.00	71,543	1.00	73,853
Facilities Manager	0.50	45,986	0.50	34,686
Guidance	0.00	-	0.00	-
Adjustment Counselor	4.50	373,153	4.50	397,422
Guidance Counselors	2.00	163,716	2.00	167,808
Guidance Director	0.00	-	0.00	-
Legal	0.00	-	0.00	-
Nurse	5.00	333,116	5.00	324,780
Other	7.00	484,958	8.00	668,253
Principal	3.00	368,263	3.00	336,215
Special Education Admin	2.00	104,636	1.00	95,000
Superintendent/Asst. Superintendent	2.00	279,528	2.00	285,850
Transportation	0.00	-	0.00	-
Treasurer	1.00	95,000	1.30	125,315
<b>Total Administration</b>	<b>53.50</b>	<b>3,875,277</b>	<b>53.80</b>	<b>4,235,899</b>
<b>Instruction - Teaching Services</b>				
Arts	3.50	190,618	3.50	151,797
Business	1.00	84,250	1.00	91,761
Communications	0.00	-	0.00	-
Coping Instructor	0.00	-	0.00	-
Culinary Arts	0.00	-	0.00	-
ELL	8.00	577,025	8.00	596,605
English Language	8.00	632,421	8.00	697,457
Family Consumer Services	1.00	61,138	1.00	66,983
Foreign Language	4.50	312,194	4.00	196,737

Health Services	9.00	676,824	9.00	665,021
History & Social Science	4.80	340,926	6.00	496,141
Instructional Assistant/Paraprofessionals	35.00	1,038,682	34.00	991,260
Library/Media	2.66	165,102	1.00	81,110
Mathematics	6.00	398,770	6.00	532,355
MCAS	0.00	-	0.00	-
Music	3.30	225,340	3.30	250,678
Other	49.00	3,299,522	53.00	3,850,566
Physical Education	6.00	399,866	6.00	436,929
Reading	0.00	-	0.00	-
School Adjustment Counselor	0.00	-	0.00	-
Science	0.00	-	-	-
Biology	3.00	211,488	5.00	414,118
Botany	0.00	-	0.00	-
Chemistry	2.00	144,090	2.00	148,413
Geology	0.00	-	0.00	-
Physics	1.00	80,303	0.50	31,300
Special Education	29.00	2,141,272	29.00	2,148,113
Substitute Teachers	2.50	111,972	3.00	157,037
Technology	6.00	472,320	7.00	543,984
Vocational Tech.	0.00	-	0.00	-
<b>Total Instruction - Teaching Services</b>	<b>185.26</b>	<b>11,564,123</b>	<b>190.30</b>	<b>12,548,365</b>
<b>Total Salaries Administration &amp; Instruction</b>	<b>238.76</b>	<b>15,439,400</b>	<b>244.10</b>	<b>16,784,264</b>
<b>Employee Benefits</b>				
<b>All employee-related fringe (health insurance, retirement etc)</b>		<b>4,150,264</b>		<b>4,400,199</b>
<b>Materials &amp; Services</b>				
<b>Materials</b>				
Audio-Visual Materials		-		-
Culinary Arts Materials		-		-
General Office Supplies		165,267		165,689
Information technology		-		-
Hardware		257,722		249,062
Software		49,064		78,997

Library Materials	273	956
Non info-tech equipment	35,298	44,326
Testing Materials & Supplies	13,316	11,756
Textbooks	115,036	147,072
Vocational Program Materials	-	-
<b>Total Materials</b>	<b>635,976</b>	<b>697,858</b>
<b>Services</b>		
Athletics	277,863	334,993
Attendance	-	-
Food Service	27,477	-
Health Services	525,556	452,780
Other Student Activities	90,798	74,582
Psychological Services	11,250	12,850
School Security	-	-
Student Transportation	1,426,282	1,672,052
<b>Total Services</b>	<b>2,359,226</b>	<b>2,547,257</b>
<b>Total Material &amp; Services</b>	<b>2,995,202</b>	<b>3,245,115</b>
<b><u>Facility Costs &amp; Capital Improvements</u></b>		
<b>Facility Costs</b>		
Custodial Supplies	106,012	100,654
Electricity	444,401	480,748
Heating Oil	-	-
Maintenance		
Building Security Maintenance	-	-
Elevator	-	-
Equipment Maintenance	-	-
Exterminating	-	-
Facility Maintenance	383,030	312,316
Fire Alarm	-	-
Fire Extinguisher Inspection	-	-
Generator	-	-
HVAC Maintenance	-	-
Other	-	-
Site Maintenance (Grouds)	176,062	185,249



Technology	304,436	436,066		
Trash Removal	32,160	32,627		
Natural Gas	235,087	231,850		
Snow Removal	-	-		
Telephone	20,128	25,477		
Water/Sewer	68,018	55,099		
<b>Total Facility Costs</b>	<b>1,769,334</b>	<b>1,860,086</b>		
<b>Capital Improvements</b>				
Capital Improvements	645,413	101,341		
<b>Total Facility Costs &amp; Capital Improvements</b>	<b>2,414,747</b>	<b>1,961,427</b>		
<b>Debt Service</b>				
Short-term	-	-		
Long-term	719,888	484,338		
<b>Total Debt Service</b>	<b>719,888</b>	<b>484,338</b>		
<b>Total Budget &amp; Staff</b>	<b>238.76</b>	<b>25,719,501</b>	<b>244.10</b>	<b>26,875,343</b>

and complete the fields below.

2021-2022		Change from Previous Year		Post-Constuction Budget		New Facility vs. Current	
FY2022		Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget
Staff	Budget						
10.00	504,185	1.50	28,641	0.00	-	-10.00	(504,185)
3.00	307,401	0.00	(7,908)	0.00	-	-3.00	(307,401)
2.50	212,829	0.00	14,353	0.00	-	-2.50	(212,829)
1.00	91,600	0.50	41,200	0.00	-	-1.00	(91,600)
11.00	696,909	0.00	9,921	0.00	-	-11.00	(696,909)
1.00	91,772	0.00	17,919	0.00	-	-1.00	(91,772)
0.50	48,087	0.00	13,401	0.00	-	-0.50	(48,087)
0.00	-	0.00	-	0.00	-	0.00	-
5.00	408,397	0.50	10,975	0.00	-	-5.00	(408,397)
2.00	146,113	0.00	(21,695)	0.00	-	-2.00	(146,113)
0.00	-	0.00	-	0.00	-	0.00	-
0.00	-	0.00	-	0.00	-	0.00	-
5.00	328,907	0.00	4,127	0.00	-	-5.00	(328,907)
8.60	707,127	0.60	38,874	0.00	-	-8.60	(707,127)
3.00	347,880	0.00	11,665	0.00	-	-3.00	(347,880)
1.00	97,850	0.00	2,850	0.00	-	-1.00	(97,850)
2.00	291,489	0.00	5,639	0.00	-	-2.00	(291,489)
0.00	-	0.00	-	0.00	-	0.00	-
1.30	129,648	0.00	4,333	0.00	-	-1.30	(129,648)
<b>56.90</b>	<b>4,410,194</b>	<b>3.10</b>	<b>174,295</b>	<b>0.00</b>	<b>-</b>	<b>-56.90</b>	<b>(4,410,194)</b>
3.50	202,393	0.00	50,596	0.00	-	-3.50	(202,393)
1.00	89,308	0.00	(2,453)	0.00	-	-1.00	(89,308)
0.00	-	0.00	-	0.00	-	0.00	-
0.00	-	0.00	-	0.00	-	0.00	-
0.00	-	0.00	-	0.00	-	0.00	-
10.00	708,430	2.00	111,825	0.00	-	-10.00	(708,430)
9.00	741,640	1.00	44,183	0.00	-	-9.00	(741,640)
1.00	73,912	0.00	6,929	0.00	-	-1.00	(73,912)
3.00	253,039	-1.00	56,302	0.00	-	-3.00	(253,039)

9.75	716,873	0.75	51,852	0.00	-	-9.75	(716,873)
8.00	577,620	2.00	81,479	0.00	-	-8.00	(577,620)
39.00	1,200,049	5.00	208,789	0.00	-	-39.00	(1,200,049)
1.00	85,170	0.00	4,060	0.00	-	-1.00	(85,170)
8.00	556,056	2.00	23,701	0.00	-	-8.00	(556,056)
0.00	-	0.00	-	0.00	-	0.00	-
4.00	305,675	0.70	54,997	0.00	-	-4.00	(305,675)
54.00	3,878,287	1.00	27,721	0.00	-	-54.00	(3,878,287)
6.00	446,026	0.00	9,097	0.00	-	-6.00	(446,026)
0.00	-	0.00	-	0.00	-	0.00	-
0.00	-	0.00	-	0.00	-	0.00	-
			-				
4.00	252,087	-1.00	(162,031)	0.00	-	-4.00	(252,087)
0.00	-	0.00	-	0.00	-	0.00	-
2.00	153,014	0.00	4,601	0.00	-	-2.00	(153,014)
0.00	-	0.00	-	0.00	-	0.00	-
0.50	26,002	0.00	(5,298)	0.00	-	-0.50	(26,002)
31.00	2,245,627	2.00	97,514	0.00	-	-31.00	(2,245,627)
5.00	271,467	2.00	114,430	0.00	-	-5.00	(271,467)
7.00	523,853	0.00	(20,131)	0.00	-	-7.00	(523,853)
0.00	-	0.00	-	0.00	-	0.00	-
<b>206.75</b>	<b>13,306,528</b>	<b>16.45</b>	<b>758,163</b>	<b>0.00</b>	<b>-</b>	<b>-206.75</b>	<b>(13,306,528)</b>
<b>263.65</b>	<b>17,716,722</b>	<b>19.55</b>	<b>932,458</b>	<b>0.00</b>	<b>-</b>	<b>-263.65</b>	<b>(17,716,722)</b>
	<b>4,525,110</b>		<b>124,911</b>		<b>-</b>		<b>(4,525,110)</b>
	-		-		-		-
	-		-		-		-
	144,971		(20,718)		-		(144,971)
	-		-		-		-
	148,783		(100,279)		-		(148,783)
	173,136		94,139		-		(173,136)

-	(956)	-	-
94,654	50,328	-	(94,654)
12,316	560	-	(12,316)
228,575	81,503	-	(228,575)
-	-	-	-
<b>802,435</b>	<b>104,577</b>	<b>-</b>	<b>(802,435)</b>
421,207	86,214	-	(421,207)
-	-	-	-
-	-	-	-
460,238	7,458	-	(460,238)
87,264	12,682	-	(87,264)
21,000	8,150	-	(21,000)
-	-	-	-
1,722,119	50,067	-	(1,722,119)
<b>2,711,828</b>	<b>28,290</b>	<b>-</b>	<b>(2,711,828)</b>
<b>3,514,263</b>	<b>132,867</b>	<b>-</b>	<b>(3,514,263)</b>
129,015	28,361	-	(129,015)
468,474	(12,274)	-	(468,474)
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
396,584	84,268	-	(396,584)
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
154,749	(30,500)	-	(154,749)

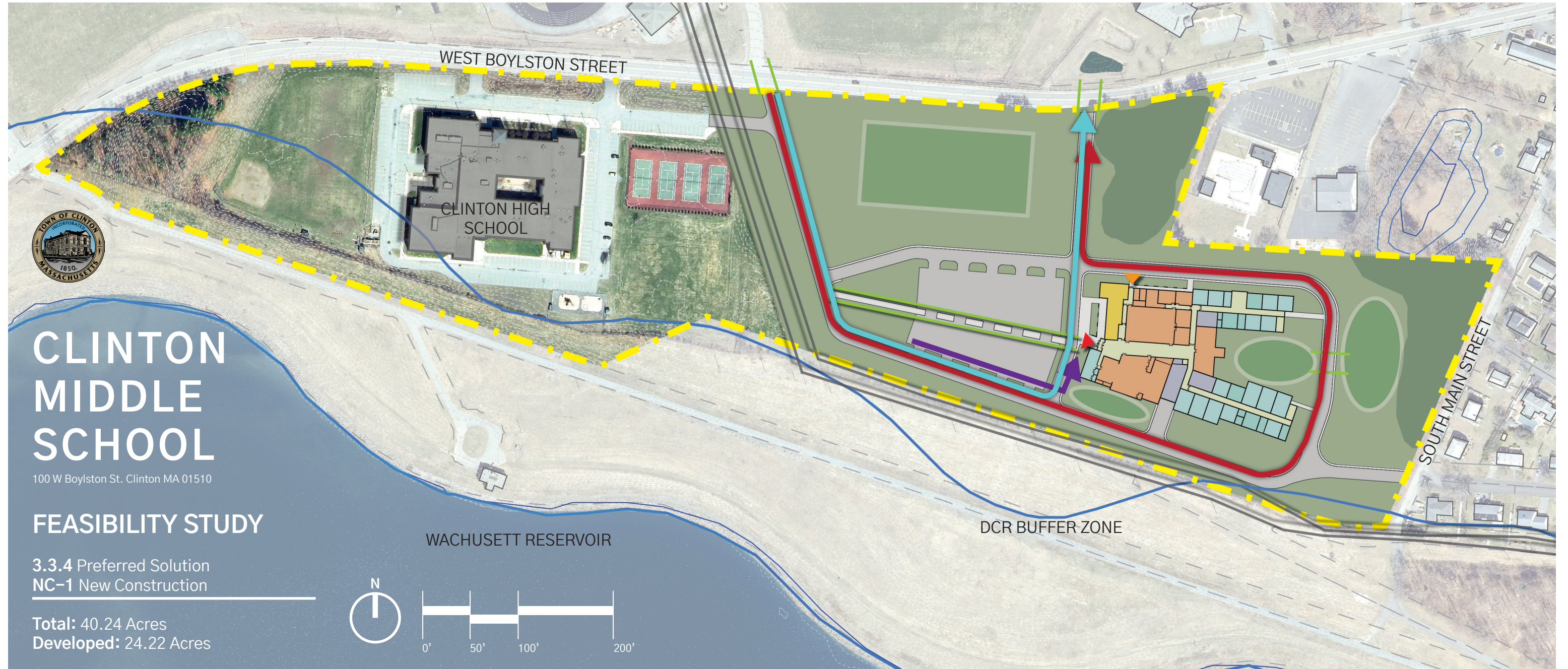
602,872		166,806		-		(602,872)
27,635		(4,992)		-		(27,635)
232,188		338		-		(232,188)
-		-		-		-
26,544		1,067		-		(26,544)
49,716		(5,383)		-		(49,716)
<u>2,087,777</u>		<u>227,691</u>		<u>-</u>		<u>(2,087,777)</u>
-		(101,341)		-		-
<b>2,087,777</b>		<b>126,350</b>		<b>-</b>		<b>(2,087,777)</b>
-		-		-		-
519,667		35,329		-		(519,667)
<u>519,667</u>		<u>35,329</u>		<u>-</u>		<u>(519,667)</u>
<b>263.65</b>	<b>28,363,539</b>	<b>20</b>	<b>1,351,915</b>	<b>0</b>	<b>-</b>	<b>-264</b>
						<b>(28,363,539)</b>

ID	Task Name	Duration	Start	Finish																								
					2023	2024	2025	2026	2027	2028																		
					Qtr 2	2nd Half	Qtr 3	Qtr 4	1st Half	Qtr 1	Qtr 2	2nd Half	Qtr 3	Qtr 4	1st Half	Qtr 1	Qtr 2	2nd Half	Qtr 3	Qtr 4	1st Half	Qtr 1	Qtr 2	2nd Half	Qtr 3	Qtr 4		
1	<b>MSBA Module 2 - 7</b>	<b>1878 days?</b>	<b>Tue 9/7/21</b>	<b>Thu 11/16/28</b>																								
2	<b>Mod 2 - Architect selection process</b>	<b>57 days</b>	<b>Fri 8/5/22</b>	<b>Mon 10/24/22</b>																								
14	<b>Module 3 - Feasibility Study</b>	<b>181 days</b>	<b>Wed 12/21/22</b>	<b>Wed 8/30/23</b>																								
15	<b>Preferred Design Program (PDP)</b>	<b>90 days</b>	<b>Wed 12/21/22</b>	<b>Tue 4/25/23</b>																								
28	<b>Preferred Schematic Report (PSR)</b>	<b>104 days</b>	<b>Fri 4/7/23</b>	<b>Wed 8/30/23</b>																								
29	Final evaluation of of alternatives	30 days	Fri 4/7/23	Thu 5/18/23																								
30	Preferred solution	25 days	Fri 5/12/23	Thu 6/15/23																								
31	Local action and approvals	7 days	Fri 6/16/23	Mon 6/26/23																								
32	Submit PSR to MSBA	1 day	Tue 6/27/23	Tue 6/27/23																								
33	<b>MSBA Board Approval to proceed with schematic design 8/30/23</b>	<b>46 days</b>	<b>Wed 6/28/23</b>	<b>Wed 8/30/23</b>																								
34	<b>MSBA staff review</b>	<b>20 days</b>	<b>Wed 6/28/23</b>	<b>Tue 7/25/23</b>																								
35	MSBA PSR review and comment	15 days	Wed 6/28/23	Tue 7/18/23																								
36	Respond to MSBA PSR comments	5 days	Wed 7/19/23	Tue 7/25/23																								
37	<b>Facilities assessment subcommittee review</b>	<b>31 days</b>	<b>Wed 7/19/23</b>	<b>Wed 8/30/23</b>																								
38	FAS Mtg #1	1 day	Wed 7/19/23	Wed 7/19/23																								
39	FAS Mtg #2 (if required)	1 day	Wed 8/2/23	Wed 8/2/23																								
40	Respond to FAS comments	5 days	Thu 8/3/23	Wed 8/9/23																								
41	MSBA Board Approval - 8-30-23	1 day	Wed 8/30/23	Wed 8/30/23																								
42	Module 4 - Schematic Design	1 day?	Tue 9/7/21	Tue 9/7/21																								
43	<b>MA Historical Com.</b>	<b>56 days</b>	<b>Fri 9/1/23</b>	<b>Fri 11/17/23</b>																								
44	Assemble documentation to submit PNF	30 days	Fri 9/1/23	Thu 10/12/23																								
45	MHC review and response	26 days	Fri 10/13/23	Fri 11/17/23																								
46	<b>SD Submission Development</b>	<b>169 days</b>	<b>Fri 9/1/23</b>	<b>Wed 4/24/24</b>																								
47	DESE Submittal Development	120 days	Fri 9/1/23	Thu 2/15/24																								
48	Schematic Design Binder	85 days	Fri 9/1/23	Thu 12/28/23																								
49	Schematic Design Project Manual	85 days	Fri 9/1/23	Thu 12/28/23																								
50	Schematic Design Drawings	85 days	Fri 9/1/23	Thu 12/28/23																								
51	Schematic Design Estimating	20 days	Fri 12/29/23	Thu 1/25/24																								
52	SD Estimate Reconciliation & Budget	6 days	Fri 1/26/24	Fri 2/2/24																								
53	.	15 days	Mon 2/5/24	Fri 2/23/24																								
54	Submit SD to MSBA	1 day	Mon 2/26/24	Mon 2/26/24																								
55	<b>Review and approve SD submission</b>	<b>25 days</b>	<b>Tue 2/27/24</b>	<b>Mon 4/1/24</b>																								
56	<b>MSBA Staff review</b>	<b>25 days</b>	<b>Tue 2/27/24</b>	<b>Mon 4/1/24</b>																								
57	MSBA SD review and comment	15 days	Tue 2/27/24	Mon 3/18/24																								
58	Response to MSBA SD comments	10 days	Tue 3/19/24	Mon 4/1/24																								
59	Final submission review	1 day	Tue 4/2/24	Tue 4/2/24																								
60	MSBA Board approval - date TBD	15 days	Wed 4/3/24	Tue 4/23/24																								
61	MSBA Board Action Letter Issued	1 day	Wed 4/24/24	Wed 4/24/24																								
62	DESE review and approval letter	4 days	Tue 3/19/24	Fri 3/22/24																								
63	<b>Module 5 - Funding the Project</b>	<b>50 days</b>	<b>Wed 4/24/24</b>	<b>Tue 7/2/24</b>																								
64	<b>Project scope and budget agreement</b>	<b>10 days</b>	<b>Thu 4/25/24</b>	<b>Wed 5/8/24</b>																								
65	Total Project Budget & Exhibit Development	3 days	Thu 4/25/24	Mon 4/29/24																								
66	Reimbursement rate - signed Certification	3 days	Tue 4/30/24	Thu 5/2/24																								

CMS - PSR Option NC1 (700) 06.27.2023	Task		Project Summary		Manual Task		Start-only		Deadline	
	Split		Inactive Task		Duration-only		Finish-only		Progress	
	Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
	Summary		Inactive Summary		Manual Summary		External Milestone			

ID	Task Name	Duration	Start	Finish																								
					2023				2024				2025				2026				2027				2028			
					Qtr 2	2nd Half Qtr 3	Qtr 4	1st Half Qtr 1	Qtr 2	2nd Half Qtr 3	Qtr 4	1st Half Qtr 1	Qtr 2	2nd Half Qtr 3	Qtr 4	1st Half Qtr 1	Qtr 2	2nd Half Qtr 3	Qtr 4	1st Half Qtr 1	Qtr 2	2nd Half Qtr 3	Qtr 4	1st Half Qtr 1	Qtr 2	2nd Half Qtr 3	Qtr 4	
67	Prerequisites to MSBA Execution of PS&B	3 days	Tue 4/30/24	Thu 5/2/24																								
68	Send MSBA PS&B Package for execution	2 days	Fri 5/3/24	Mon 5/6/24																								
69	PS&B Executed	2 days	Tue 5/7/24	Wed 5/8/24																								
70	<b>Local Authorization for funding (120 days)</b>	<b>35 days</b>	<b>Wed 4/24/24</b>	<b>Tue 6/11/24</b>																								
71	preparation & Town meeting	29 days	Wed 4/24/24	Mon 6/3/24																								
72	Ballot Vote for borrowing	1 day	Tue 6/4/24	Tue 6/4/24																								
73	Local funding documentation	5 days	Wed 6/5/24	Tue 6/11/24																								
74	<b>Project Funding Agreement</b>	<b>11 days</b>	<b>Wed 6/12/24</b>	<b>Wed 6/26/24</b>																								
75	Prerequisites to MSBA Execution of PFA	5 days	Wed 6/12/24	Tue 6/18/24																								
76	Certification of legal council	5 days	Wed 6/12/24	Tue 6/18/24																								
77	Certified vote copies	5 days	Wed 6/12/24	Tue 6/18/24																								
78	Send MSBA PFA package fro execution	1 day	Wed 6/19/24	Wed 6/19/24																								
79	PFA Executed & returned to district	5 days	Thu 6/20/24	Wed 6/26/24																								
80	Propay budget entered	4 days	Thu 6/27/24	Tue 7/2/24																								
81	<b>Module 6 - Detailed Design*</b>	<b>308 days</b>	<b>Tue 6/4/24</b>	<b>Thu 8/7/25</b>																								
82	<b>Design Development (DD)</b>	<b>136 days</b>	<b>Tue 6/4/24</b>	<b>Tue 12/10/24</b>																								
83	Design Development	100 days	Wed 6/5/24	Tue 10/22/24																								
84	DD Submission	1 day	Wed 10/23/24	Wed 10/23/24																								
85	MSBA DD Review	21 days	Thu 10/24/24	Thu 11/21/24																								
86	Address DD Review Comments	14 days	Fri 11/22/24	Wed 12/11/24																								
87	<b>60% Construction Documents</b>	<b>207 days</b>	<b>Wed 10/23/24</b>	<b>Thu 8/7/25</b>																								
88	60% CD Development	90 days	Wed 10/23/24	Tue 2/25/25																								
89	60% CD Development Submission	1 day	Wed 2/26/25	Wed 2/26/25																								
90	MSBA 60% CD Review	21 days	Thu 2/27/25	Thu 3/27/25																								
91	Address 60% SD Review Comments	14 days	Fri 3/28/25	Wed 4/16/25																								
92	<b>90% Construction Documents</b>	<b>76 days</b>	<b>Wed 2/26/25</b>	<b>Wed 6/11/25</b>																								
93	90% CD Development	40 days	Wed 2/26/25	Tue 4/22/25																								
94	90% CD Development Submission	1 day	Wed 4/23/25	Wed 4/23/25																								
95	MSBA 90% CD Review	21 days	Thu 4/24/25	Thu 5/22/25																								
96	Address 90% SD Review Comments	14 days	Fri 5/23/25	Wed 6/11/25																								
97	<b>100% CD Complete</b>	<b>73 days</b>	<b>Tue 4/29/25</b>	<b>Thu 8/7/25</b>																								
98	Complete 100% Documents for Bidding	35 days	Tue 4/29/25	Mon 6/16/25																								
99	<b>Bidding</b>	<b>44 days</b>	<b>Mon 6/2/25</b>	<b>Thu 7/31/25</b>																								
100	Advertise, Issue , Open Bids & Award	40 days	Thu 6/12/25	Wed 8/6/25																								
101	Notice to Proceed	1 day	Thu 8/7/25	Thu 8/7/25																								
102	<b>Module 7 - Construction*</b>	<b>859 days*</b>	<b>Mon 8/4/25</b>	<b>Thu 11/16/28</b>																								
103	Module 7: New Building Construction	450 days	Tue 8/26/25	Mon 5/17/27																								
104	Module 7: Building Finishes	55 days	Tue 5/18/27	Mon 8/2/27																								
105	Move-In	1 day	Tue 8/3/27	Tue 8/3/27																								
106	Module 7 - Demo of Existing Building & final site work	258 days	Tue 8/3/27	Thu 7/27/28																								
107	Module 7 - Final Site work and Building Finishes	68 days	Wed 8/2/28	Fri 11/3/28																								
108	Substantially Complete	1 day	Mon 11/6/28	Mon 11/6/28																								

CMS - PSR Option NC1 (700) 06.27.2023	Task		Project Summary		Manual Task		Start-only		Deadline	
	Split		Inactive Task		Duration-only		Finish-only		Progress	
	Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
	Summary		Inactive Summary		Manual Summary		External Milestone			



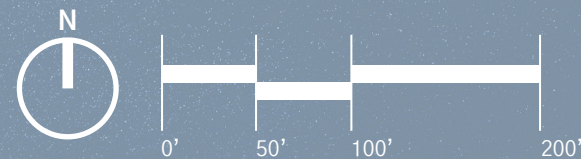
# CLINTON MIDDLE SCHOOL

100 W Boylston St. Clinton MA 01510

## FEASIBILITY STUDY

3.3.4 Preferred Solution  
NC-1 New Construction

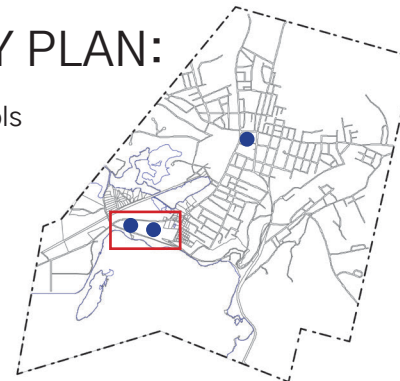
Total: 40.24 Acres  
Developed: 24.22 Acres



### NOTES:

### QUADRANT KEY PLAN:

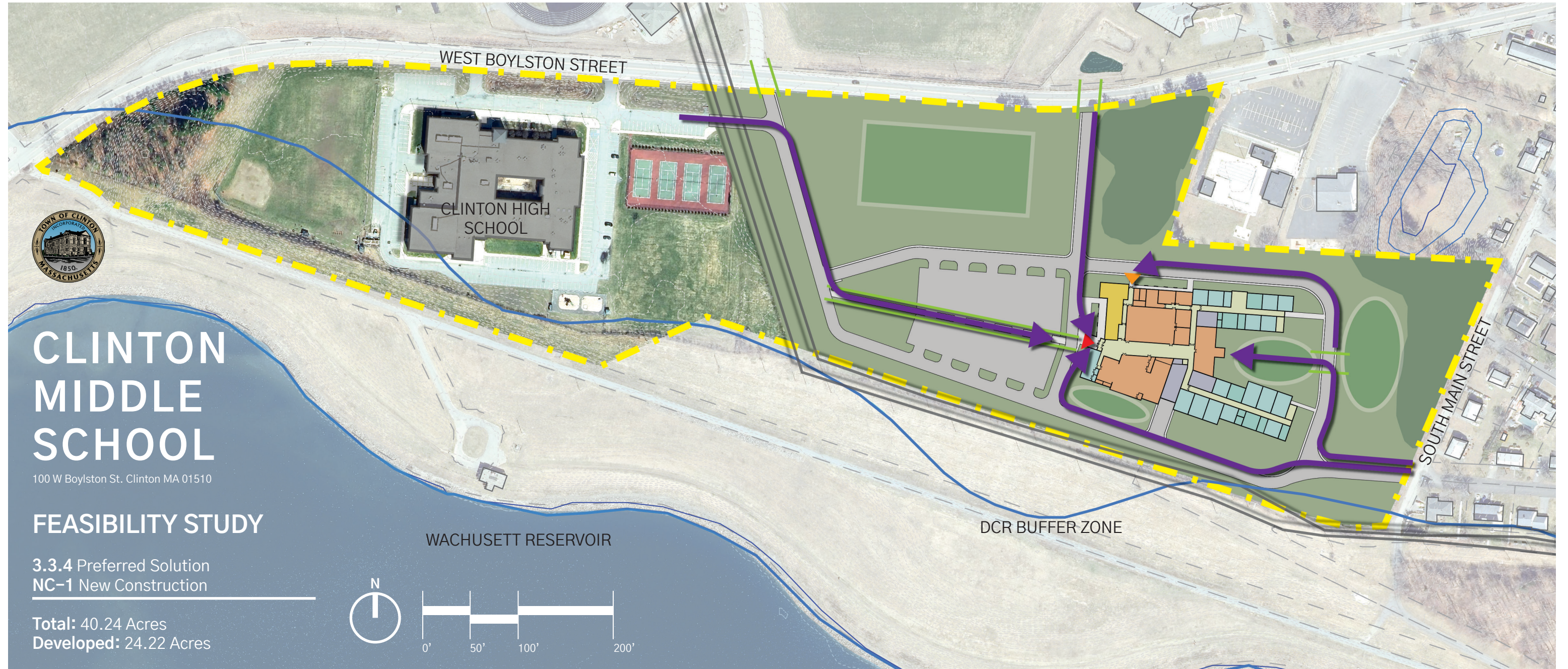
- Existing K-12 Schools
- Proposed Site



### LEGEND:

- ▶ MAIN ENTRANCE  
Locked Down after Student Arrival
- Bus Circulation
- ▶ Gym Access to Field
- Parent Circulation
- Pedestrian Crossing
- Access Road
- Staff Access





**CLINTON MIDDLE SCHOOL**  
100 W Boylston St. Clinton MA 01510

**FEASIBILITY STUDY**

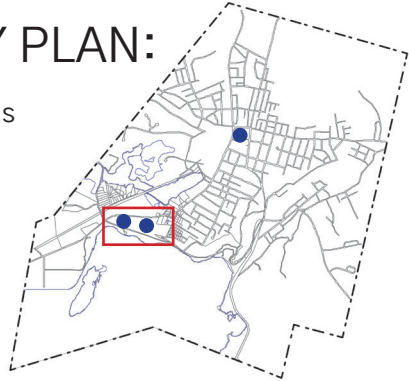
3.3.4 Preferred Solution  
NC-1 New Construction

Total: 40.24 Acres  
Developed: 24.22 Acres

**NOTES:**

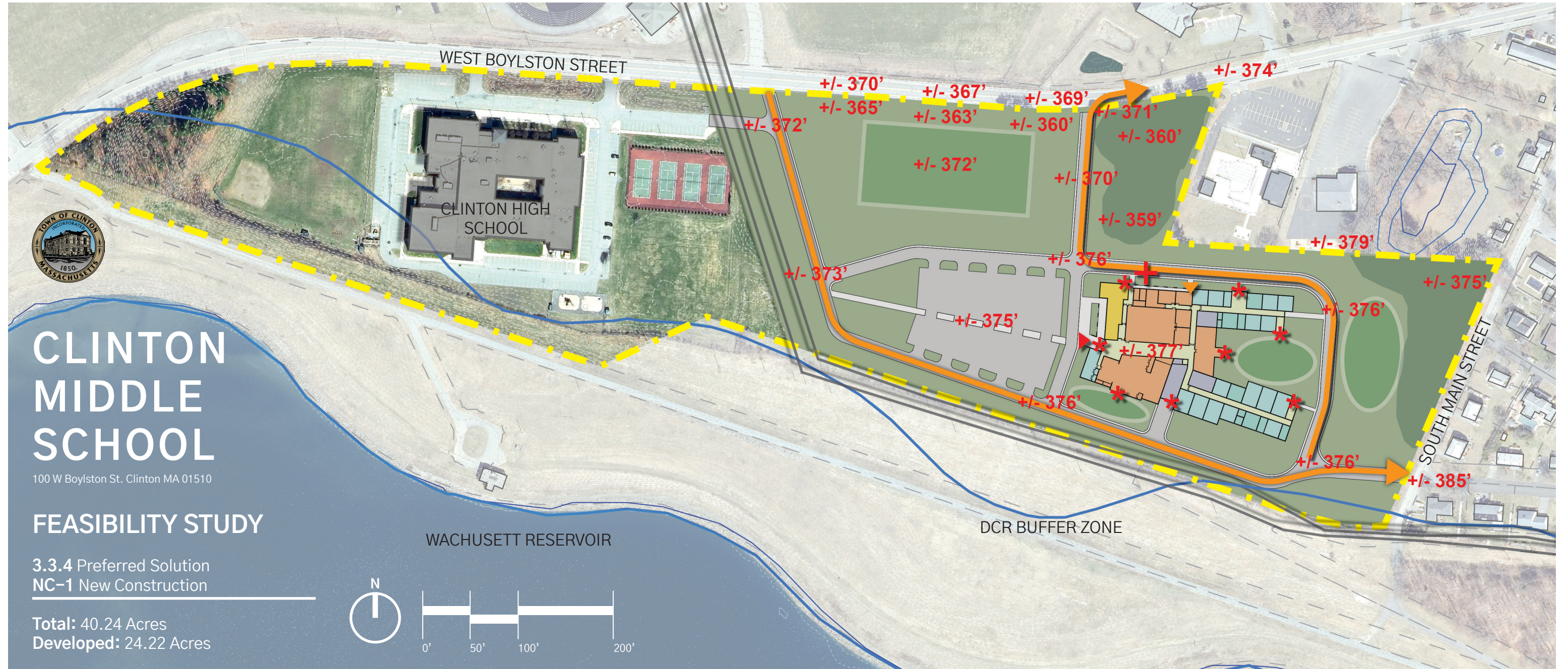
**QUADRANT KEY PLAN:**

- Existing K-12 Schools
- Proposed Site



**LEGEND:**

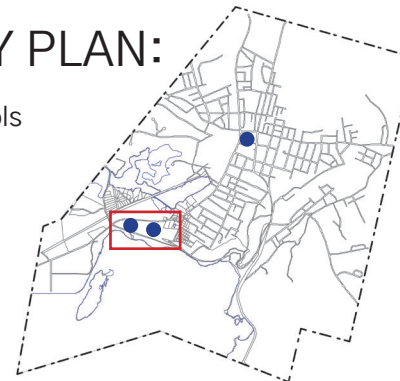
- ▶ MAIN ENTRANCE  
Locked Down after Student Arrival
- ▶ Gym Access to Field
- ▬ Pedestrian Path (Accessible)
- ▬ Pedestrian Crossing



NOTES:

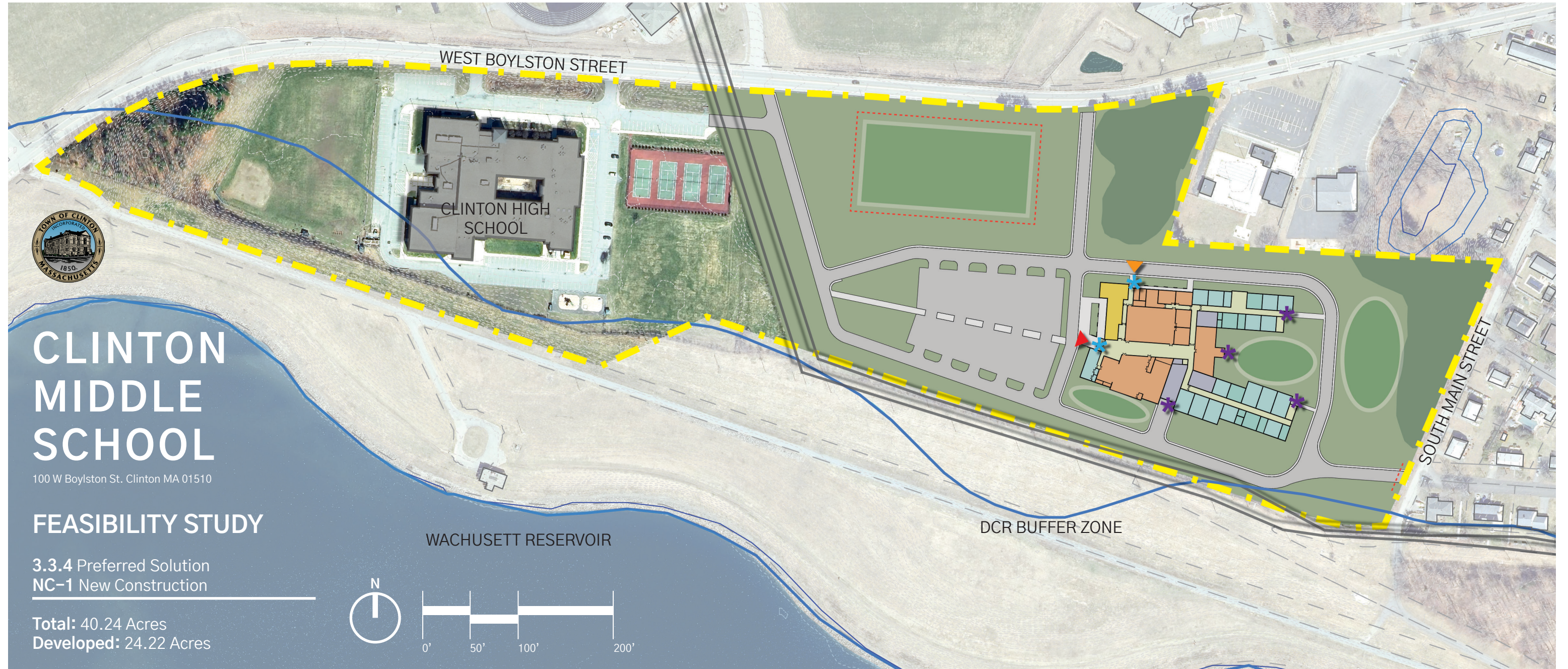
QUADRANT KEY PLAN:

- Existing K-12 Schools
- Proposed Site



LEGEND:

- ▶ MAIN ENTRANCE
- ▶ GYM ACCESS
- + AMBULANCE ACCESS  
Exit from Medical Suite
- \* EGRESS DOOR/STAIR
- ➔ EMERGENCY VEHICLE ACCESS



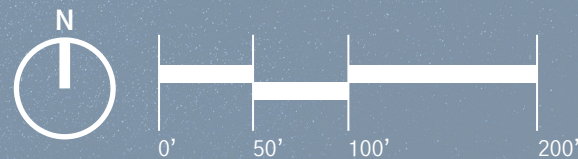
# CLINTON MIDDLE SCHOOL

100 W Boylston St. Clinton MA 01510

## FEASIBILITY STUDY

3.3.4 Preferred Solution  
NC-1 New Construction

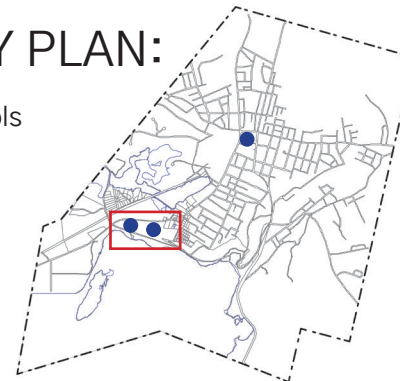
Total: 40.24 Acres  
Developed: 24.22 Acres



### NOTES:

### QUADRANT KEY PLAN:

- Existing K-12 Schools
- Proposed Site



### LEGEND:

- ▶ MAIN ENTRANCE  
Locked Down after Student Arrival
- ▶ GYM ACCESS TO FIELDS
- ⋯ FENCE/GATE
- ✱ VIDEO ENTRANCE SYSTEM
- ✱ KEY FOB ENTRANCE (Staff Only)



**TOWN OF CLINTON**  
*Office of the Selectmen*  
242 Church Street,  
Clinton, Massachusetts 01510  
Tel: (978) 365-4120 • Fax: (978) 365 4130

BOARD OF SELECTMAN

Edward J. Devault  
Mary Rose Dickhaut  
Sean J. Kerrigan  
Matthew H. Kobus  
Julie K. Perusse

Michael J. Ward  
*Town Administrator*

06/27/2023

Ms. Mary Pichetti  
Director of Capital Planning  
40 Broad Street  
Boston, Massachusetts 02109

Dear Ms. Pichetti:

The Clinton Middle School Permanent Building Committee ("PBC") has completed its review of the Feasibility Study Preferred Schematic Report for the Clinton Middle School (the "Project"), and on June 27<sup>th</sup>, 2023, the PBC voted to approve and authorize the Owner's Project Manager to submit the Feasibility Study related materials to the MSBA for its consideration. A certified copy of the PBC Preferred Schematic Vote Certification and meeting minutes, which include the specific language of the vote and the number of votes in favor, opposed, and abstained, are attached.

Since the MSBA's Board of Directors invited the town to conduct a Feasibility Study on March 2, 2022, the PBC has held 13 meetings regarding the proposed project, in compliance with the state Open Meeting Law. These meetings include:

- **August 09, 2022**
- **August 30, 2022**
- **September 27, 2022**
- **November 01, 2022**
- **November 29, 2022**
- **December 20, 2022**
- **January 10, 2023**
- **February 06, 2023**
- **March 07, 2023**
- **March 21, 2023**
- **April 25, 2023**
- **June 06, 2023**
- **June 20, 2023**

Notices for these meetings were posted and made available for public review in Clinton Middle School (100 W. Boylston St, Clinton, MA 01510). Notices were also made available on our project website.

In addition to the PBC meetings listed above, The Town held Community Visioning Sessions and public meetings. (Which was posted in compliance with the state Open Meeting Law, at which the Project was discussed. These meetings include:

- **January 30<sup>th</sup>, 2023** – Teacher/Facility and Resident Visioning Session with Owner's Project Manager DWMP, and Designer LPA|A, students from Clinton Middle School and Superintendent of Schools Steve Meyer. Topics discussed: Project and Visioning Overview, Future Ready Teaching and Learning, Priority Goal Setting, Design Patterns, Blue sky ideas, and Q&A.



# TOWN OF CLINTON

Office of the Selectmen

242 Church Street,

Clinton, Massachusetts 01510

Tel: (978) 365-4120 • Fax: (978) 365 4130

BOARD OF SELECTMAN

Edward J. Devault  
Mary Rose Dickhaut  
Sean J. Kerrigan  
Matthew H. Kobus  
Julie K. Perusse

Michael J. Ward  
Town Administrator

- **February 3<sup>rd</sup>, 2023** – Student Visioning Session with Owner’s Project Manager DWMP, and Designer LPA|A, students from Clinton Middle School and Superintendent of Schools Steve Meyer.
- **March 15<sup>th</sup>, 2023** – All Board Public Meeting with Owner’s Project Manager DWMP, Designer LPA|A, and Superintendent of Schools Steve Meyer. Topics discussed: Project Team & Organization, Process & Schedule, Educational Goals & Programming, and Existing Conditions Overview.
- **June 14<sup>th</sup>, 2023** – All Board Public Meeting with Owner’s Project Manager DWMP, Designer LPA|A, Superintendent of Schools Steve Meyer, Topics discussed: Building Options with cost estimates

The presentation materials for each meeting, meeting minutes, and summary materials related to the Project are available locally for public review by visiting the school’s project website:

[www.clintonmiddleschoolbuildingproject.com](http://www.clintonmiddleschoolbuildingproject.com) > **Committee**  
([Clinton Middle School Building Project](#))

To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, §§ 18-25 and 940 CMR 29 *et seq.*

If you have any questions or require any additional information, please contact the Owner’s Project Manager, Dore & Whittier Management Partners, at (978) 499-2999.

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By:  
Michael Ward  
Title: Chief Executive Officer & Town Administrator

Date: 7/7/23

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By:  
Steve Meyer  
Title: Superintendent of Schools

Date: 7/7/23

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By:  
Brendan Bailey  
Title: Chair of the School Committee

Date: 7/7/23



## CLINTON PUBLIC SCHOOLS

150 School Street  
Clinton, Massachusetts  
978-365-4200  
FAX: 978-365-5037  
Email: smeyer@clinton.k12.ma.us

## SCHOOL COMMITTEE

Brendan Bailey  
Joel Bates  
Pam Gaw  
Matthew Varakis  
Tena Zapanits

Dr. Steven Meyer  
*Superintendent*

March 7, 2023

### *REGARDING: Grade Configuration for the Clinton Middle School Project*

To Whom It May Concern,

On February 13th, during open-session of a Clinton Public Schools School Committee meeting, the School Committee unanimously voted in favor of pursuing a 4-8 grade configuration with an enrollment of 700 students for the Clinton Middle School MSBA project. A copy of the approved minutes reflecting this vote are attached to this letter.

Prior to making this decision, the School Committee was presented with information regarding the current enrollment of the district. The handout that was included in the school committee packet is attached to this letter. The summary of CPS enrollment can be seen in the table below:

CPS Enrollment						
	17-18	18-19	19-20	20-21	21-22	22-23
<b>CES</b>	680	824	837	755	817	840
<b>CMS</b>	746	578	603	581	578	545
<b>CHS</b>	457	456	460	491	510	587
<b>Total</b>	1883	1858	1900	1827	1905	1972

The decision for this grade configuration came down to two main reasons:

- **Unanticipated Growth in the District:** the enrollment at CPS continues to climb, and many of these students are immigrating to the United States and doubling up with other family members. This is a growth factor that we do not feel was accounted for in the enrollment certification process. The school committee does not want to invest significant resources into a project and then have the district run out of space.
- **The need for Space at Clinton Elementary School:** Grade four was in the Middle School up until the 17-18 school year. At that time, the fourth grade was moved to CES due to the large “bubble grades” at CMS. CES currently has a long waitlist for Pre-Kindergarten, and we are expecting universal Pre-K to be a reality in the near future. CPS needs the space at CES for early childhood education.

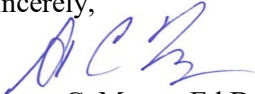
The only concern expressed regarding moving in this direction was the cost of the project and the question regarding the cost differential of building a school for 700 students in grades 4-8 versus the cost of building one for 550 students in grade 5-8.

Also, it should be noted that the school committee made this decision with the understanding that all MSBA Projects are done to support the educational programming of the building. Thus, if fourth grade

students are located in the building then the building project will plan to have areas that are developmentally appropriate for fourth grade students.

If you have any questions regarding this vote, please feel free to contact my office at (978) 365-4200.

Sincerely,

A handwritten signature in blue ink, appearing to read 'S. Meyer', written over the word 'Sincerely,'.

Steven C. Meyer, Ed.D.  
Superintendent

**School Committee Meeting**  
**High School Library**  
**Monday, February 13, 2023**  
**7:00 PM**

**School Committee Members Present:** Brendan Bailey, Joel Bates, Matthew Varakis, Tena Zapantis, and Pam Gaw.

**Administrators Present:** Superintendent Steven Meyer, Loretta Braverman, Scott Czermak, Alyssa Piermarini, Courtney Harter, Shannon Reilly, and Meghan Silvo.

**Others Present:** Dave Derezinski, Robin Quist, Judy McGrail, Cathy Small, Carolyn Dervin, Nancy Munoz, Katie Dunn, Sam Kenyon, Tiffany Najera, Teomi Cole, Dave Hilton, Amy Scavone, Lauren Ortgiesen, Christine Zentgraf, and Kelly Santucci.

The following students were in attendance with their family members: Owen Breidel, Grady Poole, Liliannis Rivera Santos, Carly Henry, Guadalupe Castillo, Matthew Hanson, Hayden Kaizer, Andrew Desiata, Symiah Osei, Sophia Santos, Jocelyn Ziegler, Caleb Despotopulos, Kris Bayard, and Noah Bishop.

**Media Present:** Jan Gottesman

The meeting was called to order at 7:00 pm with a Pledge of Allegiance to the Flag.

**Approval of Bills-** Chair Bailey made a motion to approve the Schedule of Bills as presented. Bates moved and Gaw seconded to approve the Schedule of Bills as presented. The motion passed 5-0.

**Approval of Minutes-** Bates moved and Vice Chair Varakis seconded to approve the Minutes from the January 26, 2023 Meeting. The motion passed 5-0.

**Celebrations-** The following students were recognized as students of the month:

CES Grady Poole (December), Liliannis Rivera Santos and Carly Henry (January), Guadalupe Castillo (February)  
CMS Matthew Hanson 5, Hayden Kaizer 6, Andrew Desiata 7, Jimboy Pagatpatan 7/8, Saudy Pu Calderon 8 (December)  
Symiah Osei 5, Sophia Santos 6, Jocelyn Ziegler 7, Alexis Gour 7/8, Caleb Despotopulos 8 (January)  
CHS Noah Bishop (December) and Kris Bayard (January)

The following staff were recognized as staff of the month:

CES Nancy Munoz (December), Katie Dunn (January), Sam Kenyon (February)  
CMS Tiffany Najera (December) and Teomi Cole (January)  
CHS Jack Jillet (December) and Dave Hilton (January)

**Public Comment-** None at this time.

**Student Representative-** Noting to report.

**CTA-** Robin Quist said things have been quiet with it being a non-contract year. She said she was impressed with how helpful and responsive John Kittredge has been with the recent health insurance provider change and she wanted to recognize him for being so helpful.

Chair Bailey spoke and said he appreciates the communications during the past bargaining sessions and said it was thanks to Dr. Meyer and the CTA bargaining units. Bates said it is a testament to a working partnership that we have with our teachers and the respect we have for our teachers and all they do.



Quist said she tells the new teachers that we are family in Clinton and that we take care of each other and always come together for the children. The board thanked Mrs. Quist.

**PTA-** Nothing to report

**SEPAC-** Nothing to report.

**ELPAC-** Nothing to report.

### **Superintendent Report**

**Staffing Updates-** Dr. Meyer announced that Rachel Gibson who was the before and after school care coordinator has transferred to be a preschool IA at CES. She is still helping with the program until that position is filled. Dr. Meyer said he has interviewed candidates and is hoping to fill the position soon. He also announced that CMS reading teacher Lynn Hevy has submitted a maternity leave request.

**CMS/MSBA Update-** Dr. Meyer said it has been a busy few weeks, they had the Tri-Council and School Committee meeting with LPAA and Dore+Whitter, distributed student and staff surveys, completed focus visioning sessions with multiple departments and staff to determine needs and visions, toured three middle schools, and held an interactive virtual community visioning session. On February 3<sup>rd</sup> student focus group visioning sessions were held in the morning and a faculty session in the afternoon both were facilitated by the educational consultant. On the 6<sup>th</sup> we met with different groups of teachers and staff to gather information on what they would like to see with the new building. This information will be looked at and figured into what the MSBA square footage template is and then it will be determined what will work and what may not be reimbursed. Dr. Meyer said he and Mike Ward are meeting with the OPM to start looking with the bond council regarding the debt capacity for the town and what various levels the project may mean financially. Dr. Meyer said there is a building committee meeting on March 7<sup>th</sup>, the designers will give proposal options for the project, on March 15<sup>th</sup> there will be an all boards meeting at the town hall, the initial proposals will also be shared at this meeting with the initial costs. This is a public meeting, all are welcome to attend and vote. On the 21<sup>st</sup> there will be a building committee meeting, during this meeting three proposals will be chosen for further study. The goal is to have the preferred design by this June, then vote to fund the project in June of 2024, and have a target completion date of fall of 2027.

**Enrollment Trends and MSBA Scenarios-** Dr. Meyer reviewed the MSBA/CMS enrollment options chart, he said one option is to look at a building project that can handle 550 students in grades 5 through 8 or a second option that would be 700 students in grades 4 through 8. Dr. Meyer said it is better to determine early on what path we would like for the design process. Dr. Meyer reviewed the enrollment numbers for the past few years and said we should consider there may be a universal pre-k program in the future, the possibility that we may have to house more pre-k classes, and the vocational enrollment if the Assabet admission patterns continues. He said we want to make sure the new school design will be able to accommodate the student population and feels the smart roll if we are looking long term is to pursue the grade 4-8 option. He said many parents stated they want to keep the fourth grade at the elementary school but if we are building a new building project it will be designed for fourth graders. Dr. Meyer asked the committee if they had any thoughts on the enrollment numbers. Bates said it is very helpful to look at enrollment trends over the past six years and asked if there are models in town that are reliable to project enrollment for future years. Dr. Meyer responded that we were required to collect this data for the MSBA and he feels that what we are seeing at this point is not captured in these numbers. He said many families are doubling up in a household and that is not captured in new housing, he said this is a concern if this trend continues, we may run out of space in the elementary school. Vice Chair Varakis said it is important to consider the larger numbers and if we have the opportunity to build the configuration for grades 4 through 8 to maintain flexibility of what we may grow into makes sense. Bates agreed. Dr. Meyer said if the board feels prepared to make an endorsement they may do so. Vice Chair Varakis made a motion to endorse the grade configuration to be grades 4 through 8, Bates seconded the motion. The motion passed 5-0.

**Social Emotional & Physical Wellness -** Dr. Meyer briefly reviewed the Social Emotion and Physical Wellness pages from the Strategic Plan. He said Chris Herren visited CHS in December and they are continuing the safety committee meetings.

### **Community Engagement-**

Dr. Meyer said we are continuing to build messaging and communication with the community particularly around the building project and continue to figure out ways to engage people in the process.

**Environmental Studies-** Dr. Meyer said there are two environmental studies that are being conducted in the district. The first study is next to the central office building, there was an oil tank leak at the church next to the building and an oil tank that was filled with concrete back in 1996. Ground samples are being gathered to make sure there is no contamination in ground or water in this lot. The second study that will be conducted is located in the parking lot between the elementary school and the fire station. The fire department performed trainings with a fire suppressant chemical that was later determined to be hazardous. They will be testing the area in the catch basin and may begin testing areas in the kindergarten playground to make sure there are no containments. This testing will take place during February vacation when the students are not in school. If contaminants are found they will remove the contaminated soil/earth and replace it with new soil.

**Tiered Focus Monitoring Special Education Review-** Loretta Braverman said the district is almost done with the review, the last submission is due by the end of the week. Ms. Braverman reviewed the CPS Special Education Program Review TFM submission handout. She said ten of the eleven criteria were found to be implemented in the district. The district is in compliance but had one area that was not met. This area was conducting special education evaluations every two years. Braverman said the evaluations that were started in 2020 were not completed due to COVID and marked as partially implemented. Braverman said all of the evaluations have now been completed. Braverman said an outside consulting agency was hired to look at our district and were asked two questions; do students with disabilities have access to inclusion and rigorous coursework and achievement with student with disabilities as compared to students with disabilities across the state as well as their non-disabled peers within the district. Braverman said we do have work to do in order to be in alignment with the state percentages and our goal is to surpass the state percentages. It was also found that students that are included more tend to do better on MCAS testing. The recommendations that were given were to meet the needs of all learners in the least restrictive environment, Braverman said there are things we can do to improve. CES has established a co-taught model that was found to be exemplary. CMS and CHS do have some classrooms that are labeled co-teaching but really do not have a true co-teaching model. It was recommendation to increase that. It was positively noted that CMS and CHS do have a flexible program for students that have social and emotional needs. The consultants met with staff to reviewed the findings and spoke on how to increase those opportunities for inclusion. Braverman met with Dr. Meyer to discuss strategy to do this, the plan is to target 5<sup>th</sup> grade for next year so they will have a similar model as CES. Dr. Meyer said it is encouraging that the hard work was noted at CES, and the intent all along was to roll this model up to the other schools.

**Institutional Self-Evaluation-** Dr. Meyer reported a survey was sent to teachers and advisors to look at demographics and make sure there are no limitations on participation. Equity walks were performed by Dr. Meyer and he is working on compiling data for final submission for corrective action, the plan is due at the end of the week.

### **Chairperson's Report**

#### **Advisory Committees**

**Curriculum Committee-** Nothing to report.

**Safety Committee-** Dr. Meyer said he met with a representative from the AED company and discussed replacing the current units with new, updated, multi-lingual models. The current units are working but are 15 years old. They are also looking to add stop bleed kits to the district. Dr. Meyer is in the process of finalizing quotes and will bring the quotes back to the board for review. Discussion was held about portable AED machines and if they were accessible to the fields. Dr. Meyer said they are kept in the field house and sheds in the fall and spring, and there is also an AED machine on the gator that travels around the fields during games and events. Vice Chair Varakis spoke about the possibility of extending the RAVE technology that the town has to extend emergency communication with the school if needed.

**Marketing Committee-** Zapantis said they had a meeting this evening and discussed working out some kinks with the new website. She said the primary focus will be on the marketing of the new school project.

**Policies and Procedures Committee-** Dr. Meyer said the policy committee met with lead nurse Amy Mason to review the following medical policies: EBB-1, EBBC, EEAE, GBGB, IMG, JLCA, JLCB, JLBA, JLC, JLCD. There were minimal changes made to adopt the policies to the MASC model policies. Dr. Meyer asked the board to approve the policies with the exception of policy JLCA; he would like to table JLCA at this time due to the lead nurse having questions and requesting further review. Bates moved to approve the bundle of policies that were reviewed with the policy subcommittee with the exception of JLCA, Zapantis seconded. The motion passed 5-0.

**Facilities-** Nothing to report.

**Sub-Committee**

**Negotiations-** Nothing to report.

**Old Business-** Nothing to report.

**New Business-** Dr. Meyer spoke about the 2<sup>nd</sup> Quarter financial update that was included in the packet. He said some salary lines are showing overspent but will balance out now that the contracts have been finalized. He said some salaries could be moved to Esser grants if needed and he feels we are trending okay.

**Adjournment-** At 8:07 pm Vice Chair Varakis moved and Bates seconded to adjourn. The motion passed 5-0.

Respectfully Submitted,

*Kelly Santucci*

Kelly Santucci

School Committee Secretary

Meeting Documents:

February 13, 2023 Agenda

Schedule of Bills

FY23 Quarter 2 Report

January 26, 2023 Minutes

Staffing Updates

CMS School Project Visioning Process & Upcoming Dates

MSBA/CMS Enrollment Options

Social Emotional & Physical Wellness Strategic Plan

Community Engagement Strategic Plan

CPS Special Education Program Review 2022/2023 TFM Submission

EBB-1 Life Threatening Allergy Policy

EBBC Automated External Defibrillator (AED) Policy

EEAE School Bus Safety Program Policy

GBGB Staff Personal Security and Safety Policy

IMG Animals in Schools Policy

JLCA Physical Examinations of Students Policy

JLCB Immunization of Students Policy

JLBA Pediculosis (Head Lice) Policy

JLC Student Health Services and Requirement Policy

JLCD Medication Administration to Students Policy

**School Committee Meeting**  
**High School Library**  
**Monday, March 6, 2023**  
**7:00 PM**

**School Committee Members Present:** Brendan Bailey, Matthew Varakis, Tena Zapantis, and Pam Gaw.

**Administrators Present:** Superintendent Steven Meyer, Loretta Braverman, Scott Czermak, Courtney Harter, and Meghan Silvo.

**Others Present:** Dave Derezinski, Robin Quist, Judy McGrail, Kimberly Friedrich, Kelly Turcotte, Paige Johnston, Michelle Elliot, and Kelly Santucci.

**Media Present:** Jan Gottesman remote

The meeting was called to order at 7:00 pm with a Pledge of Allegiance to the Flag followed by a Moment of Silence for Irving Murstein, father to Brenda Disessa.

**Approval of Bills-** Chair Bailey made a motion to approve the Schedule of Bills as presented. Zapantis moved and Vice Chair Varakis seconded to approve the Schedule of Bills as presented. The motion passed 4-0.

**Approval of Minutes-** Gaw moved and Zapantis seconded to approve the Minutes from the February 13, 2023 Meeting. The motion passed 4-0.

**Public Comment-** None at this time.

**Student Representative-** Paige Johnston reported the boys' basketball team won the Mid Wach C League and CMADA Tournament, the team has qualified for the State Tournament. There will be a blood drive at CHS on Thursday, March 16<sup>th</sup> from 8am to 1pm, you can register online with code M038, walk-ins are welcome. Dr. Meyer spoke about the digital ticket QR code required by the MIAA for admission ticket, he said this is not our regulation it is the MIAA. Clinton is only the host location for this event.

**CTA-** Robin Quist said they were able to have the February union meeting. She said they had positive discussion regarding the recent lockdown and are eager to have more training during the professional development day scheduled for March 13<sup>th</sup>. Quist said she noticed that the High School had curtains covering the windows by the doors in the classroom, she said this was a good idea and something she would like to incorporate at the Middle School. Quist said the teachers thought positively of the letter Dr. Meyer had written for the teachers to read to their students the day following the incident. Dr. Meyer mentioned that a survey will be given at the professional day to gather input for any concerns or suggestions. The board thanked Mrs. Quist.

**PTA-** Kelly Turcotte said the next meeting will be Wednesday, April 5th at 6:30 pm in the CES library. There will be a Family Bingo Night at the Middle School with some great raffle baskets held on Friday, March 10<sup>th</sup>, doors open at 5:30 pm, it is ten dollars to play. She thanked the community for helping with the raffle baskets. Turcotte reported that there will be changes to the Board, Shannon Abram has stepped down from her position of Co-Vice President, Kelly and Amy Bishop will be stepping down at the end of the school year. She is happy to say there is a new wave of parents that will bring the PTA to the next level. Turcotte expressed her thanks to all who had made this opportunity so amazing for her during her past years serving the Clinton Public Schools. She said it has been an honor and pleasure to work with so many parents, teachers, and administrators. Nominations for the board will take place in May, elections at the end of June.

**SEPAC-** Kelly Turcotte reported the next meeting will be held on Tuesday, March 7<sup>th</sup> at 6:30 pm in the CES library. Turcotte thanked BCBA Stacey LaBak for speaking at the last SEPAC meeting, she was a wealth of information and supportive to the families. There will be coffee with the Assistant Superintendent Director of Pupil Services on April 4<sup>th</sup> from 5-6pm in the CES library. This will be an informal time for parents and caregivers to ask questions and gain more information about Special Education. May 2<sup>nd</sup> is the Basic Rights meeting. They will continue to break down IEPs for parents and families through the rest of the year. The SEPAC will be running the concession stand at the play on March 24<sup>th</sup> and 25<sup>th</sup>. The proceeds will be split between the two SEPAC scholarships and the David S. Almond Memorial Scholarship. The Board thanked Kelly.

**ELPAC-** Nothing to report.

### **Superintendent Report**

**EF Tours – Paris/Barcelona Trip Details-** CHS teacher Michelle Elliot addressed the Board and spoke about the upcoming trip to Paris and Barcelona. They will leave on April 14<sup>th</sup> and return on April 21<sup>st</sup>, spending 3 days in each country. They will depart CHS and be transported to the airport by Knight's Limo. Twenty-six students and four teacher chaperones will be traveling. The student travelers have purchased the global travel protection plan, students have signed a no alcohol permitted on tour contract, and have agreed to the rules of the road. At this time, the countries that they are visiting are not requiring COVID vaccines or proof of negative COVID tests. Masks will be provided if they are required to wear them in certain locations. If a traveler tests positive for COVID they will follow the local guidelines. The travel company COVID protection plan provides benefits related to hospital bills, doctor's fees, and medical transportation if required. Elliot said she will have updated information after the next meeting scheduled for March 30<sup>th</sup>. Dr. Meyer said it is nice that EF Tours have expanded the protections due to COVID and hopes they have a smooth trip.

**Staffing Updates-** Dr. Meyer reported Felicia Bradley and Stacey LaBak from CMS have both submitted maternity leave requests.

**Business Manager-** Dr. Meyer asked for the Board's recommendation to appoint Annette Colón from the Assistant Business Manager position to the full-time Business Manager position. Dr. Meyer said Mr. Fratto, the current part-time Business Manager will now be in a coaching type role instead of part-time. Vice Chair Varakis made a motion to execute Dr. Meyer's succession plan to appoint Annette Colón to the Business Manager position, Zapantis seconded. The motion passed 4-0.

**Debrief of 2/14 Incident-** Dr. Meyer spoke about the swatting incident that occurred on February 14<sup>th</sup>. He said the incident being a hoax was the best result, it was a good learning experience. They will be looking to communicate more information on the lockdown and shelter in place guidelines to staff. There were some concerns with being in lockdown for the extended period of time. Most crisis situations are neutralized from a lockdown to a shelter in place within a matter of minutes; due to the nature of this incident we were in lockdown for longer period of time. Dr. Meyer said they will review the protocol at the professional development day scheduled for March 13<sup>th</sup> and have the staff complete a survey to gather more input. He also noted that the communication sent out to parents was an issue because the messages were not translated for non-English speaking families. In the future the calls will be translated in Spanish and Portuguese to make sure the information is more clear to all parents. The Family Outreach Liaisons will be helping with the translations. Another area of concern during the incident was cell phone use, Dr. Meyer said it is important to communicate to the students to keep the lines open during an emergency and to not send miss-information. Dr. Meyer said they will discuss protocol about door entry identification and the importance of individuals identifying themselves outside of a closed or locked door. He said overall the staff and students handled the situation well.

Zapantis said it was obvious how well prepared we were during the situation and said it was all handled well.

Judy McGrail made a comment that the communication to parents was outstanding.

Chair Bailey spoke about the importance of having a School Resource Officer and talked about how many town departments came together to help during the incident. He thanked Dr. Meyer for waiting to send accurate updates and spoke about the importance of the need for accurate information to address any social media rumors, he said the constant communication from the district put those rumors to rest. He applauded all departments that helped during this situation.

Dr. Meyer said everyone worked together.

Vice Chair Varakis commented on how well the staff came together and how organized the dismissal process was after the incident.

**AED Purchase-** Dr. Meyer spoke about the quotes for purchasing new AED machines. He said he would like to replace 9 AED machines that are 15 years old with updated bilingual versions. He would like to move forward with the purchase using funds from either the gift and donations account or the rental facilities account. The board agreed to move forward with the purchase for nine updated AED machines.

**Stop the Bleed Kits-** Dr. Meyer said he would like purchase one Stop the Bleed Station kit to see if it may be a product that we would like to have with the AED machines. The kits contain items to triage individuals until help is available. Dr. Meyer asked for the Board's approval to purchase one kit funding it from either the gift and donations or rental facilities account. The Board gave their approval.

**Preliminary Cherry Sheet-** Dr. Meyer reviewed the FY24 Preliminary Cherry Sheet estimates. He said the Chapter 70 funding is up \$1.9 million, the charter tuition is down approximately \$64,000 and the school choice receiving is down approximately \$30,000. The school choice sending tuition also went down. The town unrestricted government aid went up approximately \$55,000, this will be kept in mind during the budget process. He said when the Chapter 70 goes up and the money from the state goes up, the expected contribution from the town also increases. He said we have been above minimum contribution.

**Budget Version A-** Dr. Meyer said he met with the administration team last week and worked on the preliminary budget version A. He said the preliminary budget had a general fund increase of \$2.4 million, our goal for the meeting was to remove \$556,000 from the budget so we do not exceed the Chapter 70 increase. He said we were able to reduce it by \$200,000. Dr. Meyer reviewed the preliminary budget version A changes. There were a couple special education tuitions that were are no longer financially responsible for. We did budget for a full-time athletic director, we are going to cut that and keep the part time position. The part-time athletic director salary has been moved from the school choice account to the general fund, that way if we do want to add the full-time position it will come from the general fund. There is an unfilled SLIFE teacher position that was budgeted this year but it is unfilled so this was removed. They would like to add another Family Liaison to have one at each school to support the buildings. There was a proposed guidance counselor position budgeted at CES, this position will be removed keeping the CES school psychologist position. \$25,000 was budgeted for a new scoreboard at CHS, this was removed but will be reconsidered in the future. Some software and textbook purchases were budgeted however we anticipate being able to cover those with grants. CMS special education teacher is not needed at this time, will readdress in the future if needed. There was a reduction in salary due to retiree replacements. Dr. Meyer said he would like to talk to the Finance Committee to see what they are thinking, he would like the budget to work for both the town and school, and would like to get a firm proposal to the Finance Committee soon.

Chair Bailey asked when the approved budget is release from the state house. Dr. Meyer responded it is usually in June but due to the new Governor it may be pushed out. He said historically Chapter 70 money does not go down. Dr. Meyer said this is the third year of the Student Opportunity Act implementation, it is scheduled to be phased in over a six-year period. They are still making adjustments to the categories that are leading to our increase in Chapter 70, we could possible expect an increase in the coming years. He said we want to use the money to do the best for our students and keep an eye on sustainability. Dr. Meyer said he may try to introduce this budget to the Finance Committee at the All Boards meeting.

**FC 186 immigrant Children and Youth Grant-** Dr. Meyer spoke about the Title III, Part A: Immigrant Children and Youth grant. He said we have met the following criteria to be eligible: have 100 or more immigrant students in the district, the district's percentage of immigrant students who are low income needed to exceed 50%, the number of immigrant students enrolled in school year 2023 must be at least 10 more than the average of the prior two years, the percentage of immigrant students enrolled in school year 2023 must be at least 14.5% higher than the average of the prior two years. This grant would help run summer school and would be an opportunity to help serve English Language Learners. Clinton is 1 of 29 districts in the state that is eligible for this grant. Dr. Meyer said we are seeing many of our families in the district doubling up in one household.

**Safer Schools and Communities Initiatives-** Dr. Meyer spoke about the Safer Schools and Communities Initiative grant. He said this is a competitive entitlement grant, we have not received this funding in many years. This grant would be used to address security concerns in the three schools and used to add additional exterior door keycard access to ensure doors remain locked at all times, it would address any PA system issues, and would be used to add more security cameras to address blind spots, it would also be used to address some Wi-Fi dead zone issues. The grant was written with the help of Chris Tahan, he applied for \$50,000 for each school.

**All Boards Meeting-** Dr. Meyer said the Building Committee will be meeting tomorrow. LPAA is going to walk the Committee through their preliminary designs, 2 renovation addition designs and 5 drafted options for new construction. The plan is to share ideas with the Building Committee tomorrow and present the designs again at the All Boards meeting scheduled for March, 15<sup>th</sup> at 6pm at the Town Hall. All are welcome to attend the All Boards meeting, individuals will register upon entering and will be given a sticker, this sticker will be used to vote on the individuals preferred design choice, there will also be an opportunity for community feedback. The design ideas will not have true dollar figures at this point, they will state if one design is more or less than the other. At the next Building Committee meeting they will look at those designs and try to choose three for further study, and at this time will have more accurate cost figures.

**Academic Achievement-** Dr. Meyer reviewed the academic achievement excerpt from the strategic plan. He said CES is looking at developing an instructional handbook, they will use the funds from the turnaround grant and then phase the handbooks through the other two schools in the district. Dr. Meyer said he feels we are in a good place with curriculum mapping. Dr. Meyer said we have to file the SOA report every year, he will share that report with the Board in April.

**Signs/Scoreboards-** Dr. Meyer said he is gathering quotes to replace the scoreboard at CHS and for a new digital message center outside of CES that could possibly also display town events. These items would be purchased from the rental facilities account or possibly the town's ARPA fund.

### **Chairperson's Report**

#### **Advisory Committees**

**Curriculum Committee-** Nothing to report.

**Safety Committee-** Nothing to report.

**Marketing Committee-** Nothing to report.

**Policies and Procedures Committee-** Dr. Meyer spoke about Medical Policy JLCA – Physical Examinations of Students that was previously presented to the Board on February 13, 2023. This policy was held for further review and revisions. Slight wording changes have been made. Dr. Meyer asked the Board to review the changes and made a recommendation for approval. Vice Chair Varakis made a motion to approve Medical Policy JLCA – Physical Examinations of Students, Zapantis seconded.

The motion passed 4-0

**Facilities-** Nothing to report.

**Sub-Committee**

**Negotiations-** Nothing to report.

**Old Business-** Nothing to report.

**New Business-** Dr. Meyer congratulated Chair Brendan Bailey and Tena Zapantis for being recognized honorees at the Leprechaun Society event this Saturday.

**Adjournment-** At 7:55pm Zapantis moved and Vice Chair Varakis seconded to adjourn. The motion passed 4-0.

Respectfully Submitted,

*Kelly Santucci*

Kelly Santucci

School Committee Secretary

Meeting Documents:

March 6, 2023 Agenda

Schedule of Bills

February 13, 2023 Minutes

EF Tours Trip Summary Paris/Barcelona

Staffing Updates

CPS 2/14 Swatting Incident – Debrief

Life Support Systems AED Quotations/Information

FY24 Preliminary Cherry Sheets

CPS Preliminary Budget to Budget Version A Changes 3/2/23

CPS FY24 Budget Version A

FY23 Title III, Part A: Immigrant Children and Youth Grant

Safer Schools and Communities Initiative Grant

All Boards Memorandum

Academic Achievement Strategic Plan

JLCA Physical Examinations of Students Policy





**PERMANENT BUILDING COMMITTEE  
SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
MEETING MINUTES**

Project: Clinton Middle School  
Subject: School Building Committee Meeting  
Location: Clinton Middle School  
Distribution: Attendees, Project File

Project No: 202000640305  
Meeting Date: 06/20/2023  
Time: 6:30 PM  
Prepared By: E. Grijalva

---

Present

<b>Name</b>	<b>Affiliation</b>
Michael Ward*	Town Administrator -PBC Member
Brendon Bailey	School Committee Chair
Steven Meyer*	Superintendent – PBC Member
Brian Farragher	Director of Facilities
Chris McGown*	Chair of PBC, Head of DPW
Chris Magliozzi*	Vice-Chair of PBC
Michael Moran*	PBC Member
Brian Delorey*	PBC Member
Phil Duffy	Director of Community & Econ. Dev.
Trip Elmore	DWMP
Elias Grijalva	DWMP
Peter Caruso	LPAA
Sean Brennan	LPAA
Eric	LPAA

\*PBC Voting Members

---

Description

Action

13.1	<p><b>Call to Order:</b> 6:36 PM meeting was called to order by PBC Chair C. McGown with 6 of 7 voting members in attendance.</p>	Record																																																
13.2	<p><b>Previous Topics &amp; Approval of June 6, 2023, Meeting Minutes:</b> A motion to approve the 06/06/2023 meeting minutes was submitted by S. Meyer and seconded by B. Delorey.</p> <p><b>Discussion:</b> None.  <b>Abstentions:</b> None</p> <p>All in favor, motion passes, June 6, 2023, meetings are certified as approved.</p>	Record																																																
13.3	<p><b>Invoices and Commitments</b></p> <p><b>Invoice 1:</b> Central Mass Signal, LLC June Invoice, in the amount of \$29,687.51</p> <p>A motion was made by C. Magliozzi and seconded by M. Moran for the approval of the Central Mass Signal June Invoice.</p> <p><b>Discussion:</b> None.  <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve Central Mass Signal June Invoice for payment.</p>	Record																																																
13.4	<p><b>Public All Boards Meeting Update</b></p> <p>T. Elmore briefly shares a few pictures from the All-Boards Public meeting that took place on June 14, 2023 and shares the estimated local share cost ranges for each building option, which is represented in the chart below.</p> <table border="1"> <thead> <tr> <th>Evaluation Criteria</th> <th>BR</th> <th>AR-1</th> <th>AR-2</th> <th>AR-1.5</th> <th>NC-1</th> </tr> </thead> <tbody> <tr> <td><b>Enrollment</b></td> <td>-</td> <td>700</td> <td>700</td> <td>700</td> <td>700</td> </tr> <tr> <td><b>Educational Program Fulfillment</b></td> <td>1</td> <td>3</td> <td>4</td> <td>3</td> <td>5</td> </tr> <tr> <td><b>Space Summary</b></td> <td>1</td> <td>3</td> <td>1</td> <td>2</td> <td>5</td> </tr> <tr> <td><b>Site &amp; Facility Goals &amp; Objective</b></td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> <tr> <td><b>Energy Efficient &amp; Utilities</b></td> <td>4</td> <td>4</td> <td>3</td> <td>4</td> <td>4</td> </tr> <tr> <td><b>Construction Phasing Impact</b></td> <td>5-10 YRS</td> <td>4 YRS</td> <td>4 YRS</td> <td>4 YRS</td> <td>3 YRS</td> </tr> <tr> <td><b>Estimated Local Share</b></td> <td>\$113 - \$125M</td> <td>\$78- \$86M</td> <td>\$86- \$95M</td> <td>\$74 - \$81M</td> <td>\$83- \$92M</td> </tr> </tbody> </table> <p><b>Discussion:</b> None</p>	Evaluation Criteria	BR	AR-1	AR-2	AR-1.5	NC-1	<b>Enrollment</b>	-	700	700	700	700	<b>Educational Program Fulfillment</b>	1	3	4	3	5	<b>Space Summary</b>	1	3	1	2	5	<b>Site &amp; Facility Goals &amp; Objective</b>	4	4	4	4	4	<b>Energy Efficient &amp; Utilities</b>	4	4	3	4	4	<b>Construction Phasing Impact</b>	5-10 YRS	4 YRS	4 YRS	4 YRS	3 YRS	<b>Estimated Local Share</b>	\$113 - \$125M	\$78- \$86M	\$86- \$95M	\$74 - \$81M	\$83- \$92M	Record
Evaluation Criteria	BR	AR-1	AR-2	AR-1.5	NC-1																																													
<b>Enrollment</b>	-	700	700	700	700																																													
<b>Educational Program Fulfillment</b>	1	3	4	3	5																																													
<b>Space Summary</b>	1	3	1	2	5																																													
<b>Site &amp; Facility Goals &amp; Objective</b>	4	4	4	4	4																																													
<b>Energy Efficient &amp; Utilities</b>	4	4	3	4	4																																													
<b>Construction Phasing Impact</b>	5-10 YRS	4 YRS	4 YRS	4 YRS	3 YRS																																													
<b>Estimated Local Share</b>	\$113 - \$125M	\$78- \$86M	\$86- \$95M	\$74 - \$81M	\$83- \$92M																																													
13.5	<p><b>SBC/PBC Recap and Discussion</b></p>	Record																																																

**T. Elmore** briefly recaps each 700-enrollment building option as a refresher for discussion and before voting proceeds.

- AR.1(700) Mainly Renovation – 145,500 SQFTT
  - Total Project Cost Range: **\$137 to \$151**
  - MSBA Reimbursement Range: **\$58 to \$65**
  - Potential Local Share Range: **\$78 to \$86**
  - Project Duration: **4 years**
  - Disturbance to the learning environment: **Very High**
  
- AR.2(700) Addition/Renovation – 156,000 SQFTT
  - Total Project Cost Range: **\$148 to \$164**
  - MSBA Reimbursement Range: **\$63 to \$69**
  - Potential Local Share Range: **\$86 to \$95**
  - Project Duration: **4 years**
  - Disturbance to the learning environment: **High**
  -
  
- AR.1.5(700) Addition/Renovation– 150,000 SQFT
  - Total Project Cost Range: **\$134 to \$148**
  - MSBA Reimbursement Range: **\$60 to \$66**
  - Potential Local Share Range: **\$74 to \$81**
  - Project Duration: **4 years**
  - Disturbance to the learning environment: **High**
  
- NC.1(700) New Construction – 136,000 SQFT
  - Total Project Cost Range: **\$135 to \$149**
  - MSBA Reimbursement Range: **\$52 to \$57**
  - Potential Local Share Range: **\$83 to \$92**
  - Project Duration: **3 years**
  - Disturbance to the learning environment: **Low**

**Discussion:**

**C. McGown** shares that his two top options are AR1.5 & NC1.

**C. Magliozi** agrees and states that one option satisfies the educational process. Our school committee and our school department have both said we have an educational problem and a programmatic problem, and you know doing the Base Repair doesn't solve it. Again, see what solves the problem the best and disrupts our children the least. I have a hard time essentially sentencing children for four years of the renovation project.

**S. Meyer** states that you can't overlook the disruption to students.

**P. Duffy** asks what the differences between AR1.5 and NC.1, in terms of fulfilling the educational program.

**E. Moore** explains in any of the reno options, we're constrained by the existing spaces such as the existing cafeteria and gymnasium. We can't move those spaces around. One of the things we talked about was having an area to come in and having that community use of the spaces and having a central area to access both of those. You can't do that when they are on opposite sides of the building. Also, since AR1.5 uses existing spaces, the rooms are not always going to be the right size for what you need and they're not always going to have the right relationship with each other.

**S. Brennan** additionally the other thing that was part of the educational program was to have a nice separation between the upper and lower school. AR1.5 doesn't quite accomplish that. However, in the new construction option, we have a building that is split.

**T. Elmore** states a renovation project versus new construction has very different risks associated with it. There are unknowns that you hit in a renovation project. When you're in the demo phase and you're trying to figure out how to replumb these first-floor areas. You're going to cut out most of these hallway slabs and do you influence any of the structural members underneath? All I'm trying to do here is point out the facts, that there will be unknowns and more risk. So, it's just a factor whereas new construction, you're doing it in sequence, do things in the proper order, and you're not going to impact what's in the ground.

**P. Duffy** asks if you have done soil testing.

**T. Elmore** explains that we have structural soil testing data from the last project, which saved the project money.

**M. Moran** asks what the next steps are.

**T. Elmore** replies that after you pick the option, we'll be moving forward into Schematic Design (SD), which refines the plans better.

**M. Moran** asks if there will there be any differences in operating costs in NC1 vs AR1.5.

**E. Moore** you get better insulation value in building option NC-1 versus AR1.5.

**PBC vote for the preferred option.**

A motion to submit option **NC1- 700 Enrollment**, as the PBC recommended building option for the PSR submission was made by C. Magliozzi, 2<sup>nd</sup> by B. Delorey.

**Discussion:** None

	All in favor, motion passes to approve NC1-700 enrollment as the preferred option.																																									
13.6	<p><b>Permanent Building Committee Vote to submit PSR to MSBA</b>                  A motion to submit the Preferred Schematic Report to the MSBA was made by C. Magliozzi ,2<sup>nd</sup> by B. Delorey.</p> <table border="1"> <thead> <tr> <th colspan="2">Call Vote</th> <th>Yes</th> <th>No</th> <th>Abstain</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Michael Ward</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Steve Meyer</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Chris Magliozzi</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>Michael Moran</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>Brian Delory</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>Timothy O' Toole</td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td>Chris McGown</td> <td>x</td> <td></td> <td></td> </tr> </tbody> </table> <p><u>Vote on the motion:</u> Those FOR <b>6</b>                  Those AGAINST _____; ABSTAIN _____  <b>Motion: <u>Passes</u></b></p> <p>(An official copy will be provided for the PSR submission)  <b>Discussion:</b> None</p>	Call Vote		Yes	No	Abstain	1	Michael Ward	x			2	Steve Meyer	x			3	Chris Magliozzi	x			4	Michael Moran	x			5	Brian Delory	x			6	Timothy O' Toole				7	Chris McGown	x			Record
Call Vote		Yes	No	Abstain																																						
1	Michael Ward	x																																								
2	Steve Meyer	x																																								
3	Chris Magliozzi	x																																								
4	Michael Moran	x																																								
5	Brian Delory	x																																								
6	Timothy O' Toole																																									
7	Chris McGown	x																																								
13.7	<p><b>Local Actions Letter Approval Letter</b>  <b>T. Elmore</b> explains that part of the PSR submission is to put together a local action letter which is standard MSBA language on your letterhead that just states that we've had these open public meetings and that they have been posted. No voting needed.  <b>Discussion:</b> None</p>	Record																																								
13.8	<p><b>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting.</b>  <b>Discussion:</b> None.</p>	Record																																								
13.9	<p><b>Public Comment:</b>  <b>Discussion:</b> None</p>	Record																																								
13.10	<p><b>Next Meeting:</b></p> <ul style="list-style-type: none"> <li>07.18.2023 - CMS Building Committee Virtual ZOOM Meeting No.014 @ 6:30 PM</li> </ul>	Record																																								
13.11	<p><b>Adjourn:</b> 7:39 PM A motion was made by S. Meyer and seconded by B. Delorey to adjourn the meeting.  <b>Discussion:</b> None.                  All in favor, the meeting is adjourned.</p>	Record																																								

Sincerely,  
**DORE + WHITTIER**  
 Elias Grijalva  
 Assistant Project Manager

Project: Clinton Middle School  
Meeting: School Building Committee  
Meeting No. 013 – 06/20/2023  
Page: 6

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.



# TOWN OF CLINTON

*Office of the Selectmen*

242 Church Street,

Clinton, Massachusetts 01510

Tel: (978) 365-4120 • Fax: (978) 365 4130

## BOARD OF SELECTMAN

Edward J. Devault  
Mary Rose Dickhaut  
Sean J. Kerrigan  
Matthew H. Kobus  
Julie K. Perusse

Michael J. Ward  
*Town Administrator*

06.30.2023

Ms. Mary Pichetti  
Director of Capital Planning  
40 Broad Street  
Boston, Massachusetts 02109

Dear Ms. Pichetti:

The Town of Clinton School Committee (the "SC") understands the proposed change to the existing 5<sup>th</sup> to 8<sup>th</sup>-grade configuration that is being proposed in the *Preferred Schematic Report* for the Clinton Middle School project (the "Project"), and on February 13, 2023, the SC voted to approve and authorize the proposed change to the existing 5<sup>th</sup> to 8<sup>th</sup> Grade configuration for the following reason accommodate the growing student population of the Town of Clinton as described in the Feasibility Study related materials. A certified copy of the SC meeting minutes, which includes the specific language of the vote and the number of votes in favor, opposed, and abstained, are attached.

The SC has held a formal meeting regarding the proposed change to the existing 5<sup>th</sup> to the 8<sup>th</sup>-grade configuration as related to the proposed Project, in compliance with the state Open Meeting Law. This meeting was held:

### **School Committee Meeting**

Date/Time: Monday, February 13, 2023 @ 7:00 PM

Location: Clinton High School Library

Topics: Superintendent Report, Chairperson's Report

In addition to the SC meetings listed above, the Town held a public meeting, which was posted in compliance with the state Open Meeting Law, at which the Project was discussed. All who attended this meeting were able to provide feedback regarding the 4-8 or 5-8 grade configuration, all feedback supported 4-8 building project options. This meeting was held:

### **Select Board Meeting**

Date/Time: Wednesday, March 15, 2023 @ 6:00 PM

Location: Clinton Town Hall, Fallon Auditorium

Topics: Joint Meeting with School Committee, Finance Committee, Permanent/School Building Committee and Planning Board for presentation by Lamoureux Pagano Architects on the Clinton Middle School feasibility update

The presentation materials for each meeting, meeting minutes, and summary materials related to the Project are available locally for public review at



# TOWN OF CLINTON

Office of the Selectmen

242 Church Street.

Clinton, Massachusetts 01510

Tel: (978) 365-4120 • Fax: (978) 365 4130

BOARD OF SELECTMEN

Edward J. Devault  
Mary Rose Dickhaut  
Sean J. Kerrigan  
Matthew H. Kobus  
Julie K. Perusse

Michael J. Ward  
Town Administrator

[Clinton Public Schools MA - YouTube](#)

[Current Year's Meeting Minutes - School Committee - Clinton Public Schools](#)

[Town of Clinton Agenda Center](#)

To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, §§ 18-25 and 940 CMR 29 *et seq.*

If you have any questions or require any additional information, please contact [*insert name, title, and contact information*].

By signing this Grade Reconfiguration and Districting Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By signing this Grade Reconfiguration and Districting Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By signing this Grade Reconfiguration and Districting Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

**By:**  
**Michael Ward**  
**Title: Chief Executive Officer**

**Date:** 7/7/23

**By:**  
**Steven Meyer**  
**Title: Superintendent of Schools**

**Date:** 7/7/23

**By:**  
**Brendan Bailey**  
**Title: Chair of the School Committee**

**Date:** 7/7/23



**School Committee Meeting**  
**High School Library**  
**Monday, March 6, 2023**  
**7:00 PM**

**School Committee Members Present:** Brendan Bailey, Matthew Varakis, Tena Zapantis, and Pam Gaw.

**Administrators Present:** Superintendent Steven Meyer, Loretta Braverman, Scott Czermak, Courtney Harter, and Meghan Silvo.

**Others Present:** Dave Derezhinski, Robin Quist, Judy McGrail, Kimberly Friedrich, Kelly Turcotte, Paige Johnston, Michelle Elliot, and Kelly Santucci.

**Media Present:** Jan Gottesman remote

The meeting was called to order at 7:00 pm with a Pledge of Allegiance to the Flag followed by a Moment of Silence for Irving Murstein, father to Brenda Disessa.

**Approval of Bills-** Chair Bailey made a motion to approve the Schedule of Bills as presented. Zapantis moved and Vice Chair Varakis seconded to approve the Schedule of Bills as presented. The motion passed 4-0.

**Approval of Minutes-** Gaw moved and Zapantis seconded to approve the Minutes from the February 13, 2023 Meeting. The motion passed 4-0.

**Public Comment-** None at this time.

**Student Representative-** Paige Johnston reported the boys' basketball team won the Mid Wach C League and CMADA Tournament, the team has qualified for the State Tournament. There will be a blood drive at CHS on Thursday, March 16<sup>th</sup> from 8am to 1pm, you can register online with code M038, walk-ins are welcome. Dr. Meyer spoke about the digital ticket QR code required by the MIAA for admission ticket, he said this is not our regulation it is the MIAA. Clinton is only the host location for this event.

**CTA-** Robin Quist said they were able to have the February union meeting. She said they had positive discussion regarding the recent lockdown and are eager to have more training during the professional development day scheduled for March 13<sup>th</sup>. Quist said she noticed that the High School had curtains covering the windows by the doors in the classroom, she said this was a good idea and something she would like to incorporate at the Middle School. Quist said the teachers thought positively of the letter Dr. Meyer had written for the teachers to read to their students the day following the incident. Dr. Meyer mentioned that a survey will be given at the professional day to gather input for any concerns or suggestions. The board thanked Mrs. Quist.

**PTA-** Kelly Turcotte said the next meeting will be Wednesday, April 5th at 6:30 pm in the CES library. There will be a Family Bingo Night at the Middle School with some great raffle baskets held on Friday, March 10<sup>th</sup>, doors open at 5:30 pm, it is ten dollars to play. She thanked the community for helping with the raffle baskets. Turcotte reported that there will be changes to the Board, Shannon Abram has stepped down from her position of Co-Vice President, Kelly and Amy Bishop will be stepping down at the end of the school year. She is happy to say there is a new wave of parents that will bring the PTA to the next level. Turcotte expressed her thanks to all who had made this opportunity so amazing for her during her past years serving the Clinton Public Schools. She said it has been an honor and pleasure to work with so many parents, teachers, and administrators. Nominations for the board will take place in May, elections at the end of June.

**SEPAC-** Kelly Turcotte reported the next meeting will be held on Tuesday, March 7<sup>th</sup> at 6:30 pm in the CES library. Turcotte thanked BCBA Stacey LaBak for speaking at the last SEPAC meeting, she was a wealth of information and supportive to the families. There will be coffee with the Assistant Superintendent Director of Pupil Services on April 4<sup>th</sup> from 5-6pm in the CES library. This will be an informal time for parents and caregivers to ask questions and gain more information about Special Education. May 2<sup>nd</sup> is the Basic Rights meeting. They will continue to break down IEPs for parents and families through the rest of the year. The SEPAC will be running the concession stand at the play on March 24<sup>th</sup> and 25<sup>th</sup>. The proceeds will be split between the two SEPAC scholarships and the David S. Almond Memorial Scholarship. The Board thanked Kelly.

**ELPAC-** Nothing to report.

### **Superintendent Report**

**EF Tours – Paris/Barcelona Trip Details-** CHS teacher Michelle Elliot addressed the Board and spoke about the upcoming trip to Paris and Barcelona. They will leave on April 14<sup>th</sup> and return on April 21<sup>st</sup>, spending 3 days in each country. They will depart CHS and be transported to the airport by Knight's Limo. Twenty-six students and four teacher chaperones will be traveling. The student travelers have purchased the global travel protection plan, students have signed a no alcohol permitted on tour contract, and have agreed to the rules of the road. At this time, the countries that they are visiting are not requiring COVID vaccines or proof of negative COVID tests. Masks will be provided if they are required to wear them in certain locations. If a traveler tests positive for COVID they will follow the local guidelines. The travel company COVID protection plan provides benefits related to hospital bills, doctor's fees, and medical transportation if required. Elliot said she will have updated information after the next meeting scheduled for March 30<sup>th</sup>. Dr. Meyer said it is nice that EF Tours have expanded the protections due to COVID and hopes they have a smooth trip.

**Staffing Updates-** Dr. Meyer reported Felicia Bradley and Stacey LaBak from CMS have both submitted maternity leave requests.

**Business Manager-** Dr. Meyer asked for the Board's recommendation to appoint Annette Colón from the Assistant Business Manager position to the full-time Business Manager position. Dr. Meyer said Mr. Fratto, the current part-time Business Manager will now be in a coaching type role instead of part-time. Vice Chair Varakis made a motion to execute Dr. Meyer's succession plan to appoint Annette Colón to the Business Manager position, Zapantis seconded. The motion passed 4-0.

**Debrief of 2/14 Incident-** Dr. Meyer spoke about the swatting incident that occurred on February 14<sup>th</sup>. He said the incident being a hoax was the best result, it was a good learning experience. They will be looking to communicate more information on the lockdown and shelter in place guidelines to staff. There were some concerns with being in lockdown for the extended period of time. Most crisis situations are neutralized from a lockdown to a shelter in place within a matter of minutes; due to the nature of this incident we were in lockdown for longer period of time. Dr. Meyer said they will review the protocol at the professional development day scheduled for March 13<sup>th</sup> and have the staff complete a survey to gather more input. He also noted that the communication sent out to parents was an issue because the messages were not translated for non-English speaking families. In the future the calls will be translated in Spanish and Portuguese to make sure the information is more clear to all parents. The Family Outreach Liaisons will be helping with the translations. Another area of concern during the incident was cell phone use, Dr. Meyer said it is important to communicate to the students to keep the lines open during an emergency and to not send miss-information. Dr. Meyer said they will discuss protocol about door entry identification and the importance of individuals identifying themselves outside of a closed or locked door. He said overall the staff and students handled the situation well.

Zapantis said it was obvious how well prepared we were during the situation and said it was all handled well.

Judy McGrail made a comment that the communication to parents was outstanding.

Chair Bailey spoke about the importance of having a School Resource Officer and talked about how many town departments came together to help during the incident. He thanked Dr. Meyer for waiting to send accurate updates and spoke about the importance of the need for accurate information to address any social media rumors, he said the constant communication from the district put those rumors to rest. He applauded all departments that helped during this situation.

Dr. Meyer said everyone worked together.

Vice Chair Varakis commented on how well the staff came together and how organized the dismissal process was after the incident.

**AED Purchase-** Dr. Meyer spoke about the quotes for purchasing new AED machines. He said he would like to replace 9 AED machines that are 15 years old with updated bilingual versions. He would like to move forward with the purchase using funds from either the gift and donations account or the rental facilities account. The board agreed to move forward with the purchase for nine updated AED machines.

**Stop the Bleed Kits-** Dr. Meyer said he would like purchase one Stop the Bleed Station kit to see if it may be a product that we would like to have with the AED machines. The kits contain items to triage individuals until help is available. Dr. Meyer asked for the Board's approval to purchase one kit funding it from either the gift and donations or rental facilities account. The Board gave their approval.

**Preliminary Cherry Sheet-** Dr. Meyer reviewed the FY24 Preliminary Cherry Sheet estimates. He said the Chapter 70 funding is up \$1.9 million, the charter tuition is down approximately \$64,000 and the school choice receiving is down approximately \$30,000. The school choice sending tuition also went down. The town unrestricted government aid went up approximately \$55,000, this will be kept in mind during the budget process. He said when the Chapter 70 goes up and the money from the state goes up, the expected contribution from the town also increases. He said we have been above minimum contribution.

**Budget Version A-** Dr. Meyer said he met with the administration team last week and worked on the preliminary budget version A. He said the preliminary budget had a general fund increase of \$2.4 million, our goal for the meeting was to remove \$556,000 from the budget so we do not exceed the Chapter 70 increase. He said we were able to reduce it by \$200,000. Dr. Meyer reviewed the preliminary budget version A changes. There were a couple special education tuitions that were are no longer financially responsible for. We did budget for a full-time athletic director, we are going to cut that and keep the part time position. The part-time athletic director salary has been moved from the school choice account to the general fund, that way if we do want to add the full-time position it will come from the general fund. There is an unfilled SLIFE teacher position that was budgeted this year but it is unfilled so this was removed. They would like to add another Family Liaison to have one at each school to support the buildings. There was a proposed guidance counselor position budgeted at CES, this position will be removed keeping the CES school psychologist position. \$25,000 was budgeted for a new scoreboard at CHS, this was removed but will be reconsidered in the future. Some software and textbook purchases were budgeted however we anticipate being able to cover those with grants. CMS special education teacher is not needed at this time, will readdress in the future if needed. There was a reduction in salary due to retiree replacements. Dr. Meyer said he would like to talk to the Finance Committee to see what they are thinking, he would like the budget to work for both the town and school, and would like to get a firm proposal to the Finance Committee soon.

Chair Bailey asked when the approved budget is release from the state house. Dr. Meyer responded it is usually in June but due to the new Governor it may be pushed out. He said historically Chapter 70 money does not go down. Dr. Meyer said this is the third year of the Student Opportunity Act implementation, it is scheduled to be phased in over a six-year period. They are still making adjustments to the categories that are leading to our increase in Chapter 70, we could possible expect an increase in the coming years. He said we want to use the money to do the best for our students and keep an eye on sustainability. Dr. Meyer said he may try to introduce this budget to the Finance Committee at the All Boards meeting.

**FC 186 immigrant Children and Youth Grant-** Dr. Meyer spoke about the Title III, Part A: Immigrant Children and Youth grant. He said we have met the following criteria to be eligible: have 100 or more immigrant students in the district, the district's percentage of immigrant students who are low income needed to exceed 50%, the number of immigrant students enrolled in school year 2023 must be at least 10 more than the average of the prior two years, the percentage of immigrant students enrolled in school year 2023 must be at least 14.5% higher than the average of the prior two years. This grant would help run summer school and would be an opportunity to help serve English Language Learners. Clinton is 1 of 29 districts in the state that is eligible for this grant. Dr. Meyer said we are seeing many of our families in the district doubling up in one household.

**Safer Schools and Communities Initiatives-** Dr. Meyer spoke about the Safer Schools and Communities Initiative grant. He said this is a competitive entitlement grant, we have not received this funding in many years. This grant would be used to address security concerns in the three schools and used to add additional exterior door keycard access to ensure doors remain locked at all times, it would address any PA system issues, and would be used to add more security cameras to address blind spots, it would also be used to address some Wi-Fi dead zone issues. The grant was written with the help of Chris Tahan, he applied for \$50,000 for each school.

**All Boards Meeting-** Dr. Meyer said the Building Committee will be meeting tomorrow. LPAA is going to walk the Committee through their preliminary designs, 2 renovation addition designs and 5 drafted options for new construction. The plan is to share ideas with the Building Committee tomorrow and present the designs again at the All Boards meeting scheduled for March, 15<sup>th</sup> at 6pm at the Town Hall. All are welcome to attend the All Boards meeting, individuals will register upon entering and will be given a sticker, this sticker will be used to vote on the individuals preferred design choice, there will also be an opportunity for community feedback. The design ideas will not have true dollar figures at this point, they will state if one design is more or less than the other. At the next Building Committee meeting they will look at those designs and try to choose three for further study, and at this time will have more accurate cost figures.

**Academic Achievement-** Dr. Meyer reviewed the academic achievement excerpt from the strategic plan. He said CES is looking at developing an instructional handbook, they will use the funds from the turnaround grant and then phase the handbooks through the other two schools in the district. Dr. Meyer said he feels we are in a good place with curriculum mapping. Dr. Meyer said we have to file the SOA report every year, he will share that report with the Board in April.

**Signs/Scoreboards-** Dr. Meyer said he is gathering quotes to replace the scoreboard at CHS and for a new digital message center outside of CES that could possibly also display town events. These items would be purchased from the rental facilities account or possibly the town's ARPA fund.

### **Chairperson's Report**

#### **Advisory Committees**

**Curriculum Committee-** Nothing to report.

**Safety Committee-** Nothing to report.

**Marketing Committee-** Nothing to report.

**Policies and Procedures Committee-** Dr. Meyer spoke about Medical Policy JLCA – Physical Examinations of Students that was previously presented to the Board on February 13, 2023. This policy was held for further review and revisions. Slight wording changes have been made. Dr. Meyer asked the Board to review the changes and made a recommendation for approval. Vice Chair Varakis made a motion to approve Medical Policy JLCA – Physical Examinations of Students, Zapantis seconded.

The motion passed 4-0

**Facilities-** Nothing to report.

**Sub-Committee**

**Negotiations-** Nothing to report.

**Old Business-** Nothing to report.

**New Business-** Dr. Meyer congratulated Chair Brendan Bailey and Tena Zapantis for being recognized honorees at the Leprechaun Society event this Saturday.

**Adjournment-** At 7:55pm Zapantis moved and Vice Chair Varakis seconded to adjourn. The motion passed 4-0.

Respectfully Submitted,

*Kelly Santucci*

Kelly Santucci

School Committee Secretary

Meeting Documents:

March 6, 2023 Agenda

Schedule of Bills

February 13, 2023 Minutes

EF Tours Trip Summary Paris/Barcelona

Staffing Updates

CPS 2/14 Swatting Incident – Debrief

Life Support Systems AED Quotations/Information

FY24 Preliminary Cherry Sheets

CPS Preliminary Budget to Budget Version A Changes 3/2/23

CPS FY24 Budget Version A

FY23 Title III, Part A: Immigrant Children and Youth Grant

Safer Schools and Communities Initiative Grant

All Boards Memorandum

Academic Achievement Strategic Plan

JLCA Physical Examinations of Students Policy



## CLINTON PUBLIC SCHOOLS

150 School Street  
Clinton, Massachusetts  
978-365-4200  
FAX: 978-365-5037  
Email: smeyer@clinton.k12.ma.us

## SCHOOL COMMITTEE

Brendan Bailey  
Joel Bates  
Pam Gaw  
Matthew Varakis  
Tena Zapanits

Dr. Steven Meyer  
*Superintendent*

March 7, 2023

### *REGARDING: Grade Configuration for the Clinton Middle School Project*

To Whom It May Concern,

On February 13th, during open-session of a Clinton Public Schools School Committee meeting, the School Committee unanimously voted in favor of pursuing a 4-8 grade configuration with an enrollment of 700 students for the Clinton Middle School MSBA project. A copy of the approved minutes reflecting this vote are attached to this letter.

Prior to making this decision, the School Committee was presented with information regarding the current enrollment of the district. The handout that was included in the school committee packet is attached to this letter. The summary of CPS enrollment can be seen in the table below:

CPS Enrollment						
	17-18	18-19	19-20	20-21	21-22	22-23
CES	680	824	837	755	817	840
CMS	746	578	603	581	578	545
CHS	457	456	460	491	510	587
Total	1883	1858	1900	1827	1905	1972

The decision for this grade configuration came down to two main reasons:

- Unanticipated Growth in the District: the enrollment at CPS continues to climb, and many of these students are immigrating to the United States and doubling up with other family members. This is a growth factor that we do not feel was accounted for in the enrollment certification process. The school committee does not want to invest significant resources into a project and then have the district run out of space.
- The need for Space at Clinton Elementary School: Grade four was in the Middle School up until the 17-18 school year. At that time, the fourth grade was moved to CES due to the large “bubble grades” at CMS. CES currently has a long waitlist for Pre-Kindergarten, and we are expecting universal Pre-K to be a reality in the near future. CPS needs the space at CES for early childhood education.

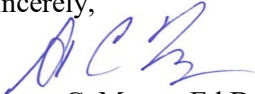
The only concern expressed regarding moving in this direction was the cost of the project and the question regarding the cost differential of building a school for 700 students in grades 4-8 versus the cost of building one for 550 students in grade 5-8.

Also, it should be noted that the school committee made this decision with the understanding that all MSBA Projects are done to support the educational programming of the building. Thus, if fourth grade

students are located in the building then the building project will plan to have areas that are developmentally appropriate for fourth grade students.

If you have any questions regarding this vote, please feel free to contact my office at (978) 365-4200.

Sincerely,

A handwritten signature in blue ink, appearing to read 'S. Meyer', written over the word 'Sincerely,'.

Steven C. Meyer, Ed.D.  
Superintendent

## 700 STUDENT ENROLLMENT

TOTAL AREA: 136,000 GSF

1st FLOOR: 84,000 GSF  
2nd FLOOR: 52,000 GSF



1

### NC-1 CLASSROOM TO CAFETERIA CIRCULATION

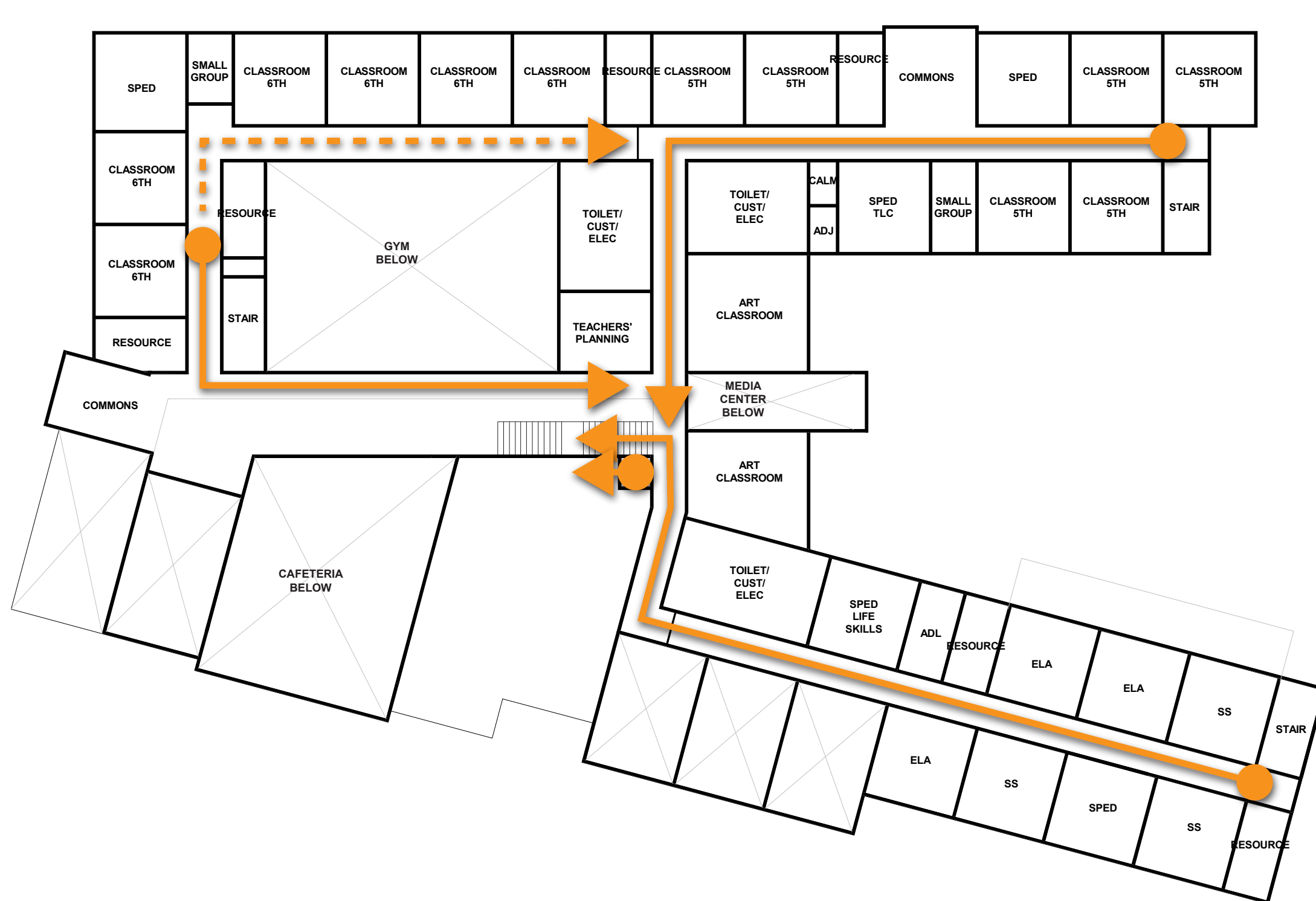
1" = 40'-0"



## 700 STUDENT ENROLLMENT

### TOTAL AREA: 136,000 GSF

1st FLOOR: 84,000 GSF  
2nd FLOOR: 52,000 GSF

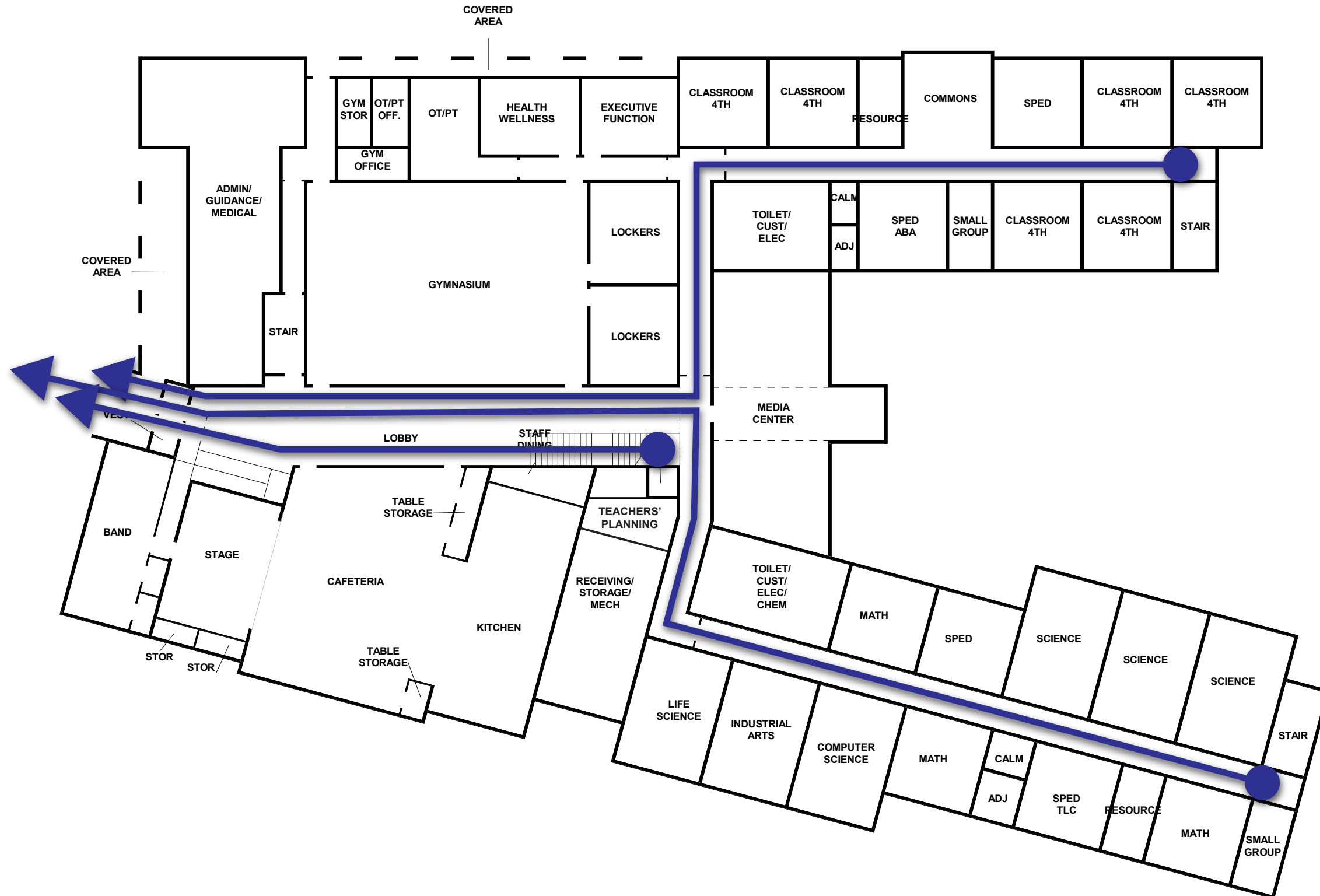


1 NC-1 CLASSROOM TO CAFETERIA CIRCULATION  
1" = 40'-0"

## 700 STUDENT ENROLLMENT

### TOTAL AREA: 136,000 GSF

1st FLOOR: 84,000 GSF  
2nd FLOOR: 52,000 GSF



1

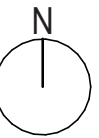
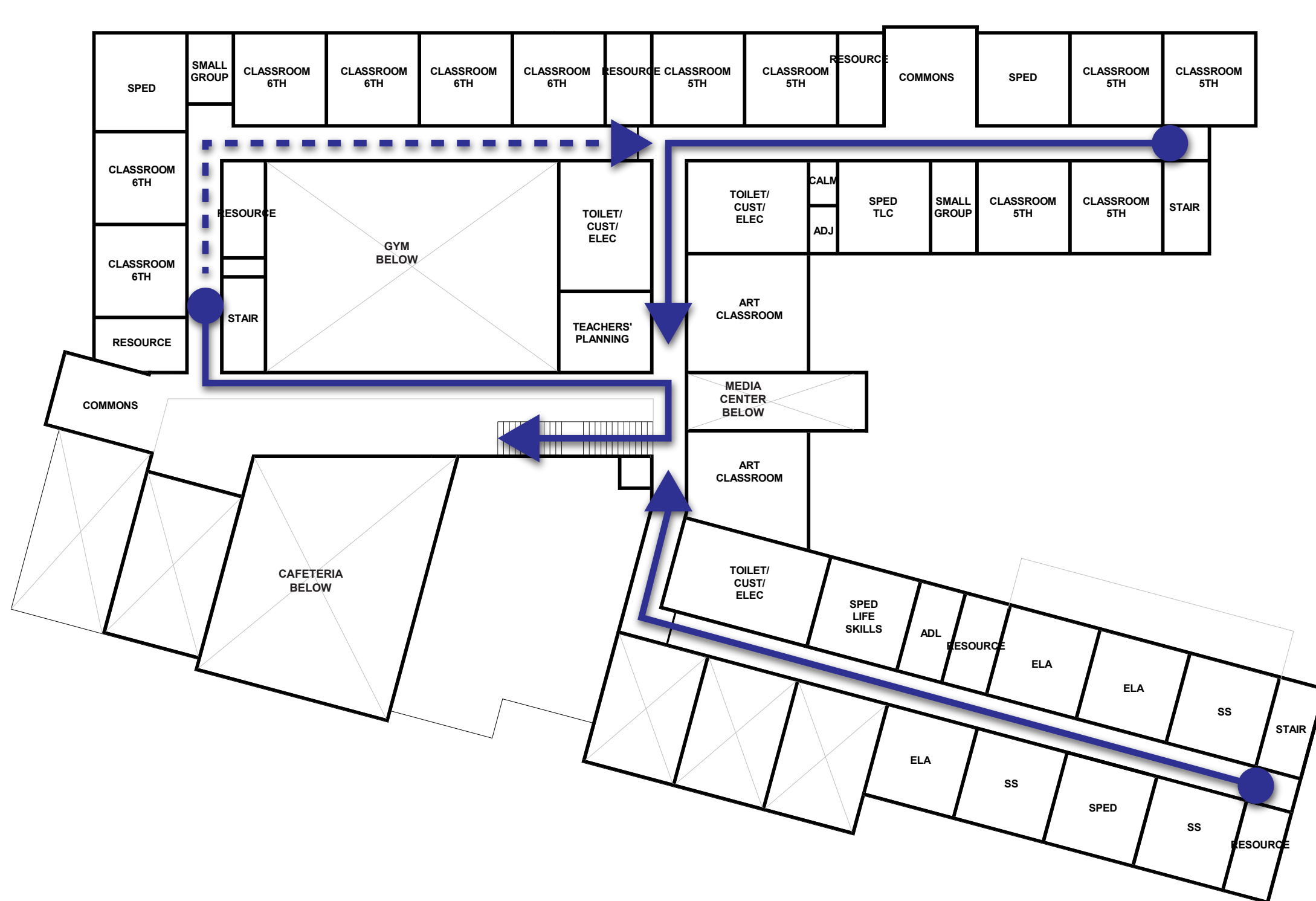
### NC-1 CLASSROOM TO EXIT CIRCULATION

1" = 40'-0"

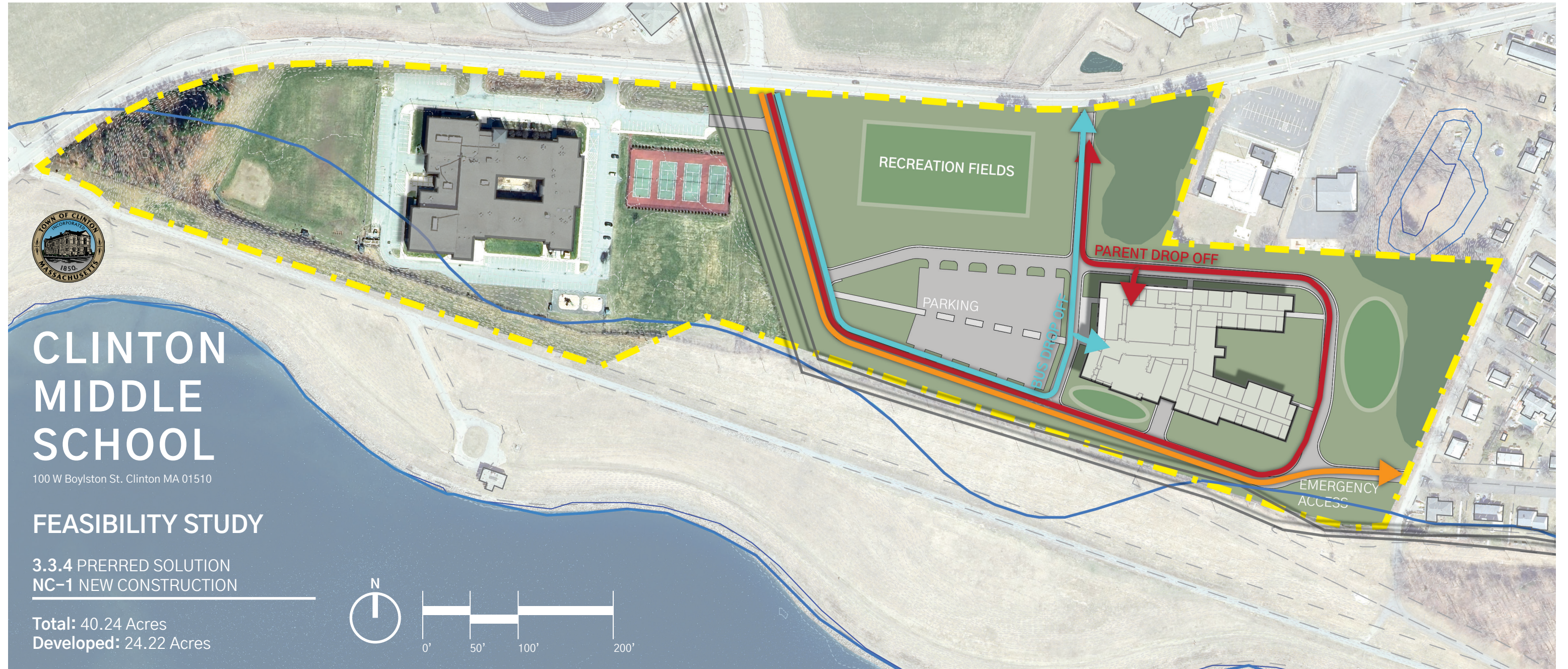
## 700 STUDENT ENROLLMENT

## TOTAL AREA: 136,000 GSF

1st FLOOR: 84,000 GSF  
2nd FLOOR: 52,000 GSF



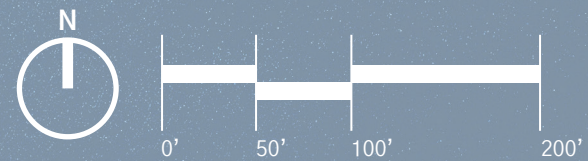
1 NC-1 CLASSROOM TO EXIT CIRCULATION  
1" = 40'-0"



**CLINTON MIDDLE SCHOOL**  
100 W Boylston St. Clinton MA 01510  
**FEASIBILITY STUDY**

3.3.4 PRERRED SOLUTION  
NC-1 NEW CONSTRUCTION

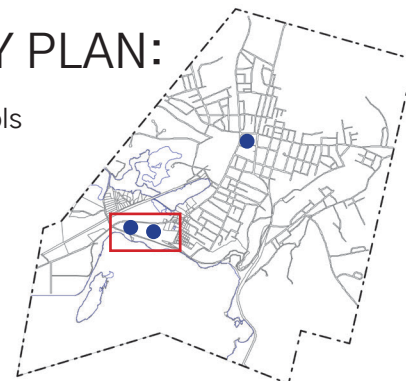
Total: 40.24 Acres  
Developed: 24.22 Acres



**NOTES:**

**QUADRANT KEY PLAN:**

- Existing K-12 Schools
- Proposed Site



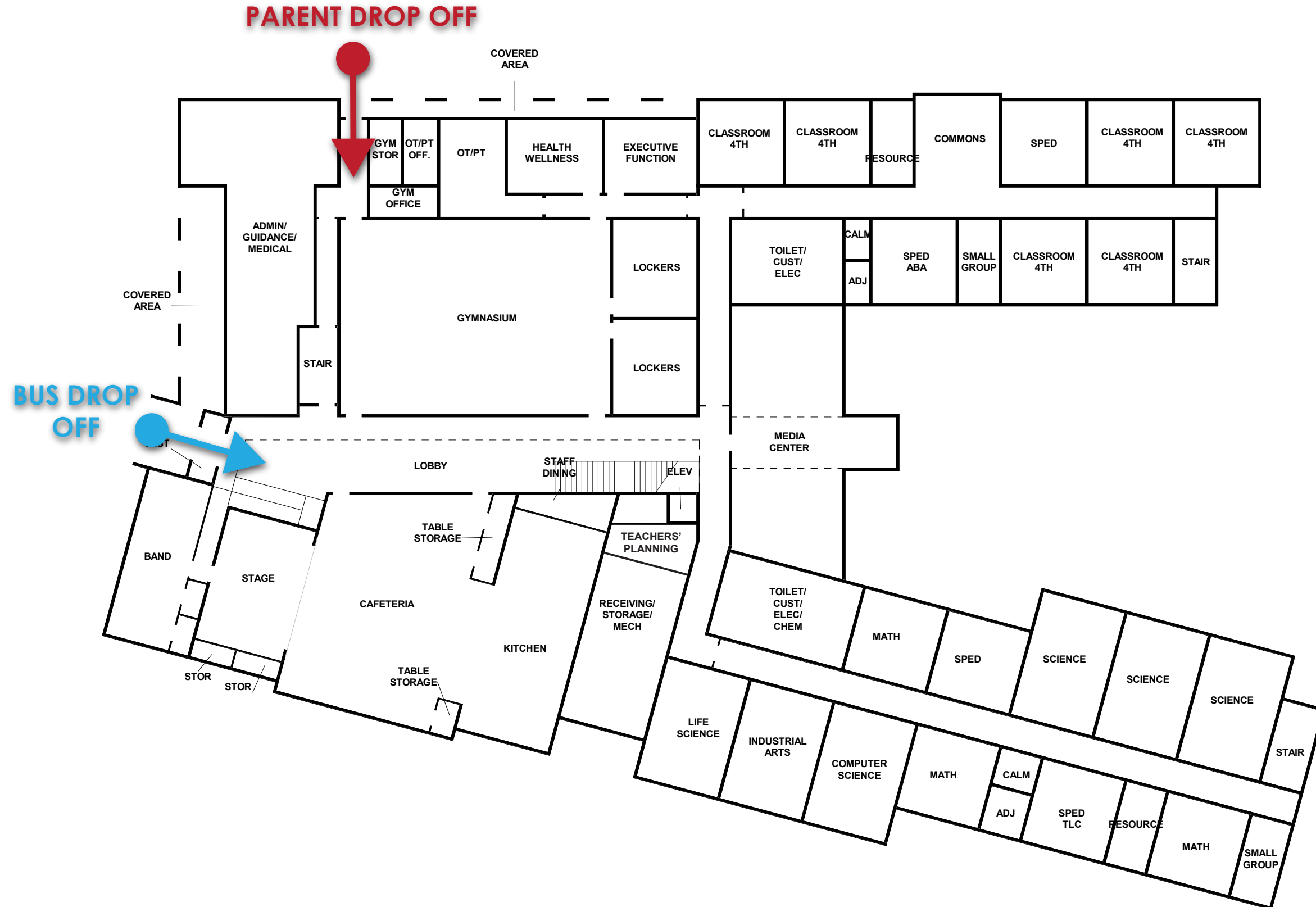
**LEGEND:**

- Parcel Property Line
- Bus Circulation
- New Construction
- Parent Circulation
- New Athletic Field
- Access Road
- Existing Building
- DCR Buffer Zone

## 700 STUDENT ENROLLMENT

## TOTAL AREA: 136,000 GSF

1st FLOOR: 84,000 GSF  
2nd FLOOR: 52,000 GSF



1

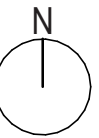
### NC-1 DROP OFF DIAGRAM

1" = 40'-0"

## 700 STUDENT ENROLLMENT

## TOTAL AREA: 136,000 GSF

1st FLOOR: 84,000 GSF  
2nd FLOOR: 52,000 GSF



1

### NC-1 DROP OFF DIAGRAM

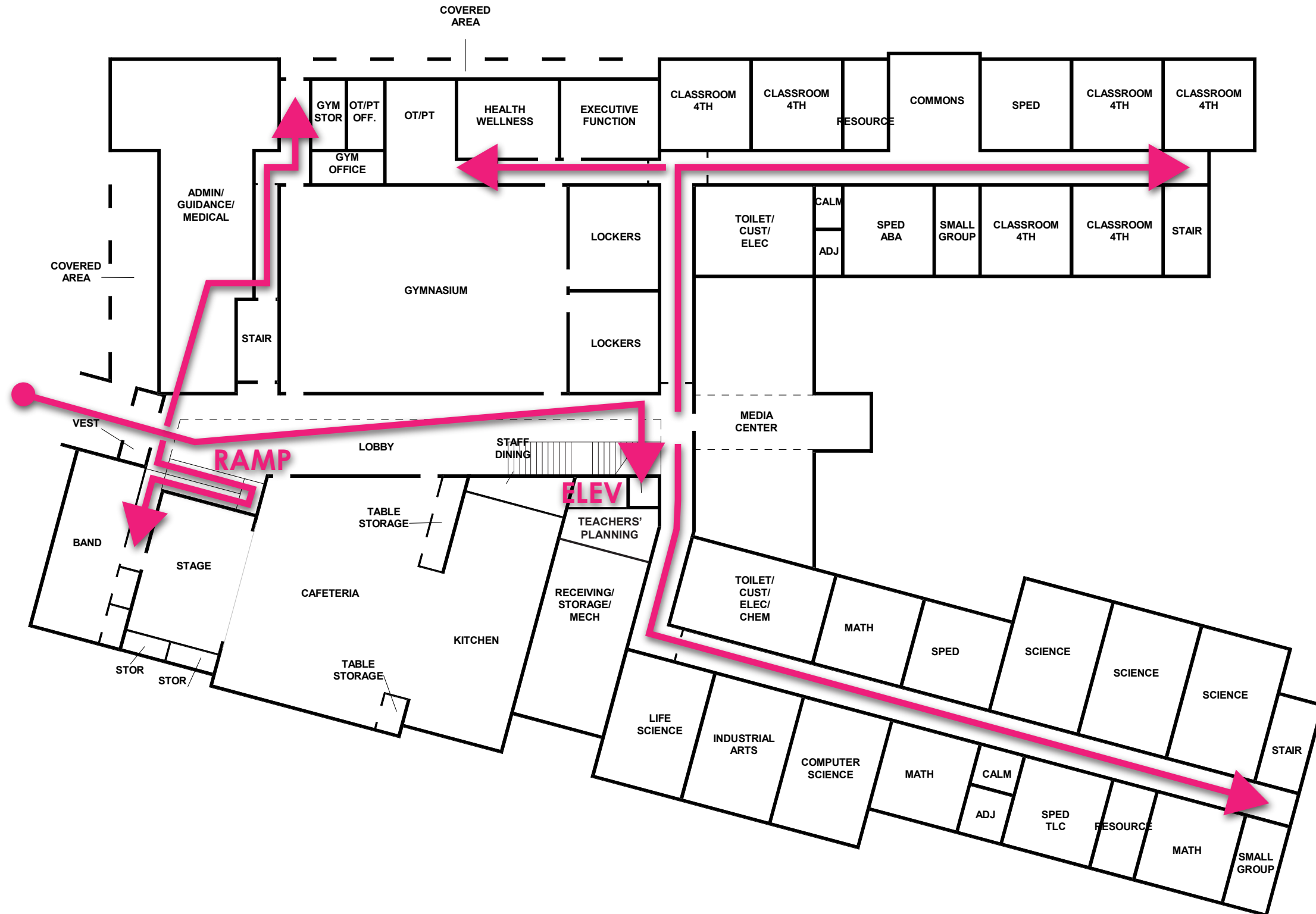
1" = 40'-0"



## 700 STUDENT ENROLLMENT

## TOTAL AREA: 136,000 GSF

1st FLOOR: 84,000 GSF  
2nd FLOOR: 52,000 GSF



1

### NC-1 HANDICAPPED ACCESS CIRCULATION

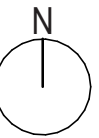
1" = 40'-0"



## 700 STUDENT ENROLLMENT

## TOTAL AREA: 136,000 GSF

1st FLOOR: 84,000 GSF  
2nd FLOOR: 52,000 GSF



1

### NC-1 HANDICAPPED ACCESS CIRCULATION

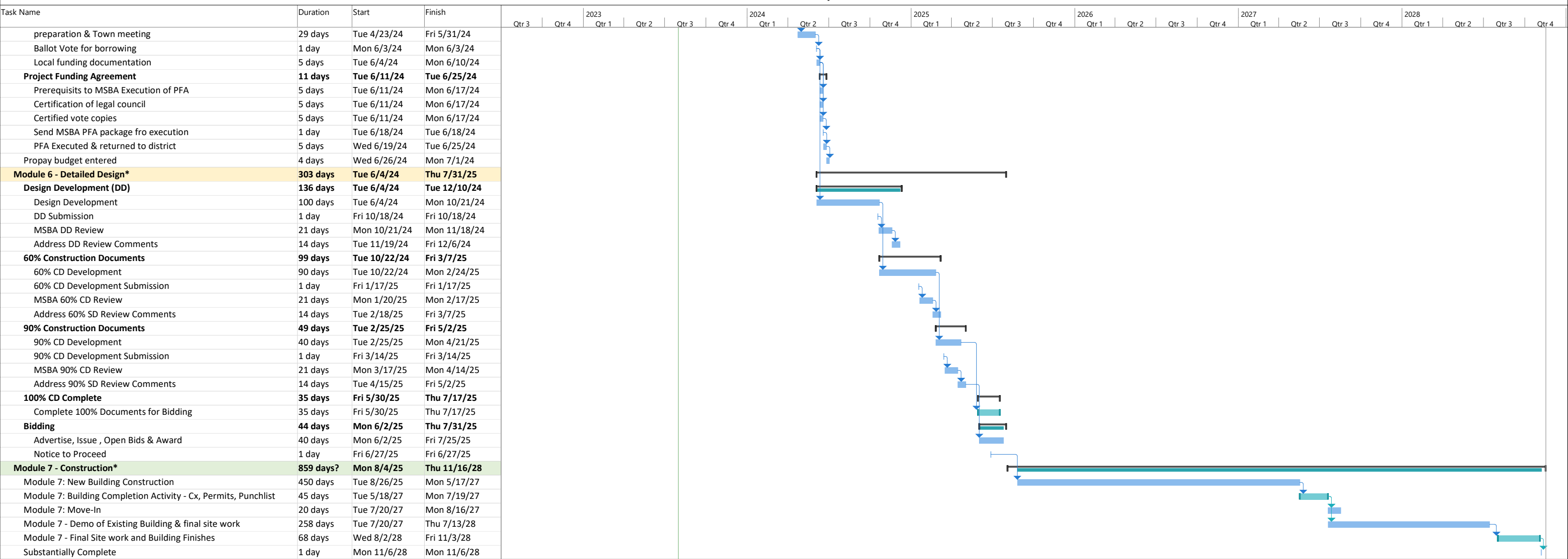
1" = 40'-0"





Task Name	Duration	Start	Finish	Timeline (2023-2028)																											
				2023				2024				2025				2026				2027				2028							
				Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4		
<b>MSBA Module 2 - 7</b>	<b>1640 days?</b>	<b>Fri 8/5/22</b>	<b>Thu 11/16/28</b>	[Timeline bar]																											
<b>Mod 2 - Architect selection process</b>	<b>57 days</b>	<b>Fri 8/5/22</b>	<b>Mon 10/24/22</b>	[Timeline bar]																											
<b>Module 3 - Feasibility Study</b>	<b>181 days</b>	<b>Wed 12/21/22</b>	<b>Wed 8/30/23</b>	[Timeline bar]																											
<b>Preferred Design Program (PDP)</b>	<b>90 days</b>	<b>Wed 12/21/22</b>	<b>Tue 4/25/23</b>	[Timeline bar]																											
MSBA Kick off meeting	1 day	Fri 1/6/23	Fri 1/6/23	[Timeline bar]																											
Introduction	5 days	Wed 12/21/22	Tue 12/27/22	[Timeline bar]																											
Educational Program	20 days	Wed 12/28/22	Tue 1/24/23	[Timeline bar]																											
Initial Space Summary	10 days	Wed 1/25/23	Tue 2/7/23	[Timeline bar]																											
Evaluation of existng conditions	15 days	Wed 2/8/23	Tue 2/28/23	[Timeline bar]																											
Site development requirements	15 days	Wed 2/8/23	Tue 2/28/23	[Timeline bar]																											
Preliminary evaluation of Options	15 days	Wed 3/1/23	Tue 3/21/23	[Timeline bar]																											
Local actions and approvals	1 day	Wed 3/22/23	Wed 3/22/23	[Timeline bar]																											
Submit PDP to MSBA	4 days	Thu 3/23/23	Tue 3/28/23	[Timeline bar]																											
<b>MSBA Review of PDP</b>	<b>20 days</b>	<b>Wed 3/29/23</b>	<b>Tue 4/25/23</b>	[Timeline bar]																											
MSBA PDP review and Comment	15 days	Wed 3/29/23	Tue 4/18/23	[Timeline bar]																											
Respond to MSBA PDP Comments	5 days	Wed 4/19/23	Tue 4/25/23	[Timeline bar]																											
<b>Preferred Schematic Report (PSR)</b>	<b>104 days</b>	<b>Fri 4/7/23</b>	<b>Wed 8/30/23</b>	[Timeline bar]																											
Final evaluation of of alternatives	30 days	Fri 4/7/23	Thu 5/18/23	[Timeline bar]																											
Preferred solution	25 days	Fri 5/12/23	Thu 6/15/23	[Timeline bar]																											
Local action and approvals	7 days	Fri 6/16/23	Mon 6/26/23	[Timeline bar]																											
Submit PSR to MSBA	1 day	Tue 6/27/23	Tue 6/27/23	[Timeline bar]																											
<b>MSBA Board Approval to proceed with schematic design 8/30/23</b>	<b>46 days</b>	<b>Wed 6/28/23</b>	<b>Wed 8/30/23</b>	[Timeline bar]																											
<b>MSBA staff review</b>	<b>20 days</b>	<b>Wed 6/28/23</b>	<b>Tue 7/25/23</b>	[Timeline bar]																											
MSBA PSR review and comment	15 days	Wed 6/28/23	Tue 7/18/23	[Timeline bar]																											
Respond to MSBA PSR comments	5 days	Wed 7/19/23	Tue 7/25/23	[Timeline bar]																											
<b>Facilities assessment subcommittee review</b>	<b>31 days</b>	<b>Wed 7/19/23</b>	<b>Wed 8/30/23</b>	[Timeline bar]																											
FAS Mtg #1	1 day	Wed 7/19/23	Wed 7/19/23	[Timeline bar]																											
FAS Mtg #2 (if required)	1 day	Wed 8/2/23	Wed 8/2/23	[Timeline bar]																											
Respond to FAS comments	5 days	Thu 8/3/23	Wed 8/9/23	[Timeline bar]																											
MSBA Board Approval - 8-30-23	1 day	Wed 8/30/23	Wed 8/30/23	[Timeline bar]																											
<b>Module 4 - Schematic Design</b>	<b>169 days</b>	<b>Fri 9/1/23</b>	<b>Wed 4/24/24</b>	[Timeline bar]																											
<b>MA Historical Com.</b>	<b>56 days</b>	<b>Fri 9/1/23</b>	<b>Fri 11/17/23</b>	[Timeline bar]																											
Assemble documentation to submit PNF	30 days	Fri 9/1/23	Thu 10/12/23	[Timeline bar]																											
MHC review and response	26 days	Fri 10/13/23	Fri 11/17/23	[Timeline bar]																											
<b>Deed Registration</b>	<b>100 days</b>	<b>Tue 8/1/23</b>	<b>Mon 12/18/23</b>	[Timeline bar]																											
Update Site Survey	45 days	Tue 8/1/23	Mon 10/2/23	[Timeline bar]																											
Compile Deed Information	40 days	Tue 10/3/23	Mon 11/27/23	[Timeline bar]																											
Prepare DEED for Recording	10 days	Tue 11/28/23	Mon 12/11/23	[Timeline bar]																											
Record DEED	5 days	Tue 12/12/23	Mon 12/18/23	[Timeline bar]																											
<b>SD Submission Development</b>	<b>169 days</b>	<b>Thu 8/31/23</b>	<b>Tue 4/23/24</b>	[Timeline bar]																											
DESE Submittal Development	120 days	Thu 8/31/23	Wed 2/14/24	[Timeline bar]																											
Schematic Design Binder	85 days	Thu 8/31/23	Wed 12/27/23	[Timeline bar]																											
Schematic Design Project Manual	85 days	Thu 8/31/23	Wed 12/27/23	[Timeline bar]																											
Schematic Design Drawings	85 days	Thu 8/31/23	Wed 12/27/23	[Timeline bar]																											
Schematic Design Estimating	20 days	Thu 12/28/23	Wed 1/24/24	[Timeline bar]																											
SD Estimate Reconciliation & Budget	6 days	Thu 1/25/24	Thu 2/1/24	[Timeline bar]																											
Local Actions and Approval	15 days	Fri 2/2/24	Thu 2/22/24	[Timeline bar]																											
Submit SD to MSBA	1 day	Fri 2/23/24	Fri 2/23/24	[Timeline bar]																											
<b>Review and approve SD submission</b>	<b>25 days</b>	<b>Mon 2/26/24</b>	<b>Fri 3/29/24</b>	[Timeline bar]																											
<b>MSBA Staff review</b>	<b>25 days</b>	<b>Mon 2/26/24</b>	<b>Fri 3/29/24</b>	[Timeline bar]																											
MSBA SD review and comment	15 days	Mon 2/26/24	Fri 3/15/24	[Timeline bar]																											
Response to MSBA SD comments	10 days	Mon 3/18/24	Fri 3/29/24	[Timeline bar]																											
Final submission review	1 day	Mon 4/1/24	Mon 4/1/24	[Timeline bar]																											
MSBA Board approval - date TBD	15 days	Tue 4/2/24	Mon 4/22/24	[Timeline bar]																											
MSBA Board Action Letter Issued	1 day	Tue 4/23/24	Tue 4/23/24	[Timeline bar]																											
DESE review and approval letter	4 days	Mon 3/18/24	Thu 3/21/24	[Timeline bar]																											
<b>Module 5 - Funding the Project</b>	<b>50 days</b>	<b>Tue 4/23/24</b>	<b>Mon 7/1/24</b>	[Timeline bar]																											
<b>Project scope and budget agreement</b>	<b>10 days</b>	<b>Wed 4/24/24</b>	<b>Tue 5/7/24</b>	[Timeline bar]																											
Total Project Budget & Exhibit Development	3 days	Wed 4/24/24	Fri 4/26/24	[Timeline bar]																											
Reimbursement rate - signed Certification	3 days	Mon 4/29/24	Wed 5/1/24	[Timeline bar]																											
Prerequisites to MSBA Execution of PS&B	3 days	Mon 4/29/24	Wed 5/1/24	[Timeline bar]																											
Send MSBA PS&B Package for execution	2 days	Thu 5/2/24	Fri 5/3/24	[Timeline bar]																											
PS&B Executed	2 days	Mon 5/6/24	Tue 5/7/24	[Timeline bar]																											
<b>Local Authorization for funding (120 days)</b>	<b>35 days</b>	<b>Tue 4/23/24</b>	<b>Mon 6/10/24</b>	[Timeline bar]																											

CMS - New Construction 08.01/2023	Task		Summary		Inactive Milestone		Duration-only		Start-only		External Milestone		Manual Progress	
	Split		Project Summary		Inactive Summary		Manual Summary Rollup		Finish-only		Deadline			
	Milestone		Inactive Task		Manual Task		Manual Summary		External Tasks		Progress			



CMS - New Construction 08.01/2023

Task		Summary		Inactive Milestone		Duration-only		Start-only		External Milestone		Manual Progress	
Split		Project Summary		Inactive Summary		Manual Summary Rollup		Finish-only		Deadline			
Milestone		Inactive Task		Manual Task		Manual Summary		External Tasks		Progress			



# TOWN OF CLINTON

Office of the Selectmen  
242 Church Street  
Clinton, Massachusetts 01510  
Tel: (978) 365-4120 • Fax: (978) 365-4130

## BOARD OF SELECTMEN

Edward J. Devault  
Mary Rose Dickhaut  
Sean J. Kerrigan  
Matthew H. Kobus  
Julie K. Perusse

Michael J. Ward  
Town Administrator

To whom it may concern:

In response to MSBA PSR review comments, the Town of Clinton has updates to section 3.3.2.

The PSR review comments note that the Town of Clinton's anticipated completion date for recording the updated property DEED is "the end of summer (2023)", as represented below.

*"The Town of Clinton continues to work with National Grid (NGRID) to record a previous land swap on the existing middle school property relative to overhead electric transmission lines that were relocated to accommodate the construction of the middle school in 1976. The Town's continued understanding is that the formal recording of the deed is not expected to impact the project timeline."*

*Furthermore, a letter was provided from the Town Administrator regarding this matter that states: "It is anticipated that **these documents will be finalized and officially recorded by the end of summer.**"*

In correspondence between the Town of Clinton and NGRID, it has been determined that a resurvey of the property will need to take place to identify and locate ground structures and improvements to the property along the easement before it is recorded. As this is a new request as of end of July 2023, the goal to record the DEED by the end of the summer is not achievable. However, as will be documented in the project schedule, we have a plan to perform a new survey in the fall and then record the DEED in December or January. This will not impact the Schematic Design submission nor the Project Scope and Budget process.

As it relates to the project schedule and costs associated with the DEED recording, as it noted below:

*"In response to these review comments, incorporate the timeline associated with completing the **work identified above into the overall project schedule.** Also, please note and acknowledge that all cost increases subsequent to a Project Scope and Budget Approval from the MSBA's Board of Directors will be the **sole responsibility of the District and considered ineligible for reimbursement.**"*

The OPM, Dore and Whittier Management Partners will include the DEED process in the updated project schedule and the Town of Clinton acknowledges that the costs and cost impacts of the resolution of the DEED recording are the sole responsibility of the Town and are not reimbursable by the MSBA grant funding.

Sincerely,

Michael J. Ward  
Town Administrator  
[mward@clintonma.gov](mailto:mward@clintonma.gov)

## 4.1.2 SCHEMATIC DESIGN BINDER

---

### B. Final Design Program

1. Design Program  
Narrative
2. Educational Space  
Summary
3. Narrative of Space  
Summary Changes
4. Educational Program  
Narrative
5. Instructional Technology
6. Functional Relationships  
& Adjacencies
7. Security & Visual Access
8. Site Development  
Requirements
9. Visual or Aesthetic Focal  
Points

Since the PSR Submission, the Design Team and the Executive Committee have hosted numerous meetings with School, District and Town representatives to determine the detailed requirements for each of the spaces within the proposed Clinton Middle School. This information was carefully documented and inserted into the Room Data Sheets, which will serve as a reference throughout the design and construction process. The following Program Meetings were held during the SD phase:

- September 6, 2023 | Special Education Meetings
  - OT/PT
  - Calming
  - Offices
  - Conference Room
  - Resource Room/Speech
  - Small Group Room/Reading
  
- September 6, 2023 | Custodial/Maintenance Meetings
  - Custodian Office
  - Custodian Workshop
  - Custodian Storage
  - Recycling/Trash
  - Receiving/General Supply
  - Exterior Equipment Storage
  - Tel/Data
  - Student Toilet Rooms
  - Janitor Closets
  
- September 6, 2023 | Medical Suite Meetings
  - Nurse's Office/Waiting
  - Exam Rooms/Resting
  - Medical Supply Staff Lunchroom

- September 7, 2023 | Guidance Suite Meetings
  - Guidance Reception/Waiting
  - Guidance Offices
  - Executive Functioning
  - Guidance Storage
  - Outside Provider Office
  
- September 7, 2023 | Special Education Meetings
  - Self-Contained SPED (TLC)
  - Self-Contained SPED (ABA)
  - Self-Contained (SPED (Life Skills)
  - Adult Daily Living
  - SPED Toilets
  - SPED Liaison
  
- September 7, 2023 | Food Service Meetings
  - Cafetorium
  - Stage
  - Chair/Table Storage
  - Kitchen
  - Servery
  - Staff Lunchroom
  
- September 13, 2023 | Administration Suite Meetings
  - Reception/Waiting
  - Mail Room
  - Work Room
  - Records Room
  - Principal Office
  - Assist. Principal Office
  - Office (SRO)
  - Conference Room

- September 13, 2023 | General Education Meetings
  - General Classrooms
  - Collaborative Work Areas
  - Small Group Seminar
  - Teacher Planning
  
- September 13, 2023 | Media Center/Maker Space Meetings
  - Media Center
  - Maker Space
  
- September 14, 2023 | Science/Technology Meetings
  - Science Labs
  - Prep Rooms
  - Central Chemical Storage
  - Industrial Arts
  - Computer Science
  - Life Science
  - Prep Room/Storage
  
- September 22, 2023 | Health/PE Meetings
  - Wellness Classroom
  - Gymnasium
  - Gymnasium Storage
  - Office
  - Locker Rooms
  - Outdoor Amenities

- September 22, 2023 | Art/Music Meetings
  - Art Classroom
  - Art Storage/Kiln
  - Band
  - Music Practice/Ensemble
  - Music Storage
  - Stage (Music Classroom)

Beyond the Room Data Sheet documentation, the following major elements were significantly advanced during Schematic Design:

- DESE Special Education submission
- Systems requirements
- Sustainable Design objectives
- Code requirements
- Security strategy

The Room Data Sheets in section 4.1.2.L serve as minutes for the programming meetings.



### ARCHITECTURAL CHARACTERISTICS

The design of the proposed Clinton Middle School was developed in response to the site, the City/District's programmatic needs, operating and maintenance capabilities, and the desire for a more fulfilling educational environment for the community as well as the school constituents. The following are key criteria that informed the design:

- Overall Context: The Clinton Public School's strategic goals, Clinton's deep history as an industrial mill town, the location adjacent to Wachusett reservoir, Veteran's Athletic Complex, State swimming pool, Clinton High School, and the neighborhood vicinity all are key factors that guided the design development.
- Scale: Effectively modulate the building and site features to ensure a welcoming aesthetic for this particular age group and a modern reflection of the Town's brick masonry construction. Organize the building components to reduce the overall scale of the project by integrating exterior courtyards, material usage, and scale of building elements.
- Circulation: Provide a hierarchy of clear and easily recognizable circulation routes; both inside and outside of the building. Interior circulation is designed for safe and efficient flow of students transitioning between classes with core facilities centrally located and multiple connecting stairs. Lockers are located primarily in each grade level neighborhood to keep the main circulation spine clear of obstructions and bottlenecks. Exterior pedestrian circulation is designed to safely accommodate the large numbers of students to and from school on sidewalks and marked/raised crosswalks. Exterior vehicular circulation and parking is described in more detail in Section 4.1.2.C but is designed to separate bus traffic from staff/faculty, student and parent drivers.
- Flexibility: Provide capability for after-hours use of community spaces (Gym, Cafetorium/Kitchen, Media Center/Maker Space, Art Rooms etc.) without allowing free access to the core academic part of the building. Develop classroom wings to be reassigned as needed to accommodate curriculum needs as they evolve over the decades.
- Daylighting: Views to the exterior were optimized as an orientation feature as well as for the majority of the spaces where natural daylight is desirable. The central lobby features a large skylight that spans the entire length of the lobby. This main circulation spine has views to the west out the main entry doors and out to the main parking lot and views to the east out through the media center to the exterior courtyard. Main corridors running north/south have view out to

the exterior to help orient occupants, Academic Wings Utilize collaborative areas and daylighting from skylights to also help orient occupants. Since the building oriented primarily on the east-west axis, the focus will be to provide sun shading at the south side of the building where the strongest sun axis is anticipated, primarily the cafetorium.

- **Construction impact:** Minimize construction impact due to phasing for students and staff/faculty. Because the existing school is proposed to remain in use during construction of the new facility, the proposed building footprint must be far enough away from the existing school to allow construction traffic and emergency egress. New construction will not impact existing parking areas, however, utilities and emergency vehicle access will be impacted; temporary solutions are needed to mitigate their loss or interruption.
- **Safety and security:** Comply with City/District safety and security guidelines. Refer to security and visual access requirements narrative included in this section.
- **Sustainability:** Achieve LEED-S v.4 certification with the goal of 50–59 points for “Silver” rating.
- **Materials:** Provide interior and exterior materials that are durable, easily maintained and reflective of the contemporary educational program and the characteristics of the town.
- **Educational Organization:** Develop discreet yet connected neighborhood grade level wings (4–6) and 7 & 8<sup>th</sup> grade STEM and Humanities neighborhoods, fully integrated special education programs, faculty planning rooms, collaborative areas to support integrated projects and other curriculum opportunities, centralized core facilities easily separated for community use.
- **Entrances:** Provide one major entrance for all with modulated visitor access through the administration reception area during school hours. Secondary entrance along the north side to support parent pick-up and drop off and primary access route to the athletic field.
- **Campus experience:** develop the site with clear parking and athletic field organization while amplifying outdoor learning experiences and connections to the campus and reservoir. Through judicious landscaping, reduce heat island effect of impervious area, provide biodiversity for low maintenance and sustainable planting, and strengthen campus and neighborhood context.

Proposed Space Summary - Middle School

Date: [Enter Date] [Enter Submittal]

[ENTER DISTRICT NAME] [ENTER SCHOOL NAME]	EXISTING CONDITIONS		
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS
<b>CORE ACADEMIC</b>			29,780
<i>(List rooms of different sizes separately)</i>			
General Classroom			0
General Classroom - 4th Grade			0
General Classroom - 5th Grade		8	6,919
General Classroom - 6th Grade		7	5,895
General Classroom - Math - 7&8 Grade		3	2,344
General Classroom - English Language Arts - 7&8 Grade		3	2,454
General Classroom - Social Studies - 7&8 Grade		3	2,395
Small Group Seminar (20-30 seats)		3	3,183
Collaborative Work Area - 4-6 Grade			0
Collaborative Work Area - 7-8 Grade			0
Science, Technology, Engineering (STE) Room (Grades 4-6)		2	1,941
STE Storage Room		1	437
Science Classroom / Lab (Grades 7&8)		3	3,024
Prep Room		2	500
Central Chemical Storage Room			0
Teacher Planning		2	688
Classroom Executive Functioning			0
<b>SPECIAL EDUCATION</b>			10,650
<i>(List rooms of different sizes separately)</i>			
Self-Contained Special Education Classroom		5	3,925
Self-Contained Special Education Classroom - TLC			0
Self-Contained Special Education Classroom - ABA			0
Self-Contained Special Education Classroom - Life Skills			0
Adult Daily Living			0
Self-Contained Special Education Toilet Room			0
Self-Contained Special Education Toilet Room			0
Special Education Liason - 4th Grade		1	796
Special Education Liason - 5th Grade		1	830
Special Education Liason - 6th Grade		1	693
Special Education Liason - 7th Grade		1	784
Special Education Liason - 8th Grade		1	799
Calming [Grade 4-6]		1	319
Calming [Grade 7-8]		1	319
OT/PT			0
Office - OT/PT		1	373
Office - Adjustment Counselor TLC		1	296
Office - BCBA		1	373
Office - Psychologist			0
SPED Conference room			0
Resource Room		2	684
Small Group Room		1	459
<b>Public Day Education Spaces</b> (List rooms separately below)			
<b>Collaborative Program Spaces</b> (List rooms separately below)			
<b>ART &amp; MUSIC</b>			5,960
Art Classroom		2	1,967

PROPOSED PROGRAM								
EXISTING TO REMAIN / RENOVATED			NEW CONSTRUCTION			TOTAL		
ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS	ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS	ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS
		0			35,220			35,220
		0			0			0
		0	900	6	5,400	900	6	5,400
		0	900	6	5,400	900	6	5,400
		0	900	6	5,400	900	6	5,400
		0	900	3	2,700	900	3	2,700
		0	900	3	2,700	900	3	2,700
		0	900	3	2,700	900	3	2,700
		0	450	5	2,250	450	5	2,250
		0	750	3	2,250	750	3	2,250
		0	0	0	0	0	0	0
		0	0	0	0	0	0	0
		0	1,440	3	4,320	1,440	3	4,320
		0	200	3	600	200	3	600
		0	150	1	150	150	1	150
		0	450	1	450	450	1	450
		0	900	1	900	900	1	900
		0			14,180			14,180
		0			0			0
		0	900	2	1,800	900	2	1,800
		0	900	1	900	900	1	900
		0	900	1	900	900	1	900
		0	450	1	450	450	1	450
		0	90	1	90	90	1	90
		0	190	1	190	190	1	190
		0	900	1	900	900	1	900
		0	900	1	900	900	1	900
		0	900	1	900	900	1	900
		0	900	1	900	900	1	900
		0	100	2	200	100	2	200
		0	100	1	100	100	1	100
		0	900	1	900	900	1	900
		0	150	1	150	150	1	150
		0	100	2	200	100	2	200
		0	150	1	150	150	1	150
		0	150	1	150	150	1	150
		0	350	1	350	350	1	350
		0	450	5	2,250	450	5	2,250
		0	450	2	900	450	2	900
		0			5,100			5,100
		0	1,200	2	2,400	1,200	2	2,400

VARIATION TO MSBA GUIDELINES		
ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS
		-850
		-900
		-28
		-25,200
		900
		6
		5,400
		900
		6
		5,400
		900
		6
		5,400
		900
		3
		2,700
		900
		3
		2,700
		900
		3
		2,700
		-50
		3
		1,250
		750
		3
		2,250
		0
		0
		0
		-1,080
		-4
		-4,320
		-120
		-4
		-480
		0
		0
		0
		0
		0
		450
		1
		450
		900
		1
		900
		6,130
		-950
		-5
		-4,750
		900
		2
		1,800
		900
		1
		900
		900
		1
		900
		900
		1
		900
		900
		1
		900
		900
		1
		900
		100
		2
		200
		100
		1
		100
		900
		1
		900
		150
		1
		150
		150
		1
		150
		350
		1
		350
		-50
		1
		250
		-50
		0
		-100
		500
		0
		0
		0

MSBA GUIDELINES (DO NOT MODIFY)				COMMENTS
ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS		
		36,070		STE Guidelines Policy
		900	28	25,200
		900	6	5,400
		900	6	5,400
		900	6	5,400
		900	3	2,700
		900	3	2,700
		900	3	2,700
		500	2	1,000
		1,080	4	4,320
		120	4	480
		1,440	3	4,320
		200	3	600
		150	1	150
		8,050		Special Education spaces require DESE review and approval.
		950	5	4,750
		900	2	1,800
		900	1	900
		900	1	900
		450	1	450
		90	1	90
		130	-4	-110
		60	5	300
		900	1	900
		900	1	900
		900	1	900
		900	1	900
		900	1	900
		100	2	200
		100	1	100
		900	1	900
		150	1	150
		100	2	200
		150	1	150
		150	1	150
		350	1	350
		500	4	2,000
		500	2	1,000
		4,600		
		1,200	2	2,400
				Assumed schedule: 50% total enrollment; 2 times per week



Proposed Space Summary - Middle School

Date: [Enter Date] [Enter Submittal]

[ENTER DISTRICT NAME] [ENTER SCHOOL NAME]	EXISTING CONDITIONS		
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS
Custodian's Workshop		1	830
Custodian's Storage		1	715
Recycling Room / Trash			0
Receiving and General Supply		1	468
Storeroom		1	741
Network / Telecom Room		1	321
<b>OTHER</b>			<b>1,582</b>
(List rooms separately below)			
Greenhouse		1	623
Food Pantry		1	104
Classroom Health/Wellness		1	855
<b>Total Building Net Floor Area (NFA)</b>			<b>85,349</b>
Proposed Student Capacity / Enrollment			
<b>NON-PROGRAMMED SPACES</b>			
<b>Other Occupied Rooms (List rooms separately below)</b>			
Med Storage [Meducal]			0
Unoccupied MEP / FP Spaces			
Unoccupied Closets, Supply Rooms, and Storage Rooms			
Toilet Rooms			
Circulation (corridors, stairs, ramps and elevators)			
Remaining <sup>3</sup>			
<b>Total Building Gross Floor Area (GFA)<sup>2</sup></b>			<b>130,000</b>
Grossing Factor (GFA / NFA)			1.52

PROPOSED PROGRAM								
EXISTING TO REMAIN / RENOVATED			NEW CONSTRUCTION			TOTAL		
ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS	ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS	ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS
		0	250	1	250	250	1	250
		0	375	1	375	375	1	375
		0	400	1	400	400	1	400
		0	333	1	333	333	1	333
		0	467	1	467	467	1	467
		0	200	1	200	200	1	200
		<b>0</b>			<b>900</b>			<b>900</b>
		0			0	0	0	0
		0	900	1	900	900	1	900
		<b>0</b>			<b>90,368</b>			<b>90,368</b>
		% of GFA	0	% of GFA	-90,368	% of GFA		45,632
		0	50	1	50	50	1	50
		-	#DIV/0!	-	#DIV/0!	2,160	-	1.6%
		-	#DIV/0!	-	#DIV/0!	1,013	-	0.7%
		-	#DIV/0!	-	#DIV/0!	3,646	-	2.7%
		-	#DIV/0!	-	#DIV/0!	29,867	-	22.0%
		-	#DIV/0!	-	#DIV/0!	-127,104	-	6.5%
		<b>0</b>			<b>0</b>			<b>136,000</b>
		#DIV/0!			0.00			1.50

VARIATION TO MSBA GUIDELINES		
ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
		<b>900</b>
		8,680
		45,632
50	1	50
		21,000
		0.10

MSBA GUIDELINES (DO NOT MODIFY) (Refer to Educational Facility Planning for additional information)			
ROOM NFA <sup>1</sup>	# OF ROOMS	AREA TOTALS	COMMENTS
250	1	250	
375	1	375	
400	1	400	
333	1	333	
467	1	467	
200	1	200	
		<b>0</b>	
		81,688	<b>Total Building Net Floor Area (NFA)</b>
# of Grades	5		
Grade 4	1		
Grade 5	1	700	<b>Total Enrollment (Enter Design Enrollment)</b>
Grade 6	1	420	Lower Middle School Enrollment (Grades 4-6)
Grade 7	1	280	Upper Middle School Enrollment (Grades 7-8)
Grade 8	1		
			Complete this category with Schematic Design Submittal
		115,000	<b>Total Building Gross Floor Area (GFA)<sup>2</sup></b>
		1.41	<b>Grossing Factor (GFA / NFA)</b>

<sup>1</sup> Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

<sup>2</sup> Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls.

<sup>3</sup> Remaining

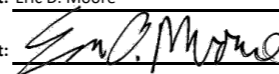
Includes exterior walls, interior partitions, chases, and other areas not listed above. Do not calculate this area, it is assumed to equal the difference between the Total Building Gross Floor Area and area not accounted for above.

**Architect Certification**

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.

Name of Architecture Firm: Lamoureux Pagano Associates | Architects

Name of Principal Architect: Eric D. Moore

Signature of Principal Architect: 

Date: 2/23/2024

**SPACE SUMMARY**

Two signed copies of the educational space summary, reflecting the current design, are included in this section. Changes to the space summary template since the Preferred Schematic Report are highlighted in red font. The summary of changes between the current space summary and the previously submitted PSR space summary are as follows:

**GENERAL**

The proposed Total Building Gross Floor Area has remained the same at 136,000 GSF.

The Town approved to go with a hybrid heating system consisting of Air source heat pump and geothermal heating. This will require reconfiguration and expansion of the main mechanical room which will be achieved by reconfiguring adjacent circulation space to now be part of the mechanical room.

As the requirements for each space were more fully defined through LPA’s Schematic Design programming efforts, subsequent adjustments to the plan have slightly altered the NSF of many spaces. Changes in area since the PSR submission are summarized by category in the charts below, and significant program and area changes are outlined in the narrative following each chart.

<b>ACADEMIC</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	36,120 NSF	→	35,220 NSF	-900 NSF

- MSBA requested that the “Classroom Health/Wellness” be moved into the “Other” category.
- The reimbursable square footage increased due to the transitions to the new space summary template.

<b>SPECIAL EDUCATION</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	14,200 NSF	→	14,200 NSF	0 NSF

- No changes to the NSF for this category

<b>ART &amp; MUSIC</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	5,100 NSF	→	5,100 NSF	0 NSF

- No changes to the NSF for this category
- This results in an MSBA Space Summary Template Variation of +500 NSF. This space is required to support the district’s robust band/choral program.

<b>VOCATIONS &amp; TECHNOLOGY</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	4,320 NSF	→	4,320 NSF	0 NSF

- No changes to the NSF for this category

<b>HEALTH &amp; PHYSICAL EDUCATION</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	9,400 NSF	→	9,400 NSF	0 NSF

- No changes to the NSF for this category
- This results in an MSBA Space Summary Template Variation of +1,00 NSF. This space is required to support a full-size competition court and bleacher’s for school wide assemblies

<b>MEDIA CENTER</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	4,405 NSF	→	4,405 NSF	0 NSF

- No changes to the overall NSF for this category
- The “Maker Space” was increased to 1,440 NSF based on comments received by MSBA.
- The design team has reviewed the floor plan and has several options for owner consideration to ensure the “Maker Space” meets MSBA’s space requirement of 1,440 NSF

<b>DINING &amp; FOOD SERVICE</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	10,558 NSF	→	10,558 NSF	-266 NSF

- No changes to the NSF for this category
- This results in an MSBA Space Summary Template Variation of +1,00 NSF. This space is required to support the storage, prep, and cooking apparatuses required for the District’s food offerings.



3. Changes to Space Summary Narrative

<b>MEDICAL</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	660 NSF	→	610 NSF	0 NSF

- The “Med Storage” was moved to the “Other” category at the recommendation of MSBA.
- This results in an MSBA Space Summary Template Variation of 0 NSF.

<b>ADMINISTRATION &amp; GUIDANCE</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	3,500 NSF	→	3,500 NSF	+391 NSF

- No changes to the NSF for this category.

<b>CUSTODIAL &amp; MAINTENANCE</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	2,175 NSF	→	2,175 NSF	+143 NSF

- No changes to the NSF for this category.

<b>OTHER</b>	PSR	TO	SD	DELTA
TOTAL CATEGORY AREA	0 NSF	→	900 NSF	900 NSF

- The “Classroom Health/Wellness” was moved to the “Other” category at the recommendation of MSBA.
- This results in an MSBA Space Summary Template Variation of 900 NSF

**GROSSING FACTOR**

The grossing factor remains at 1.50, which is unchanged from the PSR submission.

**DESIGNER CERTIFICATION**

This is an acknowledgement and certification that the sum of all programmed floor areas plus all other floor areas equal the gross floor area of the Final Design Program.

Eric D. Moore, AIA, Principal-in-Charge

Lamoureux Pagano Associates Architects

A handwritten signature in black ink, reading "Eric D. Moore", is written over a horizontal line.

The following narrative includes the Designer responses to each category of the Final Educational Program, extracted from the Compiled Educational Program included in Section 3.3.4, A of the PSR, edited where necessary to align with the Schematic Design Submission.

To support the Clinton Middle School mission of a community school in support of the Town's commitment to providing a well-rounded education, the academic wings have been developed as neighborhoods to support the focused teacher/student approach to promote each student's success with Collaborative areas for flexible use and collaborative teacher planning rooms.

Additionally, core facilities are designed to facilitate significant after hours use including: a Cafetorium, Media Center, Gymnasium facilities, Art rooms, and a non-designated emergency shelter.

#### Clinton Public Schools Mission Statement

*The mission of Clinton Public Schools is to provide students with rigorous, engaging, and academically challenging educational opportunities in a safe and secure environment. These opportunities aim to develop academic and social skills while recognizing individual differences and promoting the discovery and development of individual strengths, talents, and interests. Through partnerships with the community, Clinton Public Schools aims to teach students how to learn and adapt to be competitive and successful in a global society.*

#### Vision Statement

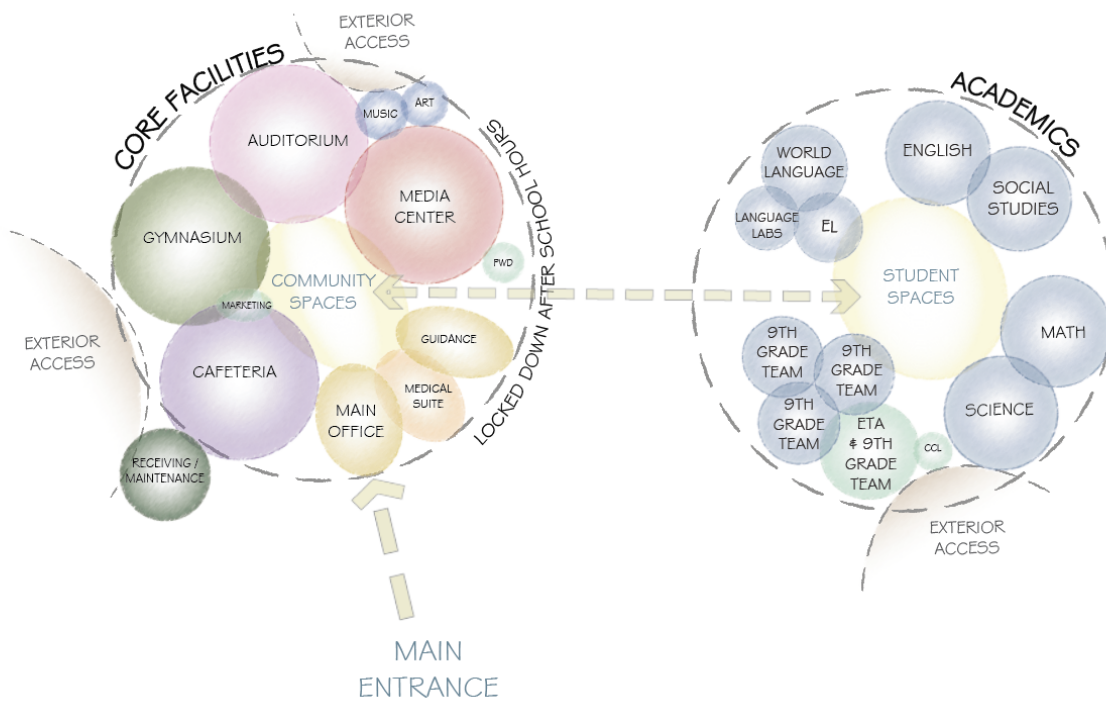
*Clinton Public Schools' vision is to be a high performing school system where students develop as lifelong learners who are healthy, able to work collaboratively, think critically to solve complex problems, overcome adversity, and effectively utilize technology. Our students will be prepared to connect with our local community as well as be responsible, knowledgeable, and productive members of our global society.*

#### Core Values

***ACADEMIC ACHIEVEMENT:** Clinton Public Schools strives for all students to achieve at their highest level of academic performance while stimulating intellectual curiosity and developing the skills necessary to adapt and change to ensure college and career readiness.*

SAFETY & WELLNESS: Clinton Public Schools aims to provide a safe and supportive learning environment which promotes social-emotional and physical wellness for all.

GLOBAL COMMUNITY: Clinton Public Schools embraces diversity and aspires for all of our staff and



students to be productive, active, and caring members of not only the local community, but the global society as well.

**GRADE AND SCHOOL CONFIGURATION**

The following educational program narrative has been developed by Clinton Public Schools (CPS) in collaboration with their designer Lamoureux Pagano & Associates Architects (LPA|A) and their OPM, Dore + Whittier (D+W). It communicates the District’s existing and future educational program offerings, defines expected educational activities, and provides an in-depth description of the District’s position on key curriculum goals, objectives, and policies. The building is designed to support 700 students, 4<sup>th</sup> through 8<sup>th</sup> grade.

The building is organized so that the “Middle School” (7–8) and “Upper Elementary” (4–6) have clear separation from one another. The “Middle School” is housed in the two-story academic wing on the southeast side of the building while the “Upper Elementary” is housed in the two-story academic wing on the north side of the building. This prevents students from either the “Middle School” or “Upper Elementary” from ever having to circulate through each other’s neighborhoods to get to the shared core spaces. This will reduce disruptions to the classrooms and reinforce the strong sense of identity and belonging for each grade level neighborhood. The number of teaching stations indicated in the space summary aligns with the number of spaces needed within the projected schedule to support 700 students. The building is configured in a way to reduce between class travel time.

The building is designed to support the grades 4–8 enrollment of 700 students. The building form and location allow the opportunity for future expansion via extension of the existing academic wings or through the connection of those wings creating a courtyard.

#### **CLASS SIZE POLICIES**

Classrooms are sized at 900 NSF to accommodate an average of 24–25 students per class, flexibility for a variety of teaching methods, and space for inclusion services. This is in alignment with Clinton Public School policies and procedures. Communicating doors between classrooms and Collaborative areas are designed to support team teaching, project based learning, and special education inclusion programs.

#### **SCHOOL SCHEDULING METHOD**

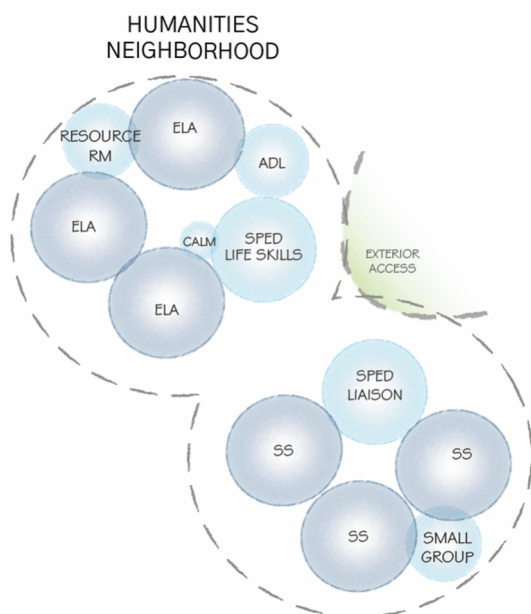
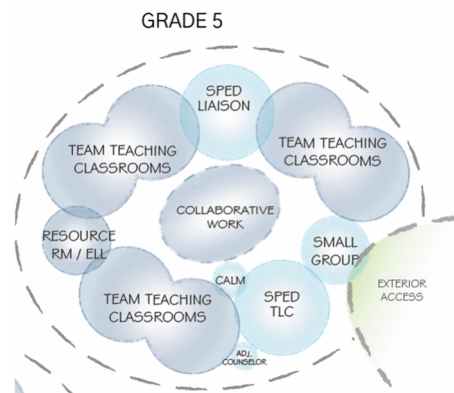
The number of teaching stations indicated in the space summary aligns with the number of spaces needed within the projected schedule to support 700 students. Most frequently accessed academic spaces are grouped together to reduce between class travel time. The preferred solution floor plans include flexible classroom wings that can be grouped and scheduled in a variety of ways in response to changes in enrollment. The design team will continue to review opportunities to build in flexibility within the space summary guidelines.

Additionally, the core facilities including administrative and guidance offices are centrally located for efficient staff and student flow from the academic wings throughout the day.

#### **TEACHING METHODOLOGY AND STRUCTURE**

All grade level teams will be housed in their own distinct neighborhood allowing for ease of travel between classrooms. Communicating doors between classrooms (All Grades) and Common Rooms (Grades 4–6) are designed to support team teaching, project based learning, and special education inclusion programs.

As shown in the diagram to the right, all “Upper Elementary” neighborhoods are designed and organized in a way to ensure each classroom has a communicating door to at least one if not two classrooms to reinforce team teaching and collaboration in the collaborative work area.



As shown in the diagram to the left, Grades 7 and 8 will be organized with more of a departmental focus. One neighborhood would have a STEM focus, and would include Math classrooms, Science labs and related Special Education and EL support spaces. The other neighborhood would have a Humanities focus, and would include English Language Arts and Social Studies classrooms, and related Special Education and EL support spaces.

A main driver for the shift from traditional teams to a departmental focus is to create a more equitable learning environment by allowing students to interact more freely rather than be confined to the team that may have the appropriate support available for that student.

The “Middle School” is organized in a two-story academic wing with the STEM (Math/Science) neighborhood on the first floor and the Humanities Neighborhood (ELA/Social Studies) on the second floor. This will reinforce collaboration amongst the subject matters that have the greatest tendency for collaboration as mentioned above while also preparing students for their transition to High School.

Additionally, All Academic Support Spaces are located to ensure inclusion and ease of access. This is achieved through strategic placement in the neighborhoods themselves and distribution throughout the building.

#### **STUDENT GUIDANCE AND SUPPORT SERVICES**

All Student Guidance and Support Spaces are located to ensure inclusion and ease of access. This is achieved through strategic placement of a centralized guidance office, and integration of the TLC and ABA programs within the academic neighborhoods.

#### **TEACHER PLANNING AND ROOM ASSIGNMENT POLICIES**

The two teacher planning spaces are centrally located to ensure ease of access and use for staff. These locations also allow staff to keep an eye out on students as they come and go from the shared core spaces. The number of teaching stations indicated in the space summary aligns with the number of spaces needed within the projected schedule to support 700 students.

#### **LUNCH PROGRAMS**

The Cafeteria is centrally located off the main lobby for ease of access for students and after school programs and events. The proposed kitchen, server, cafeteria and grab-and-go station are sized and located to support the District’s goal to efficiently provide nutritious food to 700 students.

#### **TECHNOLOGY INSTRUCTION POLICIES AND PROGRAM REQUIREMENTS**

The appropriate spaces and infrastructure will be distributed throughout the building as required to support the school’s technology program, including 1:1 device capabilities.

#### **MEDIA CENTER**

The Media Center will be centrally located for efficient access from the academic spaces. The space(s) will be equipped with technology and will be outfitted with flexible furniture to accommodate a variety of uses. A maker space will also be part of the media center to allow for cross disciplinary collaboration.

#### **VISUAL ARTS**

The Art classrooms are centrally located on the second floor above the Media Center just off the lobby. This offers the opportunity for an open gallery/display to be integrated into the school at a prominent intersection of circulation paths.

#### **MUSIC/PERFORMING ARTS**

The Band Room is located on the first-floor level directly adjacent to the cafetorium stage. This allows for the band room to act as a green room for the stage for special events/programs. The stage will be equipped with a high acoustically performing operable partition to separate it from the cafeteria. This will allow for the stage to be used as an additional teaching station for the music program.

#### **PHYSICAL EDUCATION**

The Physical Education and health spaces are clustered together on the first-floor level to facilitate exterior access from the gymnasium to the athletic fields. The PE spaces are organized to achieve maximum flexibility and utilization and for that reason additional space was required to be able to offer a full-size competition court and associated bleachers. The location off the main lobby allows for secure after-hours use for programs and events.

#### **SPECIAL EDUCATION**

The Special Education spaces required to fulfill the education program are distributed throughout the school to provide equal access and eliminate stigma. The Life Skills and ADL programs are located adjacent to each other, and the Adaptive PE/OT/PT room is centrally located adjacent to the PE & Health Spaces.

#### **ENGLISH LEARNERS**



The English Learner spaces required to fulfill the education program are distributed throughout the school to provide equal access and eliminate stigma.

#### **VOCATIONAL EDUCATION PROGRAMS**

The Vocational Education spaces are located at the end of the STEM Neighborhood closest to the Main Lobby. This location helps facilitate cross discipline collaboration with Math and Science. These spaces will be double height spaces to support current and future vocational programs. These spaces will have direct access to the exterior and are located adjacent to the main loading dock.

#### **SOCIAL EMOTIONAL LEARNING / GUIDANCE**

The Guidance Suite is located adjacent to both the Admin. and Nursing Suites, and includes a waiting area, private counselor offices, a dedicated conference room, and storage.

#### **NURSING**

The Nursing Suite is located adjacent to the Admin. & Guidance Suites, and gymnasium. The suite includes a waiting area, private exam room, unisex toilet, and storage. The Medical Suite will have exterior access to help facilitate medical transportation should an emergency arise.

#### **TRANSPORTATION POLICIES**

The site is developed in a way to ensure that bus traffic is not impeded by parent pick-up and drop-off. The siting of the new building also creates more than enough on-site queuing than is needed and will ensure traffic does not back up on to Route 110.

#### **FUNCTIONAL AND SPATIAL RELATIONSHIPS AND ADJACENCIES**

Each of the required adjacencies indicated in the PSR Educational Program is addressed within the building floor plans and will be developed further in Design Development. Refer to the updated Adjacency Diagrams in section 4.1.2, B, 6.

#### **SECURITY AND VISUAL ACCESS REQUIREMENTS**

## MSBA Module 4

### Schematic Design

#### 4.1.2 SCHEMATIC DESIGN BINDER

##### B. Final Design Program

##### 4. Educational Program Narrative

All the Town's security and visual access requirements are achievable in the design and layout of the preferred solution. The design team will continue to discuss security protocols in greater detail with local and district authorities as the design progresses. An office for the Security Resource Officer (SRO) is located within the Main Administration office.

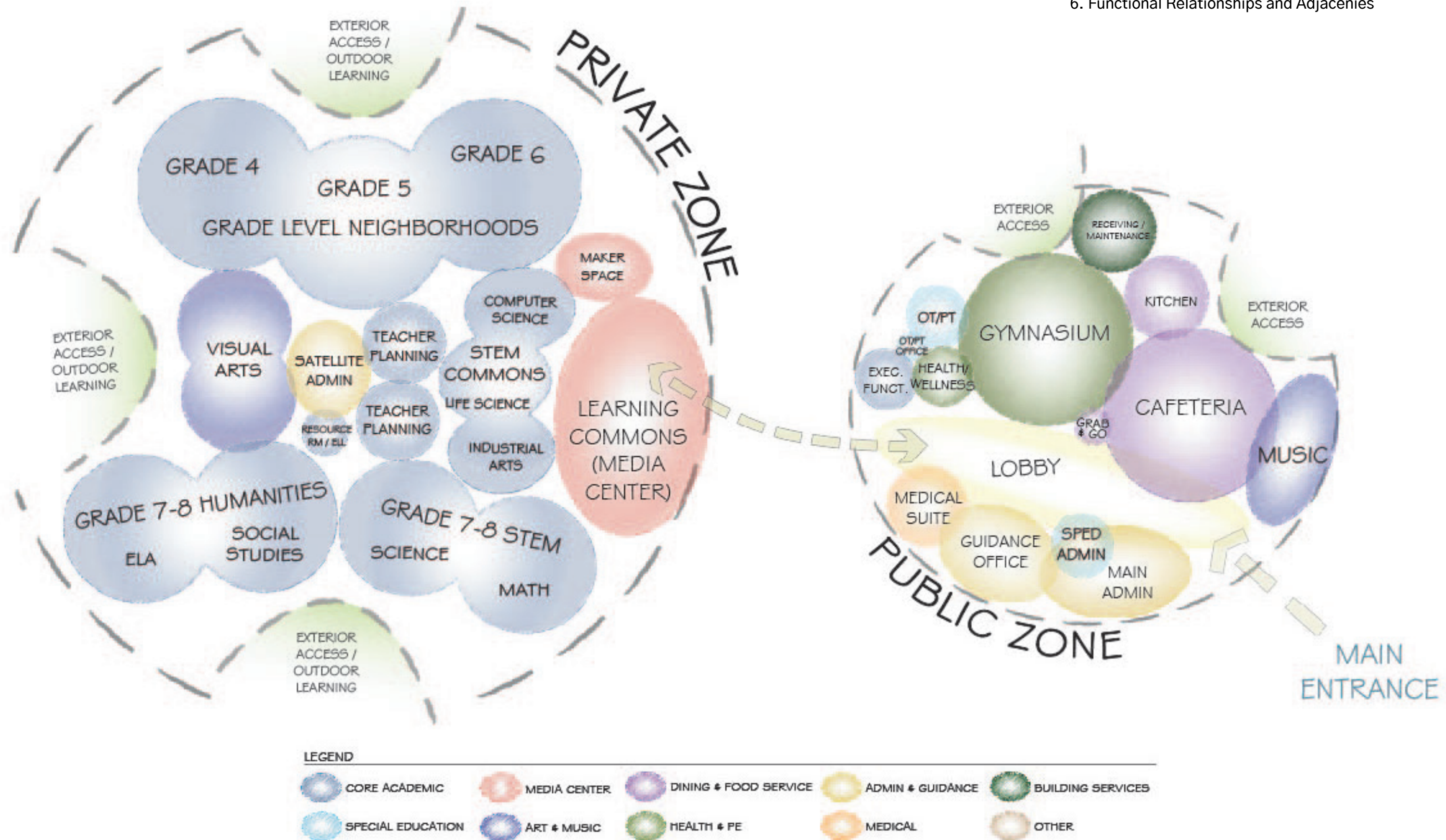
The Design team met with the District and School's Technology Directors and administration on October 4, 2023 and then on December 5, 2023 to discuss the Instructional Technology requirements for the Clinton Middle School. Refer to the Technology Basis of Design narrative by Edvance Technology Design, Inc., included in Section 4.1.2, I Narrative Building Systems.

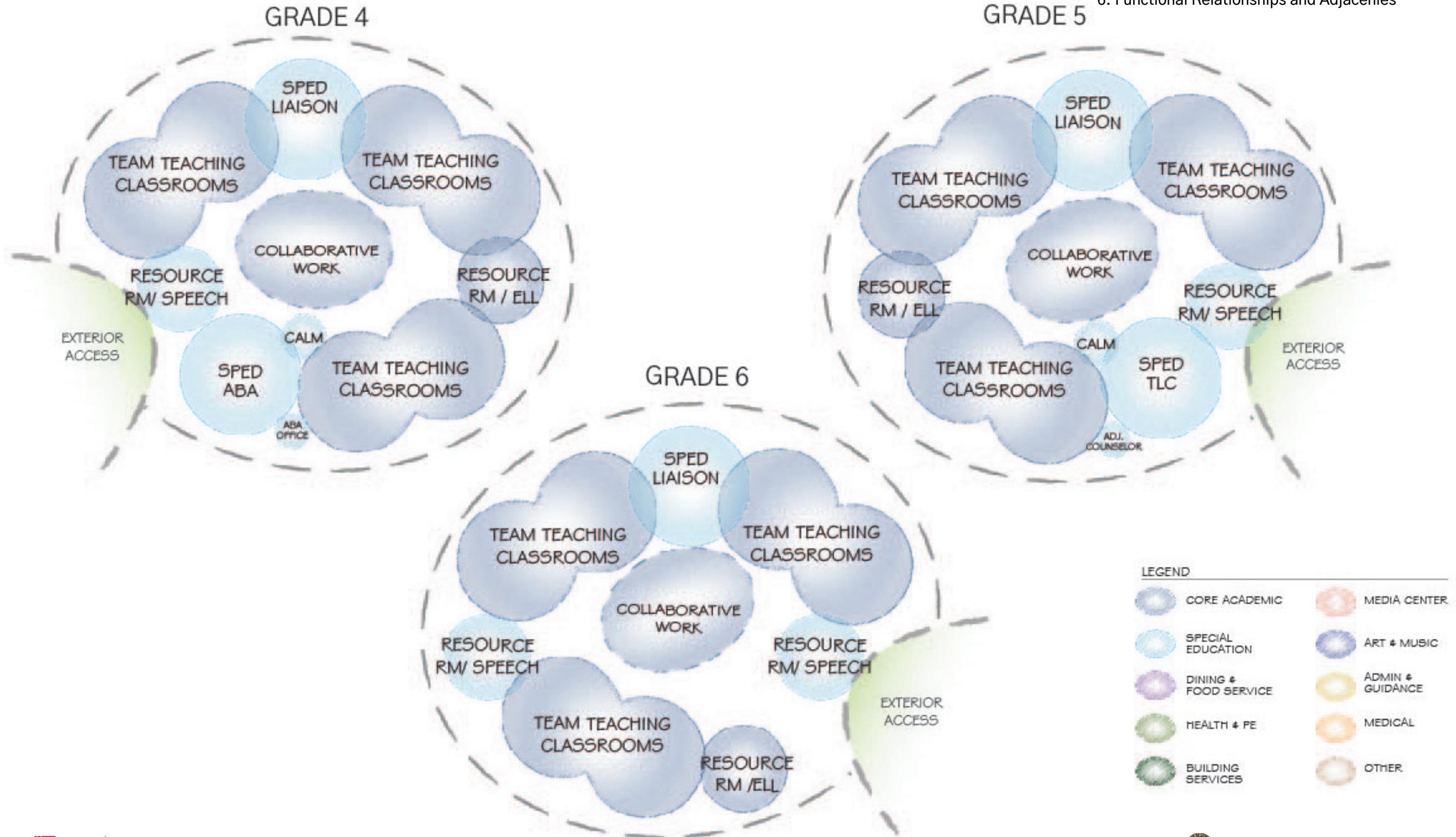
Additional specialized technology and equipment may be required for the Vocations & Technology Spaces. Refer to the Room Data sheets for preliminary equipment lists, to be developed further in Design Development.

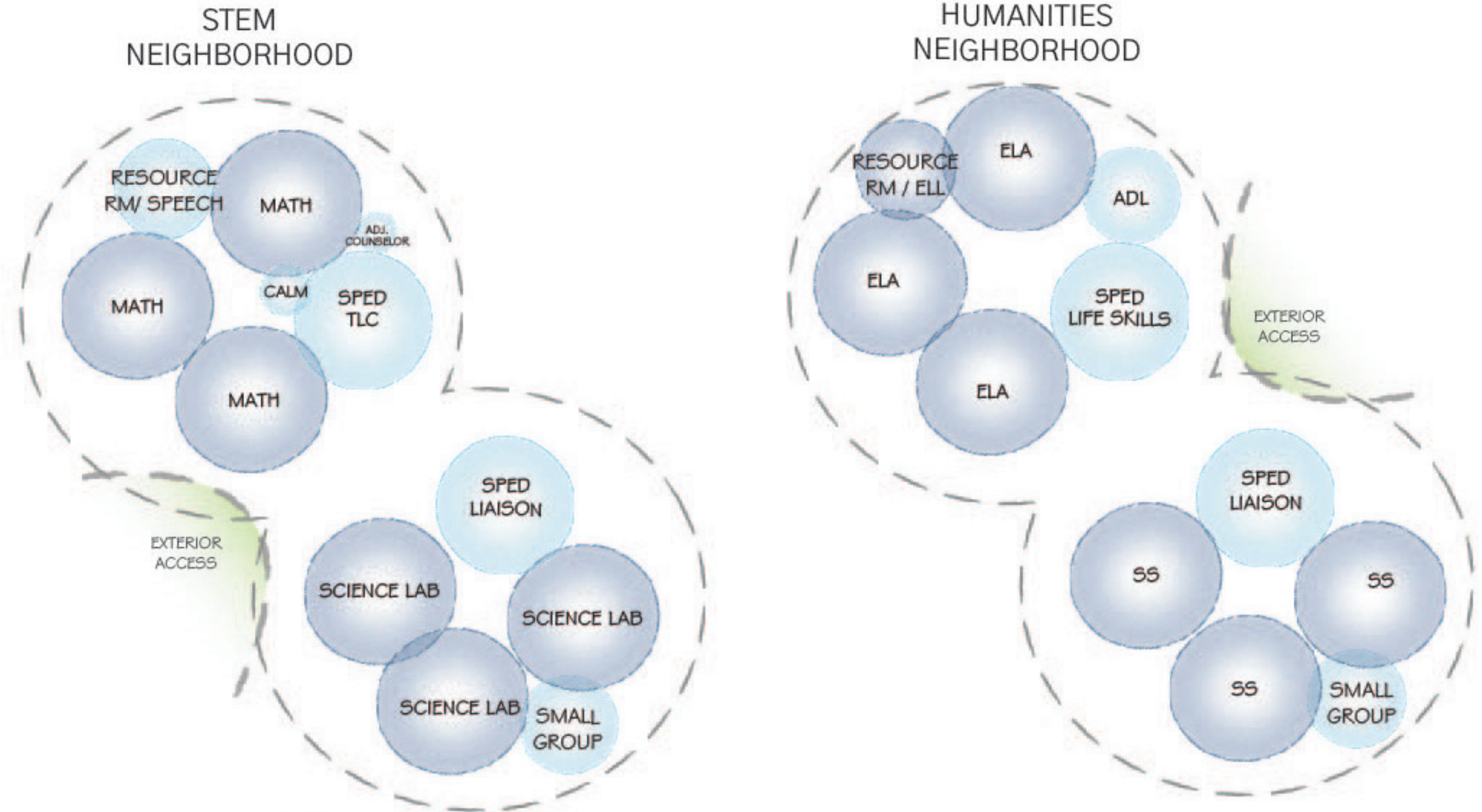
The following items will be procured as proprietary items in compliance with Massachusetts General Laws:

- Network Switches– Extreme Networks
- Wireless Access Devices– Cisco Meraki
- Telephone System– Mitel
- Integrated Security System– Verkada

These were viewed and approved by vote of the School Building Committee on February 6, 2024.







LEGEND

- |                   |              |                       |                  |                   |
|-------------------|--------------|-----------------------|------------------|-------------------|
| CORE ACADEMIC     | MEDIA CENTER | DINING & FOOD SERVICE | ADMIN & GUIDANCE | BUILDING SERVICES |
| SPECIAL EDUCATION | ART & MUSIC  | HEALTH & PE           | MEDICAL          | OTHER             |

On Friday, December 8<sup>th</sup>, 2023, LPA|A met with the local authorities having jurisdiction (AHJ) for the Town of Clinton. The authorities included the following:

- Brian Coyne– Chief of Police
- Michael Lutes– Fire Chief
- Michael Ward– Town Administrator
- Steven Meyer– Superintendent of Schools

The purpose of the meeting was to review the preferred solution as part of the Schematic Design submission and give the AHJ's an opportunity to provide input on the design and ensure that scope is captured in the cost estimate for accuracy.

During the meeting, LPA|A reviewed the current site plan and proposed floor plans of the new middle school building. Some of the comments received by the AHJ's include the following:

- Chief Coyne asked about how the building will be locked off after hours and still allow the building to be used by the community. LPA|A responded that the public will have access to the Gymnasium, Cafeteria, and Media Center after hours. The rest of the building, mostly academic classrooms, will be locked off by doors within the associated corridors. The second floor will only allow access to within the main lobby area mezzanine and to 2 enclosed stairways for emergency egress.
- LPA|A advised that a BDA system will be included in the project as part of the base scope of work.
- No exterior lighting will be provided at the new athletic field nor at the basketball courts to the east of the new school. Minimal light will be provided at these areas by typical access road lighting. The basketball courts will have video surveillance.
- The proposed school will not be a designated emergency shelter. However, it will have some capacity to warm and cool occupants; limited by how big the Owner wants the generator to be designed for.
- There will be standby power for the HVAC system to prevent freezing within the building.

- The Owner requested that there be “safety stations” within the school. These stations will include not only an AED but also CPR mask, turnikit, and fire blanket. At least one on each floor to be centrally located.
- The discussion continued from the previous meeting held in May 2023 regarding where the Owner would like to implement other security features within the project such as bullet-resistant glass. At the Owner’s recommendation, a working group, made up of members from the OPM, Construction Manager, Town, and LPA|A, will be formed in the next phase of the project. This working group will collaborate to determine what additional security features will be incorporated into the new building beyond the video surveillance, intrusion detection, and access control.
- The current design requires a visitor to be buzzed into the first pair of main entry vestibule doors. The second pair of vestibule doors (into Lobby) will be locked. Once inside the vestibule, the visitor will then need to be buzzed into the main office where they will be able to conduct their business and allowed to bypass the second pair of locked vestibule doors. Being the case, the Owner advised that they want to use bullet-resistant material at all doors of the vestibule. The Owner requested that LPA|A provide a budget number for this as well as for a typical exterior door around the perimeter of the rest of the building. A further discussion will be had at the next School Building Committee meeting.



On Monday, December 18<sup>th</sup>, 2023, LPA|A met with the local authorities having jurisdiction (AHJ) for the Town of Clinton. The authorities included the following:

- James Salmon– Town Building Inspector
- Paul Silvester– SRO
- Michael Lutes– Fire Chief
- Michael Ward– Town Administrator
- Steven Meyer– Superintendent of Schools

The purpose of the meeting was to review the preferred solution with the building inspector as well as discussing further security and visual access requirements with the Police and Fire Departments.

During the meeting, LPA|A reviewed the current site plan and proposed floor plans of the new middle school building. The main entrance design and entry sequence as follows:

- The secure main entrance vestibule is adjacent to, and has direct line of sight to, the main office.
- The school bus drop-off and main parking area is viewable from the main office.
- Entry is allowed through exterior/interior vestibule doors, utilizing timer-controlled electronic access control door hardware, at the beginning of each school day during the student arrival period as designated by the Owner. Once school starts in the morning, exterior/interior vestibule doors will be automatically locked for the remainder of the day.
- During the school day when exterior/interior vestibule doors are typically locked, access from the exterior to the main entry vestibule will be via a video entry station with intercom and remote access control hardware (monitored by main office administrative staff). Once allowed access into the secure main entry vestibule, visitors must use a secondary video entry station to be allowed access into the main office for sign-in and identity confirmation. A video entry station shall be provided at the outside door for non-school hours access.

The interior door sequencing and lockdown was also reviewed and was determined as follows:

- Corridor-to-Classroom doors are proposed to have keyed classroom-function locksets, similar to Corbin Ruswin “Classroom Intruder” with the following operation:
  - Latchbolt by grip either side, unless outside grip is locked by key either side.
  - Outside grip locked or unlocked by cylinder either side.
  - Auxiliary latch deadlocks latchbolt.
  - Inside grip always free.
- Classroom-to-Classroom communicating doors are proposed to have a passage hardware set, to allow free passage of students through the classroom areas.
- Classroom sidelites are proposed on the strike side of doors. Sidelite glazing will be laminated safety glazing and provided with a manually-operated privacy blind.
- The main lobby area is scheduled to be separated from the academic areas with doors at the corridors leading to those academic areas. While further security protocols will be discussed with the District in the next phase of the project, the current assumption for cost estimating purposes is that these corridor doors are designed to egress into the lobby, and the lobby side of these doors are capable of being locked at the lobby side. These doors are typically held open on magnetic release hold open devices that will close the doors during a fire alarm. This lobby door hold-open system will also be controlled by a relay, and can be released to close upon actuation of a panic switch, which will be located at the main office reception desk (multiple locations), at the Principal’s office, and School Resource Officer’s office.

Other exterior door operations were discussed as follows:

- A video entry station shall be provided at the Loading Dock/Receiving area. This people-door will also be provided with an electronic card reader system and security camera monitoring in addition to a photo for direct communication to the main office and/or kitchen office. Any additional exterior doors with these features will be reviewed with the Owner in the next phase as part of the District’s lockdown and security protocols.

Video surveillance will be provided throughout the interior/exterior of the school. The District utilizes a proprietary unified security system (Verkada).

In addition to interior building signage, the District requested that all exterior doors be labeled (X1 for example) for easy identification in an emergency. Additionally, every space with a window will have the room number mounted on the glass of 1 window for easy identification in an emergency. Larger spaces with an exterior walls (Media Center and Cafeteria) will have the room name in lieu of room number indicated on at least 2 windows.

There will be 3 locations for Knox boxes around the perimeter of the building. There will be one at the main entrance, one at the exterior door at the end of the 7 & 8 grade classroom wing, and one at the stair on the north side of the building. The District currently uses EAS as the manufacturer and will be included in the specifications for this project.

The site currently includes a total of 124 parking spaces, broken down as follows:

- 6 dedicated accessible handicap parking spaces
- 7 dedicated electric vehicle parking spaces with associated charging stations.
- 111 regular parking spaces

All the parking spaces noted above are located to the west of the new school building, facing the main entrance with all the handicap, and dedicated electric vehicle spaces closest to the building.

Regarding how the parking space quantities were derived, the existing school, with a 572–student enrolment, currently utilizes 91 parking spaces including 85 staff and 6 visitor spaces. Per the proposed 700 student enrollment, the total number of parking spaces increases to 111. As a rule of thumb, “parking lots are typically designed with 5 to 10 percent reserve capacity to minimize travel time and distance when searching for an empty space and to ensure adequate capacity to accommodate daily variations in peak demand.” Thus, adding 10% to the 111 proposed parking spaces increases to 123 which is just under the number of spaces proposed. It should be noted that, given the new building is a middle school, there are no students who attend the school that can drive a vehicle. Thus, no dedicated student parking is required.

Additionally, during events where the parking lot may reach full capacity, there are several “overflow” options available that the new Middle School may utilize including at the adjacent High School and across the street (route 110) at the Town’s athletic fields.

Bus and parent drop-off/pick-up traffic will utilize separate traffic loops. The buses will have a dedicated drop-off/pick-up location at the west (main entrance) side of the building. The bus lane provides enough length to accommodate up to 5 of the estimated 9 buses at a time. The parent drop-off/pick-up traffic will wrap around the building, starting at the location where the bus drop-off/pick-up begins and will wrap around the building with a one-way access road in the counterclockwise direction. The parent drop-

## MSBA Module 4

### Schematic Design

## 4.1.2 SCHEMATIC DESIGN BINDER

### B. Final Design Program

### 8. Site Development Requirements

off/pick-up location is on the north side of the building at either the stair entrance or the entrance adjacent to the medical suite. However, the stair entrance is the preferred location due to its closer proximity to the academic wings. According to the traffic analysis, based on the 700-student enrollment, a queuing length to support and estimated 49 vehicles is required. Based on the proposed length, the access road has a capacity to support up to 58 vehicles and will meet the estimated needs. Graphics that indicate the traffic loops were provided in the PSR Supplement package submitted to MSBA in response to the MSBA cursory review.

Refer to the traffic analysis found in this section, conducted by Stantec Consulting Services Inc., for further information.

### DESIRED VISUAL OR AESTHETIC FOCAL POINTS

---

The intended primary visual focal point of the proposed building is the main entrance Lobby signified by the sloped skylight that extends from the main entrance on the west side of the building to the media center at the courtyard between academic wings on the east side of the building and the mezzanine level open corridor at the second floor. The longitudinal shape and 2-story configuration allow the Lobby to serve as the backbone for circulation and direction to the various parts of the building. The Gymnasium, Cafeteria and Platform, and Media Center all have direct adjacency and access to the main lobby which can better support after hour programs as well as large functions. Both academic wings have direct access to the main lobby on the east side. In essence, the main lobby provides the opportunity to close off the academic spaces from the rest of the building.

Generally centered at each grade 4 – 6 academic wing is a collaborative space that provides visual connections to all classrooms in the cluster as well as the exterior. Since each collaborative space does not have an exterior wall to allow for natural daylight, each will include a dedicated skylight that will allow for natural daylighting.

The building is designed for users to easily identify the major program components, provide intuitive circulation paths, and strong interior and exterior connections throughout by means of stairs and/or glass at ends of corridors for exterior views/reference, and skylights at interior collaborative spaces as mentioned above. The scale is intentionally reduced to provide a welcoming, inviting environment for young students. This is achieved using compact academic wings/clusters and maximum two-story height with several single-story spaces (band and science labs).

The exterior use of brick masonry and glass fiber reinforced concrete (GFRC) panels is meant to reference the town of Clinton's historic past as being a mill town as well as its other existing schools; the elementary and high schools most notably. These core materials allow for referencing historical materials but with a modern aesthetic appearance. Additionally, these materials are durable and well suited for its exterior applications for a 50+ year school.

From a site perspective, the school is positioned on the property to allow the existing school to remain open during construction. This was accomplished by locating the building at the southeast corner of the school property. By doing so, the new school would not have as prominent of a presence along West Boylston Street (route 110) as the exiting school does. However, the new school will be moved forward (west) enough to allow the west side of the school, which is the main entry side, to have a more visible appearance from West Boylston Street so that visitors will have a clear approach to the school.

## 4.1.2 SCHEMATIC DESIGN BINDER

---

### C. Traffic Analysis

1. Traffic Analysis Narrative
2. Transportation Feasibility Assessment

Stantec Consulting Services' Transportation Design Parameters report dated November 28, 2023, and included with this Schematic Design submission, describes the existing traffic patterns and conditions. This document reviewed how the existing middle school impacts traffic along route 110 (W. Boylston Street) and analyzes any potential increase in traffic patterns anticipated from the increased enrollment. Additionally, the report makes recommendations on the following:

- Parking capacity
- Pedestrian safety relative to sidewalk access
- Bus drop-off/pick-up capacity

Of the three recommendations made in the traffic report, the parking capacity was increased to 124 spaces, which exceeds the recommendation by 1 parking space. Additionally, a sidewalk was added along the east side of the East Driveway that will allow pedestrians to safely walk from the school north to rte. 110. Lastly, there is an opportunity for the remaining buses that can't queue up in front of the new school to be able to queue up along the south access road and wait their turn for drop-off/pickup.

The temporary Construction impacts will include adding a separate entrance at the East Driveway for construction vehicles to enter the site to maintain separation and enhance safety, adding a temporary entrance at the east side of the site at South Main Street for construction workers, and an orchestrated change in where school staff will park their vehicles as construction progresses. Phasing plans, provided by the Construction Manager, are included in section 4.1.2, M, 3 of the Schematic Design submission.

At this time, there is no off-site work anticipated as part of this project.

Total Project Budget includes the phasing work. The Construction Manager/Contractor, will refine the project phasing as the project develops into Design Development and ultimately Construction Documents.





Stantec Consulting Services Inc.  
136 West Street, Suite 203, Northampton, MA 01803

November 28, 2023  
File: 179450769

**Attention: Mr. Eric Moore**  
Lamoureux Pagano Associates | Architects  
108 Grove Street, Suite 300  
Worcester, MA 01605

Dear Eric,

**Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA**

Per your request, we completed traffic investigations for the Clinton Middle School feasibility study. The collected data presented below was used to define existing conditions at the school, recommend design parameters, and evaluate the current plan. Based on our evaluation, we recommend that consideration be given to increasing the on-campus parking and modifying the proposed bus pick-up/drop-off plan. These recommendations and other minor recommendations are discussed further below.

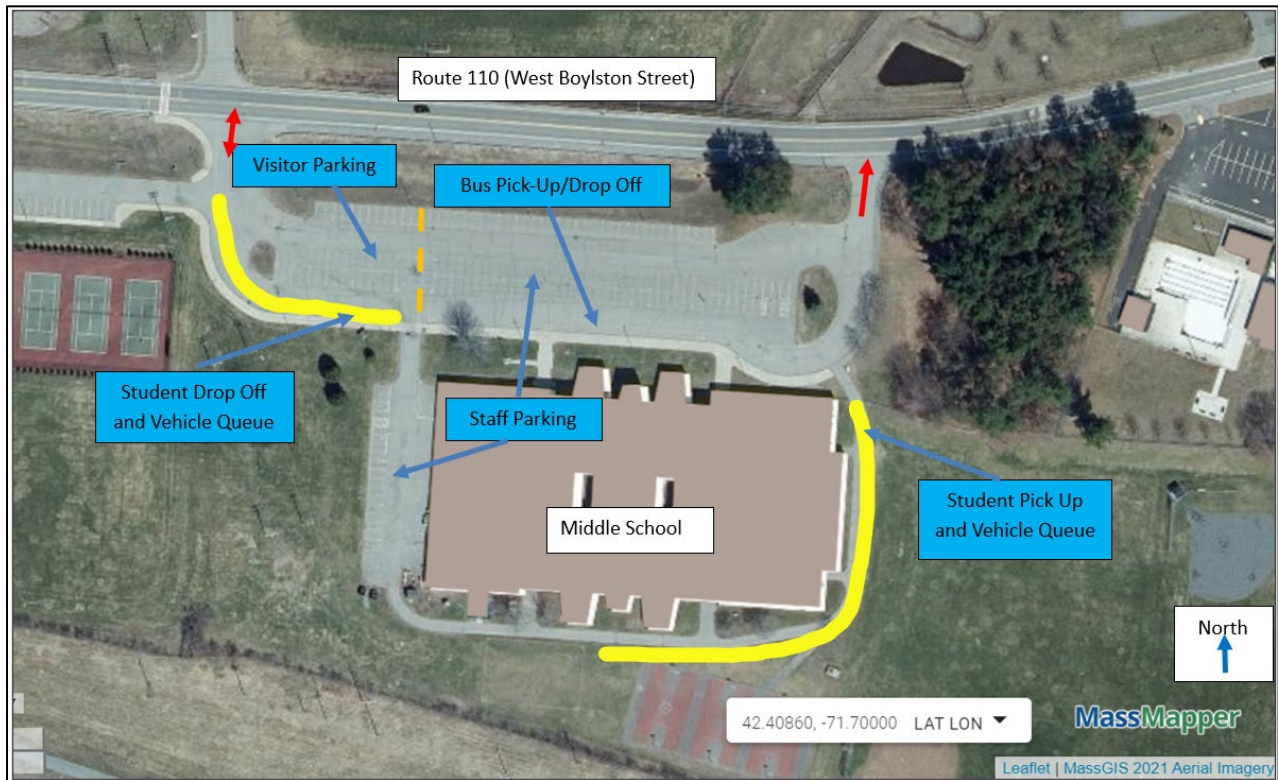
**PROJECT DESCRIPTION**

The Town of Clinton (“the Owner”) is conducting a feasibility study to construct a new middle school at the site of the existing school, 100 West Boylston Street, Clinton, Massachusetts. The school has two driveways on West Boylston Street. The western driveway provides full access and is shared with the adjacent Clinton High School. The eastern driveway functions as an exit only. The middle school currently accommodates grades 5 through 8 with an estimated enrollment of 572 students. The new school would accommodate grades 4 through 8 with an estimated enrollment of 700 students. Under the currently proposed construction plan, the two site driveways would be maintained, and an emergency access driveway would be provided at South Main Street.

**EXISTING CONDITIONS**

A site visit was conducted to determine existing roadway, traffic, and operating conditions. Specifically, a campus visit was made by Stantec on Thursday, October 12, 2023, to observe traffic operations and parking conditions during student arrivals and dismissal. School staff indicated in advance that the survey day would exhibit typical conditions. Conditions with respect to vehicle queueing change rapidly; as such, the number of vehicles queued to drop off students in the morning, and the number of vehicles queued to pick up students in the afternoon were monitored once per minute. Staff parking conditions change less rapidly and were reported at the beginning and end of the two surveys. Concurrent with the on-site surveys, cameras were recording vehicular and pedestrian traffic volumes at the two campus driveways at West Boylston Street (State Route 110). Figure 1 provides an overview of existing site conditions and is referenced below to describe the observed conditions.

**Figure 1 Existing Campus Conditions**



**Student Arrivals (AM Peak Period)**

Student arrivals occurred primarily from 7:30 AM to 8:00 AM when school starts. Stantec observations for this period are noted below.

**Student Drop-Offs**

Parents enter the western site driveway to drop off students in the morning. Vehicles will queue along the West Driveway, as noted in Figure 1. Students unload from vehicles stopped in the approximately five or six curbside spaces just to the west of the driveway to the West Lot. The queue, viewed from West Boylston Street, is shown in Figure 2. The number of spaces used for drop-offs affects the speed at which the queue proceeds. Additional curb space is provided further west along the entrance driveway but is not typically used. After dropping off students, most vehicles make a U-turn in the visitor parking lot and exit the campus through the West Driveway. For drop-offs occurring early (before school buses arrive), vehicles are more likely to exit by way of the East Driveway.

November 28, 2023

Mr. Eric Moore

Page 3 of 17

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

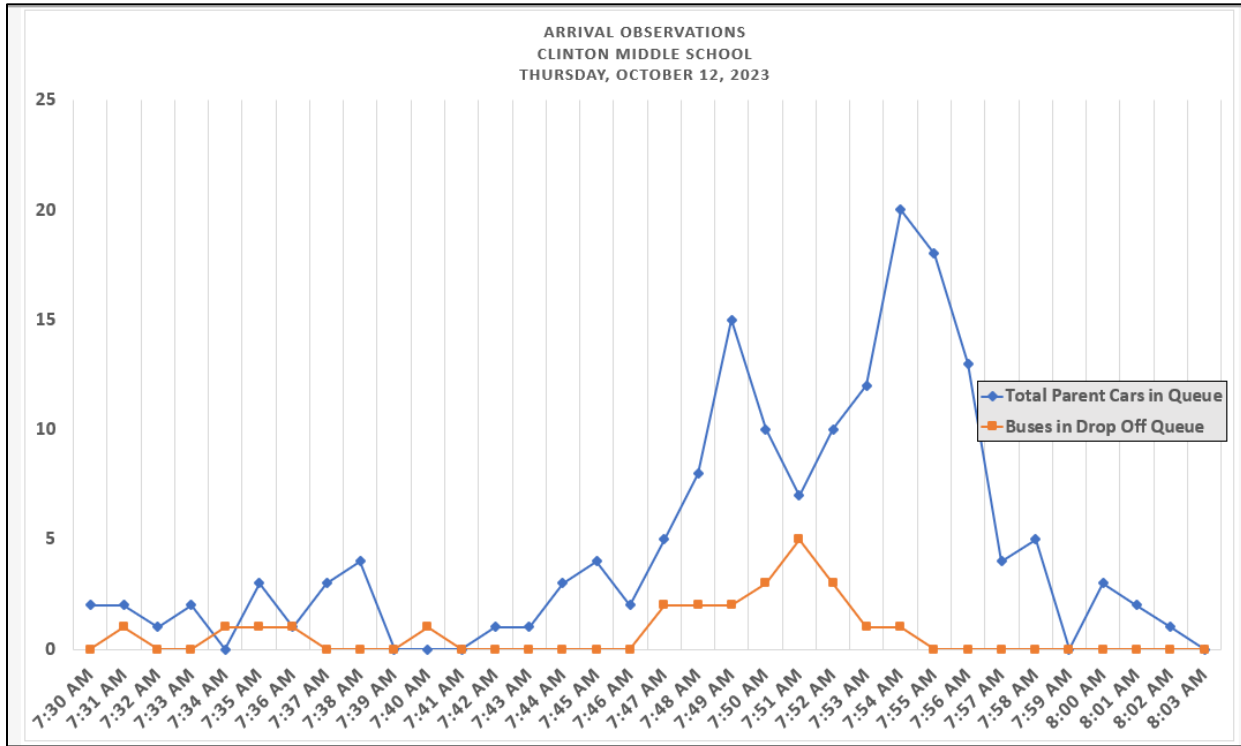
**Figure 2 Morning Drop-Off - Parents**



Queueing conditions observed during this period are reported in Figure 3. As shown, the vehicle queue begins to grow significantly at 7:43 AM. It reached a peak of 20 vehicles at 7:54 AM. When the queue along the West Driveway exceeded 15 vehicles, it extended onto Route 110 and blocked through traffic. The data summary sheets (attached) show that the queue spilled back and blocked traffic on Route 110 from 7:47 AM to 7:54 AM, with as many as five vehicles stopped on Route 110. The queue dissipated very quickly and was gone by 7:59 AM.

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

**Figure 3 Arrival Observations**



School buses arriving at the main entrance are also reflected in Figure 3. Buses enter the campus from the West Driveway and exit by way of the East Driveway. They park at an angle to the curb near the building entrance, as shown in Figure 4. A driver reported that this is done partly to reinforce the circulation pattern for parents that requires them to exit by way of the West Driveway. As shown in Figure 3, the maximum number of buses stopped unloading passengers was five with the peak at 7:51 AM.

**Figure 4 Morning Drop-Off - Buses**



### **Staff Parking**

Staff parking occurs in two lots. Staff parking is provided on the east side of the Main Lot in front of the school building and in a smaller lot to the west of the school building. Observations made at the end of the morning survey period (8:22 AM) indicate 72 vehicles in the Main Lot and 13 vehicles in the West Lot (85 total).

### **Visitor Parking**

Visitor parking occurs at the west end of the Main Lot. At the end of the morning survey period (8:22 AM), observations indicate four vehicles were in the visitor lot. Up to five vehicles were observed during the morning drop-off period. Staff reported that high school students often park in the visitor lot. No pedestrian travel between this lot and the adjacent high school was observed.

### **Pedestrian and Bicycle Access**

Sidewalks are present along the south side of Route 110 adjacent to the middle school. The traffic count program indicates fewer than five pedestrians or bicycles entering the campus from the East Driveway. Slightly lower volumes were observed at the West Driveway.

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

### **Student Dismissal (PM Peak Period)**

Student dismissal begins at 2:30 p.m. Stantec observations for this period are noted below.

### **Student Pick-Ups**

Parents enter the western site driveway to pick up students in the afternoon. They will then enter a narrow roadway by way of the West Lot that circles the school building. Early arrivals will park along this roadway adjacent to the east side of the building. Students exit the east side of the building in this area and meet up with their parents' vehicles. Vehicles will then proceed to exit the campus by way of the East Driveway. The queue location is indicated in Figure 1. Student loading occurs in the approximately five or six vehicle spaces at the front of the queue. The number of spaces used for loading affects the speed at which the queue proceeds. The front of the pick-up queue on the east side of the building is shown in Figure 5.

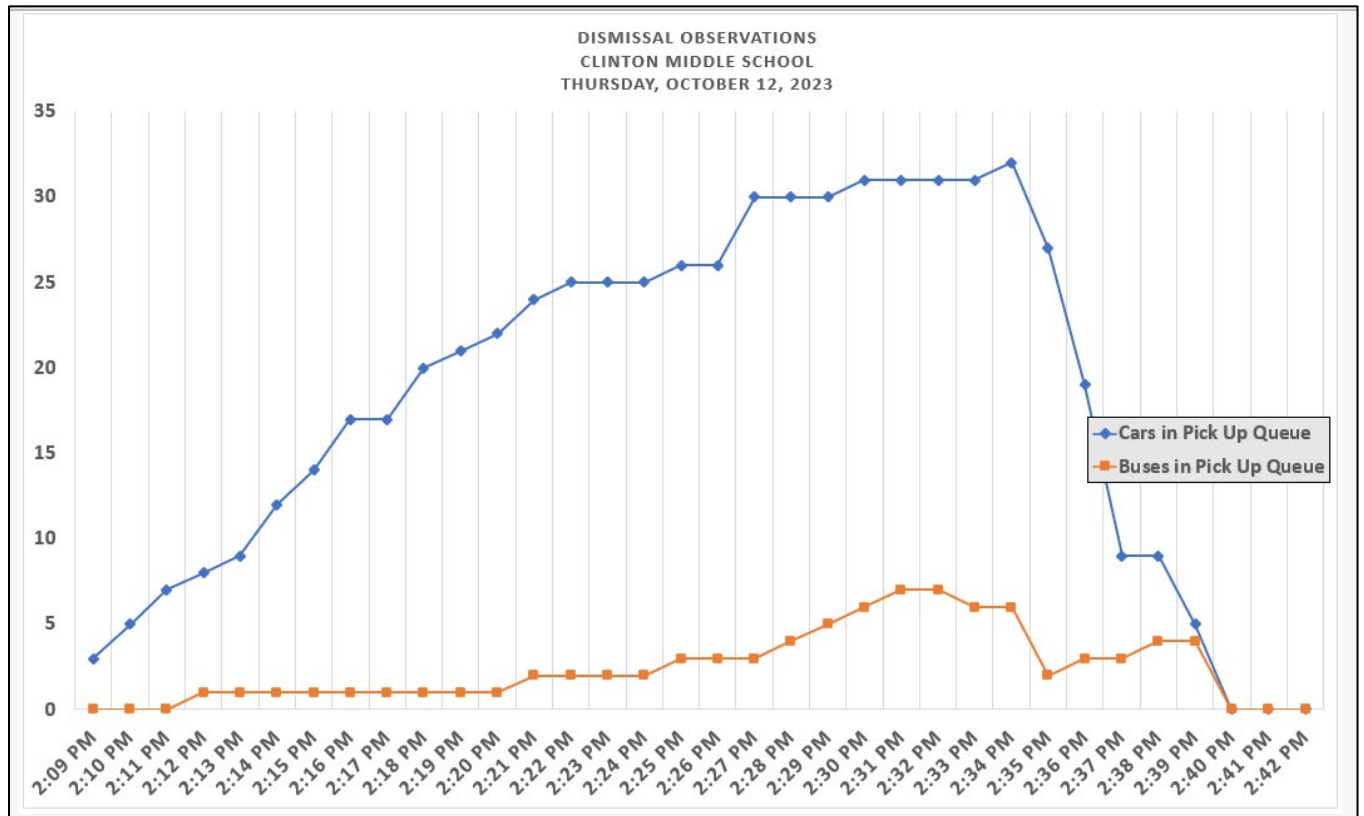
**Figure 5 Dismissal Pick-Up Queue**



Queueing conditions observed during this period are reported in Figure 6. As shown, the vehicle queue around the building grew steadily beginning at 2:09 PM. It reached a peak of 32 vehicles at 2:34 PM. With 32 vehicles, the queue reached, but did not block the West Lot. Following the 2:30 PM dismissal, the queue dissipated very quickly and was gone by 2:40 PM. When a queue was present, one vehicle was parked in the student drop-off area, presumably for a student pick-up. Also, staff reported that some student pick-ups occurred off campus in the state-owned pool parking lot located just east of the campus. The data summaries show as many as seven pick-up related vehicles parked in this lot.

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

**Figure 6 Dismissal Observations**



Full-size school buses began arriving at 2:21 PM. A smaller bus arrived much earlier. At peak, 2:31 PM, there were seven buses loading students. The seven buses left the campus by 2:39 PM.

### Staff Parking

Observations made at the beginning of the afternoon survey period (2:09 PM) indicate there were 69 vehicles in Main Lot and 12 vehicles in the West Lot (81 total). This is fewer than the number observed at the end of the morning survey.

### Visitor Parking

Observations made at the beginning of the afternoon survey period (2:09 PM) indicate six vehicles were in the visitor lot. This is greater than the peak number observed during the morning drop-off period.

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

## Pedestrian and Bicycle Access

The traffic count program indicates up to 12 pedestrians or bicycles exiting the campus from the East Driveway. Many of these pedestrians were observed walking to the pool parking lot where waiting parents picked them up. Pedestrian traffic was nominal at the West Driveway until approximately 3:00 PM. This traffic likely included high school students headed east towards the town center.

## Traffic Volumes

During the on-site field observations, video cameras were used to conduct counts of vehicles, pedestrians, and bicycles using the school driveway intersections on West Boylston Street and the on-campus intersection between the West Driveway and the high school driveway. Counts were done from 7 to 9 AM and from 2 to 4 PM in 5-minute increments.

## School Traffic

The results of the vehicular counts for traffic entering and exiting the campus are summarized in Table 1. The peak hours are 7:05 to 8:05 AM and 2:00 to 3:00 PM. As shown, 203 vehicles enter the middle school campus during the AM peak hour, and 119 vehicles exit the campus during the PM peak hour. The reported volumes include 12 buses entering during both peak hours.

**Table 1 School Driveway Volumes (Vehicles)**

Peak Hour	Cars		Buses		Total	
	IN	OUT	IN	OUT	IN	OUT
AM (begins 7:05 AM)	191	115	12	10	203	125
PM (begins 2:00 PM)	56	106	12	13	68	119

Note: Counts were conducted on Thursday, October 12, 2023, from 7 to 9 AM and from 2 to 4 PM at the Route 110/East Driveway intersection and at the West Driveway/High School Driveway intersection.

## Intersection Traffic

Vehicle turning movements for the school driveway intersections on West Boylston Street are shown for peak hours in Table 2. As noted, the peak period for school traffic is brief so the volumes recorded in the peak 15 minutes are also shown. The 15-minute volumes were multiplied by four to indicate hourly flow rates during the busiest 15 minutes of traffic activity. Table 2 shows that most of the traffic enters from the east and exits to the east. At the West Driveway during the AM peak hour, 177 vehicles approaching from the east turn left into the campus (WB Left) compared to only 58 vehicles making a right turn. Likewise, 73 vehicles turn right, exiting the campus, and head east during the afternoon peak hour at the East Driveway compared to only 11 vehicles turning left and heading west. Of those 73 vehicles exiting to the east (the NB Right volume in the table), 50 right-turns occur in the peak fifteen minutes, indicating an hourly flow rate during the 15 minutes of 200 vehicles per hour. The turning movement data were used to conduct intersection operations analyses.



**Table 2 Existing Intersection Peak Hour Volumes (vehicles)**

Location	Movement	PEAK HOUR		PEAK RATE		PEAK 15 MINUTES	
		AM	PM	AM	PM	AM	PM
West Driveway/Route 110	NB Left	10	14	20	12	5	3
	NB Through	0	1	0	0	0	0
	NB Right	61	24	204	32	51	8
	SB Left	0	0	0	0	0	0
	SB Through	0	1	0	4	0	1
	SB Right	0	4	0	8	0	2
	EB Left	1	2	4	0	1	0
	EB Through	266	233	188	272	47	68
	EB Right	58	11	84	12	21	3
	WB Left	177	70	300	56	75	14
	WB Through	236	189	148	224	37	56
WB Right	2	5	4	4	1	1	
	Total	811	554	948	620	238	156
East Driveway/Route 110	NB Left	6	11	16	32	4	8
	NB Right	48	73	76	200	19	50
	EB Through	334	258	408	304	102	76
	WB Through	405	250	424	260	106	65
		Total	793	592	924	796	231

AM PEAK HOUR BEGINS 7:05

AM PEAK 15 BEGINS 7:45

PM PEAK HOUR BEGINS 2:00

PM PEAK 15 BEGINS 2:30

Note: Counts conducted on Thursday, October 12, 2023 from 7 to 9 AM and 2 to 4 PM.

**Traffic Operations**

Traffic operations analyses were conducted to determine the existing intersection operating level of service at the two campus driveways during student arrivals and dismissal. Typically, operations are evaluated for a peak, one-hour interval. Given the sharp peak in traffic demands during student arrivals and dismissal, analyses were also conducted for the peak 15-minute intervals. Intersection operating level of service is defined below.

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

## Level of Service

Level of service (LOS) is a term used to describe the quality of traffic flow on a roadway facility at a point in time. It is an aggregate measure of travel delay, speed, congestion, driver discomfort, convenience, and safety based on comparing roadway system capacity to roadway system travel demand. Service operating levels are reported on a scale of A to F, with A representing the best-operating conditions with little or no delay to motorists and F representing the worst-operating conditions with long delays and traffic demands sometimes exceeding roadway capacity. Procedures for calculating intersection operating levels of service are defined in the *Highway Capacity Manual*, published by the Transportation Research Board.

The level of service for an intersection or a lane group is based on delay. Delays can be measured in the field or calculated as a function of several factors, including traffic volume, peaking characteristics of the traffic flow, percentage of heavy vehicles in the traffic stream, the number of travel lanes and lane use, intersection approach grades, and pedestrian activity. The calculations also yield volume-to-capacity ratios for lane groups and the intersection overall. A volume-to-capacity ratio of 1.0 indicates that the lane group or the critical movements at the intersection are operating at theoretical capacity. The specific delay criteria applied per the *2010 Highway Capacity Manual* to determine operating levels of service are summarized in Table 3.

**Table 3 Unsignalized Intersection Level of Service Criteria**

Level of Service	Average Delay per Vehicle (Seconds)
A	≤10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F <sup>1</sup>	>50.0

<sup>1</sup>Level of Service F is also assigned to individual lane groups if the volume-to-capacity ratio exceeds 1.0.

November 28, 2023

Mr. Eric Moore

Page 11 of 17

**Reference:** Transportation Design Parameters, Clinton Middle School, Clinton, MA

## **Intersection Operations**

The capacity analysis results for the two campus driveways are presented in Table 4. The reported results apply to traffic waiting to exit the campus at each driveway. As shown, conditions for the peak hour are in the LOS B range for both driveways and both peak periods indicating modest delays. Results for the peak 15 minutes are similar to the peak hour findings. The calculated 95<sup>th</sup> percentile queue conditions are consistent with field observations, except that the peak 15-minute queue of 1.5 vehicles at the East Driveway is understated. At one point during the field survey (2:35 PM), the vehicle queue on the East Driveway extended approximately 200 feet south of West Boylston Street slowing traffic exiting from the pick-up area for parents. The queue, however, was short-lived, dissipating within approximately three minutes.

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

**Table 4 Existing Driveway Operations**

Driveway	Peak Hour	Peak Hour Conditions				Peak 15-Minute Conditions			
		LOS <sup>1</sup>	Delay <sup>2</sup>	V/C <sup>3</sup>	95th Queue <sup>4</sup>	LOS	Delay	V/C	95th queue
West Driveway	AM (Arrival)	B	12.3	0.13	0.4	B	14.2	0.37	1.7
	PM (Dismissal)	B	11.7	0.07	0.2	B	11.6	0.07	0.2
East Driveway	AM (Arrival)	B	11.1	0.08	0.3	B	12.8	0.17	0.6
	PM (Dismissal)	B	10.6	0.12	0.4	B	13.0	0.34	1.5

<sup>1</sup>LOS= Level of Service, <sup>2</sup>Delay = Average delay expressed in seconds per vehicle, <sup>3</sup>V/C = Volume-to-capacity ratio, <sup>4</sup>95<sup>th</sup> percentile vehicle queue in vehicles

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

## **Safety**

Traffic safety was considered by examining crash data for the area roadway system and sight lines at the school driveways.

### **Vehicular Traffic Safety**

The MassDOT crash database was reviewed to identify any crashes occurring in the vicinity of the school driveways during the past three years. MassDOT has records of only one crash occurring in the area. This single-vehicle crash occurred between the two school driveways on West Boylston Street. Minor injuries resulted. The crash occurred between 1 and 2 PM. under dry roadway conditions on Monday, January 30, 2023.

### **Sight Lines**

Sight lines were measured along West Boylston Street at the school driveways. Adequate sight lines should be provided to enable the safe movement of vehicles and pedestrians into and out of the site. The adequacy of the existing sight lines was determined by comparing the available sight lines to the minimum safe sight distances indicated in "A Policy on the Geometric Design of Highways and Streets," published by the American Association of State Highway and Transportation Officials (AASHTO). In accordance with AASHTO standards, sightlines measured along the intersected street from a driveway should exceed the stopping distance for a vehicle traveling along the street at the posted speed limit. There are no posted speed limits on West Boylston Street in the site's immediate vicinity; however, a speed limit of 30 miles per hour (mph) is posted on West Boylston Street west of the site near the Sterling town line. The stopping distance for a vehicle traveling at 30 mph per AASHTO standards is 200 feet. Observed sight lines are listed in Table 5. Figures 7 and 8 illustrate the clear sight lines along the site frontage. As noted, sight lines are in excess of 1000 feet indicating more than adequate sight lines for a speed of 30 mph.

**Table 5 Observed Sight Lines**

Location	Sight Distance (feet)	
	Looking to/from North	Looking to/from South
West Driveway	1000+	1000+
East Driveway	1000+	1000+

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

**Figure 7      Looking West Along West Boylston Street from the West Driveway**



**Figure 8      Looking East Along West Boylston Street from the West Driveway**



Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

## DESIGN PARAMETERS

The data presented above indicates the design parameters for the school project. The observed parking and queueing conditions relate to the current school enrollment of 572 students. The proposed enrollment represents a 22 percent increase to 700 students. Assuming no change in travel behaviors for the students, staff, and visitors and no change in pick-up/drop-off operations, the parking and queueing requirements would increase proportionally to the enrollment change. Based on this assumption, design parameters for the new campus are presented in Table 6. In Table 6, the Parent Vehicle Queueing – PM calculations include 32 existing vehicles in the designated queue around the school building plus others “queued” in the front of the building (one vehicle) and at the pool (seven vehicles) to present a worst-case scenario.

**Table 6 Indicated Design Parameters**

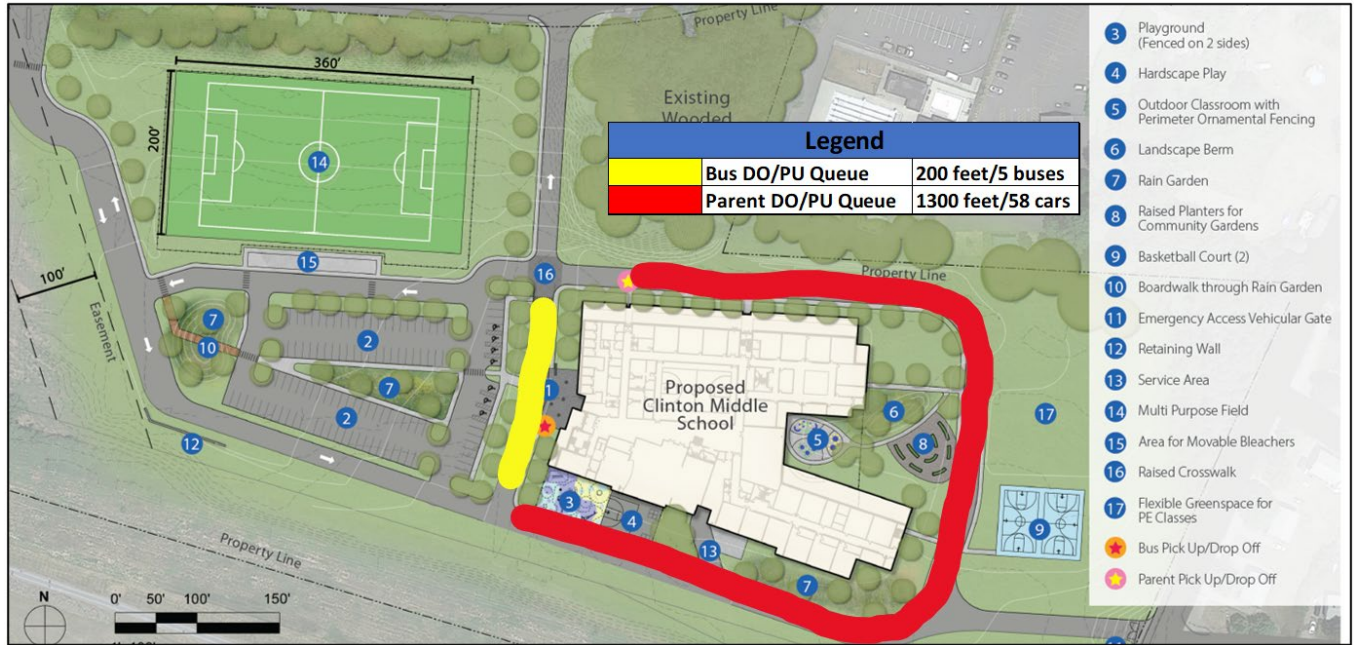
Item	Existing Condition (572 students)	Per Student Ratio	Proposed Condition (700 students)
Bus Loading - PM (Buses)	7	0.012	9
Staff Parking - Midday (Vehicles)	85	0.149	104
Parent Parking - PM (Vehicles)	6	0.010	7
Parent Vehicle Queueing - AM (Vehicles)	20	0.035	24
Parent Vehicle Queueing - PM (Vehicles)	40	0.070	49

## PLAN EVALUATION

A campus plan has been developed. The plan, shown in Figure 9, has been annotated to call out approximate on-site capacities for school bus pick-up/drop-off and parent pick-up/drop-off. The parking supply reported on the plan is for 116 total spaces. Table 7 compares the proposed conditions to the design parameters indicated in Table 6. This analysis assumes that a bus parked parallel to the curb occupies 40 feet of curb space. Also, passenger cars parked in queues are assumed to occupy 22.5 feet of queue space. This figure represents the queue length per vehicle used under existing conditions. Assuming that the queue begins at the point noted on the plan on the north side of the new building and extends along the entire length of the one-way roadway wrapping around the south side of the building, the storage capacity is approximately 58 vehicles.

Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

**Figure 9 Proposed Plan**



**Table 7 Plan Evaluation**

Item	Existing Demand (572 students)	Per Student Ratio	Proposed Demand (700 students)	Proposed Capacity	Meets Guidance
Bus Loading (Buses)	7	0.012	9	5	No
Staff Parking (Vehicles)	85	0.149	104	-	-
Visitor Parking (Vehicles)	6	0.01	7	-	-
Total Parking	91	0.159	111	116	No
Parent Vehicle Queuing (Vehicles)	40	0.07	49	58	Yes

As shown, the indicated guidance is not met for bus loading and on-site parking. The approximately 200 feet of curb along the front of the building for bus loading can serve five buses at a time. The predicted demand with the future enrollment is for nine buses. The proposed parking supply is 116 spaces and the expected demand is 111 vehicles. Parking lots are typically designed with five to ten percent reserve capacity to minimize travel time and distance when searching for an empty space and to ensure adequate



Reference: Transportation Design Parameters, Clinton Middle School, Clinton, MA

capacity to accommodate daily variations in peak demand. As such, closer to 130 spaces should be considered to accommodate an estimated 111 future vehicles.

## RECOMMENDATIONS

Based on the above observations and analyses, changes to the proposed campus plan and/or campus operations are recommended. Concerning parking, the currently proposed on-site parking supply is not adequate to serve projected future campus needs. Consideration should be given to adding parking spaces. Alternative strategies would include limiting future parking demand (with, for example, a mandatory carpool program) or securing nearby off-site parking. The bus pick-up/drop-off area also is undersized. A wider loading zone allowing buses to park diagonally would increase the capacity. Still, angle parking may not fully meet the expected future demand. An alternative configuration could be considered, or a policy could be adopted that staggers bus arrivals at the loading area by using an upstream, on-site staging area. Finally, with respect to pedestrian access, students walk from the school to the pool parking lot just east of the campus to be picked up in the afternoon. Assuming that this practice continues under the proposed plan, a sidewalk should be provided along the east side of the East Driveway. Students walking to the pool lot would then not have to cross the East Driveway.

We trust that the above will help inform the school's feasibility study. We look forward to working with the project team to complete the study. Please do not hesitate to call should you have questions regarding the above.

Regards,

**Stantec Consulting Services Inc.**



**Mr. Richard S. Bryant, PE**  
Senior Associate  
Phone: 802 324 8454  
Rick.Bryant@stantec.com

CC: Walt Woo, Mitul Ostwal

Attachments: Traffic Counts, Field Data Summaries, Capacity Analysis Worksheets

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690001  
 Site Code : 07690001  
 Start Date : 10/12/2023  
 Page No : 1

## Groups Printed- Cars - Trucks

Start Time	Athletic Complex From North			W Boylston St From East			Middle School W Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	5	15	0	0	0	0	0	10	2	32
07:05 AM	0	0	0	9	34	0	0	0	0	0	23	5	71
07:10 AM	0	0	0	12	36	0	0	0	1	0	31	5	85
07:15 AM	0	0	0	11	47	0	0	0	0	0	34	1	93
07:20 AM	0	0	0	9	35	1	0	0	0	0	45	2	92
07:25 AM	0	0	0	8	6	0	0	0	0	0	30	2	46
07:30 AM	0	0	0	17	13	0	1	0	2	0	14	8	55
07:35 AM	0	0	0	16	6	0	0	0	4	0	15	5	46
07:40 AM	0	0	0	14	12	0	2	0	2	0	11	8	49
07:45 AM	0	0	0	27	4	0	4	0	13	0	12	11	71
07:50 AM	0	0	0	26	13	1	1	0	28	1	21	8	99
07:55 AM	0	0	0	22	20	0	0	0	10	0	14	2	68
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>176</b>	<b>241</b>	<b>2</b>	<b>8</b>	<b>0</b>	<b>60</b>	<b>1</b>	<b>260</b>	<b>59</b>	<b>807</b>
08:00 AM	0	0	0	6	10	0	2	0	1	1	16	1	37
08:05 AM	0	0	1	3	7	0	0	0	0	0	18	0	29
08:10 AM	1	0	0	4	14	0	0	0	0	0	9	1	29
08:15 AM	0	0	0	2	10	0	0	0	0	0	20	0	32
08:20 AM	0	0	0	6	11	0	0	0	0	0	16	0	33
08:25 AM	0	0	1	5	8	0	1	0	0	0	15	0	30
08:30 AM	0	0	0	7	9	0	0	0	0	0	15	2	33
08:35 AM	0	0	0	6	14	1	0	0	0	0	8	0	29
08:40 AM	0	0	0	0	19	0	1	0	2	0	17	0	39
08:45 AM	0	0	0	0	12	0	0	0	0	0	16	1	29
08:50 AM	0	0	0	1	9	0	0	0	0	0	17	0	27
08:55 AM	0	0	0	1	13	0	0	0	0	0	13	0	27
<b>Total</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>41</b>	<b>136</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>180</b>	<b>5</b>	<b>374</b>
<b>Grand Total</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>217</b>	<b>377</b>	<b>3</b>	<b>12</b>	<b>0</b>	<b>63</b>	<b>2</b>	<b>440</b>	<b>64</b>	<b>1181</b>
Apprch %	33.3	0	66.7	36.3	63.1	0.5	16	0	84	0.4	87	12.6	
Total %	0.1	0	0.2	18.4	31.9	0.3	1	0	5.3	0.2	37.3	5.4	
Cars	1	0	2	205	364	3	12	0	63	2	428	64	1144
% Cars	100	0	100	94.5	96.6	100	100	0	100	100	97.3	100	96.9
Trucks	0	0	0	12	13	0	0	0	0	0	12	0	37
% Trucks	0	0	0	5.5	3.4	0	0	0	0	0	2.7	0	3.1

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
<b>Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1</b>																	
<b>Peak Hour for Entire Intersection Begins at 07:05 AM</b>																	
07:05 AM	0	0	0	0	9	34	0	43	0	0	0	0	0	23	5	28	71
07:10 AM	0	0	0	0	12	36	0	48	0	0	1	1	0	31	5	36	85
07:15 AM	0	0	0	0	11	<b>47</b>	0	<b>58</b>	0	0	0	0	0	34	1	35	93
07:20 AM	0	0	0	0	9	35	<b>1</b>	45	0	0	0	0	0	<b>45</b>	2	<b>47</b>	92
07:25 AM	0	0	0	0	8	6	0	14	0	0	0	0	0	30	2	32	46
07:30 AM	0	0	0	0	17	13	0	30	1	0	2	3	0	14	8	22	55
07:35 AM	0	0	0	0	16	6	0	22	0	0	4	4	0	15	5	20	46
07:40 AM	0	0	0	0	14	12	0	26	2	0	2	4	0	11	8	19	49
07:45 AM	0	0	0	0	<b>27</b>	4	0	31	<b>4</b>	0	<b>13</b>	<b>17</b>	0	12	<b>11</b>	23	71
07:50 AM	0	0	0	0	26	13	1	40	1	0	<b>28</b>	<b>29</b>	<b>1</b>	21	8	30	<b>99</b>
07:55 AM	0	0	0	0	22	20	0	42	0	0	10	10	0	14	2	16	68
08:00 AM	0	0	0	0	6	10	0	16	2	0	1	3	1	16	1	18	37
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>177</b>	<b>236</b>	<b>2</b>	<b>415</b>	<b>10</b>	<b>0</b>	<b>61</b>	<b>71</b>	<b>2</b>	<b>266</b>	<b>58</b>	<b>326</b>	<b>812</b>
<b>% App. Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42.7</b>	<b>56.9</b>	<b>0.5</b>	<b>14.1</b>	<b>0</b>	<b>85.9</b>	<b>0.6</b>	<b>81.6</b>	<b>17.8</b>				
<b>PHF</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.546</b>	<b>.418</b>	<b>.167</b>	<b>.596</b>	<b>.208</b>	<b>.000</b>	<b>.182</b>	<b>.204</b>	<b>.167</b>	<b>.493</b>	<b>.439</b>	<b>.578</b>	<b>.684</b>
Cars	0	0	0	0	165	226	2	393	10	0	61	71	2	257	58	317	781
% Cars	0	0	0	0	93.2	95.8	100	94.7	100	0	100	100	100	96.6	100	97.2	96.2
Trucks	0	0	0	0	12	10	0	22	0	0	0	0	0	9	0	9	31
% Trucks	0	0	0	0	6.8	4.2	0	5.3	0	0	0	0	0	3.4	0	2.8	3.8

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

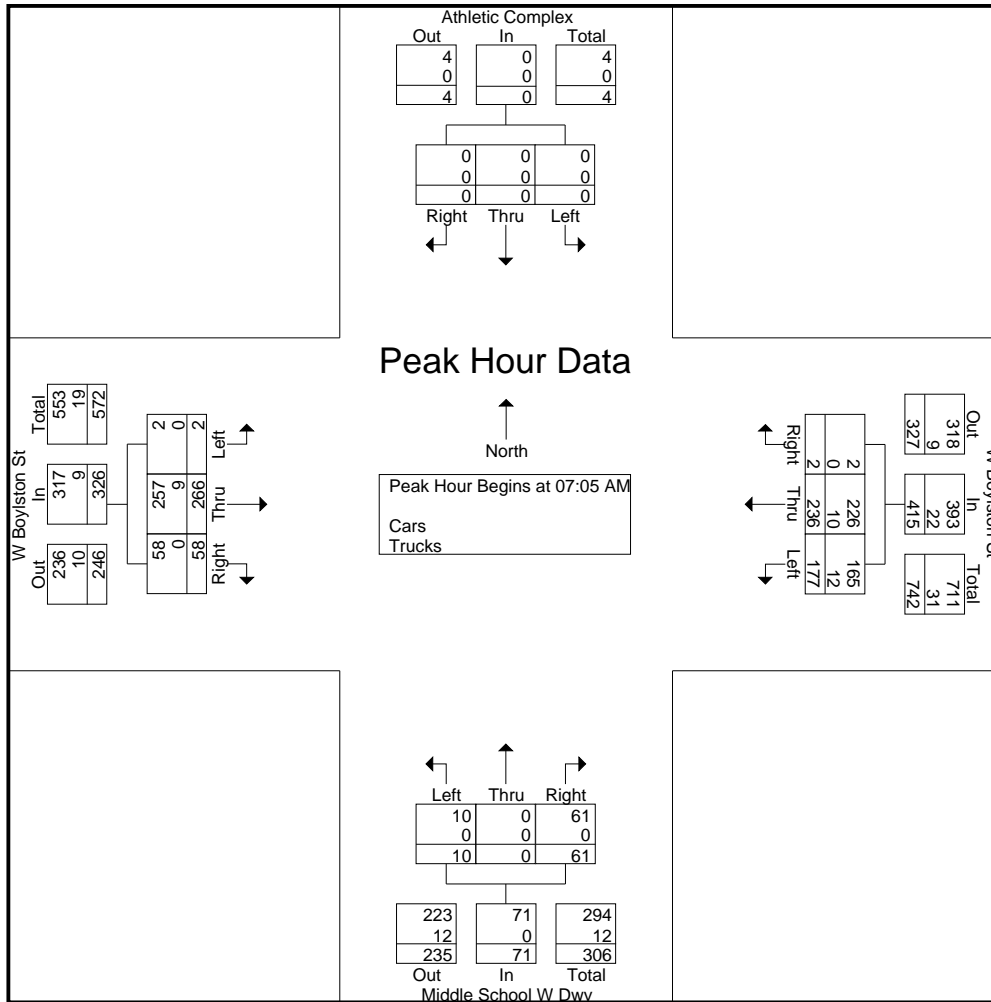
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 2



**Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1**

**Peak Hour for Each Approach Begins at:**

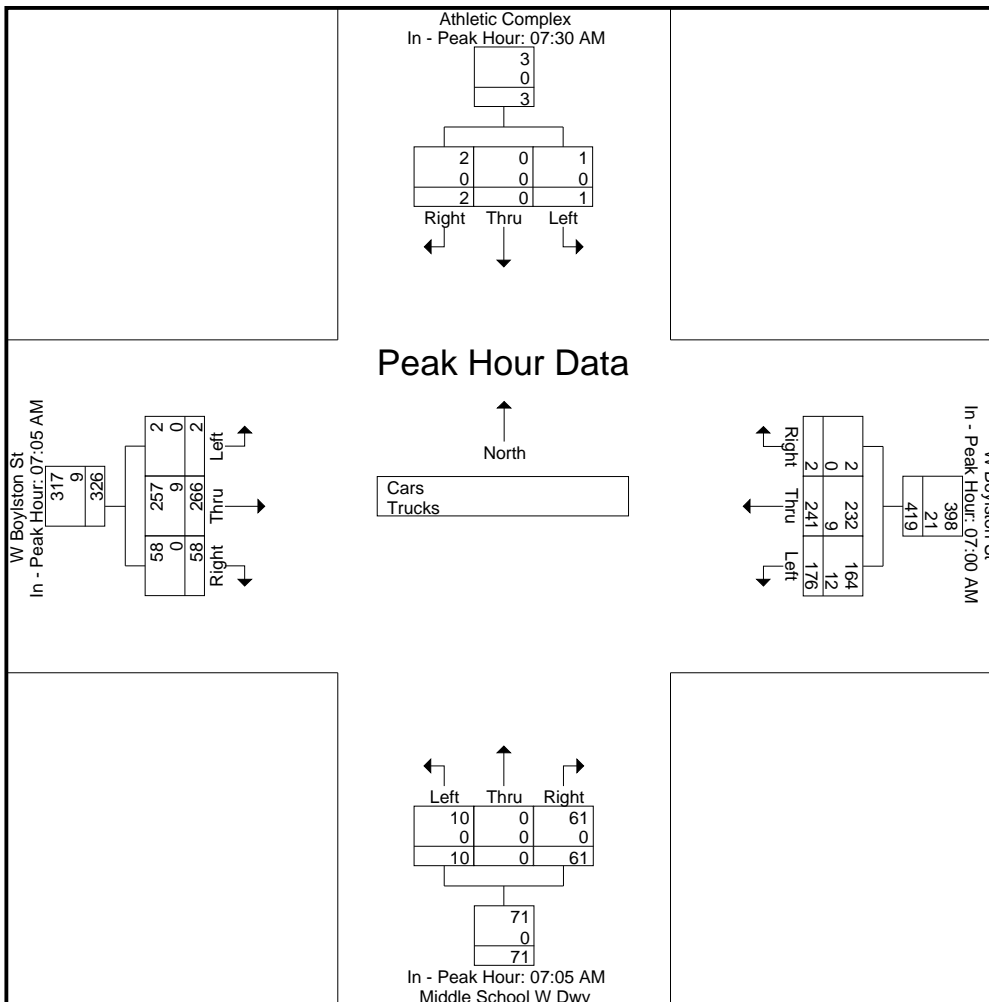
	07:30 AM				07:00 AM				07:05 AM				07:05 AM			
+0 mins.	0	0	0	0	5	15	0	20	0	0	0	0	0	23	5	28
+5 mins.	0	0	0	0	9	34	0	43	0	0	1	1	0	31	5	36
+10 mins.	0	0	0	0	12	36	0	48	0	0	0	0	0	34	1	35
+15 mins.	0	0	0	0	11	<b>47</b>	0	<b>58</b>	0	0	0	0	0	<b>45</b>	2	<b>47</b>
+20 mins.	0	0	0	0	9	35	1	45	0	0	0	0	0	30	2	32
+25 mins.	0	0	0	0	8	6	0	14	1	0	2	3	0	14	8	22
+30 mins.	0	0	0	0	17	13	0	30	0	0	4	4	0	15	5	20
+35 mins.	0	0	1	1	16	6	0	22	2	0	2	4	0	11	8	19
+40 mins.	1	0	0	1	14	12	0	26	4	0	13	17	0	12	<b>11</b>	23
+45 mins.	0	0	0	0	<b>27</b>	4	0	31	1	0	<b>28</b>	<b>29</b>	1	21	8	30
+50 mins.	0	0	0	0	26	13	1	40	0	0	10	10	0	14	2	16
+55 mins.	0	0	1	1	22	20	0	42	2	0	1	3	1	16	1	18
Total Volume	1	0	2	3	176	241	2	419	10	0	61	71	2	266	58	326
% App. Total	33.3	0	66.7		42	57.5	0.5		14.1	0	85.9		0.6	81.6	17.8	
PHF	.083	.000	.167	.250	.543	.427	.167	.602	.208	.000	.182	.204	.167	.493	.439	.578
Cars	1	0	2	3	164	232	2	398	10	0	61	71	2	257	58	317
% Cars	100	0	100	100	93.2	96.3	100	95	100	0	100	100	100	96.6	100	97.2
Trucks	0	0	0	0	12	9	0	21	0	0	0	0	0	9	0	9
% Trucks	0	0	0	0	6.8	3.7	0	5	0	0	0	0	0	3.4	0	2.8

# Accurate Counts

978-664-2565

File Name : 07690001  
 Site Code : 07690001  
 Start Date : 10/12/2023  
 Page No : 3

N/S Street : Athletic Complex/School W Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear



# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 4

## Groups Printed- Cars

Start Time	Athletic Complex From North			W Boylston St From East			Middle School W Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	5	15	0	0	0	0	0	10	2	32
07:05 AM	0	0	0	9	33	0	0	0	0	0	23	5	70
07:10 AM	0	0	0	12	32	0	0	0	1	0	28	5	78
07:15 AM	0	0	0	11	44	0	0	0	0	0	31	1	87
07:20 AM	0	0	0	9	35	1	0	0	0	0	44	2	91
07:25 AM	0	0	0	8	6	0	0	0	0	0	29	2	45
07:30 AM	0	0	0	16	13	0	1	0	2	0	13	8	53
07:35 AM	0	0	0	15	6	0	0	0	4	0	15	5	45
07:40 AM	0	0	0	14	11	0	2	0	2	0	11	8	48
07:45 AM	0	0	0	21	4	0	4	0	13	0	12	11	65
07:50 AM	0	0	0	22	13	1	1	0	28	1	21	8	95
07:55 AM	0	0	0	22	20	0	0	0	10	0	14	2	68
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>164</b>	<b>232</b>	<b>2</b>	<b>8</b>	<b>0</b>	<b>60</b>	<b>1</b>	<b>251</b>	<b>59</b>	<b>777</b>
08:00 AM	0	0	0	6	9	0	2	0	1	1	16	1	36
08:05 AM	0	0	1	3	7	0	0	0	0	0	18	0	29
08:10 AM	1	0	0	4	14	0	0	0	0	0	8	1	28
08:15 AM	0	0	0	2	10	0	0	0	0	0	20	0	32
08:20 AM	0	0	0	6	11	0	0	0	0	0	15	0	32
08:25 AM	0	0	1	5	7	0	1	0	0	0	15	0	29
08:30 AM	0	0	0	7	9	0	0	0	0	0	15	2	33
08:35 AM	0	0	0	6	14	1	0	0	0	0	8	0	29
08:40 AM	0	0	0	0	17	0	1	0	2	0	16	0	36
08:45 AM	0	0	0	0	12	0	0	0	0	0	16	1	29
08:50 AM	0	0	0	1	9	0	0	0	0	0	17	0	27
08:55 AM	0	0	0	1	13	0	0	0	0	0	13	0	27
<b>Total</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>41</b>	<b>132</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>177</b>	<b>5</b>	<b>367</b>
<b>Grand Total</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>205</b>	<b>364</b>	<b>3</b>	<b>12</b>	<b>0</b>	<b>63</b>	<b>2</b>	<b>428</b>	<b>64</b>	<b>1144</b>
Apprch %	33.3	0	66.7	35.8	63.6	0.5	16	0	84	0.4	86.6	13	
Total %	0.1	0	0.2	17.9	31.8	0.3	1	0	5.5	0.2	37.4	5.6	

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:05 AM																	
07:05 AM	0	0	0	0	9	33	0	42	0	0	0	0	0	23	5	28	70
07:10 AM	0	0	0	0	12	32	0	44	0	0	1	1	0	28	5	33	78
07:15 AM	0	0	0	0	11	44	0	55	0	0	0	0	0	31	1	32	87
07:20 AM	0	0	0	0	9	35	1	45	0	0	0	0	0	44	2	46	91
07:25 AM	0	0	0	0	8	6	0	14	0	0	0	0	0	29	2	31	45
07:30 AM	0	0	0	0	16	13	0	29	1	0	2	3	0	13	8	21	53
07:35 AM	0	0	0	0	15	6	0	21	0	0	4	4	0	15	5	20	45
07:40 AM	0	0	0	0	14	11	0	25	2	0	2	4	0	11	8	19	48
07:45 AM	0	0	0	0	21	4	0	25	4	0	13	17	0	12	11	23	65
07:50 AM	0	0	0	0	22	13	1	36	1	0	28	29	1	21	8	30	95
07:55 AM	0	0	0	0	22	20	0	42	0	0	10	10	0	14	2	16	68
08:00 AM	0	0	0	0	6	9	0	15	2	0	1	3	1	16	1	18	36
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>165</b>	<b>226</b>	<b>2</b>	<b>393</b>	<b>10</b>	<b>0</b>	<b>61</b>	<b>71</b>	<b>2</b>	<b>257</b>	<b>58</b>	<b>317</b>	<b>781</b>
<b>% App. Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>57.5</b>	<b>0.5</b>	<b>14.1</b>	<b>0</b>	<b>85.9</b>	<b>0.6</b>	<b>81.1</b>	<b>18.3</b>				
<b>PHF</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.625</b>	<b>.428</b>	<b>.167</b>	<b>.595</b>	<b>.208</b>	<b>.000</b>	<b>.182</b>	<b>.204</b>	<b>.167</b>	<b>.487</b>	<b>.439</b>	<b>.574</b>	<b>.685</b>

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

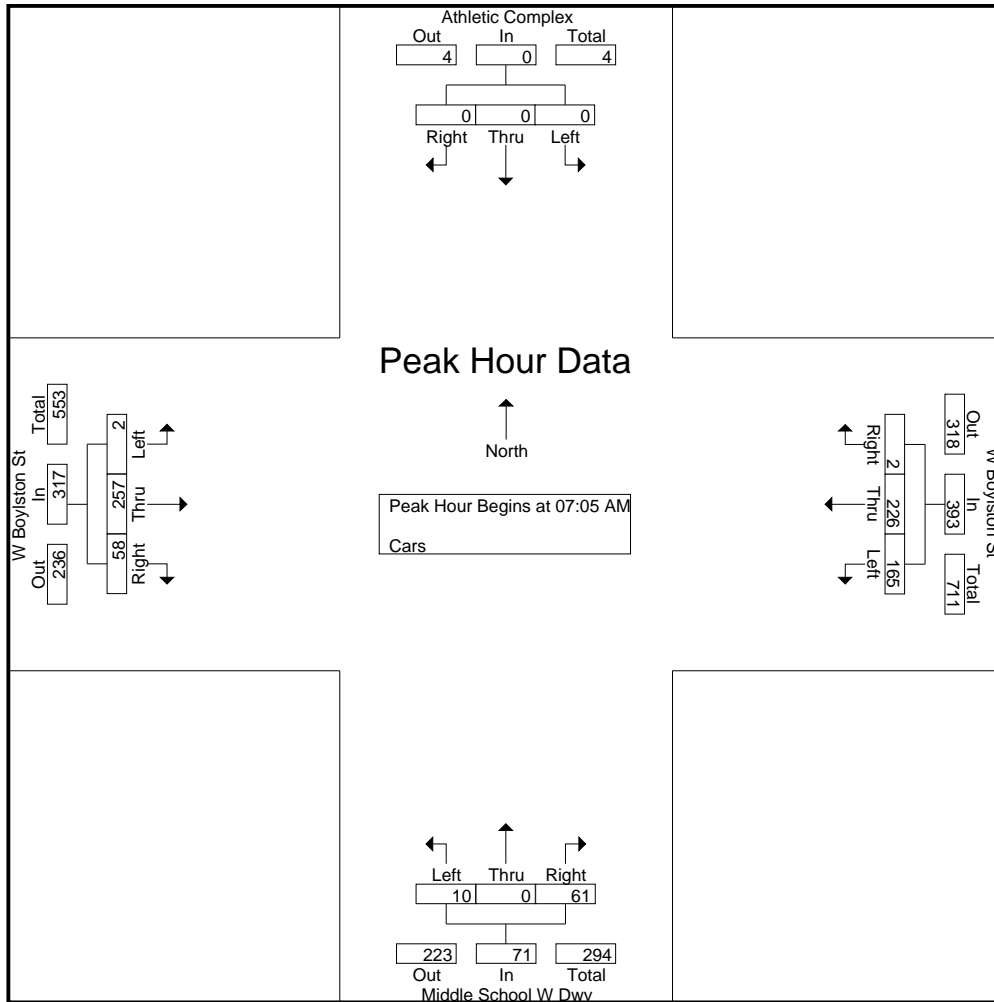
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 5



**Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1**

**Peak Hour for Each Approach Begins at:**

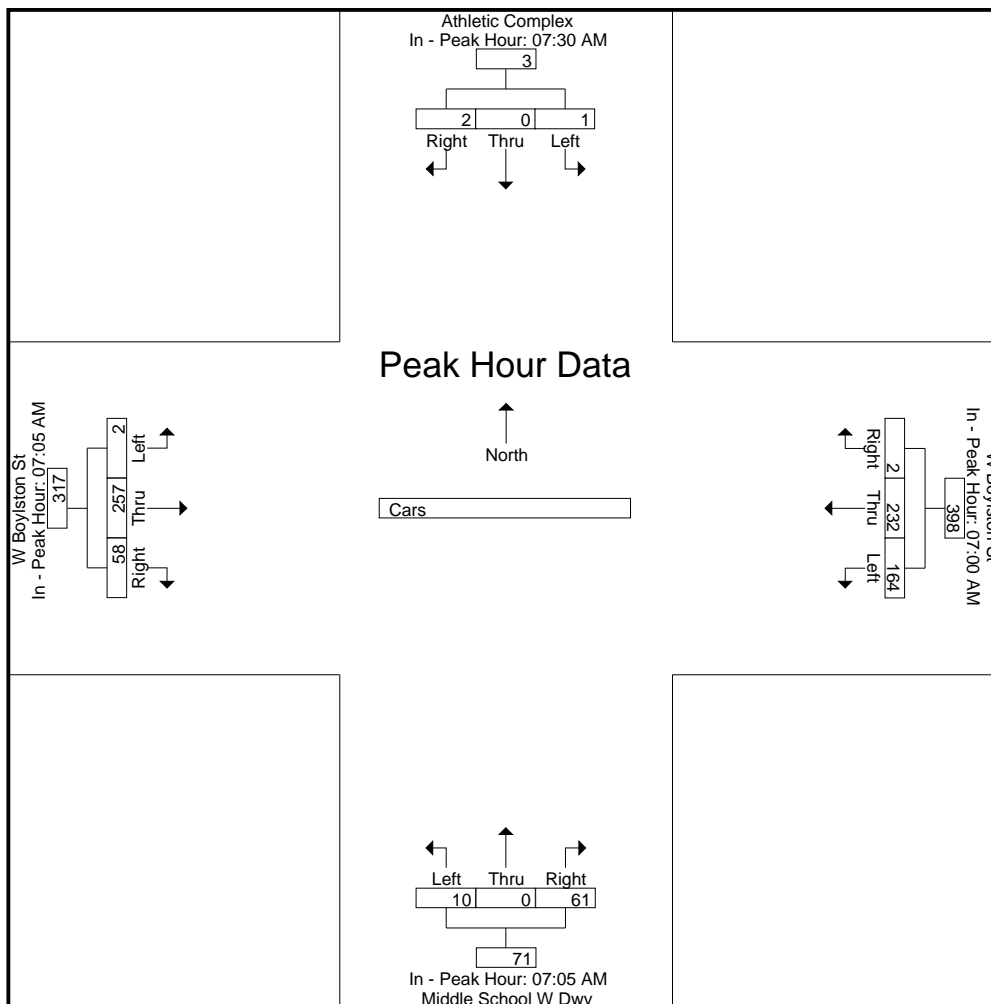
	07:30 AM				07:00 AM				07:05 AM				07:05 AM			
+0 mins.	0	0	0	0	5	15	0	20	0	0	0	0	0	23	5	28
+5 mins.	0	0	0	0	9	33	0	42	0	0	1	1	0	28	5	33
+10 mins.	0	0	0	0	12	32	0	44	0	0	0	0	0	31	1	32
+15 mins.	0	0	0	0	11	<b>44</b>	0	<b>55</b>	0	0	0	0	0	<b>44</b>	2	<b>46</b>
+20 mins.	0	0	0	0	9	35	1	45	0	0	0	0	0	29	2	31
+25 mins.	0	0	0	0	8	6	0	14	1	0	2	3	0	13	8	21
+30 mins.	0	0	0	0	16	13	0	29	0	0	4	4	0	15	5	20
+35 mins.	0	0	1	1	15	6	0	21	2	0	2	4	0	11	8	19
+40 mins.	1	0	0	1	14	11	0	25	4	0	13	17	0	12	11	23
+45 mins.	0	0	0	0	21	4	0	25	1	0	<b>28</b>	<b>29</b>	1	21	8	30
+50 mins.	0	0	0	0	<b>22</b>	13	1	36	0	0	10	10	0	14	2	16
+55 mins.	0	0	1	1	22	20	0	42	2	0	1	3	1	16	1	18
Total Volume	1	0	2	3	164	232	2	398	10	0	61	71	2	257	58	317
% App. Total	33.3	0	66.7		41.2	58.3	0.5		14.1	0	85.9		0.6	81.1	18.3	
PHF	.083	.000	.167	.250	.621	.439	.167	.603	.208	.000	.182	.204	.167	.487	.439	.574

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690001  
 Site Code : 07690001  
 Start Date : 10/12/2023  
 Page No : 6



# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690001  
 Site Code : 07690001  
 Start Date : 10/12/2023  
 Page No : 7

### Groups Printed- Trucks

Start Time	Athletic Complex From North			W Boylston St From East			Middle School W Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:05 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
07:10 AM	0	0	0	0	4	0	0	0	0	0	3	0	7
07:15 AM	0	0	0	0	3	0	0	0	0	0	3	0	6
07:20 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
07:25 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
07:30 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
07:35 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
07:40 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	6	0	0	0	0	0	0	0	0	6
07:50 AM	0	0	0	4	0	0	0	0	0	0	0	0	4
07:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>30</b>
08:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
08:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:10 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:20 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
08:25 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:40 AM	0	0	0	0	2	0	0	0	0	0	1	0	3
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>7</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>37</b>
Apprch %	0	0	0	48	52	0	0	0	0	0	100	0	
Total %	0	0	0	32.4	35.1	0	0	0	0	0	32.4	0	

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:05 AM																	
07:05 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:10 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	3	0	3	7
07:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
07:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
07:35 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
07:40 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	6
07:50 AM	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	4
07:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>10</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>31</b>
<b>% App. Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>54.5</b>	<b>45.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>PHF</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.167</b>	<b>.208</b>	<b>.000</b>	<b>.306</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.250</b>	<b>.000</b>	<b>.250</b>	<b>.369</b>

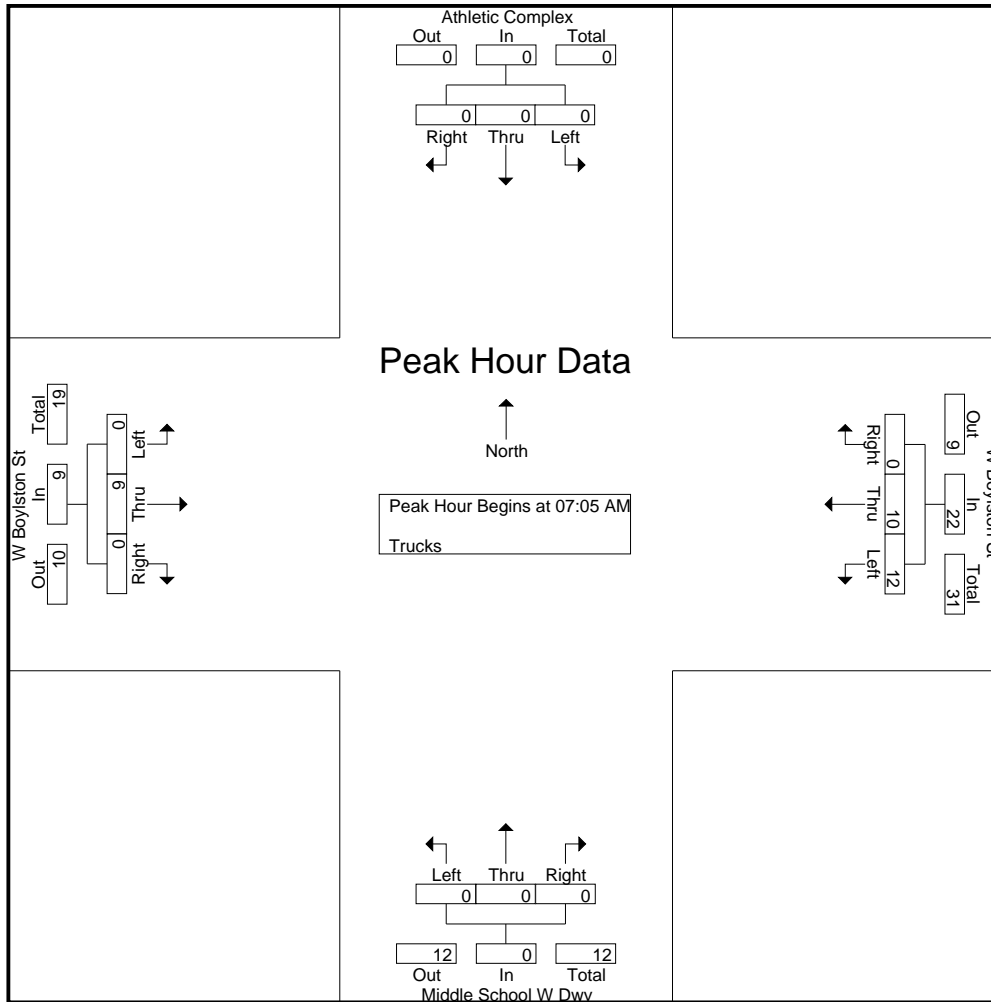


# Accurate Counts

978-664-2565

File Name : 07690001  
 Site Code : 07690001  
 Start Date : 10/12/2023  
 Page No : 8

N/S Street : Athletic Complex/School W Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear



**Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1**

**Peak Hour for Each Approach Begins at:**

	07:00 AM				07:05 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+5 mins.	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0
+10 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
+20 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+25 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1
+35 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+40 mins.	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0
+50 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+55 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	12	10	0	22	0	0	0	0	0	9	0	9
% App. Total	0	0	0	0	54.5	45.5	0		0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.167	.208	.000	.306	.000	.000	.000	.000	.000	.250	.000	.250

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

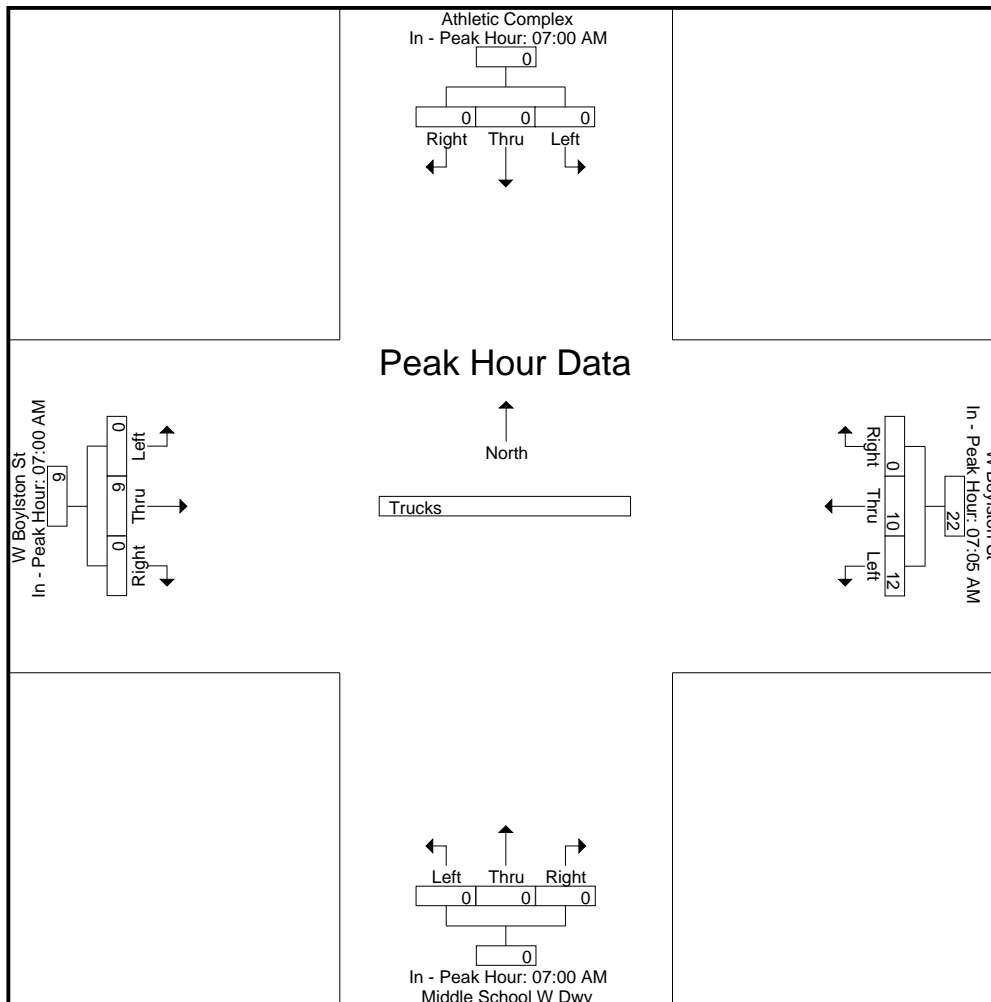
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 9



# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 10

## Groups Printed- Bikes Peds

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Exclu. Total	Inclu. Total	Int. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
07:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:25 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
07:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
07:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2	3	1	4
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	2	2
08:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
08:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	14	14
08:20 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	2	2
08:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	0	15	15
08:55 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	15	15	1	16	16
<b>Total</b>	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	47	49	1	50	50
<b>Grand Total</b>	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	49	52	2	54	54
Apprch %	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	96.3	3.7	0	0	0

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Int. Total			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total				
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:25 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
<b>% App. Total</b>	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>PHF</b>	.000	.000	.000	.000	.000	.083	.000	.083	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.083

Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

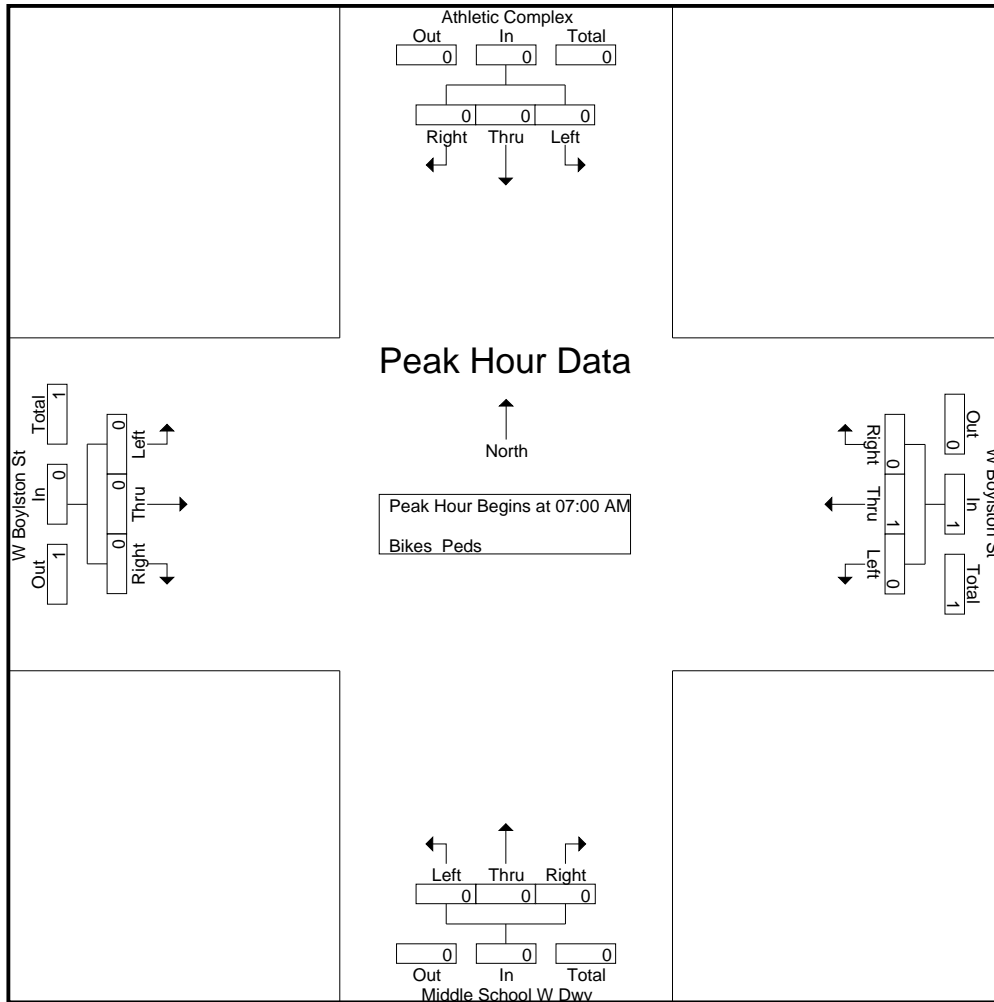
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 11



**Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1**

**Peak Hour for Each Approach Begins at:**

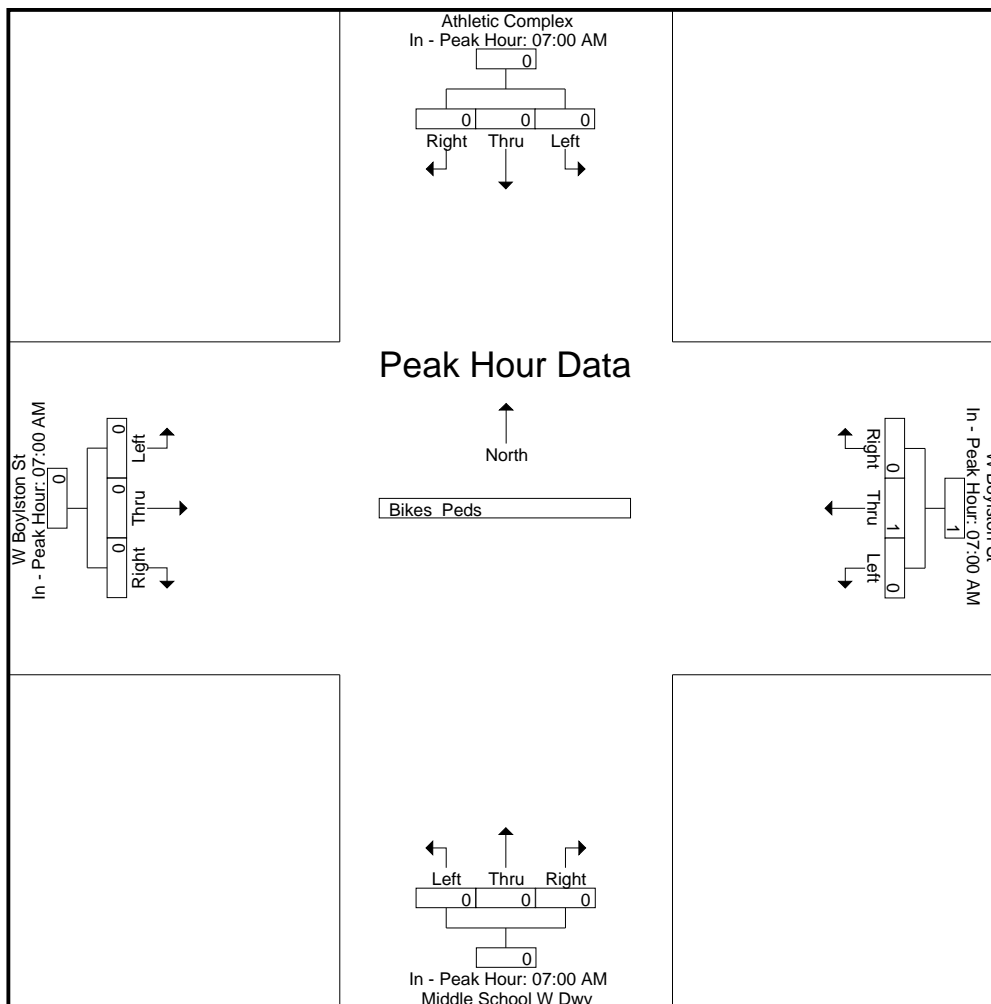
	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+5 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+10 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+20 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+25 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+35 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+40 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+50 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+55 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.083	.000	.083	.000	.000	.000	.000	.000	.000	.000	.000

# Accurate Counts

978-664-2565

File Name : 07690001  
 Site Code : 07690001  
 Start Date : 10/12/2023  
 Page No : 12

N/S Street : Athletic Complex/School W Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear



# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690001  
 Site Code : 07690001  
 Start Date : 10/12/2023  
 Page No : 1

### Groups Printed- Cars - Trucks

Start Time	Athletic Complex From North			W Boylston St From East			Middle School W Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	0	1	11	19	1	0	0	0	0	7	2	41
02:05 PM	0	0	0	4	14	0	0	0	0	0	11	1	30
02:10 PM	0	0	0	11	19	0	5	0	13	0	40	0	88
02:15 PM	0	0	0	4	6	0	0	0	1	0	27	2	40
02:20 PM	0	0	0	14	16	0	0	0	1	0	14	1	46
02:25 PM	0	0	0	9	15	1	0	0	0	0	18	2	45
02:30 PM	0	0	2	5	17	1	2	0	1	0	31	0	59
02:35 PM	0	0	0	6	21	0	1	0	6	0	23	1	58
02:40 PM	0	1	0	3	18	0	0	0	1	0	14	2	39
02:45 PM	0	0	0	1	12	1	0	1	0	0	17	0	32
02:50 PM	0	0	1	1	11	0	3	0	0	0	12	0	28
02:55 PM	0	0	0	1	21	1	3	0	1	2	19	0	48
<b>Total</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>70</b>	<b>189</b>	<b>5</b>	<b>14</b>	<b>1</b>	<b>24</b>	<b>2</b>	<b>233</b>	<b>11</b>	<b>554</b>
03:00 PM	0	0	0	1	18	2	0	2	0	4	15	0	42
03:05 PM	0	0	1	4	17	4	1	0	2	4	16	0	49
03:10 PM	1	0	2	1	14	4	1	0	1	3	13	1	41
03:15 PM	0	0	0	5	14	4	1	0	0	6	15	0	45
03:20 PM	2	1	0	3	23	9	1	0	0	4	20	1	64
03:25 PM	0	1	0	11	15	12	1	0	2	4	21	0	67
03:30 PM	0	0	0	6	10	8	0	0	0	3	20	1	48
03:35 PM	0	0	0	7	24	3	2	0	0	2	22	0	60
03:40 PM	3	0	0	3	12	5	1	0	0	1	17	1	43
03:45 PM	0	0	1	5	23	6	2	0	0	3	15	0	55
03:50 PM	2	0	0	5	19	2	0	0	1	2	16	0	47
03:55 PM	1	0	0	5	17	2	0	0	1	0	13	0	39
<b>Total</b>	<b>9</b>	<b>2</b>	<b>4</b>	<b>56</b>	<b>206</b>	<b>61</b>	<b>10</b>	<b>2</b>	<b>7</b>	<b>36</b>	<b>203</b>	<b>4</b>	<b>600</b>
<b>Grand Total</b>	<b>9</b>	<b>3</b>	<b>8</b>	<b>126</b>	<b>395</b>	<b>66</b>	<b>24</b>	<b>3</b>	<b>31</b>	<b>38</b>	<b>436</b>	<b>15</b>	<b>1154</b>
Apprch %	45	15	40	21.5	67.3	11.2	41.4	5.2	53.4	7.8	89.2	3.1	
Total %	0.8	0.3	0.7	10.9	34.2	5.7	2.1	0.3	2.7	3.3	37.8	1.3	
Cars	8	3	7	113	382	65	24	3	31	37	424	15	1112
% Cars	88.9	100	87.5	89.7	96.7	98.5	100	100	100	97.4	97.2	100	96.4
Trucks	1	0	1	13	13	1	0	0	0	1	12	0	42
% Trucks	11.1	0	12.5	10.3	3.3	1.5	0	0	0	2.6	2.8	0	3.6

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
<b>Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1</b>																	
<b>Peak Hour for Entire Intersection Begins at 02:55 PM</b>																	
02:55 PM	0	0	0	0	1	21	1	23	<b>3</b>	0	1	<b>4</b>	2	19	0	21	48
03:00 PM	0	0	0	0	1	18	2	21	0	<b>2</b>	0	2	4	15	0	19	42
03:05 PM	0	0	1	1	4	17	4	25	1	0	<b>2</b>	3	4	16	0	20	49
03:10 PM	1	0	<b>2</b>	<b>3</b>	1	14	4	19	1	0	1	2	3	13	1	17	41
03:15 PM	0	0	0	0	5	14	4	23	1	0	0	1	<b>6</b>	15	0	21	45
03:20 PM	2	<b>1</b>	0	3	3	23	9	35	1	0	0	1	4	20	1	<b>25</b>	64
03:25 PM	0	1	0	1	<b>11</b>	15	<b>12</b>	<b>38</b>	1	0	2	3	4	21	0	25	<b>67</b>
03:30 PM	0	0	0	0	6	10	8	24	0	0	0	0	3	20	1	24	48
03:35 PM	0	0	0	0	7	<b>24</b>	3	34	2	0	0	2	2	<b>22</b>	0	24	60
03:40 PM	<b>3</b>	0	0	3	3	12	5	20	1	0	0	1	1	17	1	19	43
03:45 PM	0	0	1	1	5	23	6	34	2	0	0	2	3	15	0	18	55
03:50 PM	2	0	0	2	5	19	2	26	0	0	1	1	2	16	0	18	47
<b>Total Volume</b>	<b>8</b>	<b>2</b>	<b>4</b>	<b>14</b>	<b>52</b>	<b>210</b>	<b>60</b>	<b>322</b>	<b>13</b>	<b>2</b>	<b>7</b>	<b>22</b>	<b>38</b>	<b>209</b>	<b>4</b>	<b>251</b>	<b>609</b>
<b>% App. Total</b>	<b>57.1</b>	<b>14.3</b>	<b>28.6</b>		<b>16.1</b>	<b>65.2</b>	<b>18.6</b>		<b>59.1</b>	<b>9.1</b>	<b>31.8</b>		<b>15.1</b>	<b>83.3</b>	<b>1.6</b>		
<b>PHF</b>	<b>.222</b>	<b>.167</b>	<b>.167</b>	<b>.389</b>	<b>.394</b>	<b>.729</b>	<b>.417</b>	<b>.706</b>	<b>.361</b>	<b>.083</b>	<b>.292</b>	<b>.458</b>	<b>.528</b>	<b>.792</b>	<b>.333</b>	<b>.837</b>	<b>.757</b>
Cars	7	2	4	13	51	209	60	320	13	2	7	22	37	208	4	249	604
% Cars	87.5	100	100	92.9	98.1	99.5	100	99.4	100	100	100	100	97.4	99.5	100	99.2	99.2
Trucks	1	0	0	1	1	1	0	2	0	0	0	0	1	1	0	2	5
% Trucks	12.5	0	0	7.1	1.9	0.5	0	0.6	0	0	0	0	2.6	0.5	0	0.8	0.8

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

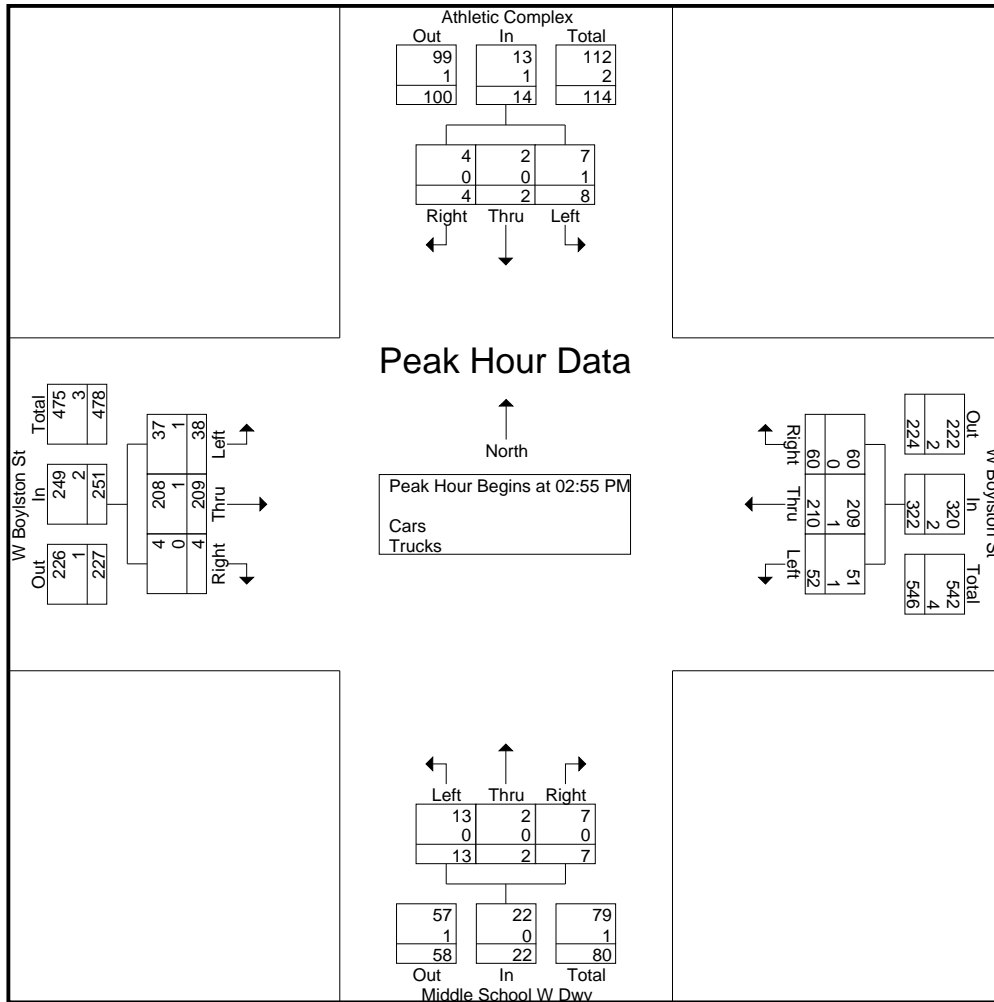
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 2



**Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1**

**Peak Hour for Each Approach Begins at:**

	03:00 PM				03:00 PM				02:10 PM				02:10 PM			
+0 mins.	0	0	0	0	1	18	2	21	5	0	13	18	0	40	0	40
+5 mins.	0	0	1	1	4	17	4	25	0	0	1	1	0	27	2	29
+10 mins.	1	0	2	3	1	14	4	19	0	0	1	1	0	14	1	15
+15 mins.	0	0	0	0	5	14	4	23	0	0	0	0	0	18	2	20
+20 mins.	2	1	0	3	3	23	9	35	2	0	1	3	0	31	0	31
+25 mins.	0	1	0	1	11	15	12	38	1	0	6	7	0	23	1	24
+30 mins.	0	0	0	0	6	10	8	24	0	0	1	1	0	14	2	16
+35 mins.	0	0	0	0	7	24	3	34	0	1	0	1	0	17	0	17
+40 mins.	3	0	0	3	3	12	5	20	3	0	0	3	0	12	0	12
+45 mins.	0	0	1	1	5	23	6	34	3	0	1	4	2	19	0	21
+50 mins.	2	0	0	2	5	19	2	26	0	2	0	2	4	15	0	19
+55 mins.	1	0	0	1	5	17	2	24	1	0	2	3	4	16	0	20
Total Volume	9	2	4	15	56	206	61	323	15	3	26	44	10	246	8	264
% App. Total	60	13.3	26.7	17.3	17.3	63.8	18.9	34.1	6.8	59.1	34.1	3.8	93.2	3	3.8	93.2
PHF	.250	.167	.167	.417	.424	.715	.424	.708	.250	.125	.167	.204	.208	.513	.333	.550
Cars	8	2	4	14	55	203	61	319	15	3	26	44	10	235	8	253
% Cars	88.9	100	100	93.3	98.2	98.5	100	98.8	100	100	100	100	100	95.5	100	95.8
Trucks	1	0	0	1	1	3	0	4	0	0	0	0	0	11	0	11
% Trucks	11.1	0	0	6.7	1.8	1.5	0	1.2	0	0	0	0	0	4.5	0	4.2

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

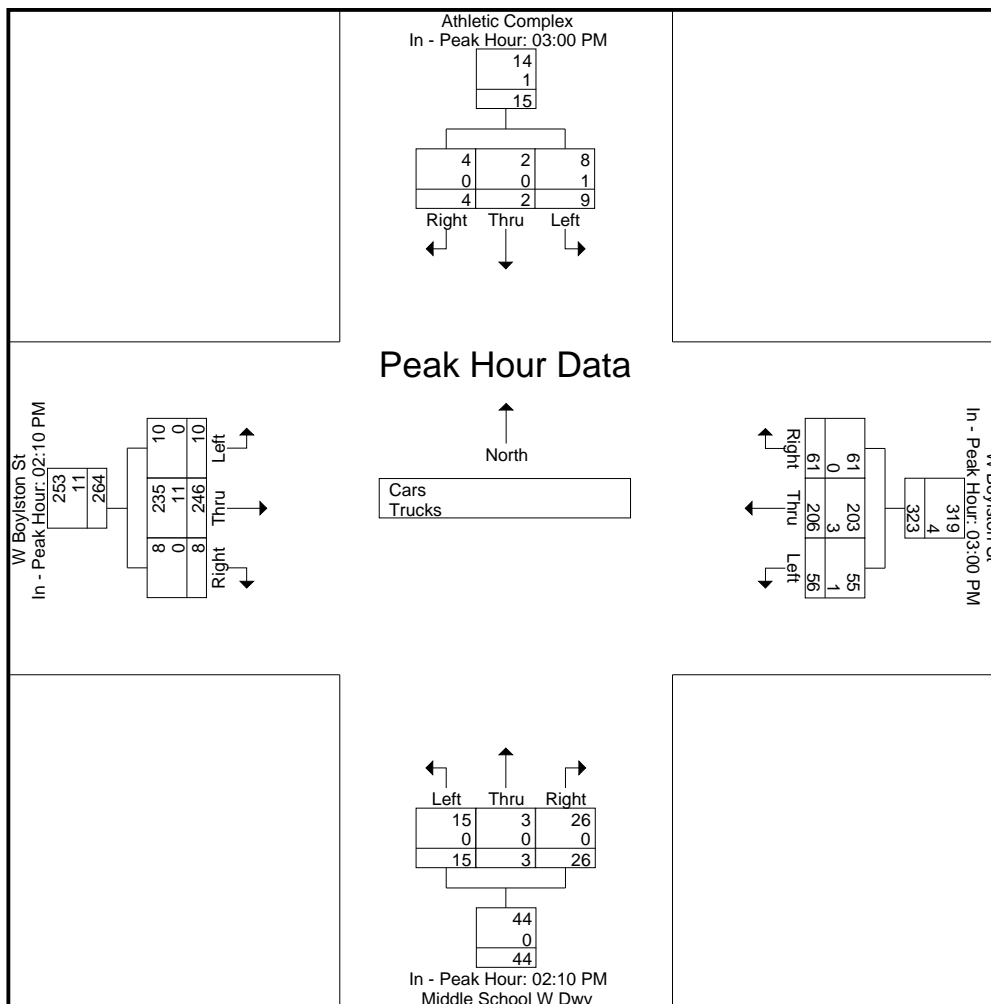
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 3





# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690001  
 Site Code : 07690001  
 Start Date : 10/12/2023  
 Page No : 4

## Groups Printed- Cars

Start Time	Athletic Complex From North			W Boylston St From East			Middle School W Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	0	0	11	15	0	0	0	0	0	7	2	35
02:05 PM	0	0	0	4	13	0	0	0	0	0	11	1	29
02:10 PM	0	0	0	10	18	0	5	0	13	0	32	0	78
02:15 PM	0	0	0	4	6	0	0	0	1	0	26	2	39
02:20 PM	0	0	0	13	16	0	0	0	1	0	14	1	45
02:25 PM	0	0	0	6	15	1	0	0	0	0	18	2	42
02:30 PM	0	0	2	3	15	1	2	0	1	0	30	0	54
02:35 PM	0	0	0	3	20	0	1	0	6	0	23	1	54
02:40 PM	0	1	0	3	18	0	0	0	1	0	13	2	38
02:45 PM	0	0	0	0	11	1	0	1	0	0	17	0	30
02:50 PM	0	0	1	1	11	0	3	0	0	0	12	0	28
02:55 PM	0	0	0	0	21	1	3	0	1	2	19	0	47
<b>Total</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>58</b>	<b>179</b>	<b>4</b>	<b>14</b>	<b>1</b>	<b>24</b>	<b>2</b>	<b>222</b>	<b>11</b>	<b>519</b>
03:00 PM	0	0	0	1	18	2	0	2	0	4	15	0	42
03:05 PM	0	0	1	4	17	4	1	0	2	4	16	0	49
03:10 PM	0	0	2	1	14	4	1	0	1	2	13	1	39
03:15 PM	0	0	0	5	14	4	1	0	0	6	15	0	45
03:20 PM	2	1	0	3	23	9	1	0	0	4	20	1	64
03:25 PM	0	1	0	11	15	12	1	0	2	4	21	0	67
03:30 PM	0	0	0	6	10	8	0	0	0	3	20	1	48
03:35 PM	0	0	0	7	23	3	2	0	0	2	22	0	59
03:40 PM	3	0	0	3	12	5	1	0	0	1	16	1	42
03:45 PM	0	0	1	5	23	6	2	0	0	3	15	0	55
03:50 PM	2	0	0	5	19	2	0	0	1	2	16	0	47
03:55 PM	1	0	0	4	15	2	0	0	1	0	13	0	36
<b>Total</b>	<b>8</b>	<b>2</b>	<b>4</b>	<b>55</b>	<b>203</b>	<b>61</b>	<b>10</b>	<b>2</b>	<b>7</b>	<b>35</b>	<b>202</b>	<b>4</b>	<b>593</b>
<b>Grand Total</b>	<b>8</b>	<b>3</b>	<b>7</b>	<b>113</b>	<b>382</b>	<b>65</b>	<b>24</b>	<b>3</b>	<b>31</b>	<b>37</b>	<b>424</b>	<b>15</b>	<b>1112</b>
Apprch %	44.4	16.7	38.9	20.2	68.2	11.6	41.4	5.2	53.4	7.8	89.1	3.2	
Total %	0.7	0.3	0.6	10.2	34.4	5.8	2.2	0.3	2.8	3.3	38.1	1.3	

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
02:55 PM	0	0	0	0	0	21	1	22	3	0	1	4	2	19	0	21	47
03:00 PM	0	0	0	0	1	18	2	21	0	2	0	2	4	15	0	19	42
03:05 PM	0	0	1	1	4	17	4	25	1	0	2	3	4	16	0	20	49
03:10 PM	0	0	2	2	1	14	4	19	1	0	1	2	2	13	1	16	39
03:15 PM	0	0	0	0	5	14	4	23	1	0	0	1	6	15	0	21	45
03:20 PM	2	1	0	3	3	23	9	35	1	0	0	1	4	20	1	25	64
03:25 PM	0	1	0	1	11	15	12	38	1	0	2	3	4	21	0	25	67
03:30 PM	0	0	0	0	6	10	8	24	0	0	0	0	3	20	1	24	48
03:35 PM	0	0	0	0	7	23	3	33	2	0	0	2	2	22	0	24	59
03:40 PM	3	0	0	3	3	12	5	20	1	0	0	1	1	16	1	18	42
03:45 PM	0	0	1	1	5	23	6	34	2	0	0	2	3	15	0	18	55
03:50 PM	2	0	0	2	5	19	2	26	0	0	1	1	2	16	0	18	47
<b>Total Volume</b>	<b>7</b>	<b>2</b>	<b>4</b>	<b>13</b>	<b>51</b>	<b>209</b>	<b>60</b>	<b>320</b>	<b>13</b>	<b>2</b>	<b>7</b>	<b>22</b>	<b>37</b>	<b>208</b>	<b>4</b>	<b>249</b>	<b>604</b>
<b>% App. Total</b>	<b>53.8</b>	<b>15.4</b>	<b>30.8</b>		<b>15.9</b>	<b>65.3</b>	<b>18.8</b>		<b>59.1</b>	<b>9.1</b>	<b>31.8</b>		<b>14.9</b>	<b>83.5</b>	<b>1.6</b>		
<b>PHF</b>	<b>.194</b>	<b>.167</b>	<b>.167</b>	<b>.361</b>	<b>.386</b>	<b>.757</b>	<b>.417</b>	<b>.702</b>	<b>.361</b>	<b>.083</b>	<b>.292</b>	<b>.458</b>	<b>.514</b>	<b>.788</b>	<b>.333</b>	<b>.830</b>	<b>.751</b>

Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

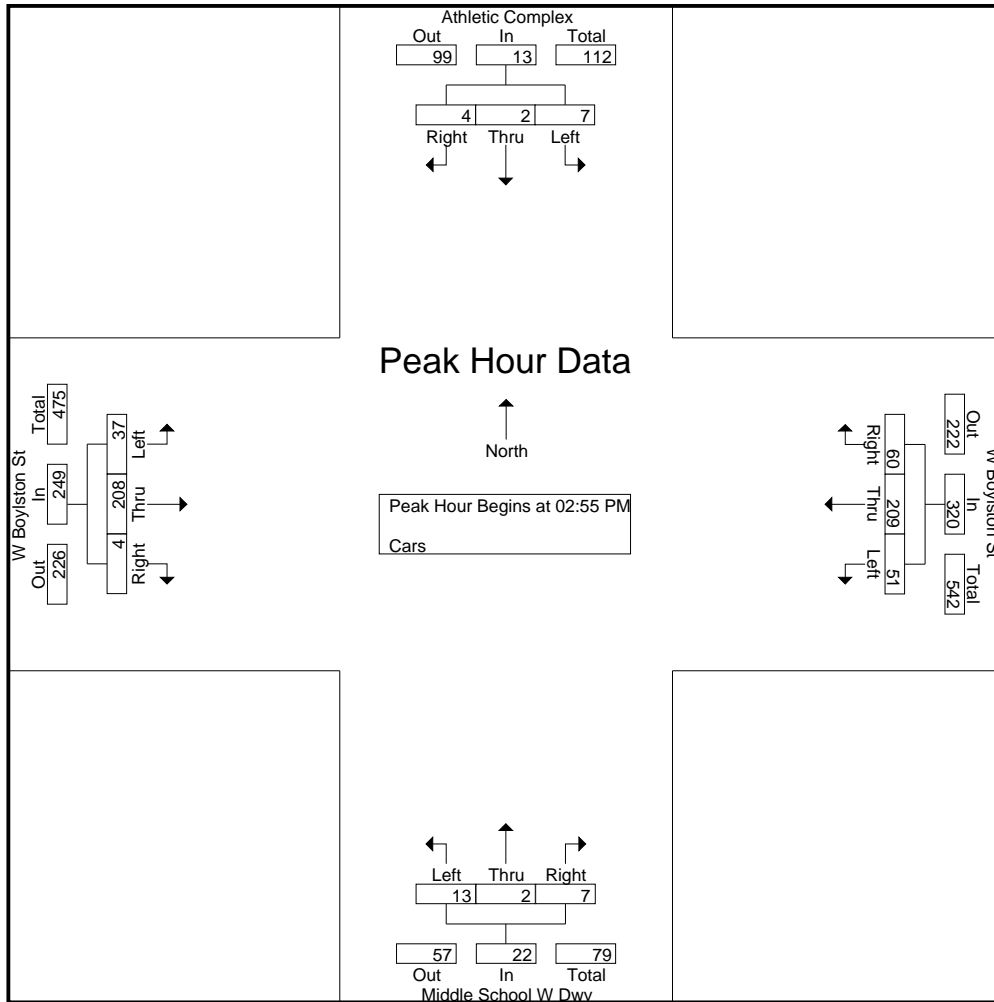
Peak Hour for Entire Intersection Begins at 02:55 PM

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690001  
 Site Code : 07690001  
 Start Date : 10/12/2023  
 Page No : 5



**Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1**

Peak Hour for Each Approach Begins at:

	03:00 PM				02:55 PM				02:10 PM				02:10 PM			
+0 mins.	0	0	0	0	0	21	1	22	5	0	13	18	0	32	0	32
+5 mins.	0	0	1	1	1	18	2	21	0	0	1	1	0	26	2	28
+10 mins.	0	0	2	2	4	17	4	25	0	0	1	1	0	14	1	15
+15 mins.	0	0	0	0	1	14	4	19	0	0	0	0	0	18	2	20
+20 mins.	2	1	0	3	5	14	4	23	2	0	1	3	0	30	0	30
+25 mins.	0	1	0	1	3	23	9	35	1	0	6	7	0	23	1	24
+30 mins.	0	0	0	0	11	15	12	38	0	0	1	1	0	13	2	15
+35 mins.	0	0	0	0	6	10	8	24	0	1	0	1	0	17	0	17
+40 mins.	3	0	0	3	7	23	3	33	3	0	0	3	0	12	0	12
+45 mins.	0	0	1	1	3	12	5	20	3	0	1	4	2	19	0	21
+50 mins.	2	0	0	2	5	23	6	34	0	2	0	2	4	15	0	19
+55 mins.	1	0	0	1	5	19	2	26	1	0	2	3	4	16	0	20
Total Volume	8	2	4	14	51	209	60	320	15	3	26	44	10	235	8	253
% App. Total	57.1	14.3	28.6		15.9	65.3	18.8		34.1	6.8	59.1		4	92.9	3.2	
PHF	.222	.167	.167	.389	.386	.757	.417	.702	.250	.125	.167	.204	.208	.612	.333	.659

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

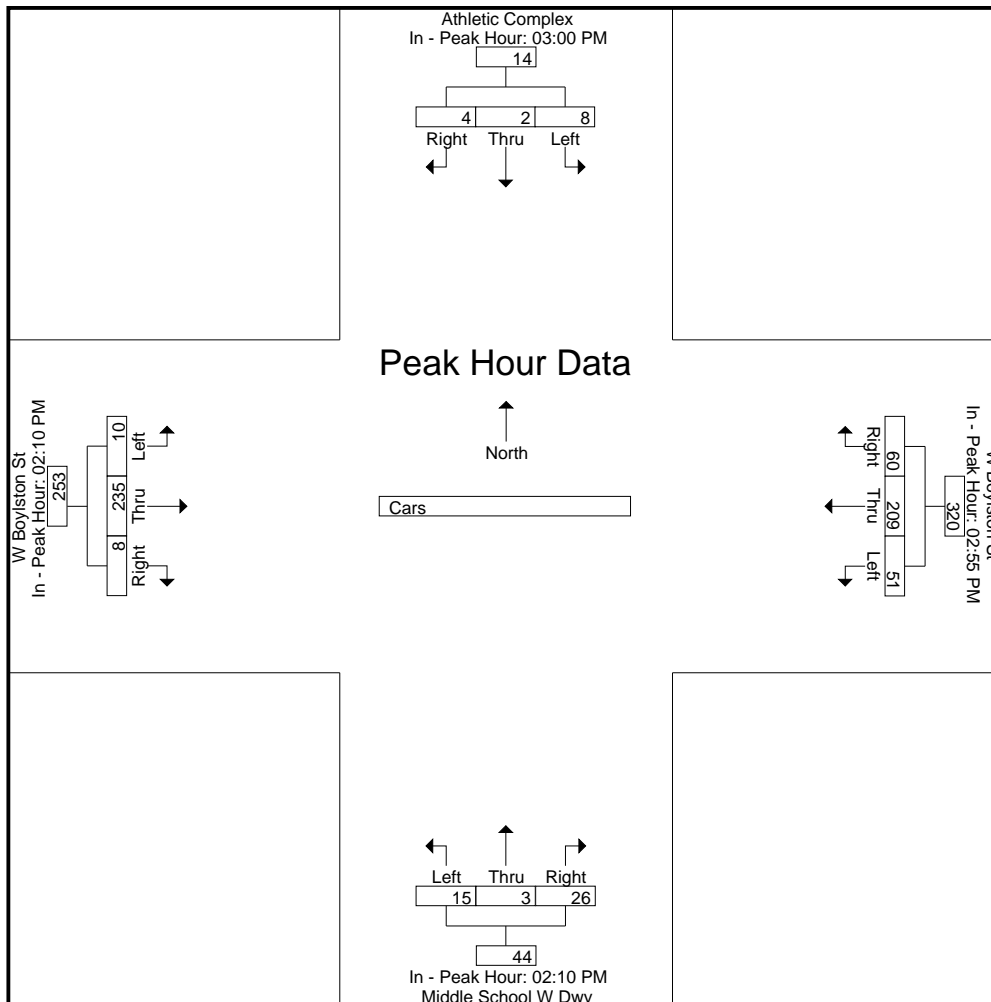
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 6



# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 7

## Groups Printed- Trucks

Start Time	Athletic Complex From North			W Boylston St From East			Middle School W Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	0	1	0	4	1	0	0	0	0	0	0	6
02:05 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
02:10 PM	0	0	0	1	1	0	0	0	0	0	8	0	10
02:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
02:20 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
02:25 PM	0	0	0	3	0	0	0	0	0	0	0	0	3
02:30 PM	0	0	0	2	2	0	0	0	0	0	1	0	5
02:35 PM	0	0	0	3	1	0	0	0	0	0	0	0	4
02:40 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
02:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
02:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:55 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>12</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>35</b>
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:10 PM	1	0	0	0	0	0	0	0	0	1	0	0	2
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:35 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
03:40 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:55 PM	0	0	0	1	2	0	0	0	0	0	0	0	3
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>7</b>
<b>Grand Total</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>12</b>	<b>0</b>	<b>42</b>
Apprch %	50	0	50	48.1	48.1	3.7	0	0	0	7.7	92.3	0	
Total %	2.4	0	2.4	31	31	2.4	0	0	0	2.4	28.6	0	

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
02:00 PM	0	0	1	1	0	4	1	5	0	0	0	0	0	0	0	0	6
02:05 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
02:10 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	8	0	8	10
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
02:20 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
02:25 PM	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	3
02:30 PM	0	0	0	0	2	2	0	4	0	0	0	0	0	1	0	1	5
02:35 PM	0	0	0	0	3	1	0	4	0	0	0	0	0	0	0	0	4
02:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
02:45 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
02:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:55 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>12</b>	<b>10</b>	<b>1</b>	<b>23</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>11</b>	<b>35</b>
<b>% App. Total</b>	<b>0</b>	<b>0</b>	<b>100</b>		<b>52.2</b>	<b>43.5</b>	<b>4.3</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>100</b>	<b>0</b>		
<b>PHF</b>	<b>.000</b>	<b>.000</b>	<b>.083</b>	<b>.083</b>	<b>.333</b>	<b>.208</b>	<b>.083</b>	<b>.383</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.115</b>	<b>.000</b>	<b>.115</b>	<b>.292</b>

Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 02:00 PM

# Accurate Counts

978-664-2565

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

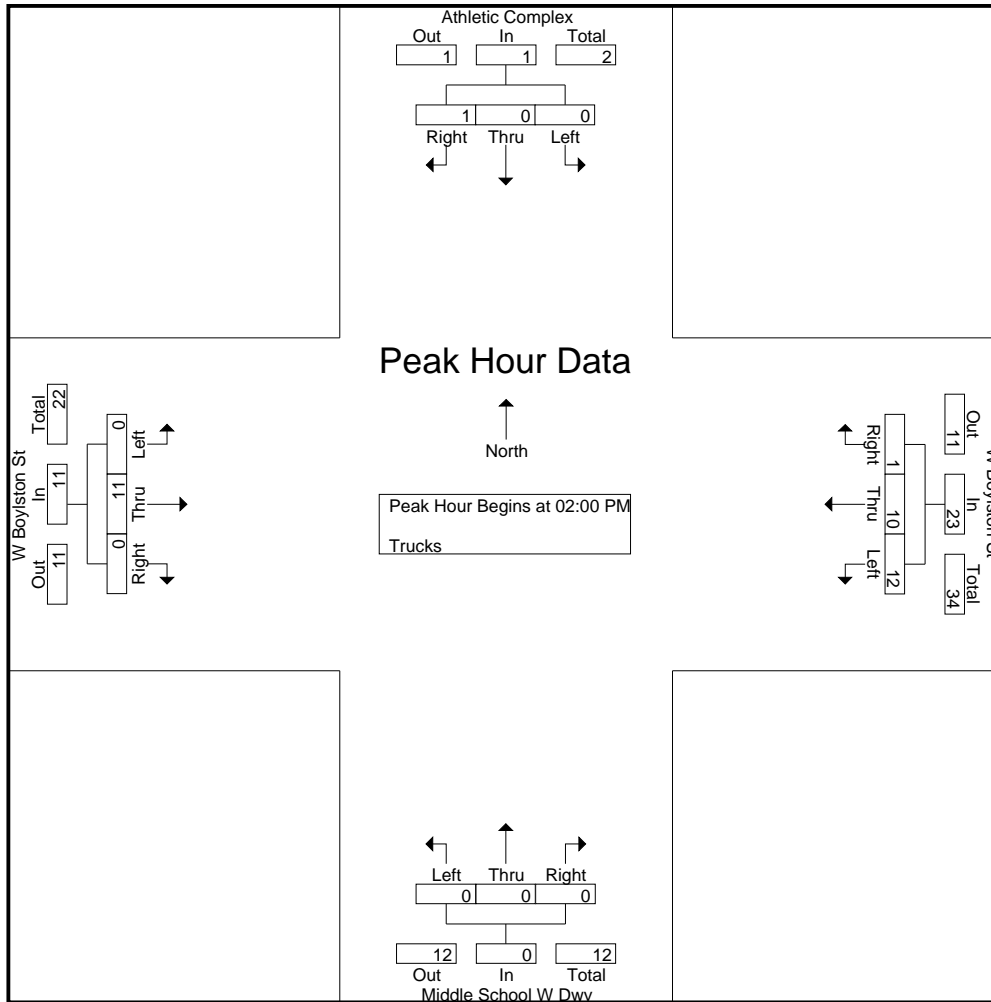
Page No : 8

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

Weather : Clear



**Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1**

**Peak Hour for Each Approach Begins at:**

	02:00 PM				02:00 PM				02:00 PM				02:00 PM			
+0 mins.	0	0	1	1	0	4	1	5	0	0	0	0	0	0	0	0
+5 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+10 mins.	0	0	0	0	1	1	0	2	0	0	0	0	0	8	0	8
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+20 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+25 mins.	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	2	2	0	4	0	0	0	0	0	1	0	1
+35 mins.	0	0	0	0	3	1	0	4	0	0	0	0	0	0	0	0
+40 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0
+50 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+55 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	1	1	12	10	1	23	0	0	0	0	0	11	0	11
% App. Total	0	0	100		52.2	43.5	4.3		0	0	0		0	100	0	
PHF	.000	.000	.083	.083	.333	.208	.083	.383	.000	.000	.000	.000	.000	.115	.000	.115

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

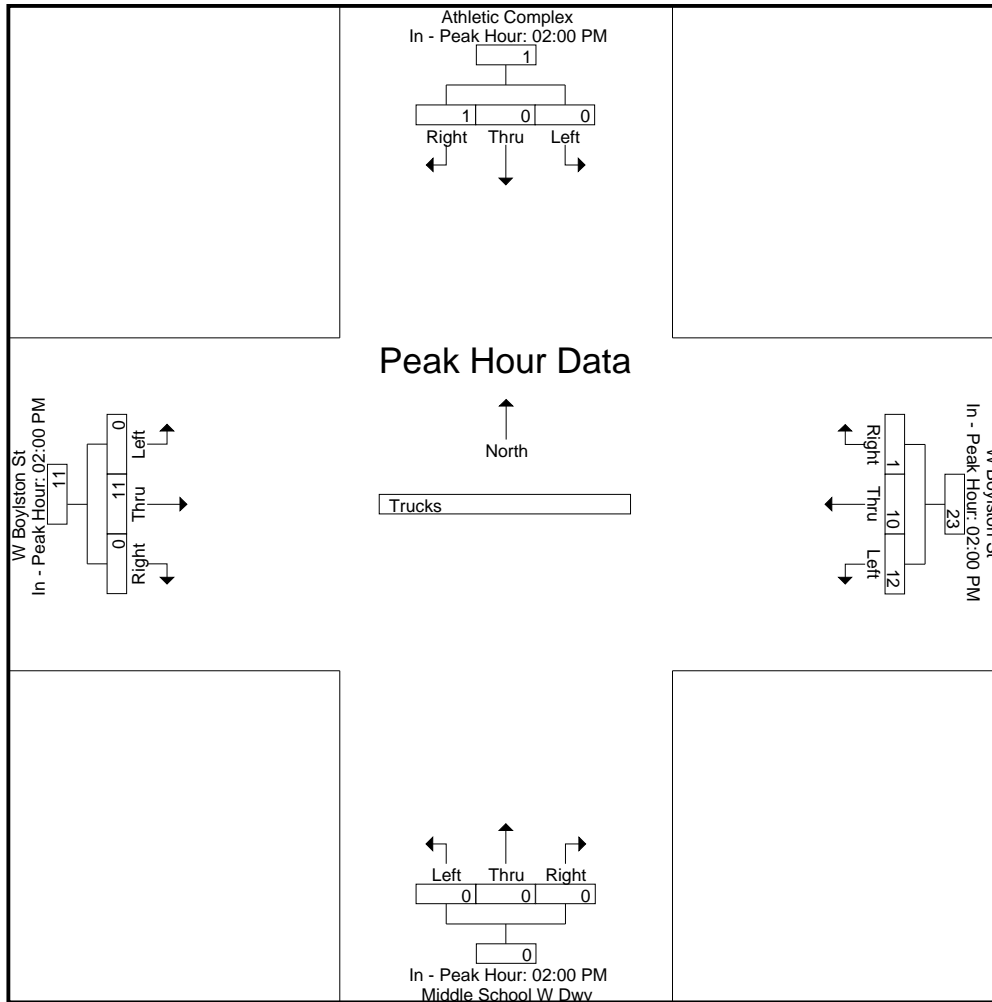
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 9



**Accurate Counts**

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 10

Groups Printed- Bikes Peds

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
02:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	0	11
02:40 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	2
02:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>18</b>	<b>0</b>	<b>18</b>
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	28	0	28
03:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
03:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3	5	0	5
03:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
03:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
03:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
03:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>40</b>	<b>0</b>	<b>40</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>53</b>	<b>58</b>	<b>0</b>	<b>58</b>
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total %																	100	0	

Start Time	Athletic Complex From North				W Boylston St From East				Middle School W Dwy From South				W Boylston St From West				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>% App. Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 02:00 PM

# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

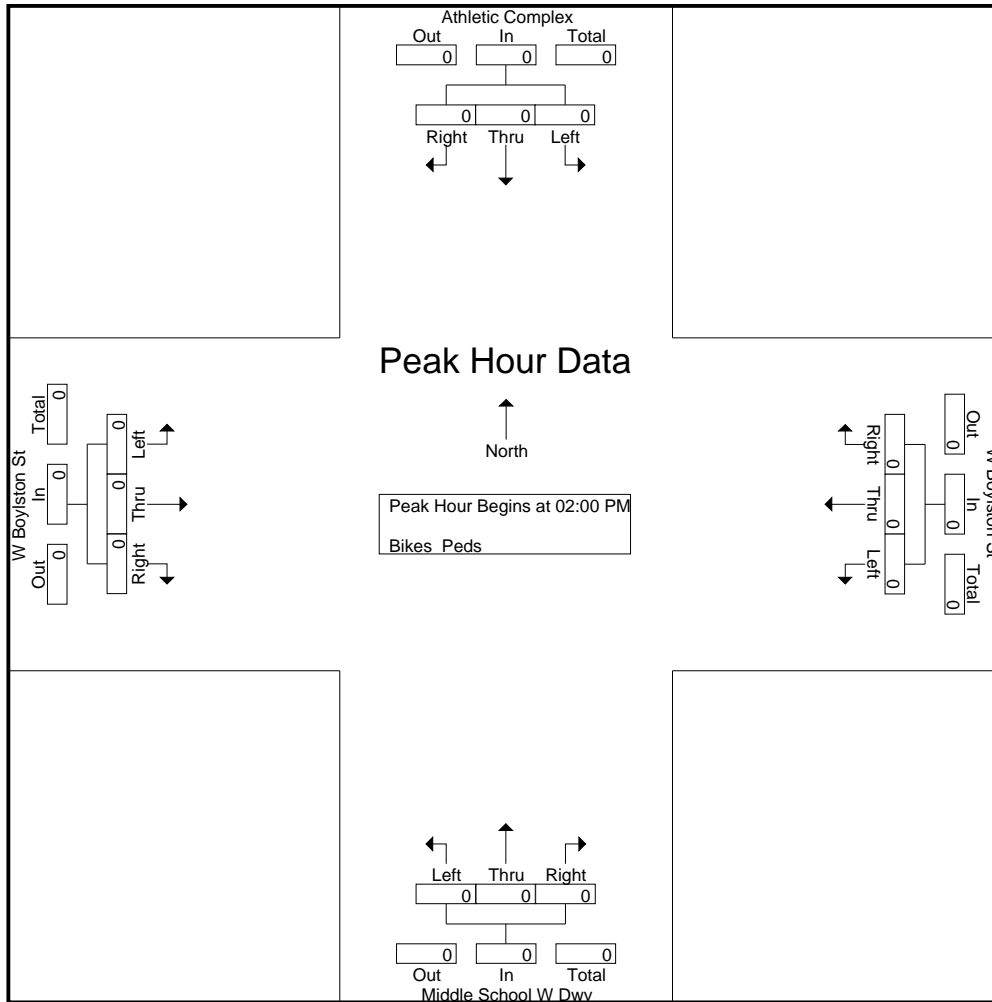
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 11



**Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1**

**Peak Hour for Each Approach Begins at:**

	02:00 PM				02:00 PM				02:00 PM				02:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+5 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+10 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+20 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+25 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+35 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+40 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+50 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+55 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



# Accurate Counts

978-664-2565

N/S Street : Athletic Complex/School W Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

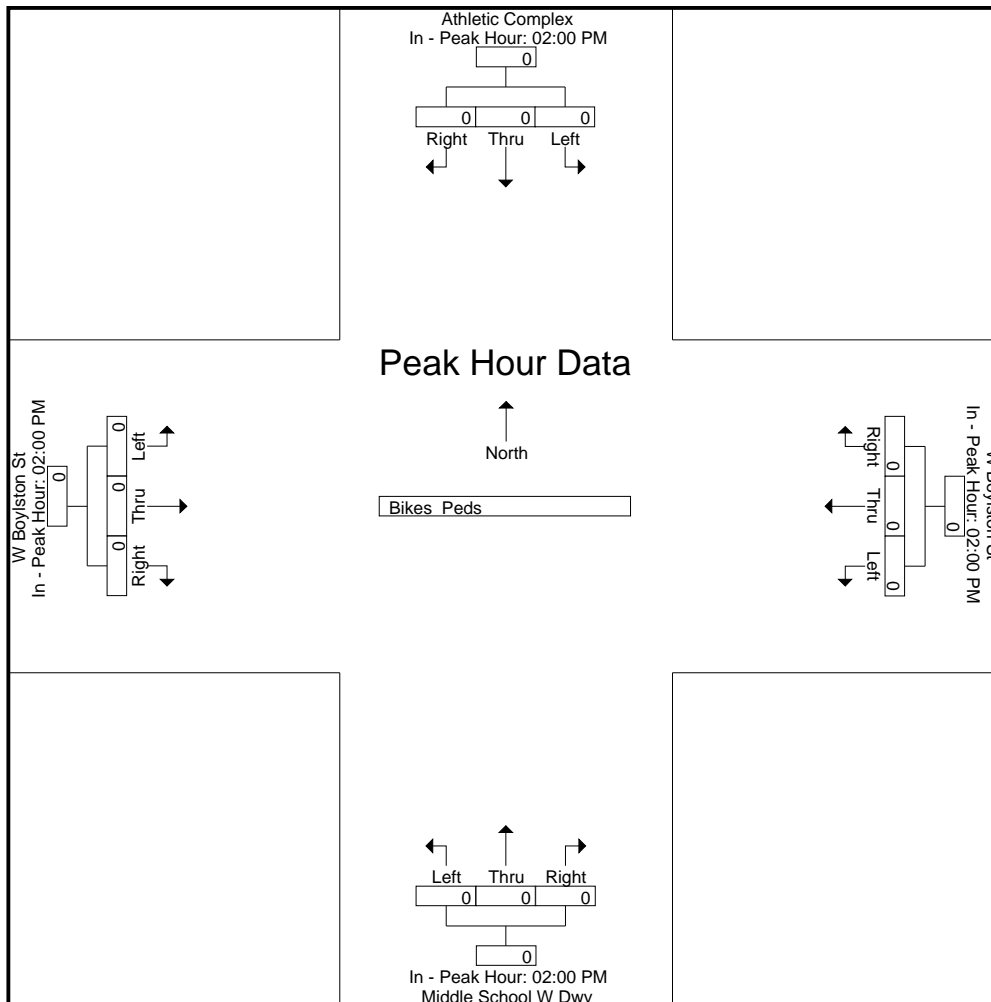
Weather : Clear

File Name : 07690001

Site Code : 07690001

Start Date : 10/12/2023

Page No : 12



# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot  
 E/W Street : High School Lot  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690002  
 Site Code : 07690002  
 Start Date : 10/12/2023  
 Page No : 1

### Groups Printed- Cars - Trucks

Start Time	Middle School W Dwy From North		Middle School Lot From South		High School Lot From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
07:00 AM	2	5	0	0	0	0	7
07:05 AM	5	9	0	0	0	0	14
07:10 AM	6	12	0	0	1	2	21
07:15 AM	2	9	0	0	0	1	12
07:20 AM	6	6	0	0	0	1	13
07:25 AM	9	1	0	0	0	0	10
07:30 AM	23	1	0	3	0	0	27
07:35 AM	20	0	0	4	0	0	24
07:40 AM	24	1	0	5	0	1	31
07:45 AM	37	0	0	19	0	0	56
07:50 AM	34	0	0	27	0	0	61
07:55 AM	23	0	0	11	0	0	34
<b>Total</b>	<b>191</b>	<b>44</b>	<b>0</b>	<b>69</b>	<b>1</b>	<b>5</b>	<b>310</b>
08:00 AM	8	0	0	2	0	0	10
08:05 AM	3	0	0	0	0	0	3
08:10 AM	5	0	0	0	0	0	5
08:15 AM	1	1	0	0	0	1	3
08:20 AM	4	2	0	0	0	0	6
08:25 AM	2	3	0	1	0	0	6
08:30 AM	6	3	0	0	0	0	9
08:35 AM	4	2	0	0	0	1	7
08:40 AM	0	0	1	3	0	0	4
08:45 AM	1	0	0	0	0	0	1
08:50 AM	1	0	0	0	0	0	1
08:55 AM	1	0	0	0	0	0	1
<b>Total</b>	<b>36</b>	<b>11</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>2</b>	<b>56</b>
<b>Grand Total</b>	<b>227</b>	<b>55</b>	<b>1</b>	<b>75</b>	<b>1</b>	<b>7</b>	<b>366</b>
Apprch %	80.5	19.5	1.3	98.7	12.5	87.5	
Total %	62	15	0.3	20.5	0.3	1.9	
Cars	216	55	1	75	1	6	354
% Cars	95.2	100	100	100	100	85.7	96.7
Trucks	11	0	0	0	0	1	12
% Trucks	4.8	0	0	0	0	14.3	3.3

Start Time	Middle School W Dwy From North			Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:05 AM										
07:05 AM	5	9	14	0	0	0	0	0	0	14
07:10 AM	6	12	18	0	0	0	1	2	3	21
07:15 AM	2	9	11	0	0	0	0	1	1	12
07:20 AM	6	6	12	0	0	0	0	1	1	13
07:25 AM	9	1	10	0	0	0	0	0	0	10
07:30 AM	23	1	24	0	3	3	0	0	0	27
07:35 AM	20	0	20	0	4	4	0	0	0	24
07:40 AM	24	1	25	0	5	5	0	1	1	31
07:45 AM	37	0	37	0	19	19	0	0	0	56
07:50 AM	34	0	34	0	27	27	0	0	0	61
07:55 AM	23	0	23	0	11	11	0	0	0	34
08:00 AM	8	0	8	0	2	2	0	0	0	10
<b>Total Volume</b>	<b>197</b>	<b>39</b>	<b>236</b>	<b>0</b>	<b>71</b>	<b>71</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>313</b>
% App. Total	83.5	16.5		0	100		16.7	83.3		
PHF	.444	.271	.532	.000	.219	.219	.083	.208	.167	.428
Cars	186	39	225	0	71	71	1	4	5	301
% Cars	94.4	100	95.3	0	100	100	100	80.0	83.3	96.2
Trucks	11	0	11	0	0	0	0	1	1	12
% Trucks	5.6	0	4.7	0	0	0	0	20.0	16.7	3.8

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

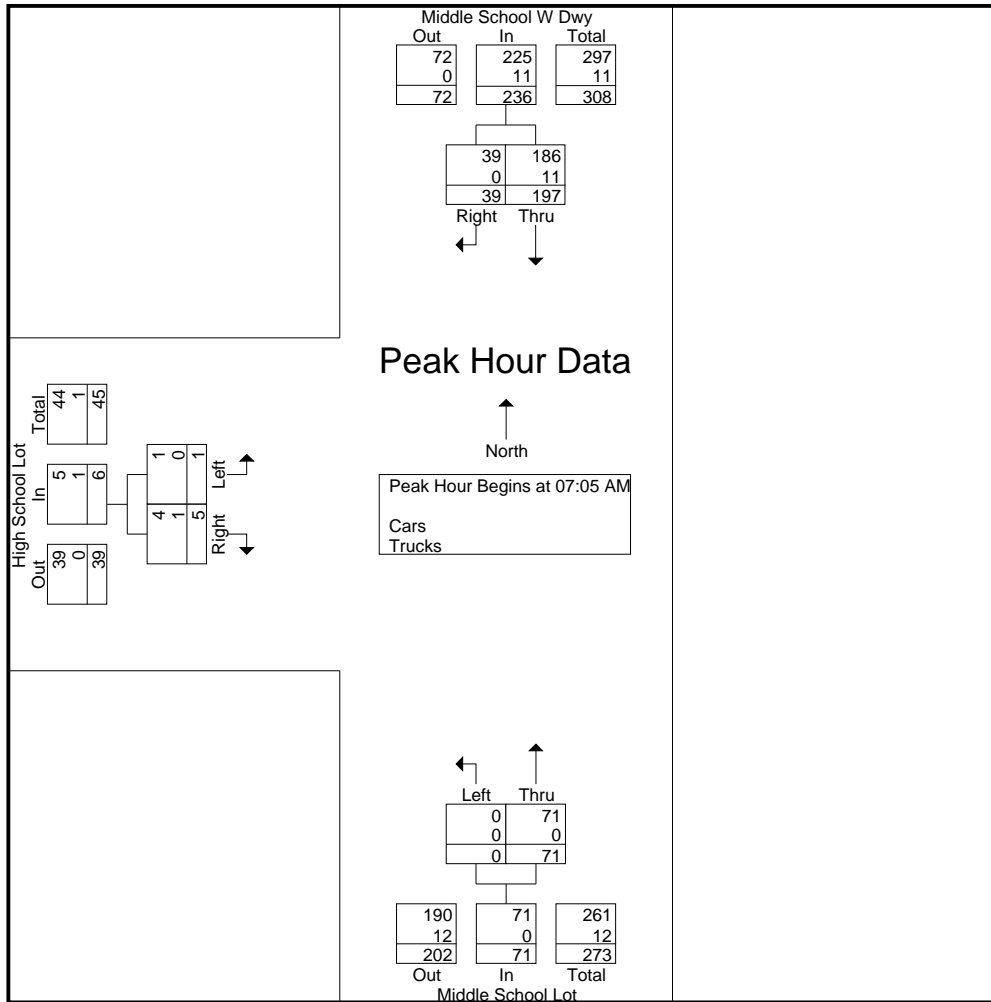
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 2



**Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1**

Peak Hour for Each Approach Begins at:

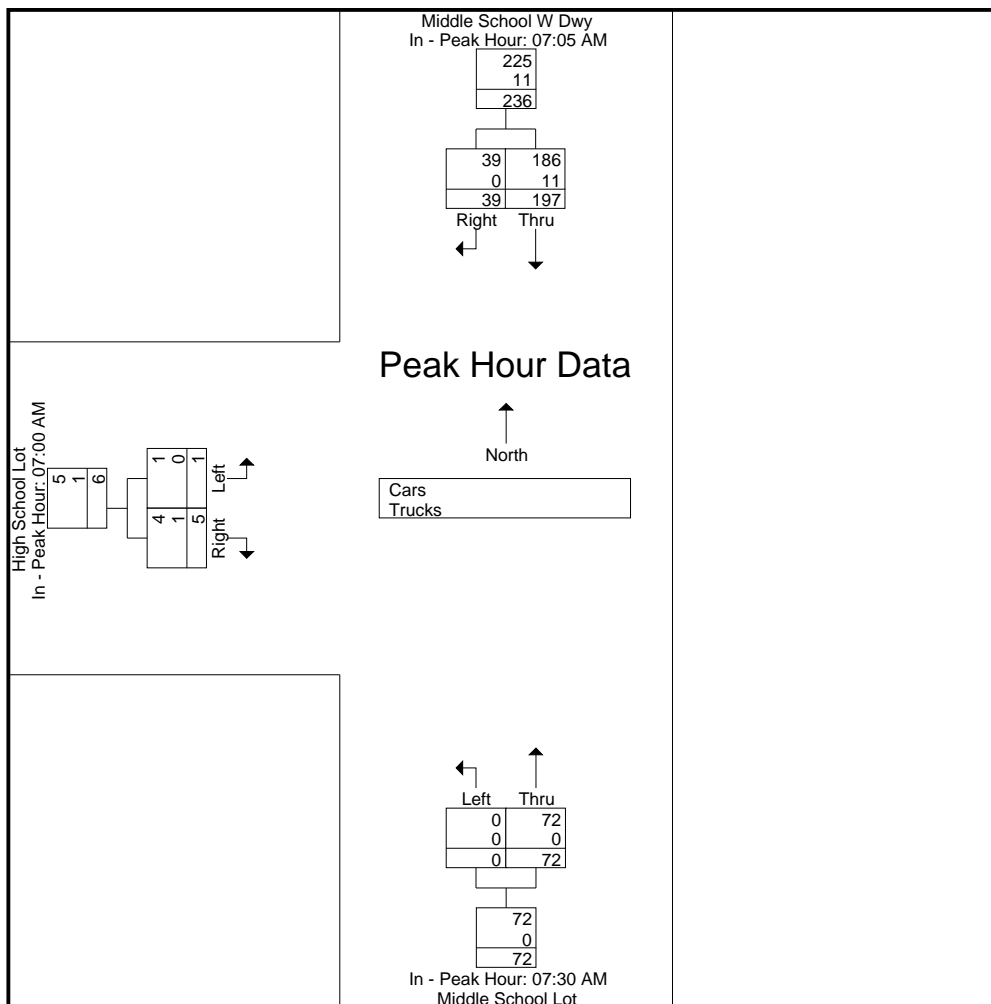
	07:05 AM			07:30 AM			07:00 AM		
+0 mins.	5	9	14	0	3	3	0	0	0
+5 mins.	6	12	18	0	4	4	0	0	0
+10 mins.	2	9	11	0	5	5	1	2	3
+15 mins.	6	6	12	0	19	19	0	1	1
+20 mins.	9	1	10	0	27	27	0	1	1
+25 mins.	23	1	24	0	11	11	0	0	0
+30 mins.	20	0	20	0	2	2	0	0	0
+35 mins.	24	1	25	0	0	0	0	0	0
+40 mins.	37	0	37	0	0	0	0	1	1
+45 mins.	34	0	34	0	0	0	0	0	0
+50 mins.	23	0	23	0	0	0	0	0	0
+55 mins.	8	0	8	0	1	1	0	0	0
Total Volume	197	39	236	0	72	72	1	5	6
% App. Total	83.5	16.5		0	100		16.7	83.3	
PHF	.444	.271	.532	.000	.222	.222	.083	.208	.167
Cars	186	39	225	0	72	72	1	4	5
% Cars	94.4	100	95.3	0	100	100	100	80	83.3
Trucks	11	0	11	0	0	0	0	1	1
% Trucks	5.6	0	4.7	0	0	0	0	20	16.7

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot  
 E/W Street : High School Lot  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690002  
 Site Code : 07690002  
 Start Date : 10/12/2023  
 Page No : 3



# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 4

## Groups Printed- Cars

Start Time	Middle School W Dwy From North		Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	Left	Thru		Left	Right		
07:00 AM	2	5	0	0		0	0	7	
07:05 AM	5	9	0	0		0	0	14	
07:10 AM	6	12	0	0		1	1	20	
07:15 AM	2	9	0	0		0	1	12	
07:20 AM	6	6	0	0		0	1	13	
07:25 AM	9	1	0	0		0	0	10	
07:30 AM	22	1	0	3		0	0	26	
07:35 AM	19	0	0	4		0	0	23	
07:40 AM	24	1	0	5		0	1	31	
07:45 AM	32	0	0	19		0	0	51	
07:50 AM	30	0	0	27		0	0	57	
07:55 AM	23	0	0	11		0	0	34	
<b>Total</b>	<b>180</b>	<b>44</b>	<b>0</b>	<b>69</b>		<b>1</b>	<b>4</b>	<b>298</b>	
08:00 AM	8	0	0	2		0	0	10	
08:05 AM	3	0	0	0		0	0	3	
08:10 AM	5	0	0	0		0	0	5	
08:15 AM	1	1	0	0		0	1	3	
08:20 AM	4	2	0	0		0	0	6	
08:25 AM	2	3	0	1		0	0	6	
08:30 AM	6	3	0	0		0	0	9	
08:35 AM	4	2	0	0		0	1	7	
08:40 AM	0	0	1	3		0	0	4	
08:45 AM	1	0	0	0		0	0	1	
08:50 AM	1	0	0	0		0	0	1	
08:55 AM	1	0	0	0		0	0	1	
<b>Total</b>	<b>36</b>	<b>11</b>	<b>1</b>	<b>6</b>		<b>0</b>	<b>2</b>	<b>56</b>	
<b>Grand Total</b>	<b>216</b>	<b>55</b>	<b>1</b>	<b>75</b>		<b>1</b>	<b>6</b>	<b>354</b>	
Apprch %	79.7	20.3	1.3	98.7		14.3	85.7		
Total %	61	15.5	0.3	21.2		0.3	1.7		

Start Time	Middle School W Dwy From North			Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:05 AM	5	9	14	0	0	0	0	0	0	14
07:10 AM	6	12	18	0	0	0	1	1	2	20
07:15 AM	2	9	11	0	0	0	0	1	1	12
07:20 AM	6	6	12	0	0	0	0	1	1	13
07:25 AM	9	1	10	0	0	0	0	0	0	10
07:30 AM	22	1	23	0	3	3	0	0	0	26
07:35 AM	19	0	19	0	4	4	0	0	0	23
07:40 AM	24	1	25	0	5	5	0	1	1	31
07:45 AM	32	0	32	0	19	19	0	0	0	51
07:50 AM	30	0	30	0	27	27	0	0	0	57
07:55 AM	23	0	23	0	11	11	0	0	0	34
08:00 AM	8	0	8	0	2	2	0	0	0	10
<b>Total Volume</b>	<b>186</b>	<b>39</b>	<b>225</b>	<b>0</b>	<b>71</b>	<b>71</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>301</b>
<b>% App. Total</b>	<b>82.7</b>	<b>17.3</b>		<b>0</b>	<b>100</b>		<b>20</b>	<b>80</b>		
<b>PHF</b>	<b>.484</b>	<b>.271</b>	<b>.586</b>	<b>.000</b>	<b>.219</b>	<b>.219</b>	<b>.083</b>	<b>.333</b>	<b>.208</b>	<b>.440</b>

Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:05 AM

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

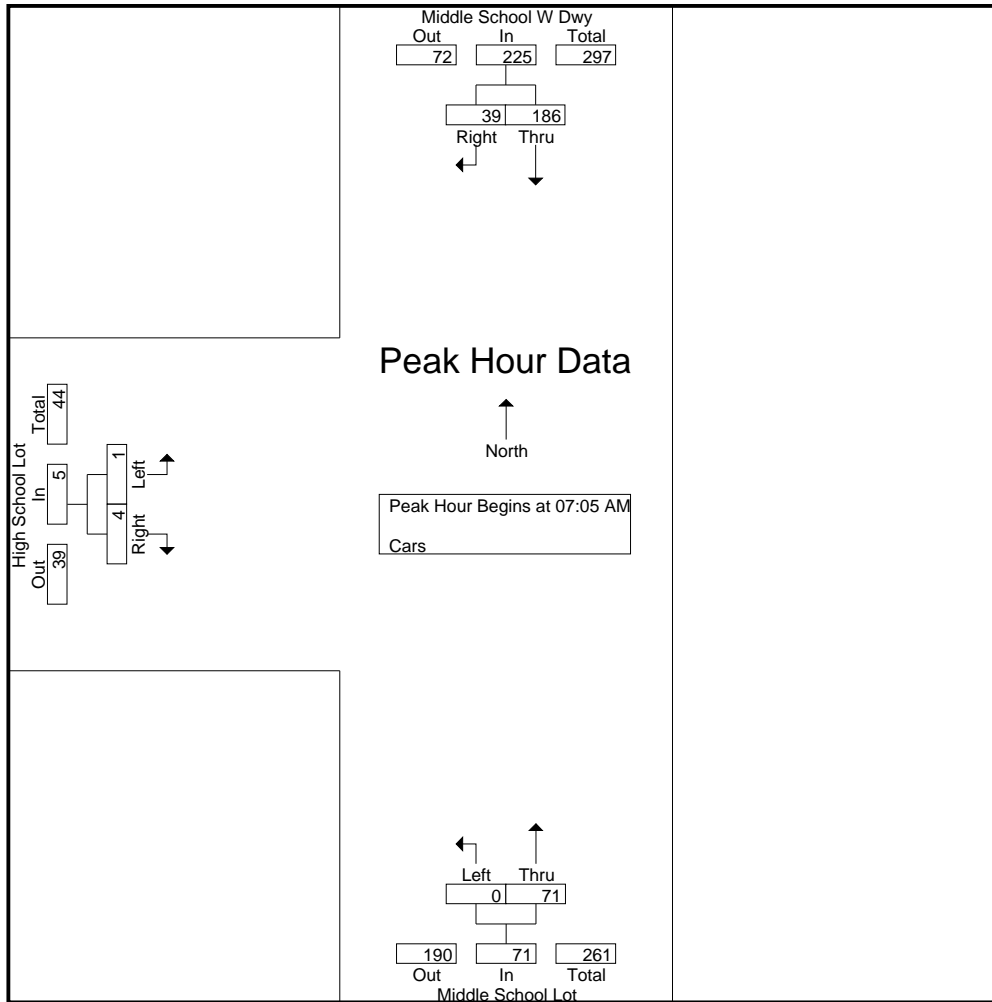
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 5



Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:05 AM			07:30 AM			07:00 AM		
+0 mins.	5	9	14	0	3	3	0	0	0
+5 mins.	6	12	18	0	4	4	0	0	0
+10 mins.	2	9	11	0	5	5	1	1	2
+15 mins.	6	6	12	0	19	19	0	1	1
+20 mins.	9	1	10	0	27	27	0	1	1
+25 mins.	22	1	23	0	11	11	0	0	0
+30 mins.	19	0	19	0	2	2	0	0	0
+35 mins.	24	1	25	0	0	0	0	0	0
+40 mins.	32	0	32	0	0	0	0	1	1
+45 mins.	30	0	30	0	0	0	0	0	0
+50 mins.	23	0	23	0	0	0	0	0	0
+55 mins.	8	0	8	0	1	1	0	0	0
Total Volume	186	39	225	0	72	72	1	4	5
% App. Total	82.7	17.3		0	100		20	80	
PHF	.484	.271	.586	.000	.222	.222	.083	.333	.208

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

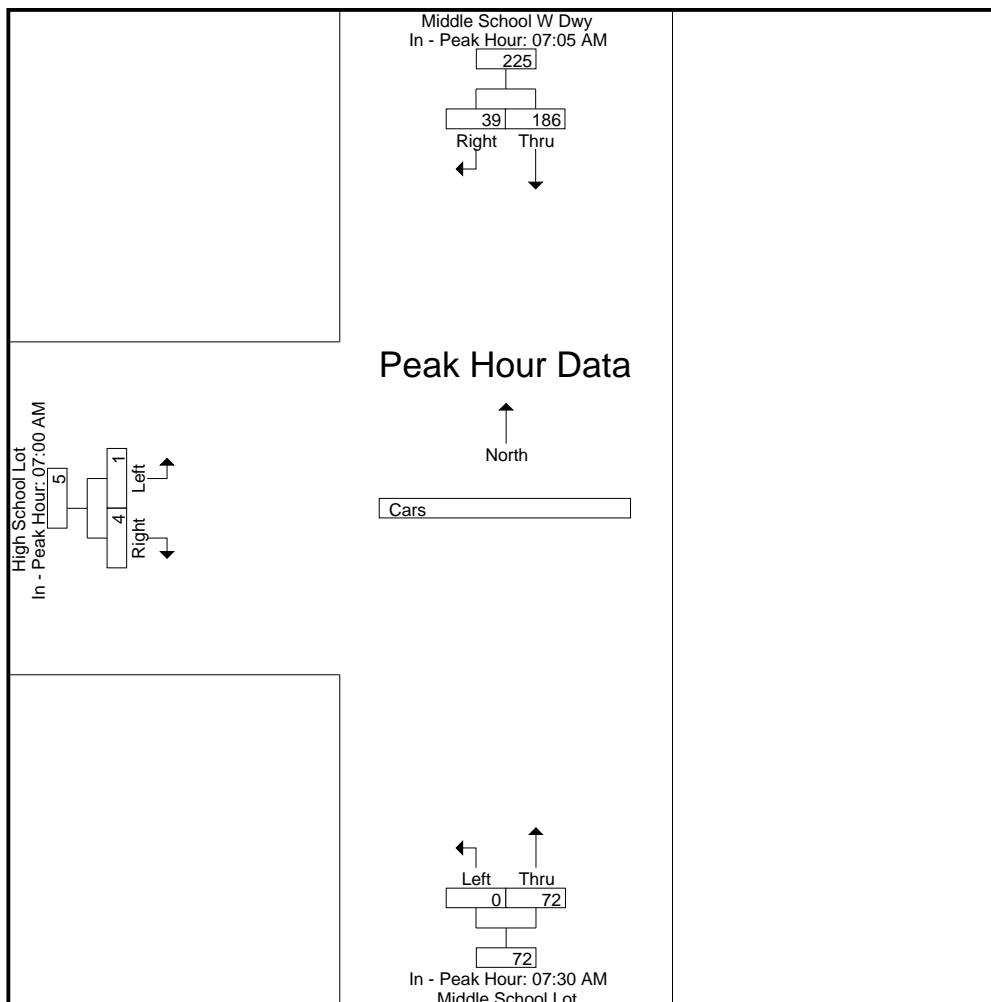
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 6



# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 7

## Groups Printed- Trucks

Start Time	Middle School W Dwy From North		Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	Left	Thru		Left	Right		
07:00 AM	0	0	0	0		0	0	0	
07:05 AM	0	0	0	0		0	0	0	
07:10 AM	0	0	0	0		0	1	1	
07:15 AM	0	0	0	0		0	0	0	
07:20 AM	0	0	0	0		0	0	0	
07:25 AM	0	0	0	0		0	0	0	
07:30 AM	1	0	0	0		0	0	1	
07:35 AM	1	0	0	0		0	0	1	
07:40 AM	0	0	0	0		0	0	0	
07:45 AM	5	0	0	0		0	0	5	
07:50 AM	4	0	0	0		0	0	4	
07:55 AM	0	0	0	0		0	0	0	
<b>Total</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>1</b>	<b>12</b>	
08:00 AM	0	0	0	0		0	0	0	
08:05 AM	0	0	0	0		0	0	0	
08:10 AM	0	0	0	0		0	0	0	
08:15 AM	0	0	0	0		0	0	0	
08:20 AM	0	0	0	0		0	0	0	
08:25 AM	0	0	0	0		0	0	0	
08:30 AM	0	0	0	0		0	0	0	
08:35 AM	0	0	0	0		0	0	0	
08:40 AM	0	0	0	0		0	0	0	
08:45 AM	0	0	0	0		0	0	0	
08:50 AM	0	0	0	0		0	0	0	
08:55 AM	0	0	0	0		0	0	0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	
<b>Grand Total</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>1</b>	<b>12</b>	
Apprch %	100	0	0	0		0	100		
Total %	91.7	0	0	0		0	8.3		

Start Time	Middle School W Dwy From North			Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:05 AM	0	0	0	0	0	0	0	0	0	0
07:10 AM	0	0	0	0	0	0	0	1	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:20 AM	0	0	0	0	0	0	0	0	0	0
07:25 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:35 AM	1	0	1	0	0	0	0	0	0	1
07:40 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	5	0	5	0	0	0	0	0	0	5
07:50 AM	4	0	4	0	0	0	0	0	0	4
07:55 AM	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	<b>11</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>12</b>
<b>% App. Total</b>	<b>100</b>	<b>0</b>		<b>0</b>	<b>0</b>		<b>0</b>	<b>100</b>		
<b>PHF</b>	<b>.183</b>	<b>.000</b>	<b>.183</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.083</b>	<b>.083</b>	<b>.200</b>

Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM



# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

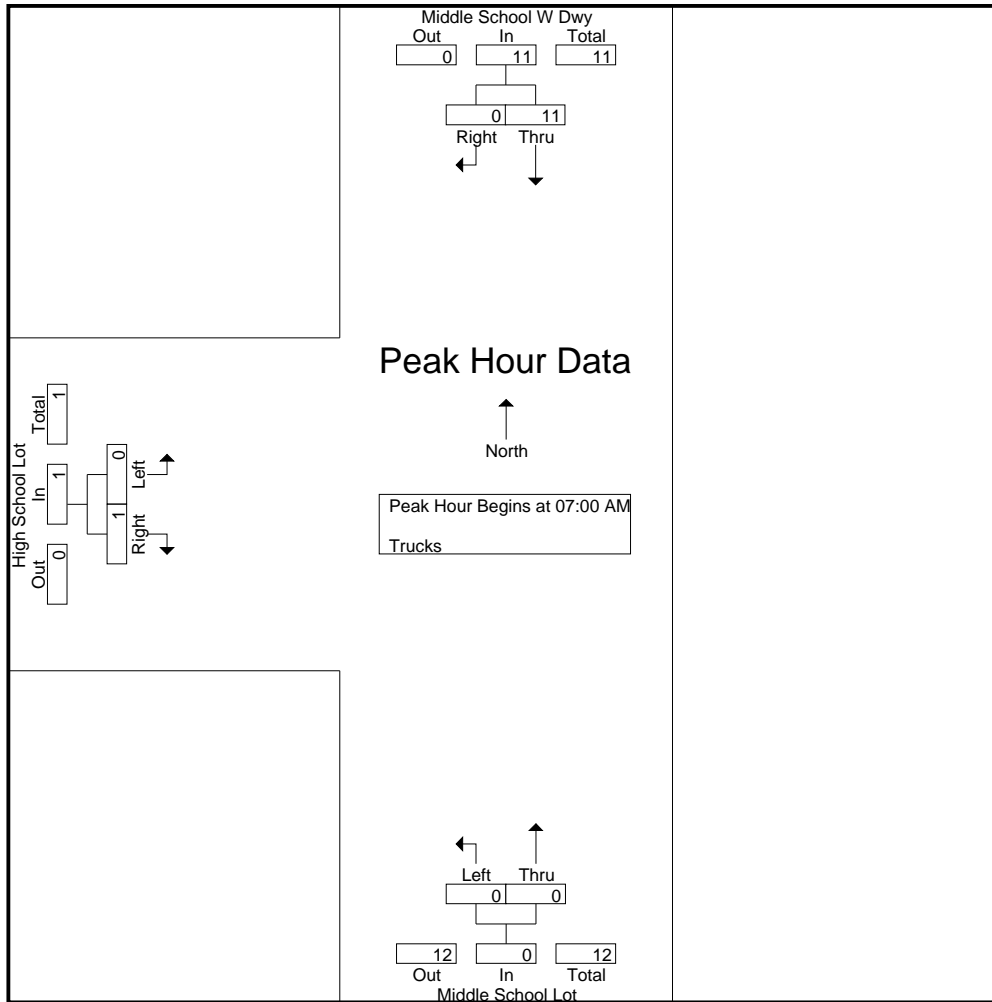
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 8



Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+5 mins.	0	0	0	0	0	0	0	0	0
+10 mins.	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0
+20 mins.	0	0	0	0	0	0	0	0	0
+25 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+35 mins.	1	0	1	0	0	0	0	0	0
+40 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	5	0	5	0	0	0	0	0	0
+50 mins.	4	0	4	0	0	0	0	0	0
+55 mins.	0	0	0	0	0	0	0	0	0
Total Volume	11	0	11	0	0	0	0	1	1
% App. Total	100	0		0	0		0	100	
PHF	.183	.000	.183	.000	.000	.000	.000	.083	.083

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

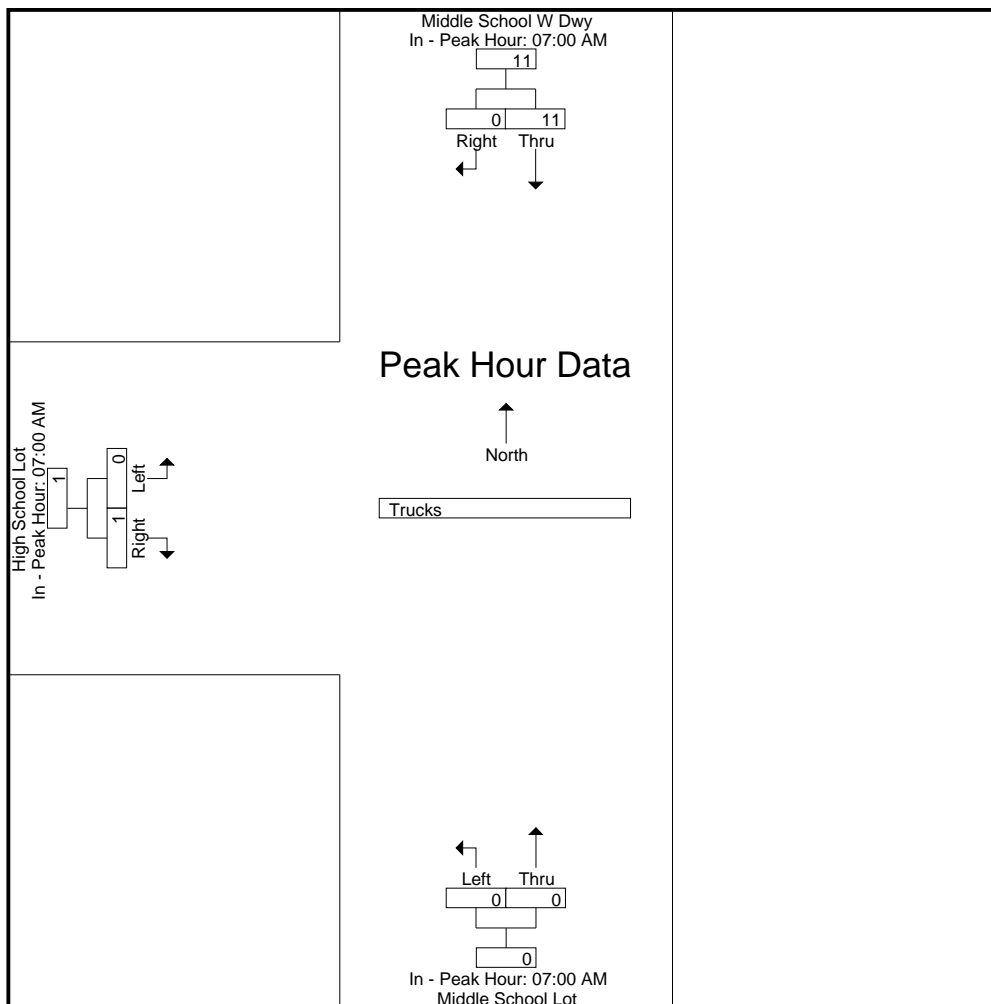
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 9



**Accurate Counts**

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 10

Groups Printed- Bikes Peds

Start Time	Middle School W Dwy From North			Middle School Lot From South			High School Lot From West			Exclu. Total	Inclu. Total	Int. Total
	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:05 AM	0	0	0	0	0	1	0	0	1	2	0	2
07:10 AM	0	0	0	0	0	2	0	0	0	2	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:20 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:25 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:35 AM	0	0	0	0	0	1	0	0	2	3	0	3
07:40 AM	0	0	0	0	0	1	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	1	0	1
07:50 AM	0	0	0	0	0	0	0	0	1	1	0	1
07:55 AM	0	0	1	0	0	0	0	0	0	1	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>11</b>	<b>0</b>	<b>11</b>
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:05 AM	0	0	0	0	0	0	0	0	1	1	0	1
08:10 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	17	17	0	17
08:20 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:25 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:35 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:40 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:50 AM	0	0	0	0	0	0	0	0	18	18	0	18
08:55 AM	0	0	0	0	0	0	0	0	19	19	0	19
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>55</b>	<b>0</b>	<b>55</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>66</b>	<b>0</b>	<b>66</b>
Apprch %	0	0		0	0		0	0				
Total %										100	0	

Start Time	Middle School W Dwy From North			Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:05 AM	0	0	0	0	0	0	0	0	0	0
07:10 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:20 AM	0	0	0	0	0	0	0	0	0	0
07:25 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:35 AM	0	0	0	0	0	0	0	0	0	0
07:40 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
07:50 AM	0	0	0	0	0	0	0	0	0	0
07:55 AM	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>% App. Total</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>		
<b>PHF</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>

Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

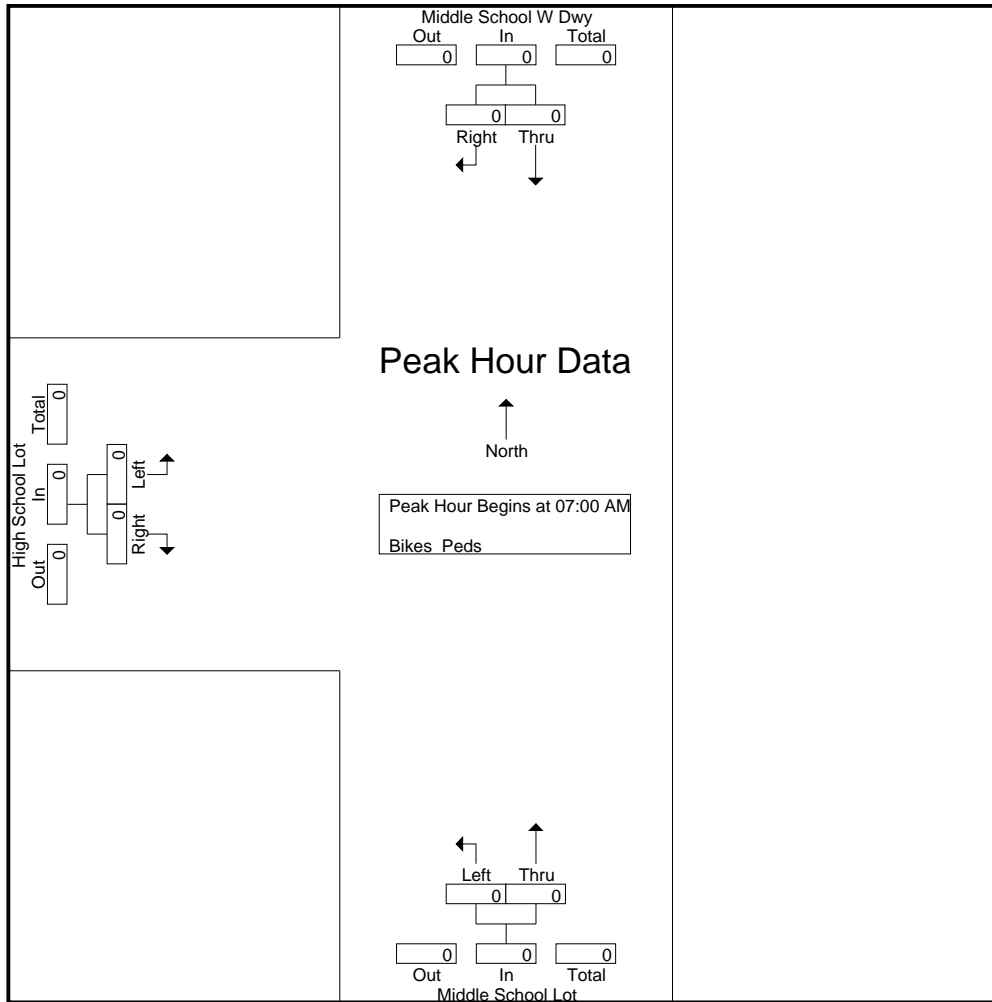
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 11



Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+5 mins.	0	0	0	0	0	0	0	0	0
+10 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+20 mins.	0	0	0	0	0	0	0	0	0
+25 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+35 mins.	0	0	0	0	0	0	0	0	0
+40 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
+50 mins.	0	0	0	0	0	0	0	0	0
+55 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

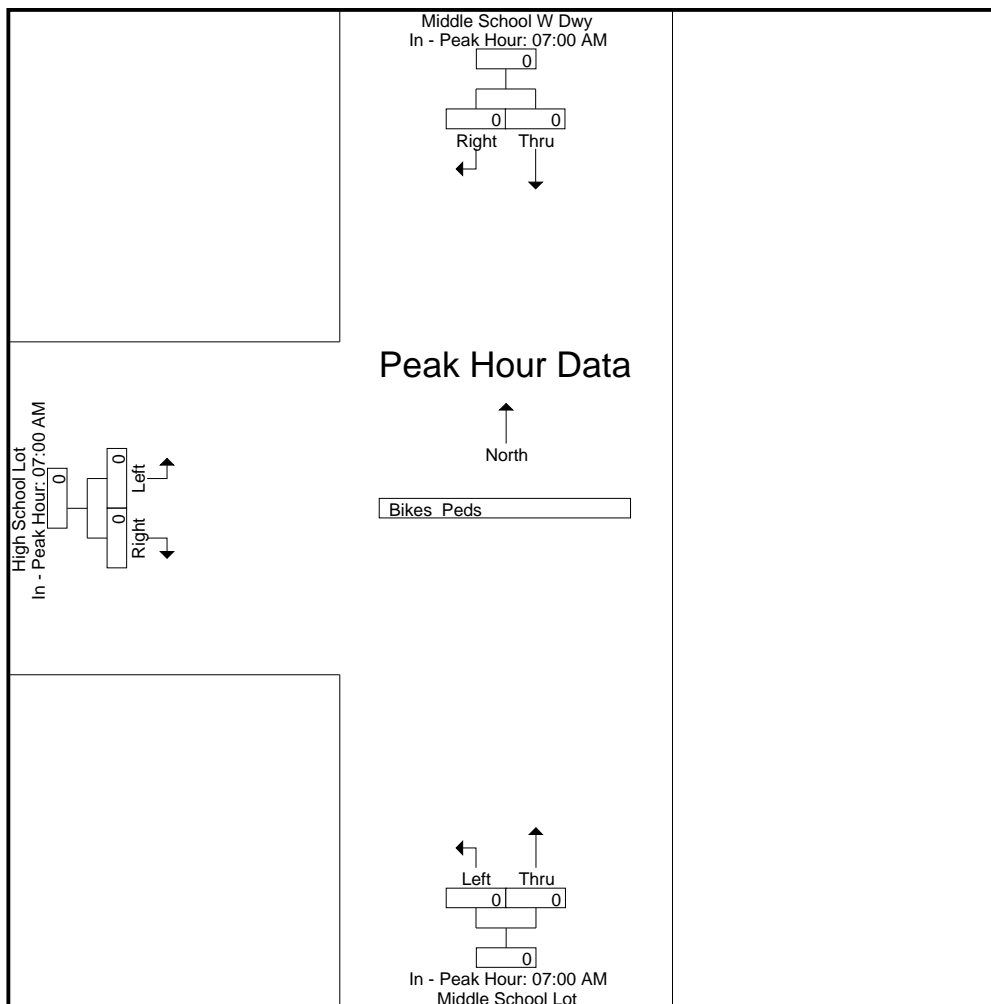
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 12



# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot  
 E/W Street : High School Lot  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690002  
 Site Code : 07690002  
 Start Date : 10/12/2023  
 Page No : 1

### Groups Printed- Cars - Trucks

Start Time	Middle School W Dwy From North		Middle School Lot From South		High School Lot From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
02:00 PM	8	5	0	0	0	0	13
02:05 PM	4	0	0	0	0	0	4
02:10 PM	11	0	0	7	10	0	28
02:15 PM	6	0	0	1	0	1	8
02:20 PM	8	6	0	0	1	0	15
02:25 PM	11	1	1	0	0	0	13
02:30 PM	4	2	0	4	0	1	11
02:35 PM	6	2	0	3	3	0	14
02:40 PM	6	0	1	1	0	0	8
02:45 PM	1	0	2	1	0	0	4
02:50 PM	0	1	0	3	0	0	4
02:55 PM	0	0	0	3	0	1	4
<b>Total</b>	<b>65</b>	<b>17</b>	<b>4</b>	<b>23</b>	<b>14</b>	<b>3</b>	<b>126</b>
03:00 PM	2	0	1	1	2	0	6
03:05 PM	3	1	0	2	2	0	8
03:10 PM	1	1	0	1	0	0	3
03:15 PM	4	1	0	1	0	0	6
03:20 PM	3	2	0	1	0	0	6
03:25 PM	7	3	0	2	0	0	12
03:30 PM	8	0	0	1	0	2	11
03:35 PM	5	2	0	2	0	0	9
03:40 PM	3	1	0	1	0	0	5
03:45 PM	4	1	0	3	0	0	8
03:50 PM	3	1	1	0	0	1	6
03:55 PM	6	5	0	0	0	0	11
<b>Total</b>	<b>49</b>	<b>18</b>	<b>2</b>	<b>15</b>	<b>4</b>	<b>3</b>	<b>91</b>
<b>Grand Total</b>	<b>114</b>	<b>35</b>	<b>6</b>	<b>38</b>	<b>18</b>	<b>6</b>	<b>217</b>
Apprch %	76.5	23.5	13.6	86.4	75	25	
Total %	52.5	16.1	2.8	17.5	8.3	2.8	
Cars	101	34	6	38	18	6	203
% Cars	88.6	97.1	100	100	100	100	93.5
Trucks	13	1	0	0	0	0	14
% Trucks	11.4	2.9	0	0	0	0	6.5

Start Time	Middle School W Dwy From North			Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	8	5	13	0	0	0	0	0	0	13
02:05 PM	4	0	4	0	0	0	0	0	0	4
02:10 PM	11	0	11	0	7	7	10	0	10	28
02:15 PM	6	0	6	0	1	1	0	1	1	8
02:20 PM	8	6	14	0	0	0	1	0	1	15
02:25 PM	11	1	12	1	0	1	0	0	0	13
02:30 PM	4	2	6	0	4	4	0	1	1	11
02:35 PM	6	2	8	0	3	3	3	0	3	14
02:40 PM	6	0	6	1	1	2	0	0	0	8
02:45 PM	1	0	1	2	1	3	0	0	0	4
02:50 PM	0	1	1	0	3	3	0	0	0	4
02:55 PM	0	0	0	0	3	3	0	1	1	4
<b>Total Volume</b>	<b>65</b>	<b>17</b>	<b>82</b>	<b>4</b>	<b>23</b>	<b>27</b>	<b>14</b>	<b>3</b>	<b>17</b>	<b>126</b>
% App. Total	79.3	20.7		14.8	85.2		82.4	17.6		
PHF	.492	.236	.488	.167	.274	.321	.117	.250	.142	.375
Cars	53	17	70	4	23	27	14	3	17	114
% Cars	81.5	100	85.4	100	100	100	100	100	100	90.5
Trucks	12	0	12	0	0	0	0	0	0	12
% Trucks	18.5	0	14.6	0	0	0	0	0	0	9.5

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

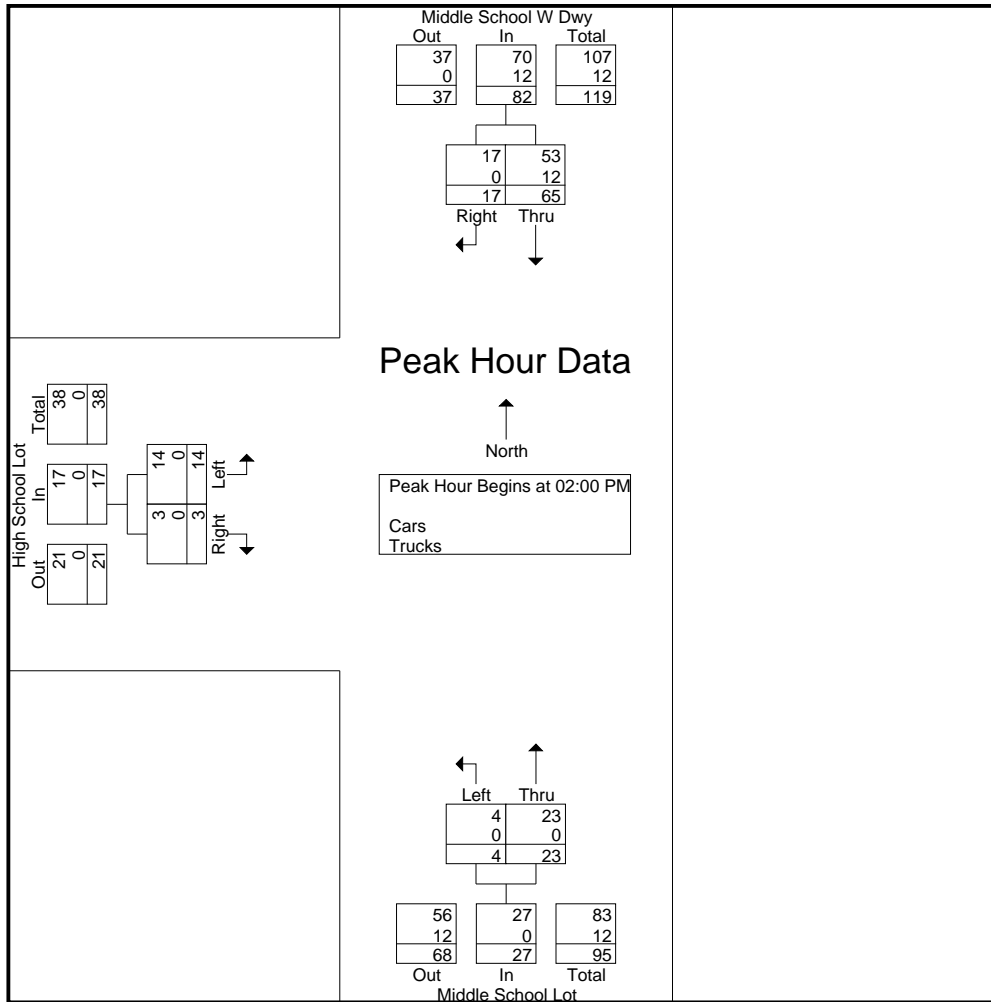
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 2



Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:10 PM			02:10 PM		
+0 mins.	8	5	13	0	7	7	10	0	10
+5 mins.	4	0	4	0	1	1	0	1	1
+10 mins.	11	0	11	0	0	0	1	0	1
+15 mins.	6	0	6	1	0	1	0	0	0
+20 mins.	8	6	14	0	4	4	0	1	1
+25 mins.	11	1	12	0	3	3	3	0	3
+30 mins.	4	2	6	1	1	2	0	0	0
+35 mins.	6	2	8	2	1	3	0	0	0
+40 mins.	6	0	6	0	3	3	0	0	0
+45 mins.	1	0	1	0	3	3	0	1	1
+50 mins.	0	1	1	1	1	2	2	0	2
+55 mins.	0	0	0	0	2	2	2	0	2
Total Volume	65	17	82	5	26	31	18	3	21
% App. Total	79.3	20.7		16.1	83.9		85.7	14.3	
PHF	.492	.236	.488	.208	.310	.369	.150	.250	.175
Cars	53	17	70	5	26	31	18	3	21
% Cars	81.5	100	85.4	100	100	100	100	100	100
Trucks	12	0	12	0	0	0	0	0	0
% Trucks	18.5	0	14.6	0	0	0	0	0	0

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

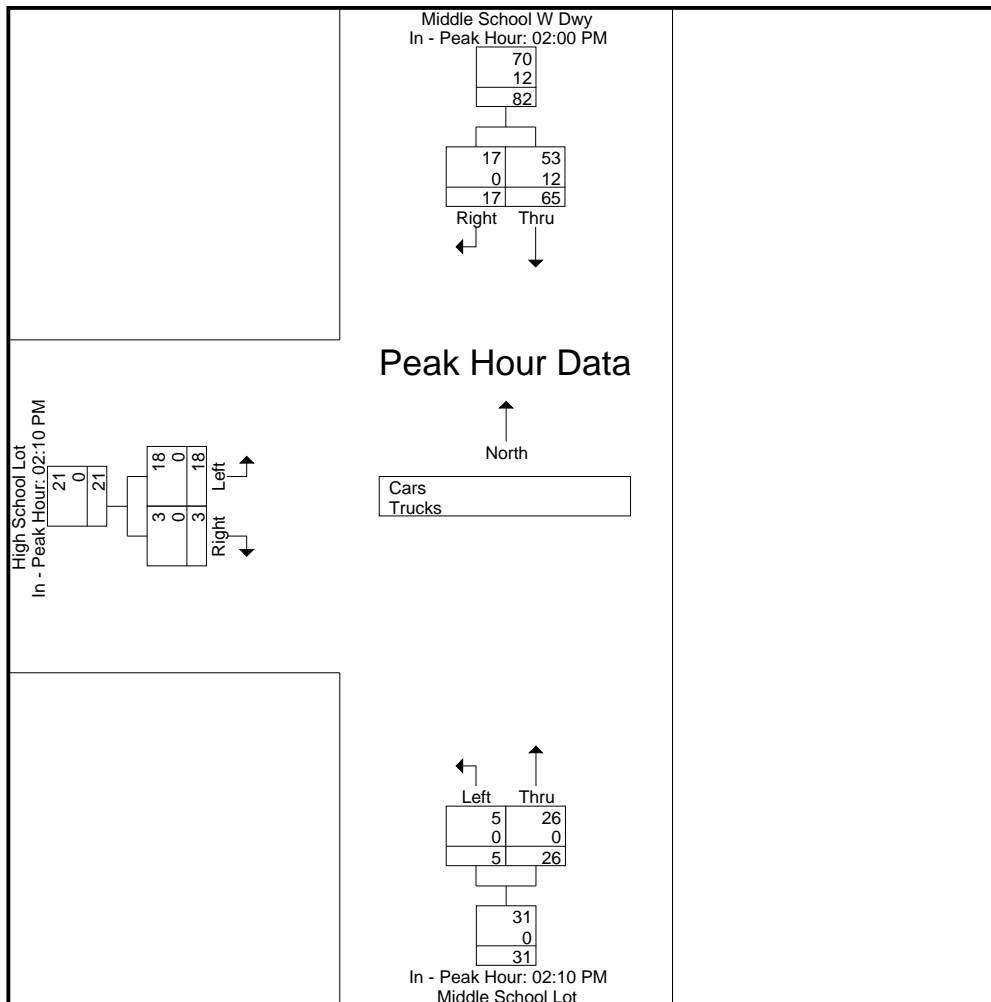
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 3





# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 4

## Groups Printed- Cars

Start Time	Middle School W Dwy From North		Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	Left	Thru		Left	Right		
02:00 PM	8	5	0	0		0	0	13	
02:05 PM	4	0	0	0		0	0	4	
02:10 PM	10	0	0	7		10	0	27	
02:15 PM	6	0	0	1		0	1	8	
02:20 PM	8	6	0	0		1	0	15	
02:25 PM	7	1	1	0		0	0	9	
02:30 PM	2	2	0	4		0	1	9	
02:35 PM	2	2	0	3		3	0	10	
02:40 PM	6	0	1	1		0	0	8	
02:45 PM	0	0	2	1		0	0	3	
02:50 PM	0	1	0	3		0	0	4	
02:55 PM	0	0	0	3		0	1	4	
<b>Total</b>	<b>53</b>	<b>17</b>	<b>4</b>	<b>23</b>		<b>14</b>	<b>3</b>	<b>114</b>	
03:00 PM	1	0	1	1		2	0	5	
03:05 PM	3	1	0	2		2	0	8	
03:10 PM	1	1	0	1		0	0	3	
03:15 PM	4	1	0	1		0	0	6	
03:20 PM	3	2	0	1		0	0	6	
03:25 PM	7	3	0	2		0	0	12	
03:30 PM	8	0	0	1		0	2	11	
03:35 PM	5	2	0	2		0	0	9	
03:40 PM	3	1	0	1		0	0	5	
03:45 PM	4	1	0	3		0	0	8	
03:50 PM	3	1	1	0		0	1	6	
03:55 PM	6	4	0	0		0	0	10	
<b>Total</b>	<b>48</b>	<b>17</b>	<b>2</b>	<b>15</b>		<b>4</b>	<b>3</b>	<b>89</b>	
<b>Grand Total</b>	<b>101</b>	<b>34</b>	<b>6</b>	<b>38</b>		<b>18</b>	<b>6</b>	<b>203</b>	
Apprch %	74.8	25.2	13.6	86.4		75	25		
Total %	49.8	16.7	3	18.7		8.9	3		

Start Time	Middle School W Dwy From North			Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
02:00 PM	8	5	13	0	0	0	0	0	0	13
02:05 PM	4	0	4	0	0	0	0	0	0	4
02:10 PM	<b>10</b>	0	<b>10</b>	0	<b>7</b>	<b>7</b>	<b>10</b>	0	<b>10</b>	<b>27</b>
02:15 PM	6	0	6	0	1	1	0	1	1	8
02:20 PM	8	<b>6</b>	<b>14</b>	0	0	0	1	0	1	15
02:25 PM	7	1	8	1	0	1	0	0	0	9
02:30 PM	2	2	4	0	4	4	0	1	1	9
02:35 PM	2	2	4	0	3	3	3	0	3	10
02:40 PM	6	0	6	1	1	2	0	0	0	8
02:45 PM	0	0	0	2	1	3	0	0	0	3
02:50 PM	0	1	1	0	3	3	0	0	0	4
02:55 PM	0	0	0	0	3	3	0	1	1	4
<b>Total Volume</b>	<b>53</b>	<b>17</b>	<b>70</b>	<b>4</b>	<b>23</b>	<b>27</b>	<b>14</b>	<b>3</b>	<b>17</b>	<b>114</b>
<b>% App. Total</b>	<b>75.7</b>	<b>24.3</b>		<b>14.8</b>	<b>85.2</b>		<b>82.4</b>	<b>17.6</b>		
<b>PHF</b>	<b>.442</b>	<b>.236</b>	<b>.417</b>	<b>.167</b>	<b>.274</b>	<b>.321</b>	<b>.117</b>	<b>.250</b>	<b>.142</b>	<b>.352</b>

Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

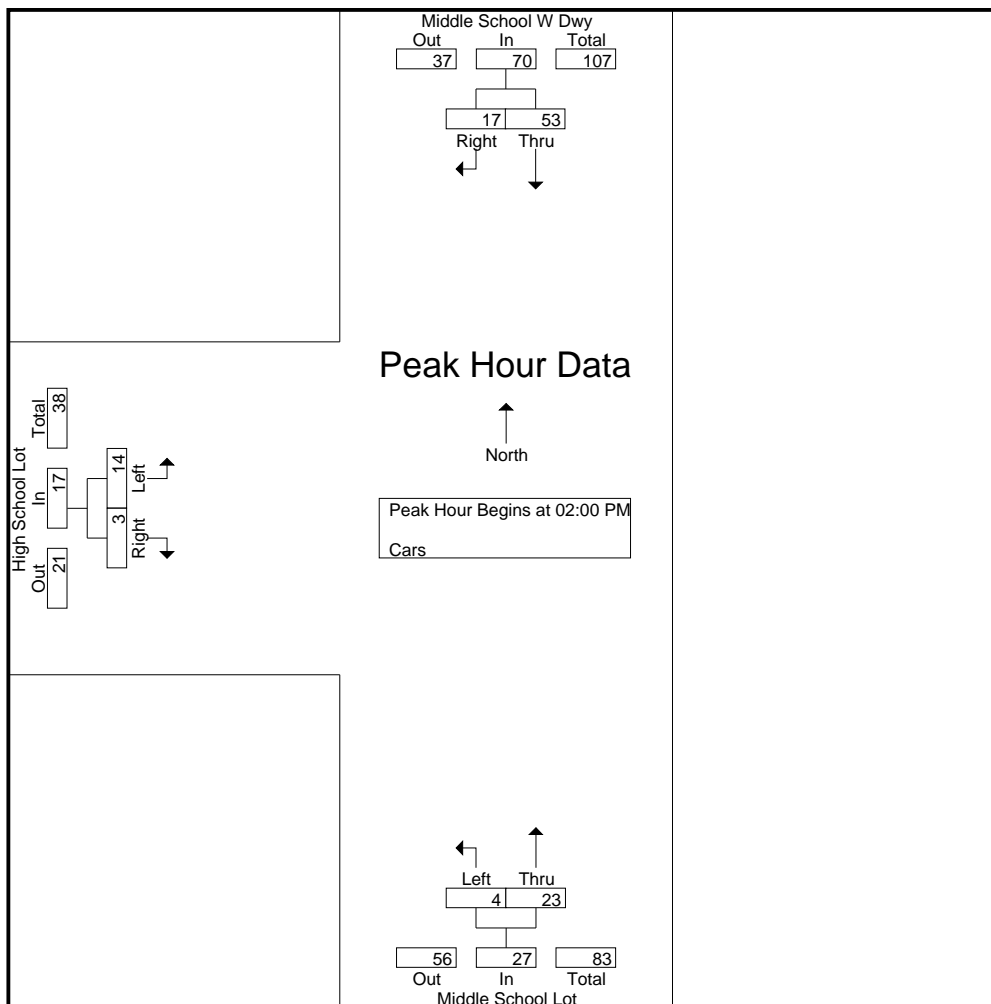
Peak Hour for Entire Intersection Begins at 02:00 PM

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot  
 E/W Street : High School Lot  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690002  
 Site Code : 07690002  
 Start Date : 10/12/2023  
 Page No : 5



Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:10 PM			02:10 PM		
+0 mins.	8	5	13	0	7	7	10	0	10
+5 mins.	4	0	4	0	1	1	0	1	1
+10 mins.	10	0	10	0	0	0	1	0	1
+15 mins.	6	0	6	1	0	1	0	0	0
+20 mins.	8	6	14	0	4	4	0	1	1
+25 mins.	7	1	8	0	3	3	3	0	3
+30 mins.	2	2	4	1	1	2	0	0	0
+35 mins.	2	2	4	2	1	3	0	0	0
+40 mins.	6	0	6	0	3	3	0	0	0
+45 mins.	0	0	0	0	3	3	0	1	1
+50 mins.	0	1	1	1	1	2	2	0	2
+55 mins.	0	0	0	0	2	2	2	0	2
Total Volume	53	17	70	5	26	31	18	3	21
% App. Total	75.7	24.3		16.1	83.9		85.7	14.3	
PHF	.442	.236	.417	.208	.310	.369	.150	.250	.175

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

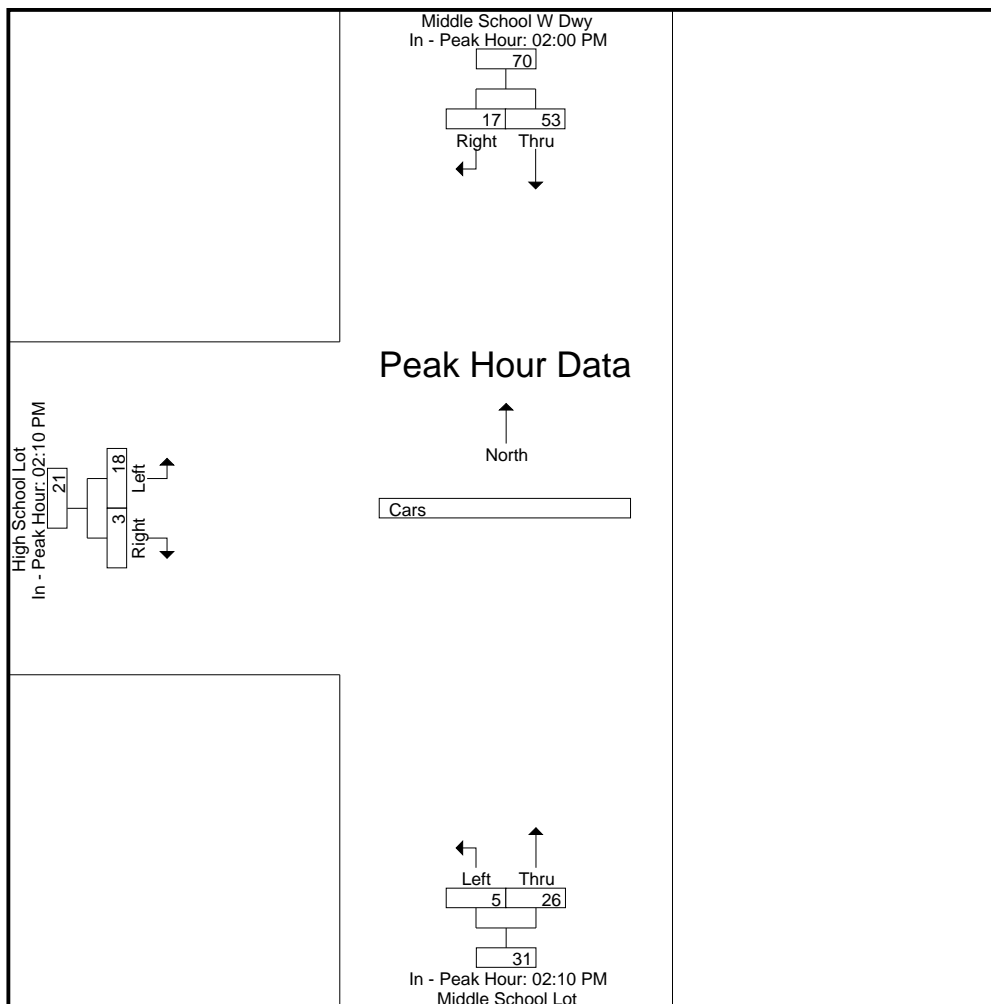
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 6





# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

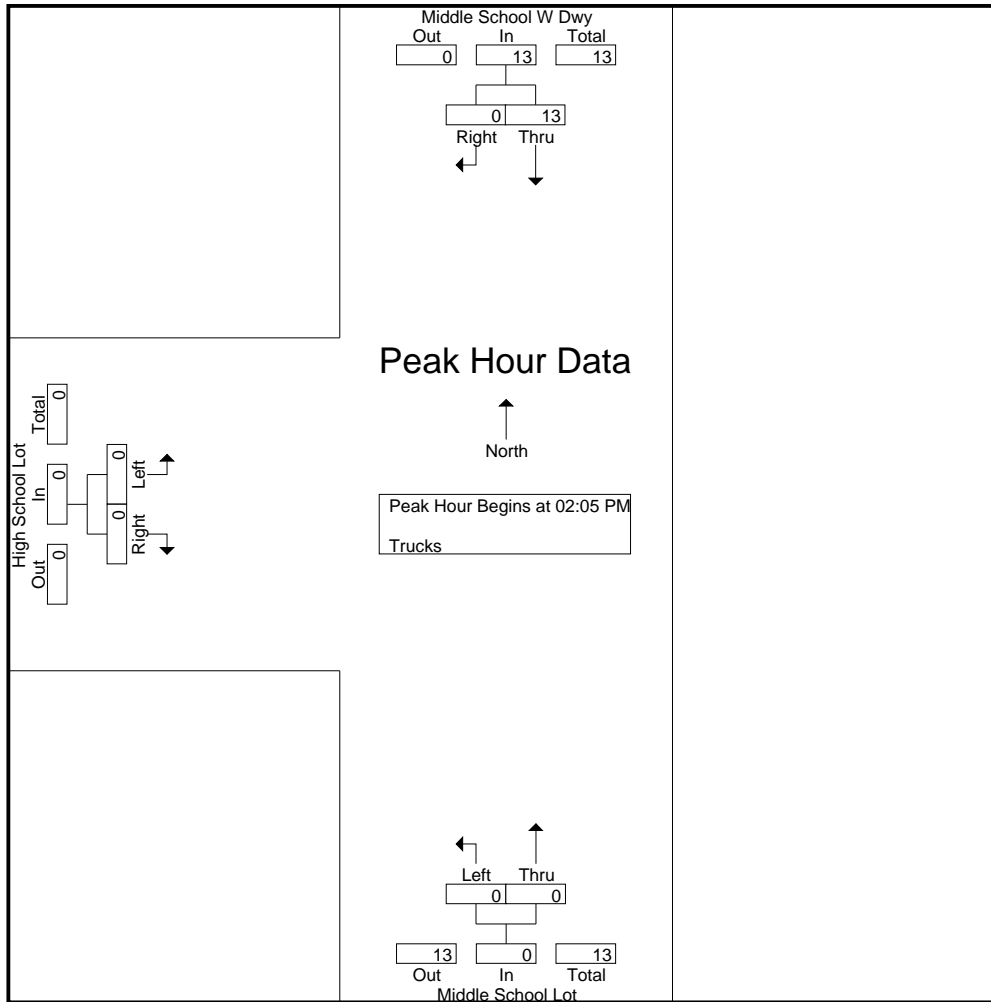
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 8



Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:05 PM			02:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+5 mins.	1	0	1	0	0	0	0	0	0
+10 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+20 mins.	4	0	4	0	0	0	0	0	0
+25 mins.	2	0	2	0	0	0	0	0	0
+30 mins.	4	0	4	0	0	0	0	0	0
+35 mins.	0	0	0	0	0	0	0	0	0
+40 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
+50 mins.	0	0	0	0	0	0	0	0	0
+55 mins.	1	0	1	0	0	0	0	0	0
Total Volume	13	0	13	0	0	0	0	0	0
% App. Total	100	0		0	0		0	0	
PHF	.271	.000	.271	.000	.000	.000	.000	.000	.000

# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

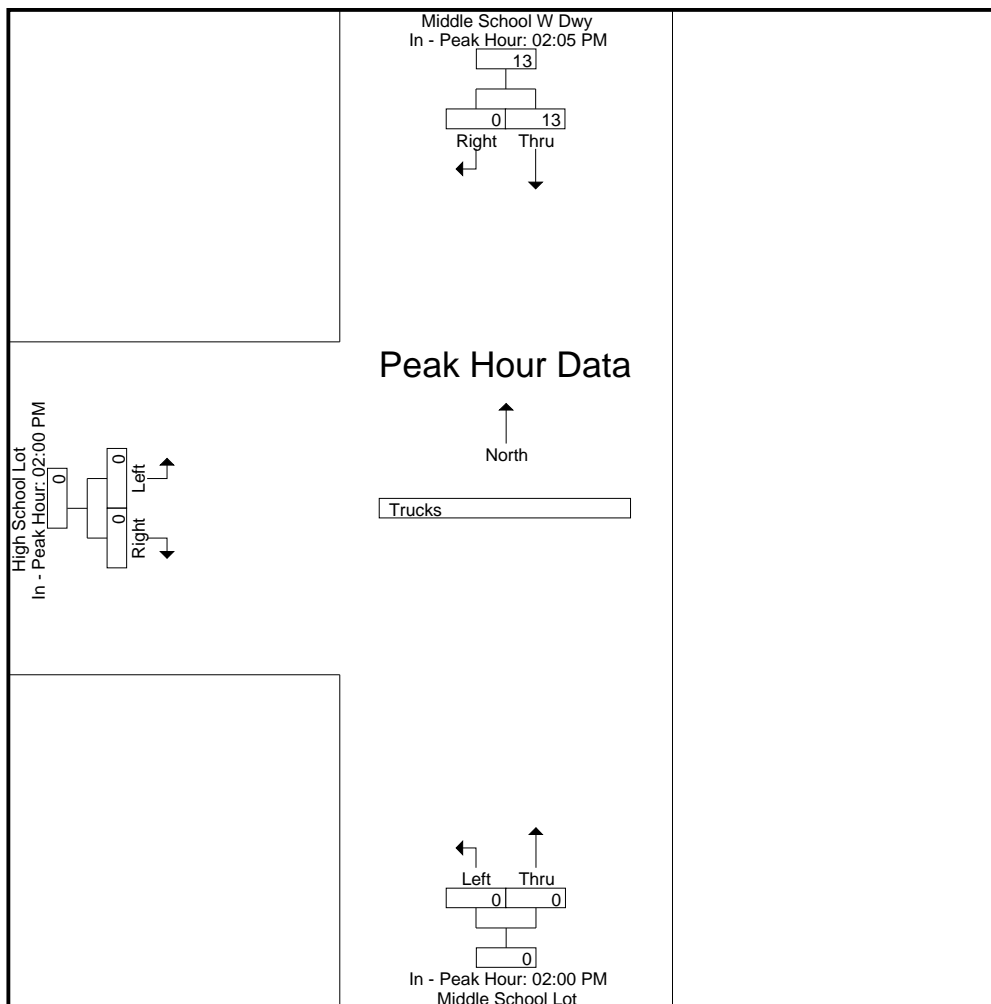
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 9



Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 10

Groups Printed- Bikes Peds

Start Time	Middle School W Dwy From North			Middle School Lot From South			High School Lot From West			Exclu. Total	Inclu. Total	Int. Total
	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:05 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:10 PM	0	0	1	0	0	13	0	0	0	14	0	14
02:15 PM	0	0	0	0	0	4	0	0	0	4	0	4
02:20 PM	0	0	0	0	0	1	0	0	0	1	0	1
02:25 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	2	0	0	9	11	0	11
02:35 PM	0	0	0	0	0	1	0	0	5	6	0	6
02:40 PM	0	0	0	0	0	2	0	0	3	5	0	5
02:45 PM	0	0	0	0	0	1	0	0	0	1	0	1
02:50 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:55 PM	0	0	0	0	0	1	0	0	0	1	0	1
Total	0	0	1	0	0	25	0	0	17	43	0	43
03:00 PM	0	0	0	0	0	3	0	0	0	3	0	3
03:05 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:10 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	3	0	0	0	0	0	0	3	0	3
03:20 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:25 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	2	2	0	2
03:35 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:40 PM	0	0	1	0	0	0	0	0	0	1	0	1
03:45 PM	0	0	1	0	0	0	0	0	2	3	0	3
03:50 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:55 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	5	0	0	3	0	0	4	12	0	12
Grand Total	0	0	6	0	0	28	0	0	21	55	0	55
Apprch %	0	0		0	0		0	0				
Total %										100	0	

Start Time	Middle School W Dwy From North			Middle School Lot From South			High School Lot From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:05 PM	0	0	0	0	0	0	0	0	0	0
02:10 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:20 PM	0	0	0	0	0	0	0	0	0	0
02:25 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:35 PM	0	0	0	0	0	0	0	0	0	0
02:40 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
02:50 PM	0	0	0	0	0	0	0	0	0	0
02:55 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 02:00 PM

# Accurate Counts

978-664-2565

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

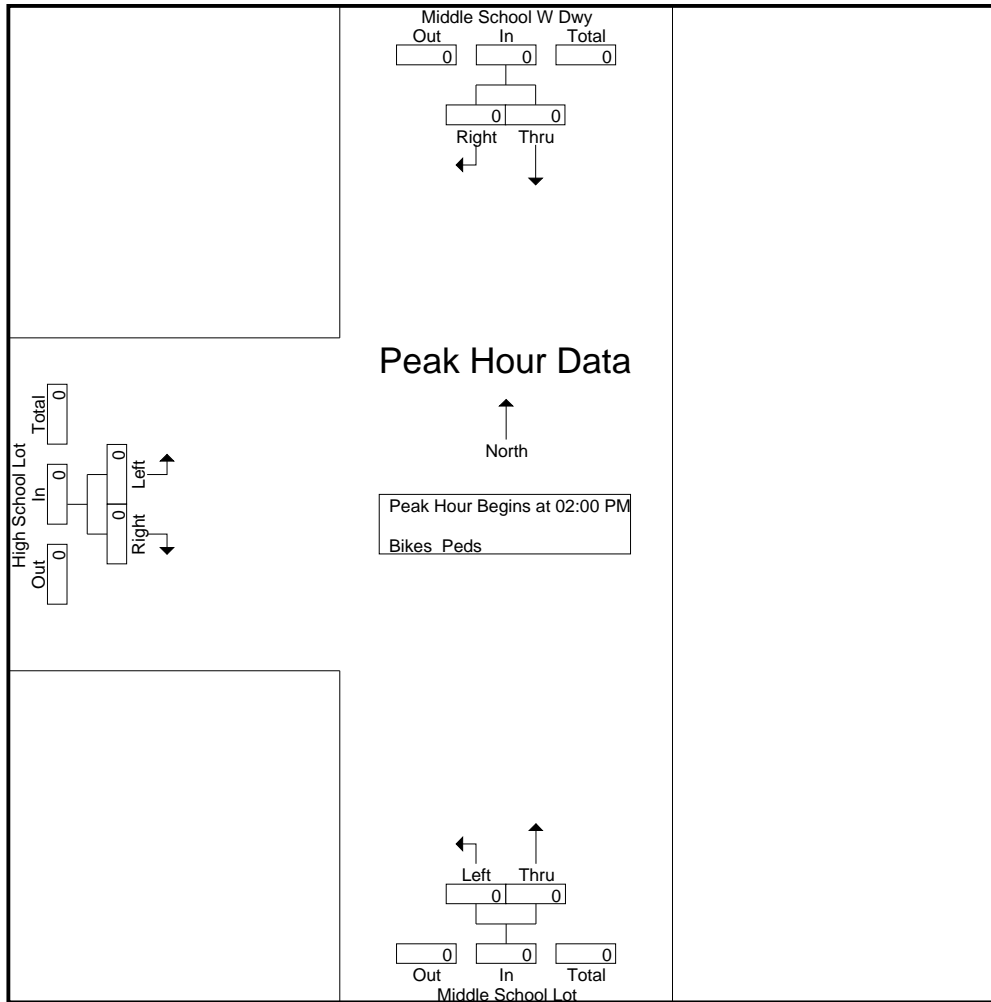
Page No : 11

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

Weather : Clear



Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+5 mins.	0	0	0	0	0	0	0	0	0
+10 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+20 mins.	0	0	0	0	0	0	0	0	0
+25 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+35 mins.	0	0	0	0	0	0	0	0	0
+40 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
+50 mins.	0	0	0	0	0	0	0	0	0
+55 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000



# Accurate Counts

978-664-2565

N/S Street : Middle School W Dwy/Middle School Lot

E/W Street : High School Lot

City/State : Clinton, MA

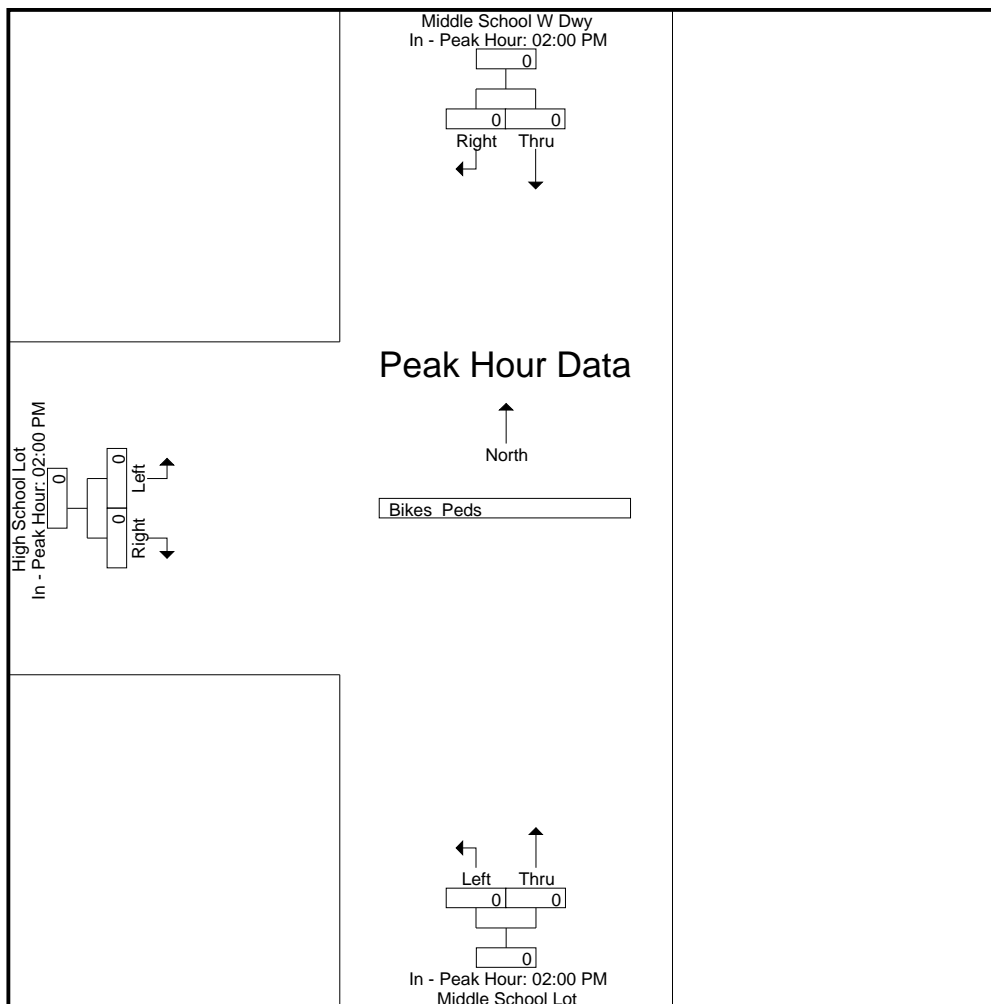
Weather : Clear

File Name : 07690002

Site Code : 07690002

Start Date : 10/12/2023

Page No : 12



# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 1

### Groups Printed- Cars - Trucks

Start Time	W Boylston St From East		Middle School E Dwy From South		W Boylston St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	23	0	0	11	0	34
07:05 AM	0	41	0	0	21	0	62
07:10 AM	0	55	0	0	36	0	91
07:15 AM	0	61	0	2	29	0	92
07:20 AM	0	35	0	0	49	0	84
07:25 AM	0	15	0	3	32	0	50
07:30 AM	1	23	1	6	16	0	47
07:35 AM	0	28	1	5	18	0	52
07:40 AM	0	22	0	6	12	0	40
07:45 AM	0	42	0	0	27	0	69
07:50 AM	0	36	1	6	48	0	91
07:55 AM	0	28	3	13	27	0	71
<b>Total</b>	<b>1</b>	<b>409</b>	<b>6</b>	<b>41</b>	<b>326</b>	<b>0</b>	<b>783</b>
08:00 AM	0	19	0	7	17	0	43
08:05 AM	0	10	0	5	17	0	32
08:10 AM	0	16	0	2	10	0	28
08:15 AM	0	13	0	3	21	0	37
08:20 AM	0	17	0	2	15	0	34
08:25 AM	0	15	0	5	16	0	36
08:30 AM	0	15	0	2	15	0	32
08:35 AM	0	18	1	2	8	0	29
08:40 AM	0	17	0	1	15	0	33
08:45 AM	0	14	0	0	17	0	31
08:50 AM	0	12	0	0	19	0	31
08:55 AM	0	14	0	0	14	0	28
<b>Total</b>	<b>0</b>	<b>180</b>	<b>1</b>	<b>29</b>	<b>184</b>	<b>0</b>	<b>394</b>
<b>Grand Total</b>	<b>1</b>	<b>589</b>	<b>7</b>	<b>70</b>	<b>510</b>	<b>0</b>	<b>1177</b>
Apprch %	0.2	99.8	9.1	90.9	100	0	
Total %	0.1	50	0.6	5.9	43.3	0	
Cars	1	565	7	58	499	0	1130
% Cars	100	95.9	100	82.9	97.8	0	96
Trucks	0	24	0	12	11	0	47
% Trucks	0	4.1	0	17.1	2.2	0	4

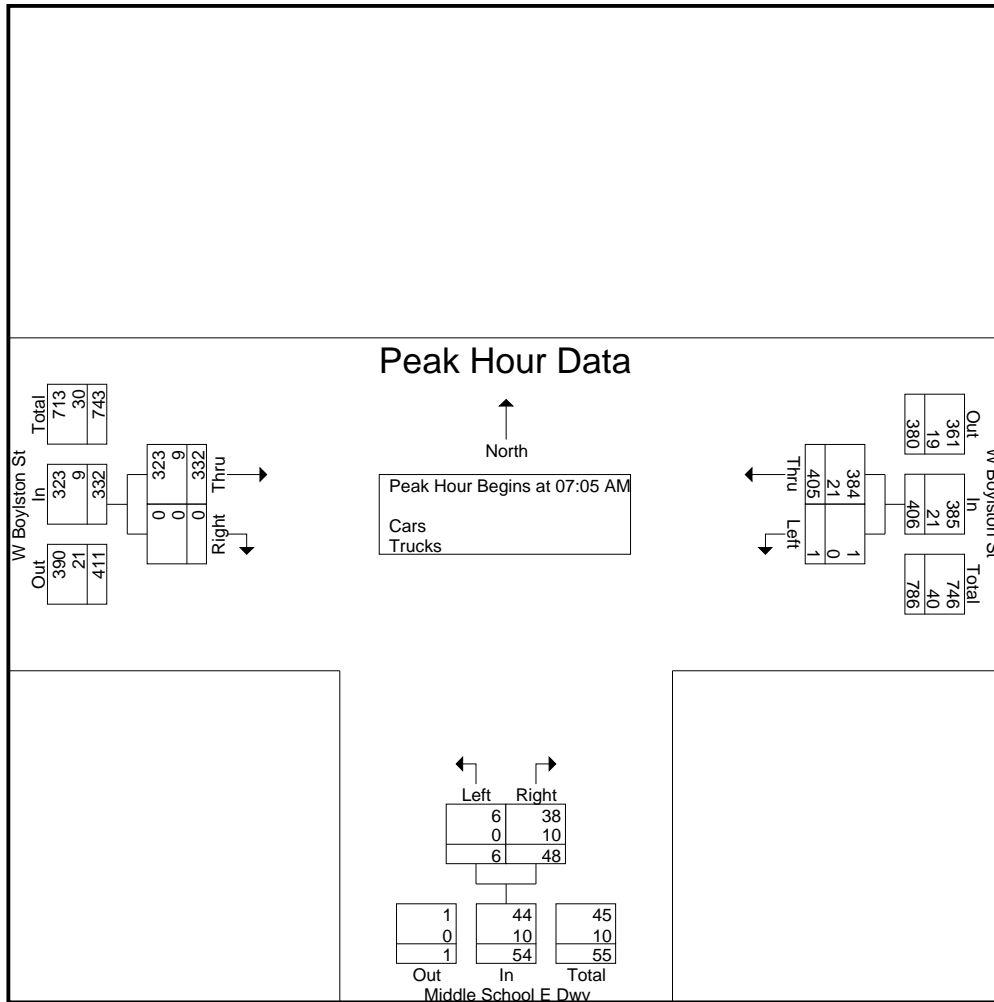
Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:05 AM										
07:05 AM	0	41	41	0	0	0	21	0	21	62
07:10 AM	0	55	55	0	0	0	36	0	36	91
07:15 AM	0	<b>61</b>	<b>61</b>	0	2	2	29	0	29	<b>92</b>
07:20 AM	0	35	35	0	0	0	<b>49</b>	0	<b>49</b>	84
07:25 AM	0	15	15	0	3	3	32	0	32	50
07:30 AM	<b>1</b>	23	24	1	6	7	16	0	16	47
07:35 AM	0	28	28	1	5	6	18	0	18	52
07:40 AM	0	22	22	0	6	6	12	0	12	40
07:45 AM	0	42	42	0	0	0	27	0	27	69
07:50 AM	0	36	36	1	6	7	48	0	48	91
07:55 AM	0	28	28	<b>3</b>	<b>13</b>	<b>16</b>	27	0	27	71
08:00 AM	0	19	19	0	7	7	17	0	17	43
<b>Total Volume</b>	<b>1</b>	<b>405</b>	<b>406</b>	<b>6</b>	<b>48</b>	<b>54</b>	<b>332</b>	<b>0</b>	<b>332</b>	<b>792</b>
<b>% App. Total</b>	<b>0.2</b>	<b>99.8</b>		<b>11.1</b>	<b>88.9</b>		<b>100</b>	<b>0</b>		
PHF	.083	.553	.555	.167	.308	.281	.565	.000	.565	.717
Cars	1	384	385	6	38	44	323	0	323	752
% Cars	100	94.8	94.8	100	79.2	81.5	97.3	0	97.3	94.9
Trucks	0	21	21	0	10	10	9	0	9	40
% Trucks	0	5.2	5.2	0	20.8	18.5	2.7	0	2.7	5.1

# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 2



**Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1**

Peak Hour for Each Approach Begins at:

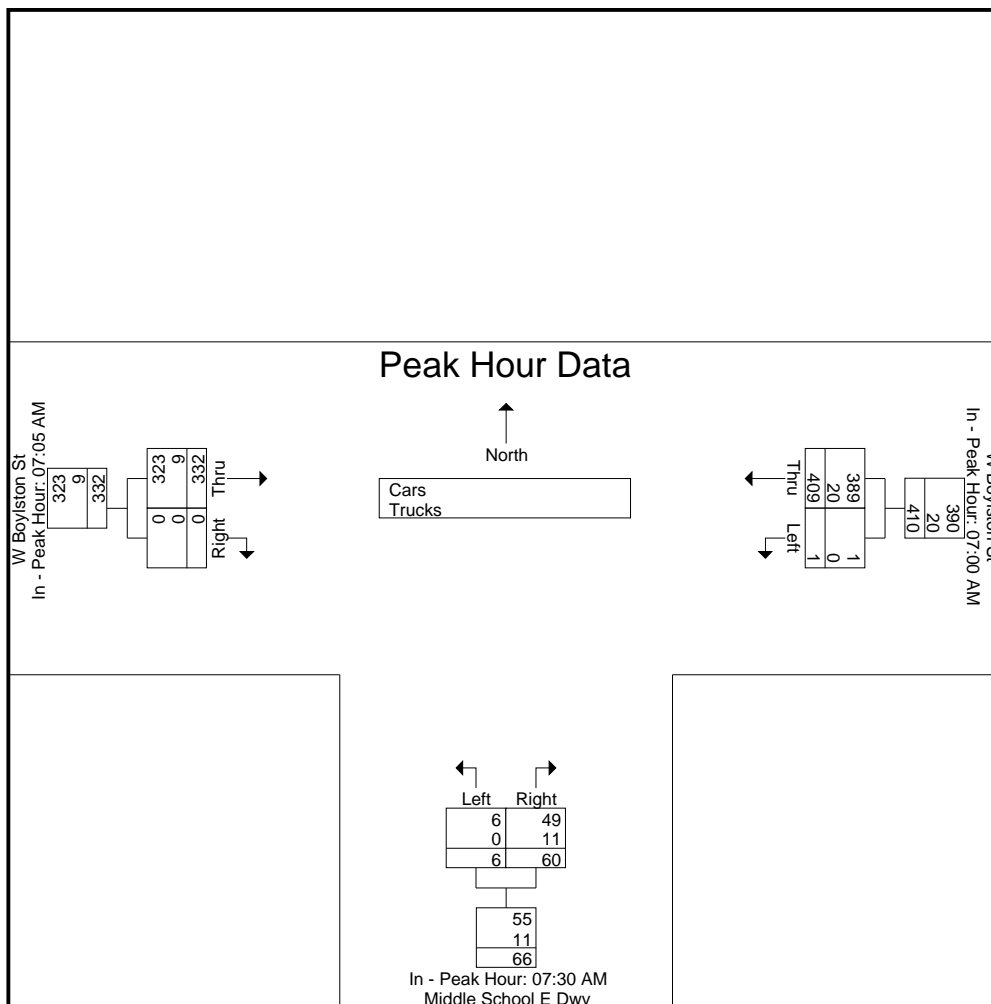
	07:00 AM			07:30 AM			07:05 AM		
+0 mins.	0	23	23	1	6	7	21	0	21
+5 mins.	0	41	41	1	5	6	36	0	36
+10 mins.	0	55	55	0	6	6	29	0	29
+15 mins.	0	<b>61</b>	<b>61</b>	0	0	0	<b>49</b>	0	<b>49</b>
+20 mins.	0	35	35	1	6	7	32	0	32
+25 mins.	0	15	15	<b>3</b>	<b>13</b>	<b>16</b>	16	0	16
+30 mins.	<b>1</b>	23	24	0	7	7	18	0	18
+35 mins.	0	28	28	0	5	5	12	0	12
+40 mins.	0	22	22	0	2	2	27	0	27
+45 mins.	0	42	42	0	3	3	48	0	48
+50 mins.	0	36	36	0	2	2	27	0	27
+55 mins.	0	28	28	0	5	5	17	0	17
Total Volume	1	409	410	6	60	66	332	0	332
% App. Total	0.2	99.8		9.1	90.9		100	0	
PHF	.083	.559	.560	.167	.385	.344	.565	.000	.565
Cars	1	389	390	6	49	55	323	0	323
% Cars	100	95.1	95.1	100	81.7	83.3	97.3	0	97.3
Trucks	0	20	20	0	11	11	9	0	9
% Trucks	0	4.9	4.9	0	18.3	16.7	2.7	0	2.7

# Accurate Counts

978-664-2565

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 3

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear



# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 4

## Groups Printed- Cars

Start Time	W Boylston St From East		Middle School E Dwy From South			W Boylston St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	0	23	0	0	11	0	34	
07:05 AM	0	40	0	0	21	0	61	
07:10 AM	0	51	0	0	33	0	84	
07:15 AM	0	58	0	1	27	0	86	
07:20 AM	0	35	0	0	47	0	82	
07:25 AM	0	15	0	3	31	0	49	
07:30 AM	1	22	1	6	15	0	45	
07:35 AM	0	27	1	4	18	0	50	
07:40 AM	0	21	0	5	12	0	38	
07:45 AM	0	35	0	0	27	0	62	
07:50 AM	0	34	1	1	48	0	84	
07:55 AM	0	28	3	13	27	0	71	
<b>Total</b>	<b>1</b>	<b>389</b>	<b>6</b>	<b>33</b>	<b>317</b>	<b>0</b>	<b>746</b>	
08:00 AM	0	18	0	5	17	0	40	
08:05 AM	0	10	0	3	17	0	30	
08:10 AM	0	16	0	2	10	0	28	
08:15 AM	0	13	0	3	21	0	37	
08:20 AM	0	17	0	2	14	0	33	
08:25 AM	0	14	0	5	16	0	35	
08:30 AM	0	15	0	2	15	0	32	
08:35 AM	0	18	1	2	8	0	29	
08:40 AM	0	15	0	1	15	0	31	
08:45 AM	0	14	0	0	16	0	30	
08:50 AM	0	12	0	0	19	0	31	
08:55 AM	0	14	0	0	14	0	28	
<b>Total</b>	<b>0</b>	<b>176</b>	<b>1</b>	<b>25</b>	<b>182</b>	<b>0</b>	<b>384</b>	
<b>Grand Total</b>	<b>1</b>	<b>565</b>	<b>7</b>	<b>58</b>	<b>499</b>	<b>0</b>	<b>1130</b>	
Apprch %	0.2	99.8	10.8	89.2	100	0		
Total %	0.1	50	0.6	5.1	44.2	0		

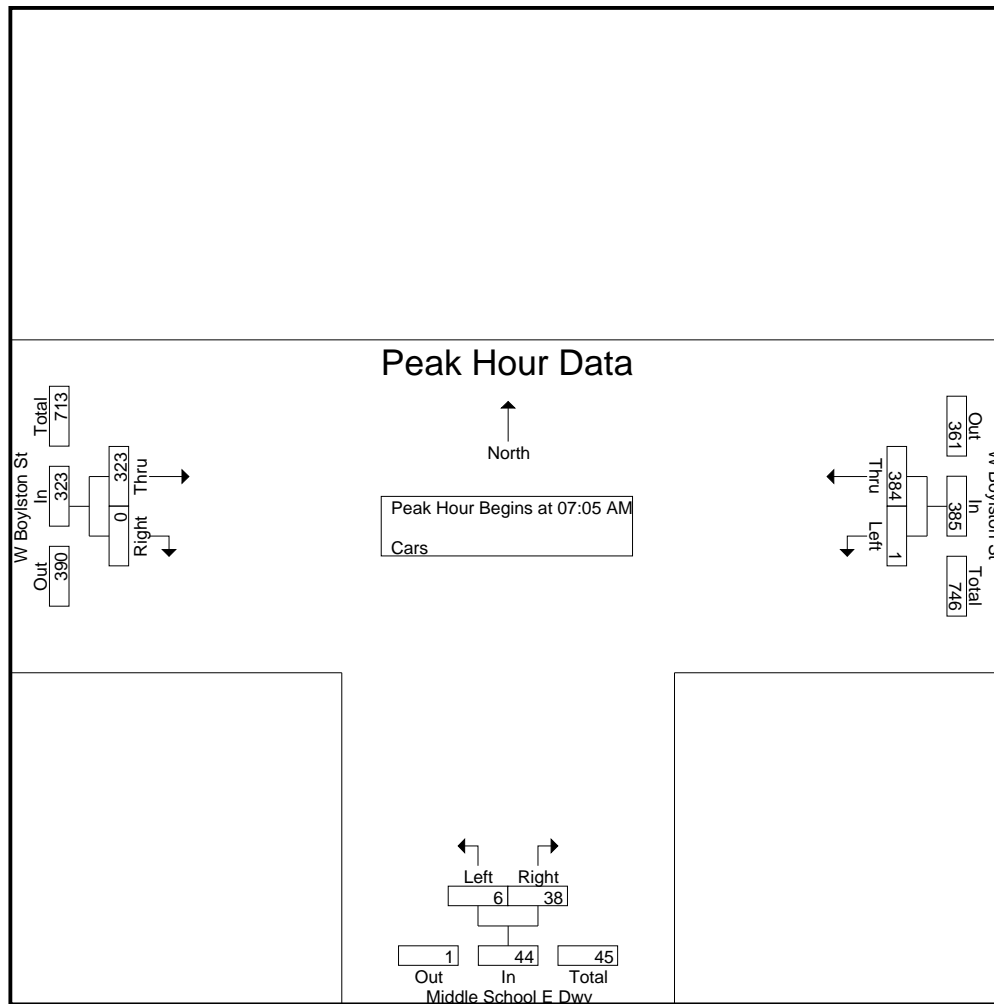
Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:05 AM										
07:05 AM	0	40	40	0	0	0	21	0	21	61
07:10 AM	0	51	51	0	0	0	33	0	33	84
07:15 AM	0	<b>58</b>	<b>58</b>	0	1	1	27	0	27	<b>86</b>
07:20 AM	0	35	35	0	0	0	47	0	47	82
07:25 AM	0	15	15	0	3	3	31	0	31	49
07:30 AM	<b>1</b>	22	23	1	6	7	15	0	15	45
07:35 AM	0	27	27	1	4	5	18	0	18	50
07:40 AM	0	21	21	0	5	5	12	0	12	38
07:45 AM	0	35	35	0	0	0	27	0	27	62
07:50 AM	0	34	34	1	1	2	<b>48</b>	0	<b>48</b>	84
07:55 AM	0	28	28	<b>3</b>	<b>13</b>	<b>16</b>	27	0	27	71
08:00 AM	0	18	18	0	5	5	17	0	17	40
<b>Total Volume</b>	<b>1</b>	<b>384</b>	<b>385</b>	<b>6</b>	<b>38</b>	<b>44</b>	<b>323</b>	<b>0</b>	<b>323</b>	<b>752</b>
<b>% App. Total</b>	<b>0.3</b>	<b>99.7</b>		<b>13.6</b>	<b>86.4</b>		<b>100</b>	<b>0</b>		
<b>PHF</b>	<b>.083</b>	<b>.552</b>	<b>.553</b>	<b>.167</b>	<b>.244</b>	<b>.229</b>	<b>.561</b>	<b>.000</b>	<b>.561</b>	<b>.729</b>

# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 5



**Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1**

Peak Hour for Each Approach Begins at:

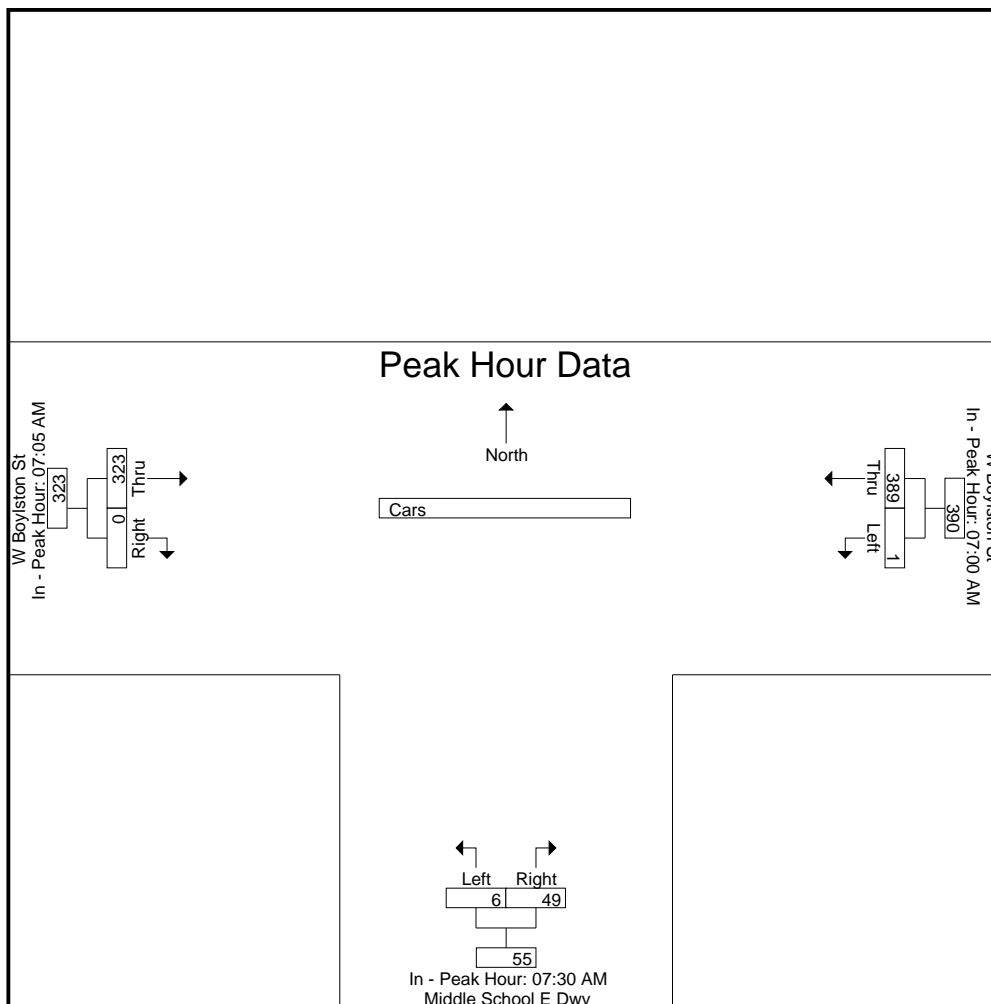
	07:00 AM			07:30 AM			07:05 AM		
+0 mins.	0	23	23	1	6	7	21	0	21
+5 mins.	0	40	40	1	4	5	33	0	33
+10 mins.	0	51	51	0	5	5	27	0	27
+15 mins.	0	<b>58</b>	<b>58</b>	0	0	0	47	0	47
+20 mins.	0	35	35	1	1	2	31	0	31
+25 mins.	0	15	15	<b>3</b>	<b>13</b>	<b>16</b>	15	0	15
+30 mins.	<b>1</b>	22	23	0	5	5	18	0	18
+35 mins.	0	27	27	0	3	3	12	0	12
+40 mins.	0	21	21	0	2	2	27	0	27
+45 mins.	0	35	35	0	3	3	<b>48</b>	0	<b>48</b>
+50 mins.	0	34	34	0	2	2	27	0	27
+55 mins.	0	28	28	0	5	5	17	0	17
<b>Total Volume</b>	1	389	390	6	49	55	323	0	323
<b>% App. Total</b>	0.3	99.7		10.9	89.1		100	0	
<b>PHF</b>	.083	.559	.560	.167	.314	.286	.561	.000	.561

# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
E/W Street : West Boylston Street  
City/State : Clinton, MA  
Weather : Clear

File Name : 07690003  
Site Code : 07690003  
Start Date : 10/12/2023  
Page No : 6



# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 7

### Groups Printed- Trucks

Start Time	W Boylston St From East		Middle School E Dwy From South		W Boylston St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	0	0	0	0
07:05 AM	0	1	0	0	0	0	1
07:10 AM	0	4	0	0	3	0	7
07:15 AM	0	3	0	1	2	0	6
07:20 AM	0	0	0	0	2	0	2
07:25 AM	0	0	0	0	1	0	1
07:30 AM	0	1	0	0	1	0	2
07:35 AM	0	1	0	1	0	0	2
07:40 AM	0	1	0	1	0	0	2
07:45 AM	0	7	0	0	0	0	7
07:50 AM	0	2	0	5	0	0	7
07:55 AM	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>8</b>	<b>9</b>	<b>0</b>	<b>37</b>
08:00 AM	0	1	0	2	0	0	3
08:05 AM	0	0	0	2	0	0	2
08:10 AM	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0
08:20 AM	0	0	0	0	1	0	1
08:25 AM	0	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0
08:35 AM	0	0	0	0	0	0	0
08:40 AM	0	2	0	0	0	0	2
08:45 AM	0	0	0	0	1	0	1
08:50 AM	0	0	0	0	0	0	0
08:55 AM	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>10</b>
<b>Grand Total</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>12</b>	<b>11</b>	<b>0</b>	<b>47</b>
Apprch %	0	100	0	100	100	0	
Total %	0	51.1	0	25.5	23.4	0	

Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:10 AM										
07:10 AM	0	4	4	0	0	0	3	0	3	7
07:15 AM	0	3	3	0	1	1	2	0	2	6
07:20 AM	0	0	0	0	0	0	2	0	2	2
07:25 AM	0	0	0	0	0	0	1	0	1	1
07:30 AM	0	1	1	0	0	0	1	0	1	2
07:35 AM	0	1	1	0	1	1	0	0	0	2
07:40 AM	0	1	1	0	1	1	0	0	0	2
07:45 AM	0	7	7	0	0	0	0	0	0	7
07:50 AM	0	2	2	0	5	5	0	0	0	7
07:55 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	1	0	2	2	0	0	0	3
08:05 AM	0	0	0	0	2	2	0	0	0	2
<b>Total Volume</b>	<b>0</b>	<b>20</b>	<b>20</b>	<b>0</b>	<b>12</b>	<b>12</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>41</b>
<b>% App. Total</b>	<b>0</b>	<b>100</b>		<b>0</b>	<b>100</b>		<b>100</b>	<b>0</b>		
<b>PHF</b>	<b>.000</b>	<b>.238</b>	<b>.238</b>	<b>.000</b>	<b>.200</b>	<b>.200</b>	<b>.250</b>	<b>.000</b>	<b>.250</b>	<b>.488</b>

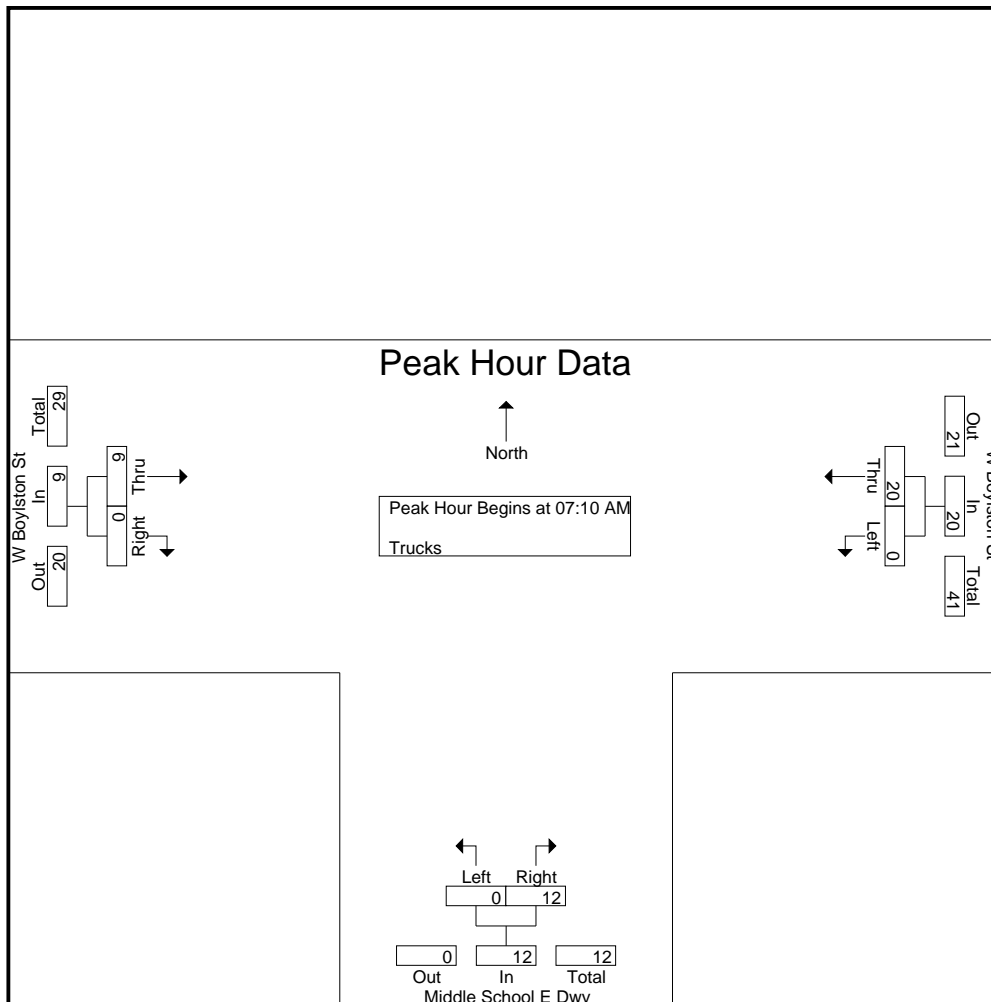


# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 8



**Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1**

Peak Hour for Each Approach Begins at:

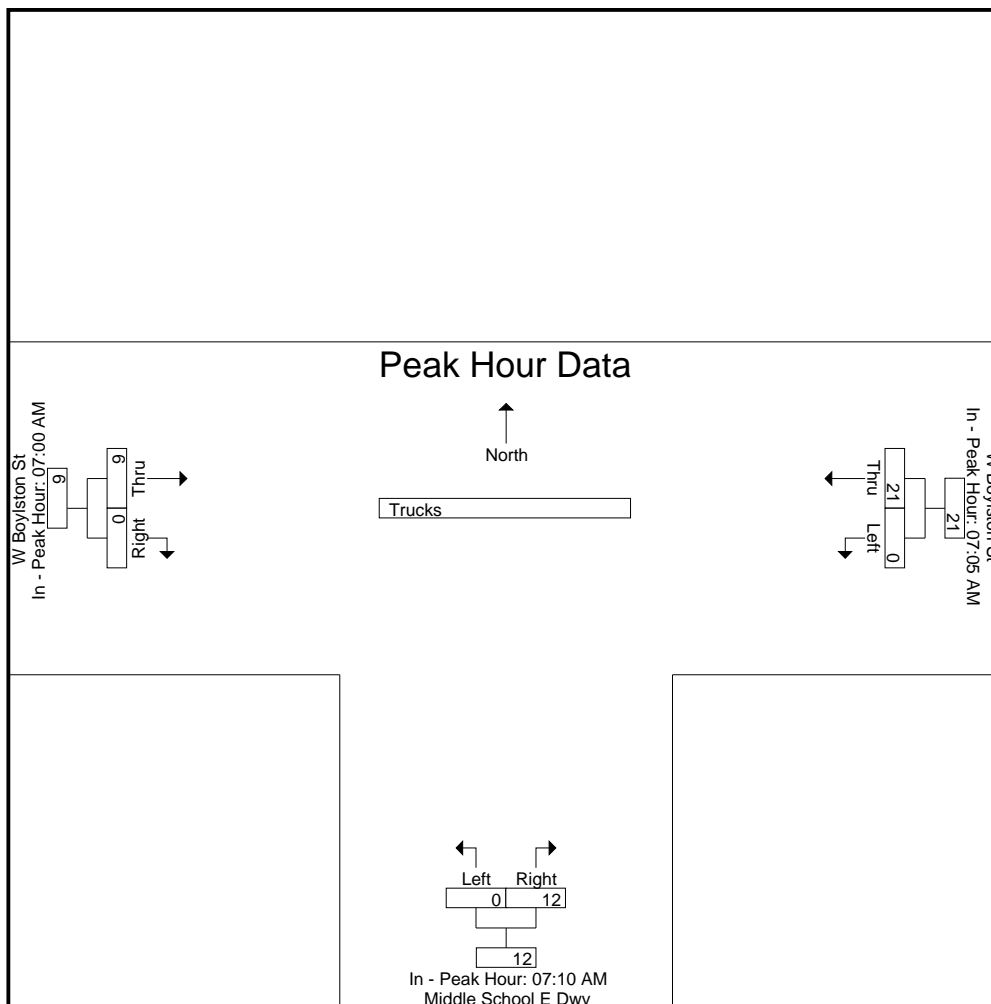
	07:05 AM			07:10 AM			07:00 AM		
+0 mins.	0	1	1	0	0	0	0	0	0
+5 mins.	0	4	4	0	1	1	0	0	0
+10 mins.	0	3	3	0	0	0	<b>3</b>	0	<b>3</b>
+15 mins.	0	0	0	0	0	0	2	0	2
+20 mins.	0	0	0	0	0	0	2	0	2
+25 mins.	0	1	1	0	1	1	1	0	1
+30 mins.	0	1	1	0	1	1	1	0	1
+35 mins.	0	1	1	0	0	0	0	0	0
+40 mins.	0	<b>7</b>	<b>7</b>	0	<b>5</b>	<b>5</b>	0	0	0
+45 mins.	0	2	2	0	0	0	0	0	0
+50 mins.	0	0	0	0	2	2	0	0	0
+55 mins.	0	1	1	0	2	2	0	0	0
Total Volume	0	21	21	0	12	12	9	0	9
% App. Total	0	100		0	100		100	0	
PHF	.000	.250	.250	.000	.200	.200	.250	.000	.250

# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
E/W Street : West Boylston Street  
City/State : Clinton, MA  
Weather : Clear

File Name : 07690003  
Site Code : 07690003  
Start Date : 10/12/2023  
Page No : 9



Accurate Counts

978-664-2565

File Name : 07690003

Site Code : 07690003

Start Date : 10/12/2023

Page No : 10

N/S Street : Middle School East Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

Weather : Clear

Groups Printed- Bikes Peds

Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:05 AM	0	0	0	0	0	1	0	0	0	1	0	1
07:10 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:20 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:25 AM	0	1	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:35 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:40 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	1
07:50 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:55 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	2	0	0	0	2	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:05 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:10 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:20 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:25 AM	0	0	0	0	0	1	0	0	0	1	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:35 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:40 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:50 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:55 AM	0	1	0	0	0	0	0	0	0	0	1	1
Total	0	1	0	0	0	1	0	0	0	1	1	2
Grand Total	0	2	0	0	0	3	0	0	0	3	2	5
Apprch %	0	100		0	0		0	0				
Total %	0	100		0	0		0	0		60	40	

Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:05 AM	0	0	0	0	0	0	0	0	0	0
07:10 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:20 AM	0	0	0	0	0	0	0	0	0	0
07:25 AM	0	1	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:35 AM	0	0	0	0	0	0	0	0	0	0
07:40 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
07:50 AM	0	0	0	0	0	0	0	0	0	0
07:55 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	0	0	0	1
% App. Total	0	100		0	0		0	0		
PHF	.000	.083	.083	.000	.000	.000	.000	.000	.000	.083

Peak Hour Analysis From 07:00 AM to 08:55 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

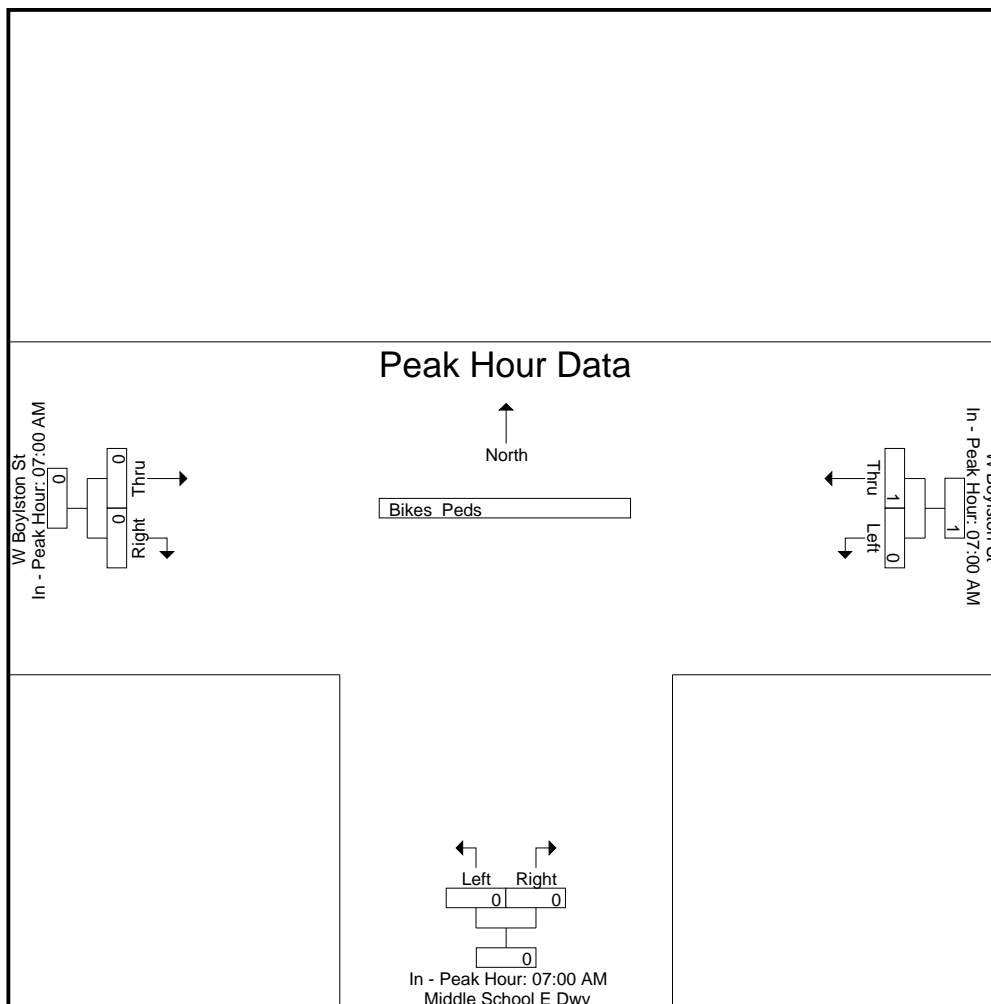


# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
E/W Street : West Boylston Street  
City/State : Clinton, MA  
Weather : Clear

File Name : 07690003  
Site Code : 07690003  
Start Date : 10/12/2023  
Page No : 12



# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 1

### Groups Printed- Cars - Trucks

Start Time	W Boylston St From East		Middle School E Dwy From South		W Boylston St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	30	0	0	7	0	37
02:05 PM	0	18	0	0	10	0	28
02:10 PM	0	27	0	2	51	0	80
02:15 PM	0	14	0	2	32	0	48
02:20 PM	0	25	0	0	12	0	37
02:25 PM	0	26	0	1	21	0	48
02:30 PM	0	26	1	16	27	0	70
02:35 PM	0	19	5	27	30	0	81
02:40 PM	0	20	2	7	19	0	48
02:45 PM	0	13	1	8	18	0	40
02:50 PM	0	12	0	6	12	0	30
02:55 PM	0	20	2	4	19	0	45
<b>Total</b>	<b>0</b>	<b>250</b>	<b>11</b>	<b>73</b>	<b>258</b>	<b>0</b>	<b>592</b>
03:00 PM	0	19	2	4	15	0	40
03:05 PM	0	26	1	1	19	0	47
03:10 PM	0	19	0	3	14	0	36
03:15 PM	0	22	0	1	16	0	39
03:20 PM	0	32	2	7	22	0	63
03:25 PM	0	40	1	5	25	0	71
03:30 PM	0	21	0	7	19	0	47
03:35 PM	0	33	0	6	21	0	60
03:40 PM	0	22	0	4	20	0	46
03:45 PM	0	37	0	3	20	0	60
03:50 PM	0	23	0	2	13	0	38
03:55 PM	0	23	1	0	17	0	41
<b>Total</b>	<b>0</b>	<b>317</b>	<b>7</b>	<b>43</b>	<b>221</b>	<b>0</b>	<b>588</b>
<b>Grand Total</b>	<b>0</b>	<b>567</b>	<b>18</b>	<b>116</b>	<b>479</b>	<b>0</b>	<b>1180</b>
Apprch %	0	100	13.4	86.6	100	0	
Total %	0	48.1	1.5	9.8	40.6	0	
Cars	0	542	16	105	465	0	1128
% Cars	0	95.6	88.9	90.5	97.1	0	95.6
Trucks	0	25	2	11	14	0	52
% Trucks	0	4.4	11.1	9.5	2.9	0	4.4

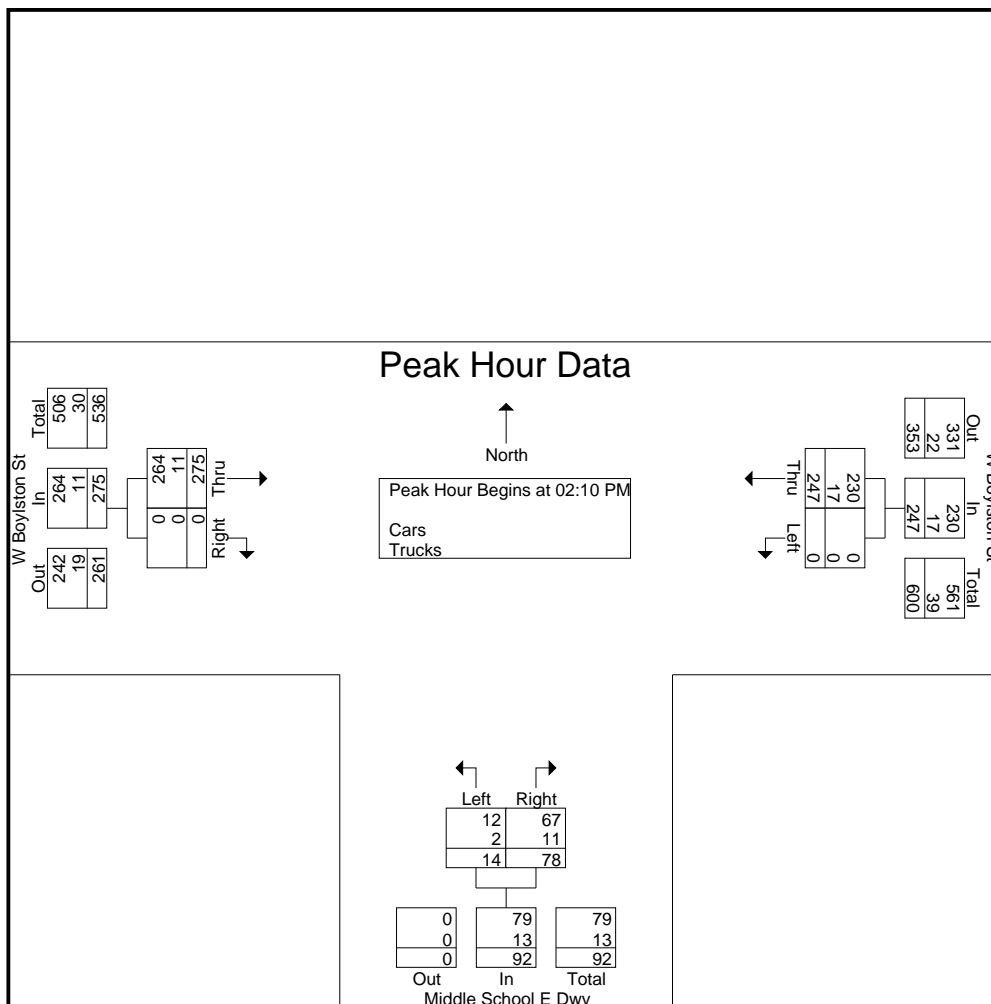
Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:10 PM										
02:10 PM	0	<b>27</b>	<b>27</b>	0	2	2	<b>51</b>	0	<b>51</b>	80
02:15 PM	0	14	14	0	2	2	32	0	32	48
02:20 PM	0	25	25	0	0	0	12	0	12	37
02:25 PM	0	26	26	0	1	1	21	0	21	48
02:30 PM	0	26	26	1	16	17	27	0	27	70
02:35 PM	0	19	19	<b>5</b>	<b>27</b>	<b>32</b>	30	0	30	<b>81</b>
02:40 PM	0	20	20	2	7	9	19	0	19	48
02:45 PM	0	13	13	1	8	9	18	0	18	40
02:50 PM	0	12	12	0	6	6	12	0	12	30
02:55 PM	0	20	20	2	4	6	19	0	19	45
03:00 PM	0	19	19	2	4	6	15	0	15	40
03:05 PM	0	26	26	1	1	2	19	0	19	47
<b>Total Volume</b>	<b>0</b>	<b>247</b>	<b>247</b>	<b>14</b>	<b>78</b>	<b>92</b>	<b>275</b>	<b>0</b>	<b>275</b>	<b>614</b>
% App. Total	0	100		15.2	84.8		100	0		
PHF	.000	.762	.762	.233	.241	.240	.449	.000	.449	.632
Cars	0	230	230	12	67	79	264	0	264	573
% Cars	0	93.1	93.1	85.7	85.9	85.9	96.0	0	96.0	93.3
Trucks	0	17	17	2	11	13	11	0	11	41
% Trucks	0	6.9	6.9	14.3	14.1	14.1	4.0	0	4.0	6.7

# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 2



**Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1**

Peak Hour for Each Approach Begins at:

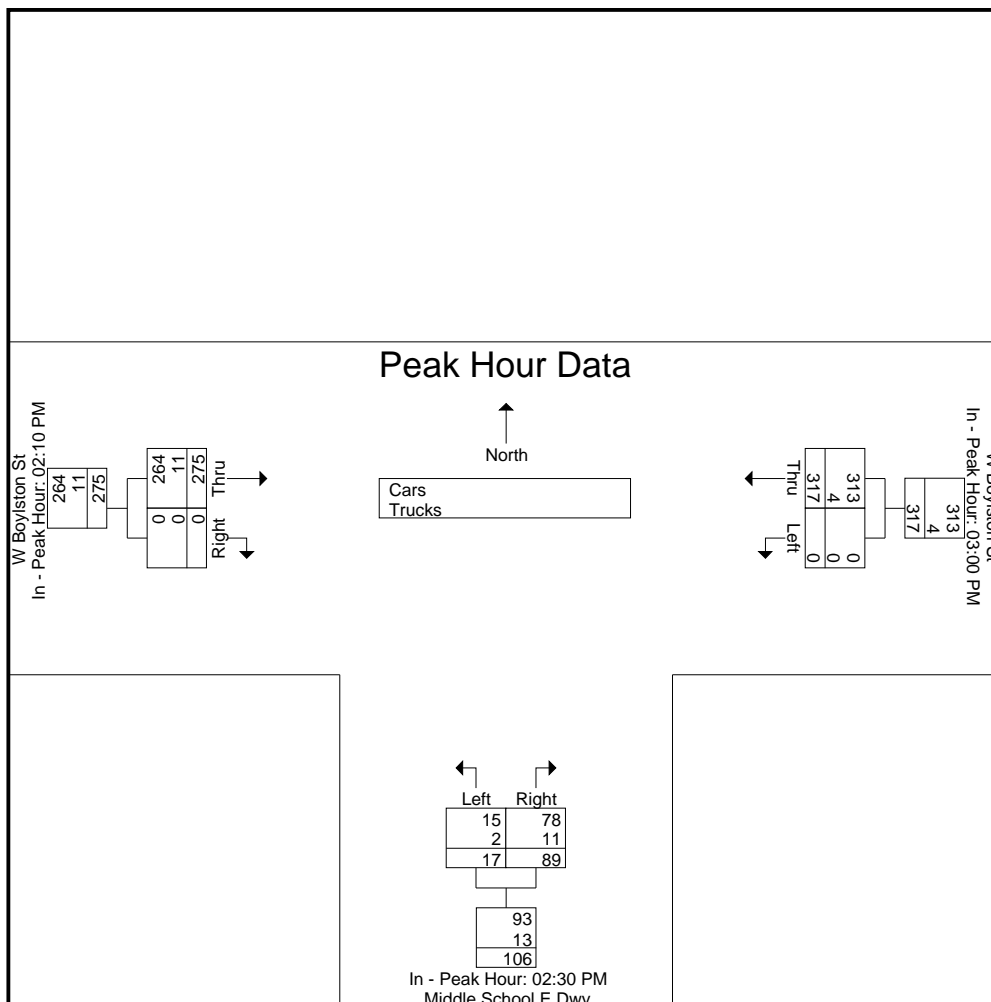
	03:00 PM			02:30 PM			02:10 PM		
+0 mins.	0	19	19	1	16	17	51	0	51
+5 mins.	0	26	26	5	27	32	32	0	32
+10 mins.	0	19	19	2	7	9	12	0	12
+15 mins.	0	22	22	1	8	9	21	0	21
+20 mins.	0	32	32	0	6	6	27	0	27
+25 mins.	0	<b>40</b>	<b>40</b>	2	4	6	30	0	30
+30 mins.	0	21	21	2	4	6	19	0	19
+35 mins.	0	33	33	1	1	2	18	0	18
+40 mins.	0	22	22	0	3	3	12	0	12
+45 mins.	0	37	37	0	1	1	19	0	19
+50 mins.	0	23	23	2	7	9	15	0	15
+55 mins.	0	23	23	1	5	6	19	0	19
<b>Total Volume</b>	0	317	317	17	89	106	275	0	275
<b>% App. Total</b>	0	100		16	84		100	0	
PHF	.000	.660	.660	.283	.275	.276	.449	.000	.449
Cars	0	313	313	15	78	93	264	0	264
% Cars	0	98.7	98.7	88.2	87.6	87.7	96	0	96
Trucks	0	4	4	2	11	13	11	0	11
% Trucks	0	1.3	1.3	11.8	12.4	12.3	4	0	4

# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 3





# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 4

## Groups Printed- Cars

Start Time	W Boylston St From East		Middle School E Dwy From South			W Boylston St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right		
02:00 PM	0	25	0	0	7	0	32	
02:05 PM	0	18	0	0	10	0	28	
02:10 PM	0	25	0	2	43	0	70	
02:15 PM	0	14	0	2	31	0	47	
02:20 PM	0	24	0	0	12	0	36	
02:25 PM	0	21	0	1	21	0	43	
02:30 PM	0	23	0	13	26	0	62	
02:35 PM	0	17	4	24	30	0	75	
02:40 PM	0	20	2	4	18	0	44	
02:45 PM	0	11	1	7	18	0	37	
02:50 PM	0	12	0	6	12	0	30	
02:55 PM	0	19	2	4	19	0	44	
<b>Total</b>	<b>0</b>	<b>229</b>	<b>9</b>	<b>63</b>	<b>247</b>	<b>0</b>	<b>548</b>	
03:00 PM	0	18	2	3	15	0	38	
03:05 PM	0	26	1	1	19	0	47	
03:10 PM	0	19	0	3	13	0	35	
03:15 PM	0	22	0	1	16	0	39	
03:20 PM	0	32	2	7	22	0	63	
03:25 PM	0	40	1	5	25	0	71	
03:30 PM	0	21	0	7	19	0	47	
03:35 PM	0	32	0	6	21	0	59	
03:40 PM	0	22	0	4	19	0	45	
03:45 PM	0	37	0	3	20	0	60	
03:50 PM	0	23	0	2	13	0	38	
03:55 PM	0	21	1	0	16	0	38	
<b>Total</b>	<b>0</b>	<b>313</b>	<b>7</b>	<b>42</b>	<b>218</b>	<b>0</b>	<b>580</b>	
<b>Grand Total</b>	<b>0</b>	<b>542</b>	<b>16</b>	<b>105</b>	<b>465</b>	<b>0</b>	<b>1128</b>	
Apprch %	0	100	13.2	86.8	100	0		
Total %	0	48	1.4	9.3	41.2	0		

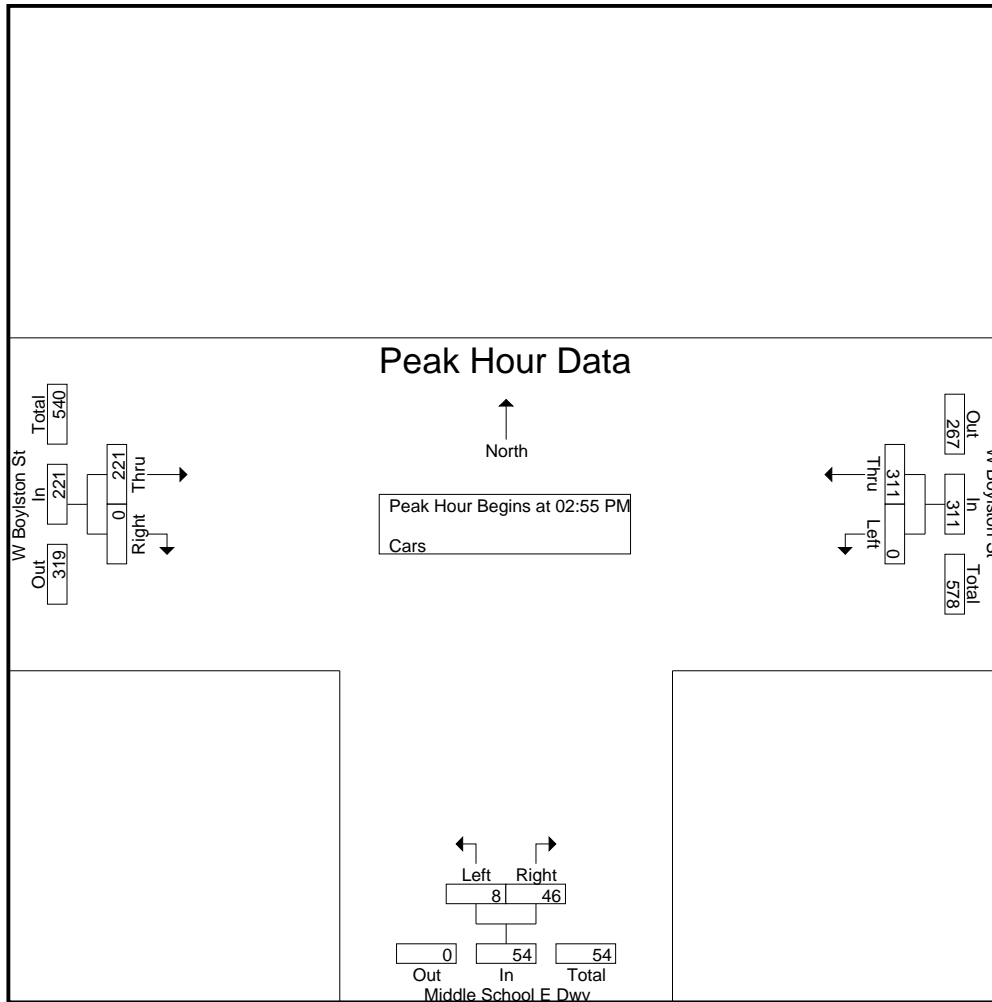
Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:55 PM										
02:55 PM	0	19	19	2	4	6	19	0	19	44
03:00 PM	0	18	18	2	3	5	15	0	15	38
03:05 PM	0	26	26	1	1	2	19	0	19	47
03:10 PM	0	19	19	0	3	3	13	0	13	35
03:15 PM	0	22	22	0	1	1	16	0	16	39
03:20 PM	0	32	32	2	7	9	22	0	22	63
03:25 PM	0	<b>40</b>	<b>40</b>	1	5	6	<b>25</b>	0	<b>25</b>	<b>71</b>
03:30 PM	0	21	21	0	7	7	19	0	19	47
03:35 PM	0	32	32	0	6	6	21	0	21	59
03:40 PM	0	22	22	0	4	4	19	0	19	45
03:45 PM	0	37	37	0	3	3	20	0	20	60
03:50 PM	0	23	23	0	2	2	13	0	13	38
<b>Total Volume</b>	<b>0</b>	<b>311</b>	<b>311</b>	<b>8</b>	<b>46</b>	<b>54</b>	<b>221</b>	<b>0</b>	<b>221</b>	<b>586</b>
<b>% App. Total</b>	<b>0</b>	<b>100</b>		<b>14.8</b>	<b>85.2</b>		<b>100</b>	<b>0</b>		
<b>PHF</b>	<b>.000</b>	<b>.648</b>	<b>.648</b>	<b>.333</b>	<b>.548</b>	<b>.500</b>	<b>.737</b>	<b>.000</b>	<b>.737</b>	<b>.688</b>

# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 5



**Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1**

Peak Hour for Each Approach Begins at:

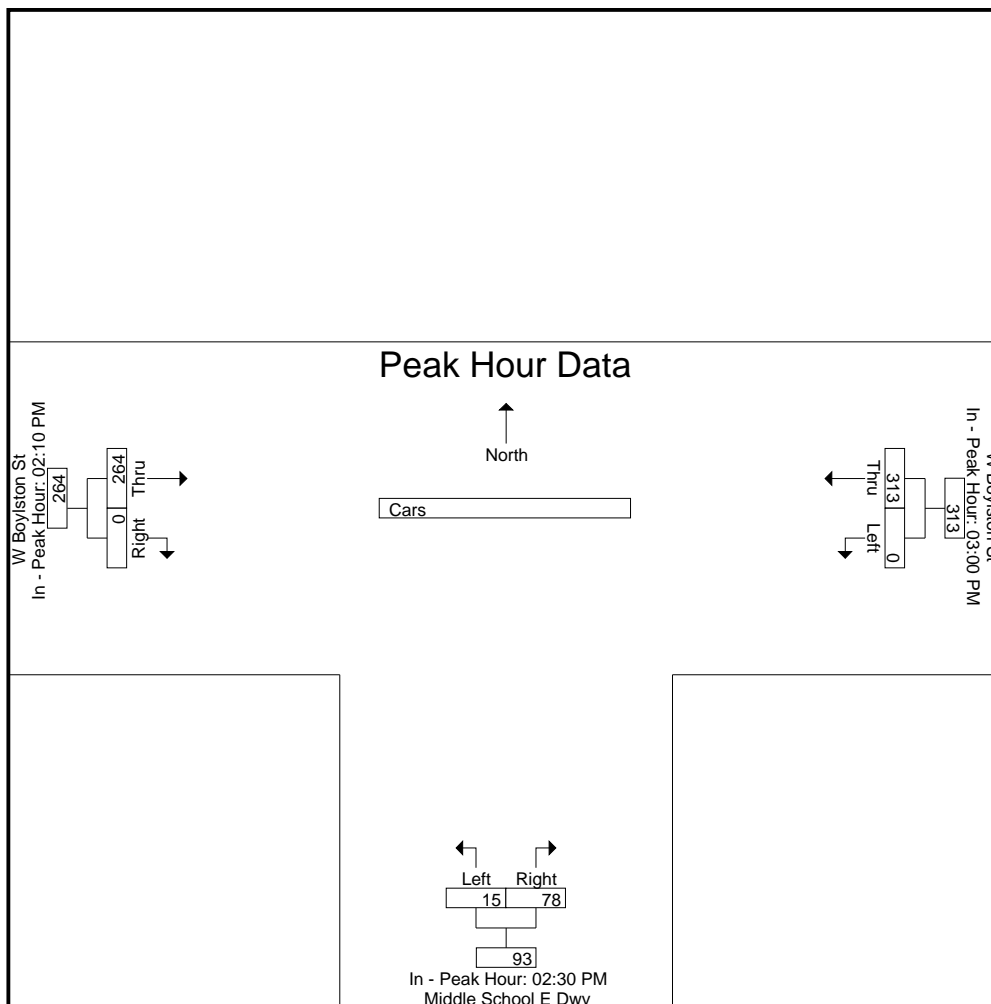
	03:00 PM			02:30 PM			02:10 PM		
+0 mins.	0	18	18	0	13	13	<b>43</b>	0	<b>43</b>
+5 mins.	0	26	26	<b>4</b>	<b>24</b>	<b>28</b>	31	0	31
+10 mins.	0	19	19	2	4	6	12	0	12
+15 mins.	0	22	22	1	7	8	21	0	21
+20 mins.	0	32	32	0	6	6	26	0	26
+25 mins.	0	<b>40</b>	<b>40</b>	2	4	6	30	0	30
+30 mins.	0	21	21	2	3	5	18	0	18
+35 mins.	0	32	32	1	1	2	18	0	18
+40 mins.	0	22	22	0	3	3	12	0	12
+45 mins.	0	37	37	0	1	1	19	0	19
+50 mins.	0	23	23	2	7	9	15	0	15
+55 mins.	0	21	21	1	5	6	19	0	19
Total Volume	0	313	313	15	78	93	264	0	264
% App. Total	0	100		16.1	83.9		100	0	
PHF	.000	.652	.652	.313	.271	.277	.512	.000	.512

# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
E/W Street : West Boylston Street  
City/State : Clinton, MA  
Weather : Clear

File Name : 07690003  
Site Code : 07690003  
Start Date : 10/12/2023  
Page No : 6



# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
 E/W Street : West Boylston Street  
 City/State : Clinton, MA  
 Weather : Clear

File Name : 07690003  
 Site Code : 07690003  
 Start Date : 10/12/2023  
 Page No : 7

### Groups Printed- Trucks

Start Time	W Boylston St From East		Middle School E Dwy From South			W Boylston St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right		
02:00 PM	0	5	0	0	0	0	5	
02:05 PM	0	0	0	0	0	0	0	
02:10 PM	0	2	0	0	8	0	10	
02:15 PM	0	0	0	0	1	0	1	
02:20 PM	0	1	0	0	0	0	1	
02:25 PM	0	5	0	0	0	0	5	
02:30 PM	0	3	1	3	1	0	8	
02:35 PM	0	2	1	3	0	0	6	
02:40 PM	0	0	0	3	1	0	4	
02:45 PM	0	2	0	1	0	0	3	
02:50 PM	0	0	0	0	0	0	0	
02:55 PM	0	1	0	0	0	0	1	
<b>Total</b>	<b>0</b>	<b>21</b>	<b>2</b>	<b>10</b>	<b>11</b>	<b>0</b>	<b>44</b>	
03:00 PM	0	1	0	1	0	0	2	
03:05 PM	0	0	0	0	0	0	0	
03:10 PM	0	0	0	0	1	0	1	
03:15 PM	0	0	0	0	0	0	0	
03:20 PM	0	0	0	0	0	0	0	
03:25 PM	0	0	0	0	0	0	0	
03:30 PM	0	0	0	0	0	0	0	
03:35 PM	0	1	0	0	0	0	1	
03:40 PM	0	0	0	0	1	0	1	
03:45 PM	0	0	0	0	0	0	0	
03:50 PM	0	0	0	0	0	0	0	
03:55 PM	0	2	0	0	1	0	3	
<b>Total</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>8</b>	
<b>Grand Total</b>	<b>0</b>	<b>25</b>	<b>2</b>	<b>11</b>	<b>14</b>	<b>0</b>	<b>52</b>	
Apprch %	0	100	15.4	84.6	100	0		
Total %	0	48.1	3.8	21.2	26.9	0		

Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	5	5	0	0	0	0	0	0	5
02:05 PM	0	0	0	0	0	0	0	0	0	0
02:10 PM	0	2	2	0	0	0	8	0	8	10
02:15 PM	0	0	0	0	0	0	1	0	1	1
02:20 PM	0	1	1	0	0	0	0	0	0	1
02:25 PM	0	5	5	0	0	0	0	0	0	5
02:30 PM	0	3	3	1	3	4	1	0	1	8
02:35 PM	0	2	2	1	3	4	0	0	0	6
02:40 PM	0	0	0	0	3	3	1	0	1	4
02:45 PM	0	2	2	0	1	1	0	0	0	3
02:50 PM	0	0	0	0	0	0	0	0	0	0
02:55 PM	0	1	1	0	0	0	0	0	0	1
<b>Total Volume</b>	<b>0</b>	<b>21</b>	<b>21</b>	<b>2</b>	<b>10</b>	<b>12</b>	<b>11</b>	<b>0</b>	<b>11</b>	<b>44</b>
<b>% App. Total</b>	<b>0</b>	<b>100</b>		<b>16.7</b>	<b>83.3</b>		<b>100</b>	<b>0</b>		
<b>PHF</b>	<b>.000</b>	<b>.350</b>	<b>.350</b>	<b>.167</b>	<b>.278</b>	<b>.250</b>	<b>.115</b>	<b>.000</b>	<b>.115</b>	<b>.367</b>

# Accurate Counts

978-664-2565

File Name : 07690003

Site Code : 07690003

Start Date : 10/12/2023

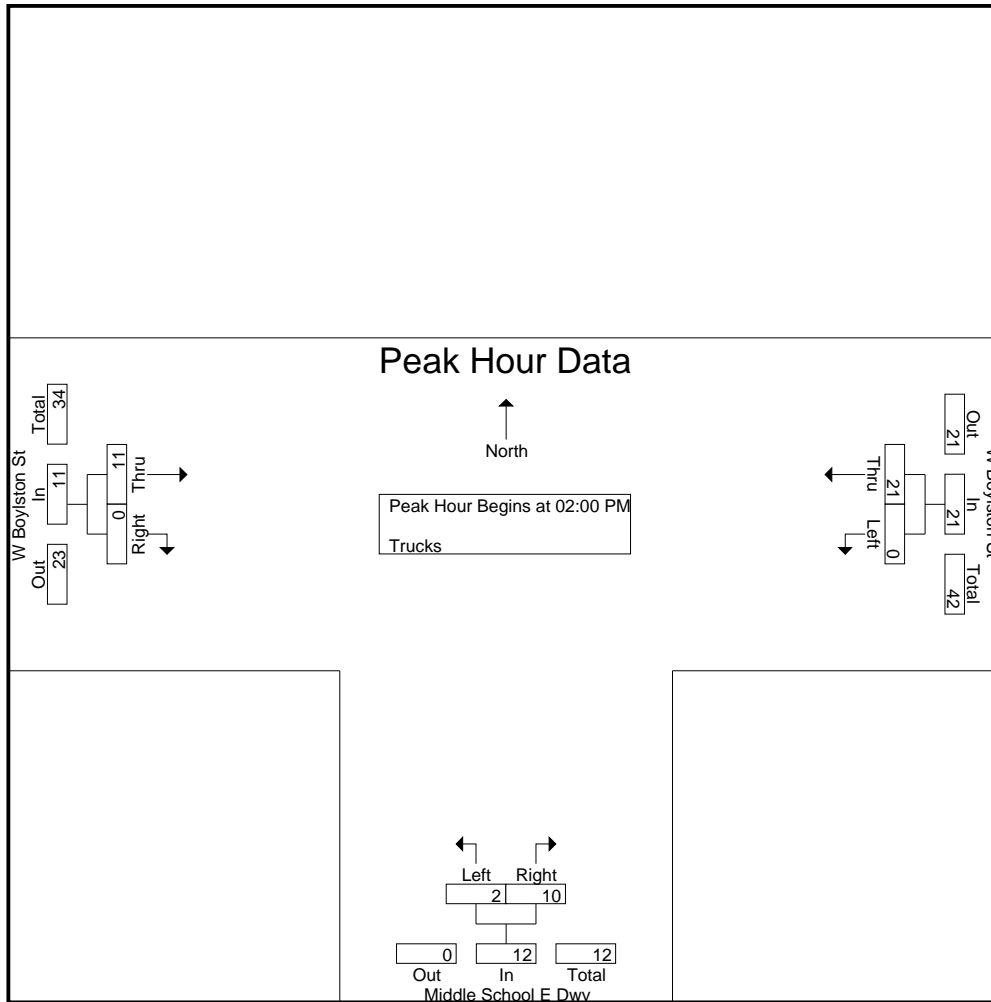
Page No : 8

N/S Street : Middle School East Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

Weather : Clear



Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

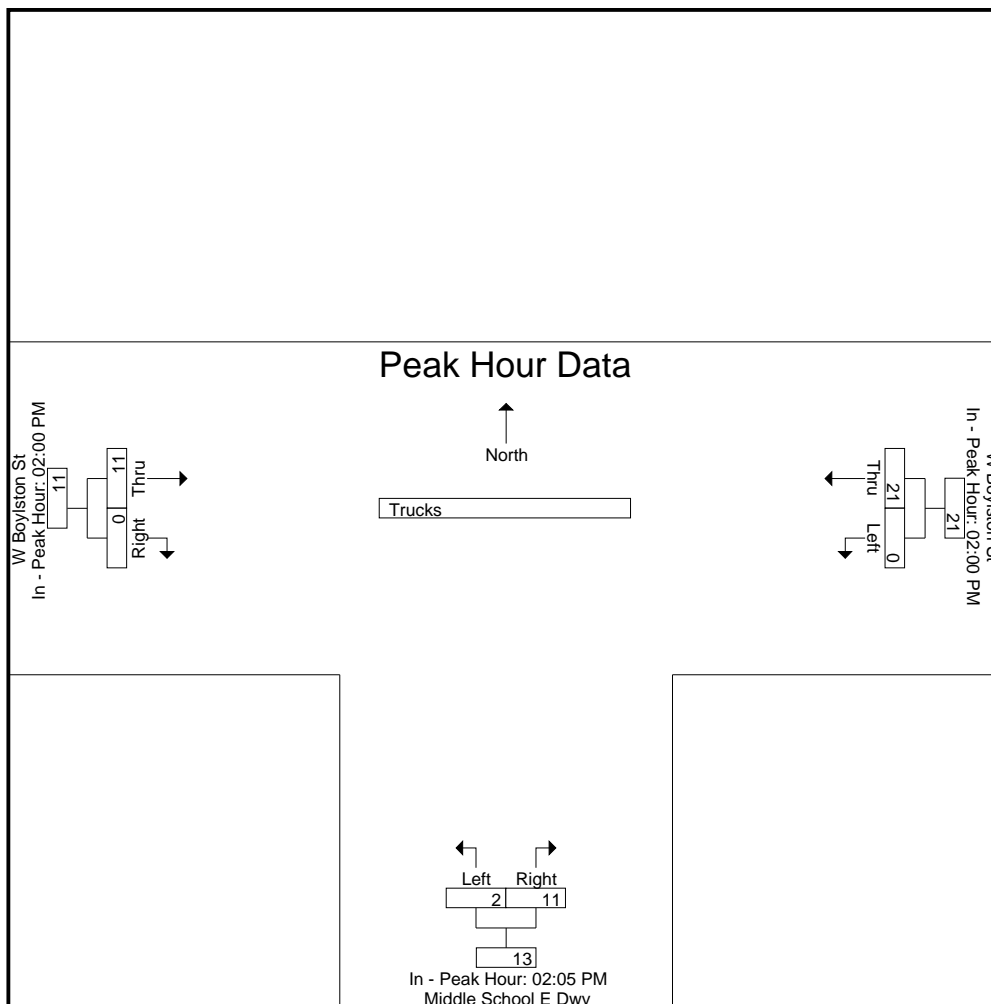
	02:00 PM			02:05 PM			02:00 PM		
+0 mins.	0	5	5	0	0	0	0	0	0
+5 mins.	0	0	0	0	0	0	0	0	0
+10 mins.	0	2	2	0	0	0	8	0	8
+15 mins.	0	0	0	0	0	0	1	0	1
+20 mins.	0	1	1	0	0	0	0	0	0
+25 mins.	0	5	5	1	3	4	0	0	0
+30 mins.	0	3	3	1	3	4	1	0	1
+35 mins.	0	2	2	0	3	3	0	0	0
+40 mins.	0	0	0	0	1	1	1	0	1
+45 mins.	0	2	2	0	0	0	0	0	0
+50 mins.	0	0	0	0	0	0	0	0	0
+55 mins.	0	1	1	0	1	1	0	0	0
Total Volume	0	21	21	2	11	13	11	0	11
% App. Total	0	100		15.4	84.6		100	0	
PHF	.000	.350	.350	.167	.306	.271	.115	.000	.115

# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
E/W Street : West Boylston Street  
City/State : Clinton, MA  
Weather : Clear

File Name : 07690003  
Site Code : 07690003  
Start Date : 10/12/2023  
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy

E/W Street : West Boylston Street

City/State : Clinton, MA

Weather : Clear

File Name : 07690003

Site Code : 07690003

Start Date : 10/12/2023

Page No : 10

Groups Printed- Bikes Peds

Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:05 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:10 PM	0	0	0	0	0	1	0	0	0	1	0	1
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:20 PM	0	0	0	0	0	2	0	0	0	2	0	2
02:25 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	2	0	0	0	2	0	2
02:35 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:40 PM	0	0	0	0	0	3	0	0	0	3	0	3
02:45 PM	0	1	0	0	0	0	0	0	0	0	1	1
02:50 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:55 PM	0	0	0	0	0	2	0	0	0	2	0	2
Total	0	1	0	0	0	10	0	0	0	10	1	11
03:00 PM	0	0	0	0	0	1	0	0	0	1	0	1
03:05 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:10 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:20 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:25 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:35 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:40 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:50 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:55 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	1
Grand Total	0	1	0	0	0	11	0	0	0	11	1	12
Apprch %	0	100		0	0		0	0				
Total %	0	100		0	0		0	0		91.7	8.3	

Start Time	W Boylston St From East			Middle School E Dwy From South			W Boylston St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:05 PM	0	0	0	0	0	0	0	0	0	0
02:10 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:20 PM	0	0	0	0	0	0	0	0	0	0
02:25 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:35 PM	0	0	0	0	0	0	0	0	0	0
02:40 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	1	1	0	0	0	0	0	0	1
02:50 PM	0	0	0	0	0	0	0	0	0	0
02:55 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	0	0	0	1
% App. Total	0	100		0	0		0	0		
PHF	.000	.083	.083	.000	.000	.000	.000	.000	.000	.083

Peak Hour Analysis From 02:00 PM to 03:55 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 02:00 PM



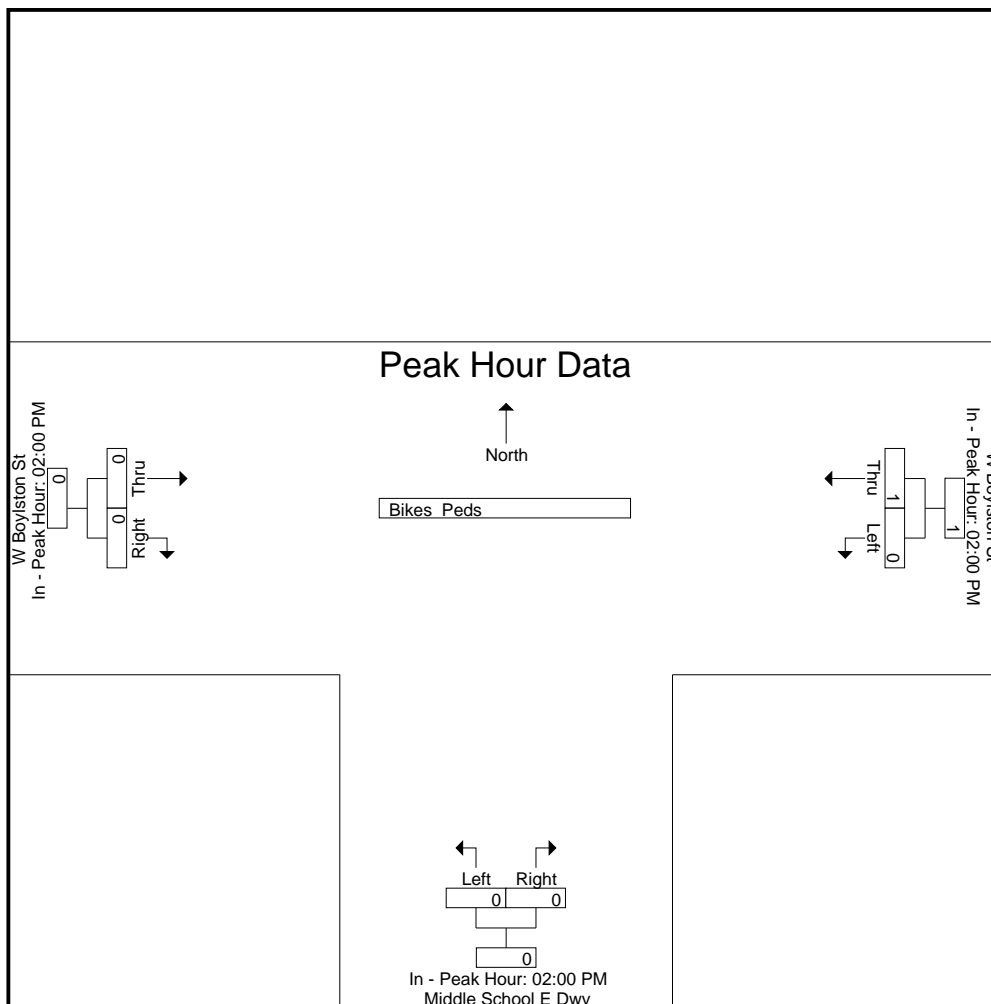


# Accurate Counts

978-664-2565

N/S Street : Middle School East Dwy  
E/W Street : West Boylston Street  
City/State : Clinton, MA  
Weather : Clear

File Name : 07690003  
Site Code : 07690003  
Start Date : 10/12/2023  
Page No : 12



Time	Cars in Drop Off Queue	Buses in Drop Off Queue	Cars in Bus Drop Off Area	Cars Parked in Main Lot	Cars Parked in Side Lot	Cars		Estimated Cars Queue on Street	Time	Total	
						Parked in Parents Lot				Parent Cars in Queue	Buses in Drop Off Queue
7:30 AM	2	0	0	27					7:30 AM	2	0
7:31 AM	1	1	1	29					7:31 AM	2	1
7:32 AM	0	0	1	30	9				7:32 AM	1	0
7:33 AM	0	0	2	32					7:33 AM	2	0
7:34 AM	0	1	0	35					7:34 AM	0	1
7:35 AM	3	1	0	35					7:35 AM	3	1
7:36 AM	1	1	0	36					7:36 AM	1	1
7:37 AM	2	0	1	40					7:37 AM	3	0
7:38 AM	1	0	3	40		2			7:38 AM	4	0
7:39 AM	0	0	0	43		3			7:39 AM	0	0
7:40 AM	0	1	0	46		3			7:40 AM	0	1
7:41 AM	0	0	0	48		4			7:41 AM	0	0
7:42 AM	1	0	0	49		4			7:42 AM	1	0
7:43 AM	1	0	0	53	12	3			7:43 AM	1	0
7:44 AM	3	0	0	53		3			7:44 AM	3	0
7:45 AM	4	0	0	54		3			7:45 AM	4	0
7:46 AM	2	0	0			3			7:46 AM	2	0
7:47 AM	5	2	0			3			7:47 AM	5	2
7:48 AM	8	2	0			4			7:48 AM	8	2
7:49 AM	15	2	0			5			7:49 AM	15	2
7:50 AM	10	3	0			5			7:50 AM	10	3
7:51 AM	7	5	0			4			7:51 AM	7	5
7:52 AM	10	3	0			3			7:52 AM	10	3
7:53 AM	12	1	0			5			7:53 AM	12	1
7:54 AM	15	1	0			4	5		7:54 AM	20	1
7:55 AM	12	0	3			3	3		7:55 AM	18	0
7:56 AM	9	0	4			3			7:56 AM	13	0
7:57 AM	0	0	4			3			7:57 AM	4	0
7:58 AM	1	0	4			3			7:58 AM	5	0
7:59 AM	0	0	0			3			7:59 AM	0	0
8:00 AM	0	0	3			3			8:00 AM	3	0
8:01 AM	0	0	2			3			8:01 AM	2	0
8:02 AM	0	0	1			3			8:02 AM	1	0
8:03 AM	0	0	0	65	13	3			8:03 AM	0	0
8:22 AM				72	13	4					



HCM 6th TWSC  
 3: CMS East Dr & W. Boylston St

10/27/2023

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	304	0	0	260	32	200
Future Vol, veh/h	304	0	0	260	32	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	304	0	0	260	32	200

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	564 304
Stage 1	-	-	-	-	304 -
Stage 2	-	-	-	-	260 -
Critical Hdwy	-	-	-	-	6.44 6.24
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	-	-	-	-	3.536 3.336
Pot Cap-1 Maneuver	-	0	0	-	483 731
Stage 1	-	0	0	-	744 -
Stage 2	-	0	0	-	779 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	483 731
Mov Cap-2 Maneuver	-	-	-	-	483 -
Stage 1	-	-	-	-	744 -
Stage 2	-	-	-	-	779 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	683	-	-
HCM Lane V/C Ratio	0.34	-	-
HCM Control Delay (s)	13	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	1.5	-	-

HCM 6th TWSC  
5: CMS West Dr/Athletic Dr & W. Boylston St

10/27/2023

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	272	12	56	224	4	12	0	32	0	4	8
Future Vol, veh/h	0	272	12	56	224	4	12	0	32	0	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	272	12	56	224	4	12	0	32	0	4	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	228	0	0	284	0	0	622	618	278	632	622	226
Stage 1	-	-	-	-	-	-	278	278	-	338	338	-
Stage 2	-	-	-	-	-	-	344	340	-	294	284	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.14	6.54	6.24	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.536	4.036	3.336	3.536	4.036	3.336
Pot Cap-1 Maneuver	1328	-	-	1267	-	-	396	402	756	390	400	808
Stage 1	-	-	-	-	-	-	724	677	-	672	637	-
Stage 2	-	-	-	-	-	-	667	636	-	710	673	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1328	-	-	1267	-	-	374	381	756	359	380	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	374	381	-	359	380	-
Stage 1	-	-	-	-	-	-	724	677	-	672	605	-
Stage 2	-	-	-	-	-	-	623	604	-	680	673	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.6			11.6			11.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	591	1328	-	-	1267	-	-	587
HCM Lane V/C Ratio	0.074	-	-	-	0.044	-	-	0.02
HCM Control Delay (s)	11.6	0	-	-	8	0	-	11.3
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

HCM 6th TWSC  
3: CMS East Dr & W. Boylston St

10/27/2023

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	↓
Traffic Vol, veh/h	258	0	0	250	11	73
Future Vol, veh/h	258	0	0	250	11	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	258	0	0	250	11	73

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	508 258
Stage 1	-	-	-	-	258 -
Stage 2	-	-	-	-	250 -
Critical Hdwy	-	-	-	-	6.44 6.24
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	-	-	-	-	3.536 3.336
Pot Cap-1 Maneuver	-	0	0	-	521 776
Stage 1	-	0	0	-	780 -
Stage 2	-	0	0	-	787 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	521 776
Mov Cap-2 Maneuver	-	-	-	-	521 -
Stage 1	-	-	-	-	780 -
Stage 2	-	-	-	-	787 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	729	-	-
HCM Lane V/C Ratio	0.115	-	-
HCM Control Delay (s)	10.6	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-

HCM 6th TWSC  
 5: CMS West Dr/Athletic Dr & W. Boylston St

10/27/2023

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	233	11	70	189	5	14	1	24	0	1	4
Future Vol, veh/h	2	233	11	70	189	5	14	1	24	0	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	2	233	11	70	189	5	14	1	24	0	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	194	0	0	244	0	0	577	577	239	587	580	192
Stage 1	-	-	-	-	-	-	243	243	-	332	332	-
Stage 2	-	-	-	-	-	-	334	334	-	255	248	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.14	6.54	6.24	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.536	4.036	3.336	3.536	4.036	3.336
Pot Cap-1 Maneuver	1367	-	-	1311	-	-	425	425	795	418	423	845
Stage 1	-	-	-	-	-	-	756	701	-	677	641	-
Stage 2	-	-	-	-	-	-	676	640	-	745	698	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1367	-	-	1311	-	-	402	399	795	385	397	845
Mov Cap-2 Maneuver	-	-	-	-	-	-	402	399	-	385	397	-
Stage 1	-	-	-	-	-	-	754	700	-	676	603	-
Stage 2	-	-	-	-	-	-	631	602	-	720	697	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.1	11.7	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	578	1367	-	-	1311	-	-	689
HCM Lane V/C Ratio	0.067	0.001	-	-	0.053	-	-	0.007
HCM Control Delay (s)	11.7	7.6	0	-	7.9	0	-	10.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0

HCM 6th TWSC  
 3: CMS East Dr & W. Boylston St

10/27/2023

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	408	0	0	424	16	76
Future Vol, veh/h	408	0	0	424	16	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	408	0	0	424	16	76

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	832 408
Stage 1	-	-	-	-	408 -
Stage 2	-	-	-	-	424 -
Critical Hdwy	-	-	-	-	6.44 6.24
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	-	-	-	-	3.536 3.336
Pot Cap-1 Maneuver	-	0	0	-	336 639
Stage 1	-	0	0	-	667 -
Stage 2	-	0	0	-	656 -
Platoon blocked, %	-				-
Mov Cap-1 Maneuver	-	-	-	-	336 639
Mov Cap-2 Maneuver	-	-	-	-	336 -
Stage 1	-	-	-	-	667 -
Stage 2	-	-	-	-	656 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	552	-	-
HCM Lane V/C Ratio	0.167	-	-
HCM Control Delay (s)	12.8	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.6	-	-



HCM 6th TWSC  
 5: CMS West Dr/Athletic Dr & W. Boylston St

10/27/2023

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	188	84	300	148	4	20	0	204	0	0	0
Future Vol, veh/h	4	188	84	300	148	4	20	0	204	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	4	188	84	300	148	4	20	0	204	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	152	0	0	272	0	0	988	990	230	1090	1030	150
Stage 1	-	-	-	-	-	-	238	238	-	750	750	-
Stage 2	-	-	-	-	-	-	750	752	-	340	280	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.14	6.54	6.24	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.536	4.036	3.336	3.536	4.036	3.336
Pot Cap-1 Maneuver	1417	-	-	1280	-	-	224	244	804	191	232	891
Stage 1	-	-	-	-	-	-	761	705	-	400	416	-
Stage 2	-	-	-	-	-	-	400	415	-	671	675	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1417	-	-	1280	-	-	179	181	804	114	172	891
Mov Cap-2 Maneuver	-	-	-	-	-	-	179	181	-	114	172	-
Stage 1	-	-	-	-	-	-	759	703	-	399	310	-
Stage 2	-	-	-	-	-	-	298	309	-	499	673	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			5.8			14.2			0		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	613	1417	-	-	1280	-	-	-
HCM Lane V/C Ratio	0.365	0.003	-	-	0.234	-	-	-
HCM Control Delay (s)	14.2	7.5	0	-	8.7	0	-	0
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	1.7	0	-	-	0.9	-	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	334	0	0	405	6	48
Future Vol, veh/h	334	0	0	405	6	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	334	0	0	405	6	48

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	739 334
Stage 1	-	-	-	-	334 -
Stage 2	-	-	-	-	405 -
Critical Hdwy	-	-	-	-	6.44 6.24
Critical Hdwy Stg 1	-	-	-	-	5.44 -
Critical Hdwy Stg 2	-	-	-	-	5.44 -
Follow-up Hdwy	-	-	-	-	3.536 3.336
Pot Cap-1 Maneuver	-	0	0	-	382 703
Stage 1	-	0	0	-	721 -
Stage 2	-	0	0	-	669 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	382 703
Mov Cap-2 Maneuver	-	-	-	-	382 -
Stage 1	-	-	-	-	721 -
Stage 2	-	-	-	-	669 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	643	-	-
HCM Lane V/C Ratio	0.084	-	-
HCM Control Delay (s)	11.1	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-

HCM 6th TWSC  
5: CMS West Dr/Athletic Dr & W. Boylston St

10/27/2023

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	266	58	177	236	2	10	0	61	0	0	0
Future Vol, veh/h	1	266	58	177	236	2	10	0	61	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	1	266	58	177	236	2	10	0	61	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	238	0	0	324	0	0	888	889	295	919	917	237
Stage 1	-	-	-	-	-	-	297	297	-	591	591	-
Stage 2	-	-	-	-	-	-	591	592	-	328	326	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.14	6.54	6.24	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.536	4.036	3.336	3.536	4.036	3.336
Pot Cap-1 Maneuver	1317	-	-	1225	-	-	262	280	740	250	270	797
Stage 1	-	-	-	-	-	-	707	664	-	490	491	-
Stage 2	-	-	-	-	-	-	490	491	-	681	645	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1317	-	-	1225	-	-	228	233	740	200	225	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	228	233	-	200	225	-
Stage 1	-	-	-	-	-	-	706	663	-	490	409	-
Stage 2	-	-	-	-	-	-	408	409	-	624	644	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.6			12.3			0		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	562	1317	-	-	1225	-	-	-
HCM Lane V/C Ratio	0.126	0.001	-	-	0.144	-	-	-
HCM Control Delay (s)	12.3	7.7	0	-	8.4	0	-	0
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.5	-	-	-

## 4.1.2 SCHEMATIC DESIGN BINDER

---

- D. Environmental & Existing Building Assessment
  - 1. Environmental Narrative
  - 2. Hazardous Material Report

The PDP and PSR filings described the initial investigation/sampling of the existing building for asbestos containing materials (ACM). That preliminary report and associated cost recommendations form the basis for hazardous materials abatement costs carried in the Schematic Design (SD) cost estimate.

LPA|A recommends and will schedule additional testing for hazardous materials at concealed and/or inaccessible locations, mastic damp-proofing at exterior cavity wall assemblies, and roofing systems, that were not analyzed during the previous hazardous materials assessment. This work should be performed during the Design Development phase, when the Construction Manager is retained and can coordinate the logistics and repair of the substrate.

Geotechnical borings were performed during the Schematic Design phase (5 in total). Additional geotechnical borings and test pits are scheduled to be conducted in the Design Development phase. These soil samples will also be analyzed for arsenic content. The Environmental Consultant will develop a soils management plan for incorporation by the Construction Manager. It is recommended that, during the early DD phase, existing soils be tested per COMM 97 for presence of heavy metals and other potentially hazardous materials that could limit onsite reuse or impact offsite disposal costs.

Relative to the proposed geothermal ground source heat pump HVAC system, a test well will be drilled early in the DD phase to obtain thermal properties for the design of the well field. The test may well be included as part of the permanent geothermal system.

All subsurface test explorations will be field located and documented as part of the existing conditions site survey.

**FINAL REPORT  
FOR  
HAZARDOUS MATERIALS IDENTIFICATION  
STUDY  
AT THE  
CLINTON MIDDLE SCHOOL  
CLINTON, MASSACHUSETTS**

PROJECT NO: 223 038.00

Survey Dates:  
January 27, 2023 and February 2, 2023

CONDUCTED BY:

**UNIVERSAL ENVIRONMENTAL CONSULTANTS  
12 Brewster Road  
Framingham, MA 01702**

February 7, 2023

Mr. Peter A. Caruso, Jr.  
LPA|A  
108 Grove Street  
Worcester, MA 01605

Reference: Report for Hazardous Materials Identification Study  
Clinton Middle School, Clinton, MA

Dear Mr. Caruso:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for the hazardous materials identification study at the Clinton Middle School, Clinton, MA.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants



---

Ammar M. Dieb  
President

UEC:\223 038.00\Report.DOC

Enclosure

## **INTRODUCTION:**

Universal Environmental Consultants (UEC) has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty-three years of experience.

UEC was contracted by LPA|A to conduct the following services at the Clinton Middle School, Clinton, Massachusetts:

- Asbestos Containing Materials (ACM) determination inspection and sampling.
- Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures inspection.
- PCB's in Caulking inspection.
- Lead Based Paint (LBP) inspection.
- Mercury in Rubber Flooring inspection and sampling.
- Airborne Mold inspection and sampling.
- Radon sampling.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination, and quantities of types of ACM found and cost estimates for remediation. A comprehensive survey including roofing and destructive testing per the Environmental Protection Agency (EPA) NESHAP regulation would be required prior to any renovation or demolition activities.

Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) Method in accordance with EPA standard. Bulk samples were collected by a Massachusetts licensed asbestos inspector Mr. Jason Becotte (AI-034963) and analyzed by a Massachusetts licensed laboratory EMSL, Woburn, MA. Previous sampling was also performed part of AHERA inspections.

Airborne mold samples were analyzed by an EPA approved laboratory EMSL, Woburn, MA.

Radon samples were analyzed by an EPA licensed laboratory AccuStar, Ward Hill, MA.

Samples results are attached.

## **FINDINGS:**

### **Asbestos Containing Materials (ACM):**

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to be ACM based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount of 1 percent or greater in accordance with EPA regulations. Per the Department of Environmental Protection (DEP) any amount of asbestos found must be disposed as asbestos.

No additional suspect or accessible ACM were found during this survey. Hidden ACM may be found during the renovation and demolition activities.

### ***Number of Samples Collected:***

Thirty-one (31) bulk samples were collected from materials suspected of containing asbestos, including:

### **Type and Location of Suspect Material**

1. Interior vertical caulking at first floor hallway
2. Interior vertical caulking at second floor hallway



3. 2' x 4' Suspended acoustical ceiling tile at music storage
4. 2' x 4' Suspended acoustical ceiling tile at library
5. Black sink coating at library work room
6. Black sink coating at room 1
7. Science lab countertop at room 5
8. Science lab countertop at room 15
9. Grey duct sealant above stage
10. Grey duct sealant above stage
11. Interior window glazing caulking at custodian office
12. Interior window glazing caulking at library
13. Interior metal door glass glazing caulking at first floor hallway
14. Interior metal door glass glazing caulking at second floor hallway
15. Rough ceiling plaster at boiler room
16. Rough ceiling plaster at boiler room
17. Rough ceiling plaster at boiler room
18. Exterior window framing caulking
19. Exterior window framing caulking
20. Exterior window framing caulking
21. Exterior door framing caulking
22. Exterior door framing caulking
23. Exterior door framing caulking
24. Exterior unit vent grille caulking
25. Exterior unit vent grille caulking
26. Exterior unit vent grille caulking
27. Exterior expansion joint caulking
28. Exterior expansion joint caulking
29. Exterior expansion joint caulking
30. Exterior greenhouse caulking
31. Exterior greenhouse caulking

**Sample Results:**

**Type and Location of Suspect Material**

**Sample Result**

1. Interior vertical caulking at first floor hallway	No Asbestos Detected
2. Interior vertical caulking at second floor hallway	No Asbestos Detected
3. 2' x 4' Suspended acoustical ceiling tile at music storage	No Asbestos Detected
4. 2' x 4' Suspended acoustical ceiling tile at library	No Asbestos Detected
5. Black sink coating at library work room	2% Asbestos
6. Black sink coating at room 1	2% Asbestos
7. Science lab countertop at room 5	No Asbestos Detected
8. Science lab countertop at room 15	No Asbestos Detected
9. Grey duct sealant above stage	3% Asbestos
10. Grey duct sealant above stage	3% Asbestos
11. Interior window glazing caulking at custodian office	3% Asbestos
12. Interior window glazing caulking at library	3% Asbestos
13. Interior metal door glass glazing caulking at first floor hallway	3% Asbestos
14. Interior metal door glass glazing caulking at second floor hallway	3% Asbestos
15. Rough ceiling plaster at boiler room	No Asbestos Detected
16. Rough ceiling plaster at boiler room	No Asbestos Detected
17. Rough ceiling plaster at boiler room	No Asbestos Detected
18. Exterior window framing caulking	No Asbestos Detected
19. Exterior window framing caulking	No Asbestos Detected
20. Exterior window framing caulking	No Asbestos Detected
21. Exterior door framing caulking	No Asbestos Detected
22. Exterior door framing caulking	No Asbestos Detected

23. Exterior door framing caulking	No Asbestos Detected
24. Exterior unit vent grille caulking	No Asbestos Detected
25. Exterior unit vent grille caulking	No Asbestos Detected
26. Exterior unit vent grille caulking	No Asbestos Detected
27. Exterior expansion joint caulking	No Asbestos Detected
28. Exterior expansion joint caulking	No Asbestos Detected
29. Exterior expansion joint caulking	No Asbestos Detected
30. Exterior greenhouse caulking	No Asbestos Detected
31. Exterior greenhouse caulking	No Asbestos Detected

**Observations and Conclusions:**

The condition of ACM is very important. ACM in good condition does not present a health issue unless it is disturbed. Therefore, it is not necessary to remediate ACM in good condition unless it will be disturbed through renovation, demolition, or other activity.

Refer to the AHERA Management Plan for condition of ACM.

1. Black sink coating was found to contain asbestos.
2. Grey duct sealant was found to contain asbestos.
3. Interior window glazing caulking was found to contain asbestos.
4. Interior metal door glass glazing caulking was found to contain asbestos.
5. Duct insulation was previously found to contain asbestos.
6. Hard joint insulation was previously found to contain asbestos.
7. Various types of 12" x 12" vinyl floor tiles were either assumed or previously found to contain asbestos.
8. Mastic for various types of 12" x 12" vinyl floor tiles were either assumed or previously found to contain asbestos.
9. Transite inside fume hoods was assumed to contain asbestos.
10. Wood fire doors insulation was assumed to contain asbestos.
11. Paper/mastic under hardwood flooring were assumed to contain asbestos.
12. Insulation/rope inside boilers were assumed to contain asbestos.
13. Glue holding old blackboard was assumed to contain asbestos.
14. Exterior dampproofing on foundation/exterior walls was assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal. A non-traditional abatement plan would have to be prepared and submitted to the DEP for approval.
15. Roofing was assumed to contain asbestos.
16. Underground sewer pipes were assumed to contain asbestos.
17. All other suspect materials were found not to contain asbestos. Hidden ACM may be found during renovation and demolition activities.

**Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures:**

**Observations and Conclusions**

Visual inspection of various equipments such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB's and mercury. Ballasts in light fixtures were assumed not to contain PCB's since there were labels indicating that "No PCB's" was found. Tubes in light fixtures, thermostats, signs, and switches were assumed to contain mercury. It would be very costly to test those equipments and dismantling would be required to access. Therefore, the above equipments should be disposed in an EPA approved landfill as part of the demolition project.

**PCB's in Caulking Material:**

**Observations and Conclusions**

Building caulking was previously found to contain <50ppm of PCB's. PCB's are manmade chemicals that were widely produced and distributed across the country from the 1950s to 1977 until the production of PCB's was banned by the US Environmental Protection Agency (EPA) law which became effective in 1978. PCB's are a class of chemicals made up of more than 200 different compounds. PCB's are non-flammable, stable, and good insulators so they were widely used in a variety of products including electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as television sets and fluorescent light fixtures. Because of their

chemical properties, PCB's are not very soluble in water, and they do not break down easily in the environment. PCB's also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCB's have not been produced or used in the country for more than 30 years, they are still present in the environment in the air, soil, and water and in our food. EPA requires that all construction waste including caulking be disposed as PCB's if PCB's level exceed 50 mg/kg (ppm). An abatement plan might also be required depending on scope of work.

**Lead Based Paint (LBP):**

**Observations and Conclusions**

A school is not considered a regulated facility. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes, or regulations governing evaluation and hazard reduction. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations. According to OSHA, any amount of LBP triggers compliance.

**Mercury in Rubber Flooring:**

**Observations and Conclusions:**

No rubber flooring was found.

**Airborne Mold:**

Airborne mold testing was performed utilizing Zefon International Incorporated's Air-O-Cell® sampling device following all manufacturer supplied recommended sampling procedures. Air-O-Cell® is a direct read total particulate air sampling device. It works using the inertial impaction principle similar to other spore trap devices. It is designed for the rapid collection and analysis of airborne particulate including bioaerosols. The particulate includes fibers (e.g., asbestos, fiberglass, cellulose, clothing fibers) opaque particles (e.g., fly ash, combustion particles, copy toner, oil droplets, paint), and bioaerosols (e.g., mold spores, pollen, insect parts, skin cell fragments).<sup>1</sup>

The method involves drawing a known quantity of air through a sterile sampling cassette. Subsequent to sampling, the cassette is sealed and transferred to a microbiology laboratory under chain of custody protocol for microscopic analysis. This method counts both viable and nonviable mold spores.

**AIRBORNE MOLD and PARTICULATE**

Lab ID #	Location	Total Mold Counts/M <sup>3</sup>	Pollen	Insect Fragment	Hyphal Fragments
132300586-0001	Room C-3	ND	ND	ND	ND
132300586-0002	Room 5	40	ND	ND	ND
132300586-0003	Media Center	ND	ND	ND	ND
132300586-0004	Gymnasium	100	ND	ND	ND
132300586-0005	Hallway outside Room 11	60	ND	ND	7
132300586-0006	Room C-7	20	ND	ND	ND
132300586-0007	Room 15	40	ND	ND	20
132300586-0008	Music Room 2	80	ND	ND	ND
132300586-0009	Room 21	ND	ND	ND	20
132300586-0010	Guidance Office	40	ND	ND	ND
132300586-0011	Outside	ND	600	ND	ND

<sup>1</sup> Zefon International Inc. <www.zefon.com>

**AIRBORNE MOLD and PARTICULATE  
(Subjective Scales)**

Lab ID #	Location	Skin Fragment Density (SFD)	Fibrous Particulates (FP)	Total Background Particulate (TBP)
132300586-0001	Room C-3	1	1	2
132300586-0002	Room 5	1	1	3
132300586-0003	Media Center	1	1	1
132300586-0004	Gymnasium	1	1	2
132300586-0005	Hallway outside Room 11	1	1	3
132300586-0006	Room C-7	1	2	2
132300586-0007	Room 15	1	1	2
132300586-0008	Music Room 2	1	1	2
132300586-0009	Room 21	1	1	2
132300586-0010	Guidance Office	1	1	2
132300586-0011	Outside	1	1	2

**Legend:**

ND - Not Detected

SFD: 1 - 4 scale where 1 is low and 4 is high - TBP: 1 - 5 scale where 1 is low and 5 is high

**Observations and Conclusions:**

There are currently no guidelines or standards promulgated by a government agency or widely recognized scientific organizations for the interpretation of airborne mold spore levels. The most commonly employed tool used to assess if mold growth is occurring and there is amplification in a structure is to evaluate the indoor levels and species as well as to compare levels and species of mold outdoors to indoors. Typically, if there were more molds indoors, and/or if species were present indoors which were not present outdoors, then growth and amplification is likely occurring and further evaluation and perhaps remediation is recommended.

Based on comparisons with historical data from projects of similar type, building utilization, geographic location, and season, breathing zone indoor airborne levels are considered very low. Indoor mold spore counts in the winter are typically in the 500-1,500-spores/cubic meter range.

Breathing zone indoor and also outdoor samples indicated the presence of large quantities of several common types of mold which are not considered to be hazardous. Pollen, insect fragments and Hyphal fragments were either not present or low in the samples. Hyphal fragment is a non-reproductive part of the mold.

Total background particulate on all samples was assessed as "1-2" on a scale of 1-5 where 1 is low and 5 is high. Skin fragment density on all samples was assessed as "1" on a scale of 1-4 where 1 is low and 4 is high. The total background levels are measured to determine airborne dust not related to airborne mold. Skin fragments are measured to determine proper housing cleaning.

**Radon:**

**Number of Samples Collected**

Ten (10) air samples were collected at the following locations:

**Location of Material**

1. Music room 2
2. Main office
3. Teacher's dining room
4. Room 6
5. Conference Room
6. Language lab 10
7. Room C-5
8. Room 13
9. Media center
10. Planning room

**Location of Material**

**Sample Result**

1. Music room 2	0.6 pCi/L
2. Main office	0.9 pCi/L
3. Teacher's dining room	0.6 pCi/L
4. Room 6	0.6 pCi/L
5. Conference Room	2.2 pCi/L
6. Language lab 10	1.3 pCi/L
7. Room C-5	1.2 pCi/L
8. Room 13	0.6 pCi/L
9. Media center	2.2 pCi/L
10. Planning room	0.7 pCi/L

**Observations and Conclusions:**

The measured radon concentrations were found to be much lower than the EPA guideline of 4.0-pCi/L. No further action is required based on the results.

**COST ESTIMATES:**

The cost includes removal and disposal of all accessible ACM, other hazardous material, and an allowance for removal of inaccessible or hidden ACM that may be found during renovation or demolition project

Location	Material	Approximate Quantity	Cost Estimate (\$)
Throughout	Various Types of Flooring and Mastic	70,000 SF	420,000.00
	Hard Joint Insulation	50 LF	5,000.00
	Hidden Hard Joint Insulation	1,000 LF	30,000.00
	Interior Windows	36 Total	10,800.00
	Interior Doors with Windows	72 Total	21,600.00
	Sinks	12 Total	3,600.00
	Blackboards/Tackboards	120 Total	48,000.00
	Miscellaneous Hazardous Materials	Unknown	25,000.00
	Hidden ACM	Unknown	15,000.00
	Light Fixtures	Unknown	75,000.00
	Various Locations	Wood Fire Doors	10 Total
Fume Hoods		3 Total	9,000.00
Grey Duct Sealant		500 LF	25,000.00
Boiler Room	Duct Insulation	225 SF	11,250.00
	Boilers	2 Total	19,000.00
Gymnasium	Hardwood Flooring/Paper/Mastic	8,700 SF	87,000.00
Stage	Hardwood Flooring/Paper/Mastic	700 SF	7,000.00

Location	Material	Approximate Quantity	Cost Estimate (\$)
Exterior	Transite Sewer Pipes	Unknown <sup>1</sup>	75,000.00
	Damproofing/Flashing on Walls	3,500 Tons <sup>1</sup>	700,000.00
	Roofing Material	Unknown	160,000.00
Estimated costs for NESHAP Inspection and Testing Services			14,750.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			169,000.00
<b>TOTAL:</b>			<b>\$ 1,935,000.00</b>

<sup>1</sup>: Part of total demolition/addition.

#### DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:

##### **Asbestos:**

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a. Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA 600/R-93/116 method.

##### **Airborne Mold:**

The samples were analyzed by an EPA approved laboratory EMSL, Woburn, MA.

##### **Radon:**

Radon samples were analyzed by an EPA licensed laboratory AccuStar, Ward Hill, MA.

**LIMITATIONS AND CONDITIONS:**

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state, and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied, or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.

Inspected By:



---

Jason Becotte  
Asbestos Inspector

# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
<a href="mailto:adie@uec-env.com">adie@uec-env.com</a>

PLM  
24-hour TAT

Town/City: Clinton, MA Building Name Middle School

Sample	Description of Material	Sample Location
1	vertical CMU caulk	1st Fl. Hallway
2	l l	2nd Fl. Hallway
3	2x4 SAT	music storage
4	l l	Library
5	Black sink coating	Library work room
6	l l	Room 1
7	Science lab counter top	Room 5
8	l l	Room 15
9	Gray duct sealant	AHU above stage
10	l l	l l
11	Interior window glaze	Custodian office
12	l l	Library
13	metal door glass glaze	1st fl. Hallway
14	l l	2nd fl. Hallway
15	Rough ceiling Plaster	Boiler room
16	l l	l l
17	l l	l l
18	Window Frame caulk	exterior window
19	l l	l l
20	l l	l l

Reported By: Jason Bewthe Date: 2-2-23

Due Date: 24-Hours

Received By: \_\_\_\_\_ Date: \_\_\_\_\_

REC'D SPG 1335 wallin  
EMSL-BOSTON FEB 03 2023



132300738

# CHAIN OF CUSTODY

<b>Universal Environmental Consultants</b>
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM

Town/City: Clinton, MA Building Name Middle school

Sample	Description of Material	Sample Location
21	Door frame caulk	Exterior door
22		
23		
24	unit vent caulk	exterior vent grill
25		
26		
27	expansion joint caulk	Exterior Brick joint
28		
29		
30	Greenhouse caulk	Rear exterior greenhouse
31		

Reported By: Jason Bewick Date: 2-2-23 Due Date: 24-Hours  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_

REC'D Slc 1335 walk-  
 EMSL-BOSTON FEB 09 2023



# EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com> / [bostonlab@emsl.com](mailto:bostonlab@emsl.com)

EMSL Order: 132300738

Customer ID: UEC63

Customer PO:

Project ID:

**Attention:** Ammar Dieb  
Universal Environmental Consultants  
12 Brewster Road  
Framingham, MA 01702

**Phone:** (617) 984-9772

**Fax:** (508) 628-5488

**Received Date:** 02/03/2023 1:35 PM

**Analysis Date:** 02/06/2023

**Collected Date:** 02/02/2023

**Project:** Middle School, Clinton, MA

## Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 132300738-0001	1st Fl Hallway - Vertical CMU Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2 132300738-0002	2nd Fl Hallway - Vertical CMU Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3 132300738-0003	Music Storage - 2x4 SAT	Gray/White Fibrous Homogeneous	55% Cellulose 10% Min. Wool	35% Non-fibrous (Other)	None Detected
4 132300738-0004	Library - 2x4 SAT	Gray/White Fibrous Homogeneous	55% Cellulose 10% Min. Wool	35% Non-fibrous (Other)	None Detected
5 132300738-0005	Library Work Room - Black Sink Coating	Black Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
6 132300738-0006	Room 1 - Black Sink Coating	Black Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
7 132300738-0007	Room 5 - Science Lab Countertop	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8 132300738-0008	Room 15 - Science Lab Countertop	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9 132300738-0009	AHU Above Stage - Gray Duct Sealant	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
10 132300738-0010	AHU Above Stage - Gray Duct Sealant	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
11 132300738-0011	Custodian Office - Interior Window Glaze	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
12 132300738-0012	Library - Interior Window Glaze	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
13 132300738-0013	1st Fl Hallway - Metal Door Glass Glaze	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
14 132300738-0014	2nd Fl Hallway - Metal Door Glass Glaze	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
15 132300738-0015	Boiler Room - Rough Ceiling Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16 132300738-0016	Boiler Room - Rough Ceiling Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 02/06/2023 11:07:58



# EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com/bostonlab@emsl.com>

<b>EMSL Order:</b> 132300738
<b>Customer ID:</b> UEC63
<b>Customer PO:</b>
<b>Project ID:</b>

**Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E  
Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
17 132300738-0017	Boiler Room - Rough Ceiling Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18 132300738-0018	Exterior Window - Window Frame Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19 132300738-0019	Exterior Window - Window Frame Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20 132300738-0020	Exterior Window - Window Frame Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21 132300738-0021	Exterior Door - Door Frame Caulk	White Fibrous Homogeneous	<1% Fibrous (Other)	100% Non-fibrous (Other)	None Detected
22 132300738-0022	Exterior Door - Door Frame Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23 132300738-0023	Exterior Door - Door Frame Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24 132300738-0024	Exterior Vent Grill - Unit Vent Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25 132300738-0025	Exterior Vent Grill - Unit Vent Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26 132300738-0026	Exterior Vent Grill - Unit Vent Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27 132300738-0027	Exterior Brick Joint - Expansion Joint Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28 132300738-0028	Exterior Brick Joint - Expansion Joint Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29 132300738-0029	Exterior Brick Joint - Expansion Joint Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30 132300738-0030	Rear Exterior Greenhouse - Greenhouse Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
31 132300738-0031	Rear Exterior Greenhouse - Greenhouse Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 02/06/2023 11:07:58



## EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com> / [bostonlab@emsl.com](mailto:bostonlab@emsl.com)

EMSL Order: 132300738

Customer ID: UEC63

Customer PO:

Project ID:

Analyst(s)

*Ramon Buenaventura (31)*

**Signature Not Loaded**

Steve Grise, Laboratory Manager  
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, ME LB-0039

Initial report from: 02/06/2023 11:07:58





# EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com/bostonlab@emsl.com>

EMSL Order: 132300586

Customer ID: UEC63

Customer PO:

Project ID:

**Attention:** Ammar Dieb  
Universal Environmental Consultants  
12 Brewster Road  
Framingham, MA 01702

**Phone:** (617) 984-9772  
**Fax:** (508) 628-5488  
**Collected Date:** 01/27/2023  
**Received Date:** 01/30/2023 08:30 AM  
**Analyzed Date:** 01/31/2023

**Project:** Various Classrooms - Clinton Middle School; Clinton, MA

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	132300586-0001			132300586-0002			132300586-0003		
Client Sample ID:	1			2			3		
Volume (L):	150			150			150		
Sample Location:	Room C-3 Music by Electric Panel			Room 5 Front of White Board			Media Center near Piano		
Spore Types	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	2	40	100	-	-	-
Basidiospores	-	-	-	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
<b>Total Fungi</b>	-	<b>None Detect</b>	-	<b>2</b>	<b>40</b>	<b>100</b>	-	<b>None Detect</b>	-
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	3	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Steve Grise, Laboratory Manager  
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. \*\*\*\* Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. Skin & Fibrous ratings: 1 (1-25%), 2 (26-50%), 3 (51-75%), 4 (76-100%) of the background particles.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA AIHA LAP, LLC-EMLAP Accredited #180179

Initial report from: 01/31/2023 10:50 AM

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://www.emsl.com)



# EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com> / [bostonlab@emsl.com](mailto:bostonlab@emsl.com)

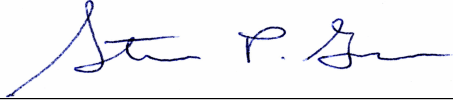
<b>EMSL Order:</b> 132300586
<b>Customer ID:</b> UEC63
<b>Customer PO:</b>
<b>Project ID:</b>

<b>Attention:</b> Ammar Dieb Universal Environmental Consultants 12 Brewster Road Framingham, MA 01702	<b>Phone:</b> (617) 984-9772 <b>Fax:</b> (508) 628-5488 <b>Collected Date:</b> 01/27/2023 <b>Received Date:</b> 01/30/2023 08:30 AM <b>Analyzed Date:</b> 01/31/2023
<b>Project:</b> Various Classrooms - Clinton Middle School; Clinton, MA	

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	132300586-0004			132300586-0005			132300586-0006				
	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total		
4 150 Gym under Score Board				5 150 Hallway outside Room 11				6 150 Room C-7 Back by Clock & Bathroom			
<b>Spore Types</b>											
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-		
Ascospores	-	-	-	-	-	-	-	-	-		
Aspergillus/Penicillium	5	100	100	3	60	100	1	20	100		
Basidiospores	-	-	-	-	-	-	-	-	-		
Bipolaris++	-	-	-	-	-	-	-	-	-		
Chaetomium++	-	-	-	-	-	-	-	-	-		
Cladosporium	-	-	-	-	-	-	-	-	-		
Curvularia	-	-	-	-	-	-	-	-	-		
Epicoccum	-	-	-	-	-	-	-	-	-		
Fusarium++	-	-	-	-	-	-	-	-	-		
Ganoderma	-	-	-	-	-	-	-	-	-		
Myxomycetes++	-	-	-	-	-	-	-	-	-		
Pithomyces++	-	-	-	-	-	-	-	-	-		
Rust	-	-	-	-	-	-	-	-	-		
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-		
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-		
Unidentifiable Spores	-	-	-	-	-	-	-	-	-		
Zygomycetes	-	-	-	-	-	-	-	-	-		
<b>Total Fungi</b>	<b>5</b>	<b>100</b>	<b>100</b>	<b>3</b>	<b>60</b>	<b>100</b>	<b>1</b>	<b>20</b>	<b>100</b>		
Hyphal Fragment	-	-	-	1*	7*	-	-	-	-		
Insect Fragment	-	-	-	-	-	-	-	-	-		
Pollen	-	-	-	-	-	-	-	-	-		
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-		
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-		
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-		
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	2	-		
Background (1-5)	-	2	-	-	3	-	-	2	-		

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

  
Steve Grise, Laboratory Manager  
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. \*\*\*\* Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. Skin & Fibrous ratings: 1 (1-25%), 2 (26-50%), 3 (51-75%), 4 (76-100%) of the background particles.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA AIHA LAP, LLC-EMLAP Accredited #180179

Initial report from: 01/31/2023 10:50 AM

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://www.emsl.com)



# EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com/bostonlab@emsl.com>

EMSL Order: 132300586

Customer ID: UEC63

Customer PO:

Project ID:

**Attention:** Ammar Dieb  
Universal Environmental Consultants  
12 Brewster Road  
Framingham, MA 01702

**Phone:** (617) 984-9772  
**Fax:** (508) 628-5488  
**Collected Date:** 01/27/2023  
**Received Date:** 01/30/2023 08:30 AM  
**Analyzed Date:** 01/31/2023

**Project:** Various Classrooms - Clinton Middle School; Clinton, MA

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	132300586-0007			132300586-0008			132300586-0009		
	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total
7 150 Room 15 next to Teacher Desk									
8 150 Music 2 near Piano									
9 150 Reading Room 21 next to Counter									
<b>Spore Types</b>									
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	3	60	75	-	-	-
Basidiospores	1	20	50	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	1	20	50	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	1	20	25	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
<b>Total Fungi</b>	<b>2</b>	<b>40</b>	<b>100</b>	<b>4</b>	<b>80</b>	<b>100</b>	-	<b>None Detect</b>	-
Hyphal Fragment	1	20	-	-	-	-	1	20	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	2	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Steve Grise, Laboratory Manager  
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. \*\*\*\* Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. Skin & Fibrous ratings: 1 (1-25%), 2 (26-50%), 3 (51-75%), 4 (76-100%) of the background particles.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA AIHA LAP, LLC-EMLAP Accredited #180179

Initial report from: 01/31/2023 10:50 AM

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://www.emsl.com)





# EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com> / [bostonlab@emsl.com](mailto:bostonlab@emsl.com)

**EMSL Order:** 132300586  
**Customer ID:** UEC63  
**Customer PO:**  
**Project ID:**

**Attention:** Ammar Dieb  
 Universal Environmental Consultants  
 12 Brewster Road  
 Framingham, MA 01702

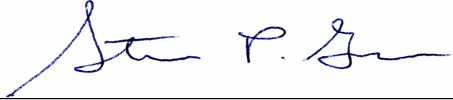
**Phone:** (617) 984-9772  
**Fax:** (508) 628-5488  
**Collected Date:** 01/27/2023  
**Received Date:** 01/30/2023 08:30 AM  
**Analyzed Date:** 01/31/2023

**Project:** Various Classrooms - Clinton Middle School; Clinton, MA

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	132300586-0010			132300586-0011		
Client Sample ID:	10			11		
Volume (L):	150			150		
Sample Location:	Guidance Office Center of Room			Outside Courtyard #2 from Media Center Window by AV Storage		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-
Aspergillus/Penicillium	2	40	100	-	-	-
Basidiospores	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-
Rust	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-
<b>Total Fungi</b>	<b>2</b>	<b>40</b>	<b>100</b>	-	<b>None Detect</b>	-
Hyphal Fragment	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-
Pollen	-	-	-	29	600	-
Analyt. Sensitivity 600x	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.



Steve Grise, Laboratory Manager  
 or other Approved Signatory

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. \*\*\*\* Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. Skin & Fibrous ratings: 1 (1-25%), 2 (26-50%), 3 (51-75%), 4 (76-100%) of the background particles.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA AIHA LAP, LLC-EMLAP Accredited #180179

Initial report from: 01/31/2023 10:50 AM

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://www.emsl.com)

NELAC NY 11769  
NRPP 103216 AL  
NRSB ARL0017

EPA Method #402-R-92-004  
Liquid Scintillation  
NRPP Device Code 8088  
NRSB Device Code 12193

Laboratory Report for:

Property Tested:

Universal Environmental Consultant  
12 Brewster Road  
Framingham MA 01702

Clinton Middle School  
100 West Boylston St  
Clinton MA 01510

Log Number	Device Number	Test Exposure	Duration:	Area Tested	Result pCi/L
8293128	4890336	01/27/2023 2:58 pm	01/30/2023 6:50 am	First Floor Music 2	0.6
8293129	4890307	01/27/2023 2:58 pm	01/30/2023 6:50 am	First Floor Music 2	0.6
8293130	4890297	01/27/2023 3:04 pm	01/30/2023 6:52 am	First Floor Main Office	0.7
8293131	4890287	01/27/2023 3:04 pm	01/30/2023 6:52 am	First Floor Main Office	0.9
8293132	4890316	01/27/2023 3:08 pm	01/30/2023 6:54 am	First Floor Teachers Dining	0.5
8293133	4890306	01/27/2023 3:08 pm	01/30/2023 6:54 am	First Floor Teachers Dining	0.6
8293134	4890295	01/27/2023 3:20 pm	01/30/2023 7:00 am	First Floor Room 6	0.6
8293135	4890286	01/27/2023 3:20 pm	01/30/2023 7:00 am	First Floor Room 6	0.8
8293136	4890277	01/27/2023 3:25 pm	01/30/2023 6:59 am	First Floor Conference Room	2.2
8293137	4890347	01/27/2023 3:25 pm	01/30/2023 6:59 am	First Floor Conference Room	2.1
8293138	4890326	01/27/2023 3:35 pm	01/30/2023 7:01 am	First Floor Language Lab Room 10	1.3

**Comment:** Universal Environmental Consultant was emailed a copy of this report.

Test Performed By: Placed: Keith McGovern Retrieved: Keith McGovern

Distributed by: Universal Environmental Consultant

Date Received: 01/30/2023 Date Logged: 01/30/2023 Date Analyzed: 01/31/2023 Date Reported: 01/31/2023

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

Shawn Price, Director of Laboratory Operations, AccuStar Labs

The counting uncertainty of this radon measurement is +/- 10%. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Laboratory personnel were not involved in the placement or retrieval of the samples. Analytical results relate to the samples as received by the laboratory. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

NELAC NY 11769  
NRPP 103216 AL  
NRSB ARL0017

EPA Method #402-R-92-004  
Liquid Scintillation  
NRPP Device Code 8088  
NRSB Device Code 12193

Laboratory Report for:

Property Tested:

Universal Environmental Consultant  
12 Brewster Road  
Framingham MA 01702

Clinton Middle School  
100 West Boylston St  
Clinton MA 01510


Log Number	Device Number	Test Exposure Duration:			Area Tested	Result pCi/L
8293139	4890265	01/27/2023	3:35 pm	01/30/2023 7:01 am	First Floor Language Lab Room 10	1.2
8293140	4890267	01/27/2023	3:40 pm	01/30/2023 7:03 am	First Floor Room C-5	1.2
8293141	4890337	01/27/2023	3:40 pm	01/30/2023 7:03 am	First Floor Room C-5	1.0
8293142	4890285	01/27/2023	3:47 pm	01/30/2023 7:05 am	First Floor Room 13-14	0.5
8293143	4890276	01/27/2023	3:40 pm	01/30/2023 7:05 am	First Floor Room 13-14	0.6
8293144	4890266	01/27/2023	3:52 pm	01/30/2023 6:56 am	First Floor Media Center	2.2
8293145	4890275	01/27/2023	3:52 pm	01/30/2023 6:56 am	First Floor Media Center	2.2
8293146	4890305	01/27/2023	4:06 pm	01/30/2023 7:07 am	First Floor Planning Room	0.7
8293147	4890346	01/27/2023	4:06 pm	01/30/2023 7:07 am	First Floor Planning Room	0.6
8293148	4890296	01/27/2023	4:06 pm	01/30/2023 7:07 am	Field Blank	< 0.4

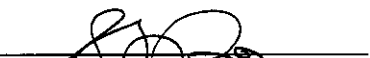
**Comment:** Universal Environmental Consultant was emailed a copy of this report.

Test Performed By: Placed: Keith McGovern Retrieved: Keith McGovern

Distributed by: Universal Environmental Consultant

Date Received: 01/30/2023 Date Logged: 01/30/2023 Date Analyzed: 01/31/2023 Date Reported: 01/31/2023

Report Reviewed By: 

Report Approved By: 

**Disclaimer:**

Shawn Price, Director of Laboratory Operations, AccuStar Labs

The counting uncertainty of this radon measurement is +/- 10%. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Laboratory personnel were not involved in the placement or retrieval of the samples. Analytical results relate to the samples as received by the laboratory. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

## 4.1.2 SCHEMATIC DESIGN BINDER

---

- E. Geotechnical & Geo-environmental Analysis
  - 1. Geotechnical Narrative
  - 2. Geotechnical Report

Below is the response provided to MSBA's review comments of the PSR:

**District Response:** The PDP reference to unsuitable existing soils pertain to the 1996 test borings in, and immediately east of, the high school building footprint; these borings indicated substantial layers of fill and organic materials.

As noted in the PDP, the 1954 geotechnical exploration program consisted of eight (8) test borings advanced to depths of between 16–42'. These borings were located to the east of the existing middle school on what is currently baseball/softball fields (which is also the location of the proposed new middle school). The existing boring logs indicate that the material encountered in this area was primarily compact sand and gravel with some boulders and fill.

Accordingly, LPA|A does not believe there are significant deposits or layers of unsuitable soils in the proposed building area. With that said, LPA|A acknowledges that there may be isolated areas of unsuitable soils between the existing 1954 test borings and recommends that the Schematic Design cost estimate design contingency include the cost of removing/replacing minor amounts of unsuitable materials.

LPA|A also recommends that a more comprehensive subsurface geotechnical exploration program, in the areas of the proposed building footprint and site infrastructure, be conducted during the early Design Development phase in June 2024.

The potential impact to the design is that areas of unsuitable soils would need to be removed and replaced with compacted structural fill. Additionally, there may be an impact on the structural design of foundations/footings.

Based on the District's response to MSBA's PSR review comments (refer to red text above), LPA|A and the OPM agreed that it would be beneficial to perform a preliminary limited-scope subsurface geotechnical exploration program, during the SD phase, to capture potential scope and cost related to removal/replacement of unsuitable soils. Lahlaf Geotechnical Consulting, Inc. (LGCI) was contracted to advance five (5) borings, within the proposed building footprint, to a depth of approximately 22' by and make preliminary foundation design and construction recommendations. LGCI's report (refer to 4.1.2.E.2) identified layers of surficial topsoil, existing fill and buried organics which are unsuitable to

support building foundations. The fill and organic layers varied in composition and density, and LGCI recommended that they be removed entirely from within the building footprint and be replaced by compacted structural fill. LGCI's report also notes that, while the existing fill may not be reused as structural or ordinary fill as is, the portion of it free of organics can be amended and reused as ordinary fill beneath pavement, fields and other site areas.

Within the building footprint, the test borings show the organic layer to vary in depth from 2'-10' below grade. For SD cost estimating purposes an average depth of 6' was used to calculate the amount of over-excavation and replacement with structural fill. It was assumed that the existing fill within the building footprint will be separated from any organics, amended, and reused as ordinary fill as described above.

Moving forward into the DD phase, LPA|A and our design team will perform a more comprehensive subsurface geotechnical exploration program, including test borings targeting the existing organic layer, to inform future design and cost estimating. In addition, core samples collected from the test borings will be tested for the presence of naturally occurring arsenic, which will dictate any special requirements for onsite reuse of existing soils. The locations of all new test explorations will be field located and documented as part of the existing conditions site survey.



# LGCI

Lahlaf Geotechnical Consulting, Inc.

---

October 7, 2023

Mr. Peter A. Caruso Jr., AIA, NCARB, LEED AP  
Associate Principal  
Lamoureux Pagano Associates  
108 Grove Street, Suite 300  
Worcester, MA 01605  
Phone: (508) 752-2831  
E-mail: PCaruso@lpaa.com

Re: **Preliminary Geotechnical Report  
Proposed Clinton Middle School  
Clinton, Massachusetts  
LGCI Project No. 2341**

Dear Mr. Caruso:

Lahlaf Geotechnical Consulting, Inc. (LGCI) has completed a preliminary geotechnical study for the proposed Clinton Middle School in Clinton, Massachusetts. We are submitting our preliminary geotechnical report electronically. Please notify us if you need a hard copy.

The soil samples from our explorations are currently stored at LGCI for further analysis, if requested. Unless notified otherwise, we will dispose of the soil samples after three (3) months.

Thank you for choosing LGCI as your geotechnical engineer.

Very truly yours,

**Lahlaf Geotechnical Consulting, Inc.**

Abdelmadjid M. Lahlaf, Ph.D., P.E.  
Principal Engineer



# LGCI

Lahlaf Geotechnical Consulting, Inc.

---

**PRELIMINARY GEOTECHNICAL REPORT  
PROPOSED CLINTON MIDDLE SCHOOL  
CLINTON, MASSACHUSETTS**

LGCI Project No. 2341

October 7, 2023

Prepared for:

**Lamoureux Pagano Associates**

108 Grove Street, Suite 300

Worcester, MA 01605

Phone: (508) 752-2831



**PRELIMINARY GEOTECHNICAL REPORT  
PROPOSED CLINTON MIDDLE SCHOOL  
CLINTON, MASSACHUSETTS**

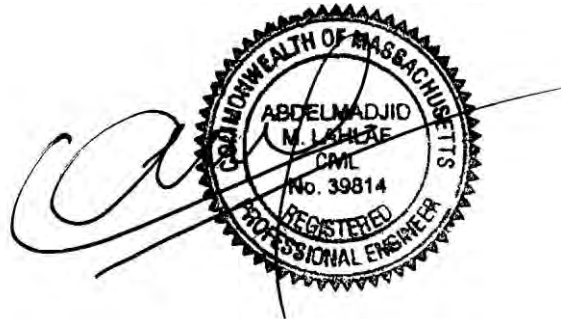
LGCI Project No. 2341  
October 7, 2023

Prepared for:

**Lamoureux Pagano Associates**  
108 Grove Street, Suite 300  
Worcester, MA 01605  
Phone: (508) 752-2831

Prepared by:

**LAHLAF GEOTECHNICAL CONSULTING, INC.**  
100 Chelmsford Road, Suite 2  
Billerica, Massachusetts 01862  
Phone: (978) 330-5912  
Fax: (978) 330-5056



Abdelmadjid M. Lahlaf, Ph.D., P.E.  
Principal Engineer

## TABLE OF CONTENTS

<b>1.</b>	<b>PROJECT INFORMATION .....</b>	<b>2</b>
1.1	PROJECT AUTHORIZATION.....	2
1.2	PURPOSE AND SCOPE OF SERVICES.....	2
1.3	SITE DESCRIPTION.....	2
1.4	HISTORIC TOPOGRAPHIC MAPS .....	2
1.5	PROJECT DESCRIPTION .....	4
1.6	ELEVATION DATUM.....	4
<b>2.</b>	<b>SITE AND SUBSURFACE CONDITIONS .....</b>	<b>5</b>
2.1	SURFICIAL GEOLOGY.....	5
2.2	PREVIOUS EXPLORATIONS PERFORMED BY OTHERS.....	5
2.3	LGCI'S EXPLORATIONS .....	6
2.3.1	<i>General</i> .....	6
2.3.2	<i>LGCI's Soil Borings</i> .....	7
2.3.3	<i>Exploration Logs and Locations</i> .....	7
2.4	SUBSURFACE CONDITIONS .....	7
2.5	GROUNDWATER.....	8
2.6	LABORATORY TEST DATA.....	9
<b>3.</b>	<b>EVALUATION AND RECOMMENDATIONS.....</b>	<b>10</b>
3.1	GENERAL.....	10
3.1.1	<i>Surficial Topsoil and Existing Fill</i> .....	10
3.1.2	<i>Shallow Footings</i> .....	10
3.1.3	<i>Reuse of Onsite Materials</i> .....	11
3.2	FOUNDATION RECOMMENDATIONS .....	11
3.2.1	<i>Footing Design</i> .....	11
3.2.2	<i>Settlement Estimates</i> .....	12
3.3	CONCRETE SLAB CONSIDERATIONS.....	12
3.3.1	<i>Slabs-on-Grade</i> .....	12
3.3.2	<i>Under-slab Drains and Waterproofing</i> .....	13
3.4	SEISMIC DESIGN .....	13
3.5	LATERAL PRESSURES FOR WALL DESIGN.....	13
3.5.1	<i>Lateral Earth Pressures</i> .....	13
3.5.2	<i>Seismic Pressures</i> .....	14
3.5.3	<i>Perimeter Drains</i> .....	15
3.6	PARKING LOTS, DRIVEWAYS, AND SIDEWALKS.....	15
3.6.1	<i>General</i> .....	15
3.6.2	<i>Sidewalks</i> .....	15
3.6.3	<i>Pavement Sections</i> .....	16
3.7	UNDERGROUND UTILITIES.....	16
<b>4.</b>	<b>CONSTRUCTION CONSIDERATIONS .....</b>	<b>17</b>
4.1	SUBGRADE PREPARATION .....	17
4.2	SUBGRADE PROTECTION.....	18
4.3	FILL MATERIALS .....	18
4.3.1	<i>Structural Fill</i> .....	18
4.3.2	<i>Ordinary Fill</i> .....	19
4.4	REUSE OF ONSITE MATERIALS .....	19
4.5	GROUNDWATER CONTROL PROCEDURES .....	20
4.6	TEMPORARY EXCAVATIONS .....	20
<b>5.</b>	<b>FUTURE SERVICES .....</b>	<b>21</b>
<b>6.</b>	<b>REPORT LIMITATIONS .....</b>	<b>22</b>

**List of Tables and Figures**

**Table 1** Summary of LGCI’s Borings

**Figure 1** Site Location Map  
**Figure 2** Surficial Geologic Map  
**Figure 3** Boring Location Plan

**List of Appendices**

**Appendix A** Logs of Borings by Others  
**Appendix B** LGCI’s Boring Logs  
**Appendix C** Laboratory Test Results

**Preliminary Geotechnical Report  
Proposed Clinton Middle School  
Clinton, Massachusetts  
LGCI Project No. 2341**

## **1. PROJECT INFORMATION**

### **1.1 Project Authorization**

This preliminary geotechnical report presents the results of the preliminary subsurface explorations and a preliminary geotechnical evaluation performed by Lahlaf Geotechnical Consulting, Inc. (LGCI) for the proposed Clinton Middle School in Clinton, Massachusetts. We performed our services in general accordance with our proposal No. 23110 dated September 12, 2023. Ms. Kathryn Crockett of Lamoureux Pagano Associates (LPA) authorized our services by signing our proposal on September 19, 2023.

### **1.2 Purpose and Scope of Services**

The purpose of our preliminary geotechnical services was to perform preliminary subsurface explorations at the site for the proposed Clinton Middle School, and to provide preliminary foundation design and construction recommendations. LGCI performed the following services:

- Coordinated our exploration locations with LPA.
- Marked the exploration locations at the site and notified Dig Safe Systems Inc. (Dig Safe) and the Town of Clinton for utility clearance.
- Engaged a drilling subcontractor for one (1) day to advance five (5) soil borings at the site.
- Provided an LGCI geotechnical field representative at the site to coordinate and observe the borings, describe the soil samples, and prepare field logs.
- Submitted two (2) soil samples from the explorations for laboratory testing.
- Prepared this preliminary geotechnical report containing the results of our preliminary subsurface explorations and our preliminary recommendations for foundation design and construction.

Our scope does not include preparing specifications, reviewing the geotechnical aspect of the foundation drawings, or providing general consultation during the design phase. LGCI would be pleased to perform these services when needed. Recommendations for unsupported slopes, stormwater management, erosion control, pavement design, slope stability analyses, liquefaction and/or site-specific seismic analysis, pile analysis and design, and detailed cost or quantity estimates are not included in our scope of work.

LGCI's scope of services does not include an environmental assessment for the presence or absence of wetlands or analytical testing for hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below or around this site, or mold in the soil or in any structure at the



site. Any statements regarding odors, colors, or unusual or suspicious items or conditions are strictly for the information of the client.

### **1.3 Site Description**

Our understanding of the site is based on our field observations, our discussions with LPA, and on the following documents:

- Drawing titled: “Existing Conditions Plan, Clinton Middle School, 100W Boylston St., Clinton, MA 01510,” (Existing Conditions Plan) prepared by Nitsch Engineering, Inc., dated June 22, 2023, and provided to LGCI by LPA via e-mail on September 26, 2023.
- Drawing titled: “Conceptual Site Layout Plan, Clinton Middle School, 100W Boylston St., Clinton, MA 01510,” (Site Plan) prepared by Nitsch Engineering, Inc., dated June 23, 2023, and provided to LGCI by LPA via e-mail on September 7, 2023.
- Document titled: “Feasibility Study PDP,” (Previous Explorations Report) prepared by LPA, undated, and provided to LGCI by LPA via e-mail on September 7, 2023.

The site is located at 100 West Boylston Street in Clinton, Massachusetts, as shown in Figure 1. The site is bordered by West Boylston Street on the northern side, by Main Street and private properties on the eastern side, by Dike Path on the southern side, and by Clinton High School on the western side. The site is currently occupied by the existing Clinton Middle School building and its associated parking lot, driveways, and athletic fields. The existing parking lot is located north of the existing school building and the existing athletic fields are located to the south and east of the existing school building. The existing driveway loops around the existing school building and connects to the existing parking lot. The site is accessible via an entryway leading to West Boylston Street.

Based on the Existing Conditions Plan, the grades at the site generally range between El. 360 feet near the northeastern corner of the site and El. 378 feet near the southern edge of the site. The existing grades in the existing parking lot located to the north of the existing building range between El. 370 feet and El. 372 feet. The existing grades around the existing school building range between El. 374 feet and El. 375 feet. The existing grades within the athletic fields range between El. 374 feet and El. 378 feet. The grades gradually drop in a northerly direction from the athletic fields to a wooded depression near West Boylston Street from El. 374 feet to El. 360 feet.

### **1.4 Historic Topographic Maps**

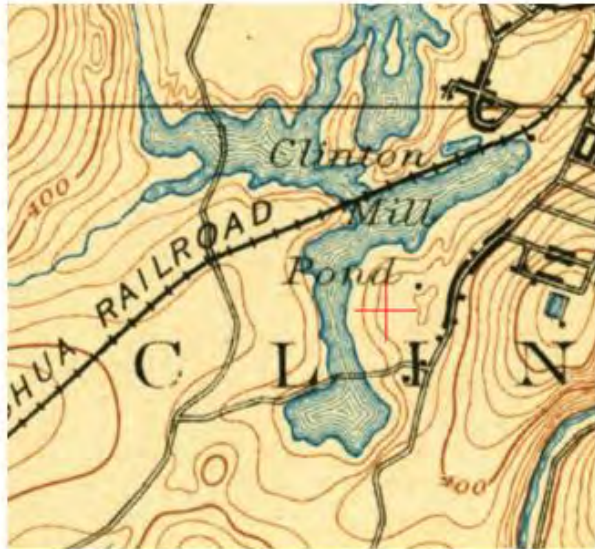
LGCI reviewed historic topographic maps from 1889, 1943, 1965, and 1979 available from <https://livingatlas.arcgis.com/topoexplorer/index.html>. The maps are shown below with a red “+” denoting the site location.

The historic topographic map from 1889 shows Clinton Mill Pond to the west of the site within the area of the existing Clinton High School building. The 1889 topographic map shows the area of the existing eastern athletic fields at an elevation of about El. 360 feet. The 1943 topographic



**Preliminary Geotechnical Report  
Proposed Clinton Middle School  
Clinton, Massachusetts  
LGCI Project No. 2341**

map shows that Clinton Mill Pond was filled to reclaim land. The 1943 topographic map shows the elevation in the location of the existing eastern athletic fields at an elevation between El. 370 feet and El. 380 feet. The 1965 topographic map and the 1979 topographic map show that the elevation in the location of the existing eastern athletic fields has not significantly changed since 1943, including after the construction of the existing middle school building, which was constructed in 1975.



Topographical map from 1889



Topographical map from 1943



Topographical map from 1965



Topographical map from 1979



## **1.5 Project Description**

Our understanding of the proposed construction is based on our discussions with LPA and the documents listed in Section 1.3 of this preliminary geotechnical report.

We understand that the Town of Clinton has engaged LPA to design a new school to replace the existing Clinton Middle School. Based on our discussions with LPA and referencing the Site Plan, we understand that the proposed construction will consist of an irregularly-shaped building located in the athletic field east of the existing Clinton Middle School building. We understand that the proposed building will have a footprint of about 86,700 square feet and will have a first finished floor elevation (FFE) at El. 375 feet. The existing grades within the footprint of the proposed building range between El. 374 feet and El. 377 feet; thus, requiring fills up to 1 foot and cuts up to 2 feet to achieve the proposed grade of the proposed building. We understand that the proposed building will not have a basement.

We understand that the proposed construction will also include a paved parking lot and an athletic field located within the existing Clinton Middle School building and the existing parking lot located to the north of the existing school. Paved driveways will be located around the perimeter of the proposed building and proposed parking lot. The site will be accessible via access roads connected to West Boylston Street and Main Street. The grading details for the proposed parking lot, roadways, and athletic field are not available at the time of this geotechnical report.

## **1.6 Elevation Datum**

We understand that the elevations provided in the Existing Conditions Plan and Site Plan are referenced with respect to the North American Vertical Datum of 1988 (NAVD 1988). No datum is referenced in the Previous Explorations Report.



## **2. SITE AND SUBSURFACE CONDITIONS**

### **2.1 Surficial Geology**

LGCI reviewed a surficial geologic map titled: “Surficial Materials Map of the Clinton Quadrangle, Massachusetts,” prepared by Stone, B.D. and Stone J.R., Scientific Investigation Map 3402, Quadrangle 85 – Clinton, 2018.

The surficial geologic map of the site indicates that the natural soils in the general vicinity of the site consist of artificial fill and coarse deposits.

The artificial fill consists of earth materials and manmade materials that have been artificially emplaced.

The coarse deposits consist of sand, sand and gravel, and gravel deposits as described below.

**Sand Deposits** – The sand deposits are comprised mostly of fine to coarse sand. Coarser layers may contain up to 25 percent gravel. Finer layers may contain very fine sand, silt, and clay.

**Sand and Gravel Deposits** –The sand and gravel deposits occur as a mixture of gravel and sand within individual layers and as alternating layers of sand and gravel. The sand and gravel layers range between 25 to 50 percent gravel and 50 to 75 percent sand.

**Gravel Deposits** – The gravel deposits are comprised of at least 50 percent gravel, cobbles, and boulders. Sand occurs within gravel beds and as separate layers within the gravel.

The Surficial Geologic Map is shown in Figure 2.

### **2.2 Previous Explorations Performed by Others**

Based on the Previous Explorations Report, we understand that Raymond Concrete Pile Company of Boston, Massachusetts advanced eight (8) soil borings (Boring No. 1 to Boring No. 8) at the site in July of 1956. The 1956 borings were performed within the existing athletic fields to the east of the existing middle school. The 1956 boring logs indicate that the subsurface conditions consisted of up to 1.5 feet of topsoil overlying compact sand and gravel. The borings were advanced from ground surface elevations ranging between El. 380.4 feet and El. 386.4 feet. Groundwater was encountered in the 1956 borings at elevations ranging between El. 361.5 feet and El. 364.8 feet. The ground surface elevations provided in the 1956 boring logs do not match the elevations provided in the Existing Conditions Plan and are, in general, about 10 feet higher in elevation than the grades shown in the Existing Conditions Plan. Since a datum was not included in the logs, it is not known how the elevations shown in the logs of the previous explorations relate to the existing grades.

We understand that New England Test Boring Corp. of East Boston, Massachusetts advanced eight (8) soil borings (Boring-A to Boring-H) at the site in January of 1974. The 1974 borings were





performed within and around the footprint of the existing Clinton Middle School. The 1974 boring logs indicate that, in general, the subsurface conditions consisted of up to 2.5 feet of topsoil and fill, overlying medium dense to very dense sand and gravel. In borings C, D, and E, located near the southwestern corner of the existing middle school, the subsurface conditions consisted of 9 to 14 feet of topsoil, fill, and peat overlying a medium dense to very dense sand and gravel. The borings were advanced from ground surface elevations ranging between El. 377.3 feet and El. 384.5 feet. Groundwater was not encountered within the 1974 borings. The ground surface elevations provided in the 1974 boring logs do not match the elevations provided in the Existing Conditions Plan and are, in general, up to about 10 feet higher in elevation than the grades shown in the Existing Conditions Plan. An elevation datum was not provided in the logs of the 1974 borings.

In 1974, four (4) additional soil borings (B-101 to B-104) were advanced at the site. The additional 1974 boring logs do not indicate who advanced the borings. The locations of the additional 1974 borings are not referenced in the Previous Explorations Report. The additional 1974 boring logs indicate that, in general, the subsurface conditions consisted of 5 to 15 feet of topsoil, fill, and buried organic soil overlying a medium dense to compact sand and gravel. In boring B-101, the subsurface conditions consisted of 40 feet of topsoil, fill, and buried organic soil overlying a medium dense sand and gravel, overlying a very stiff silt. Boring B-101 was advanced from ground surface elevation El. 350.3 feet and borings B-102 to B-104 were advanced from ground surface elevations ranging between El. 378.4 feet and El. 384.1 feet. Groundwater was encountered in borings B-101 and B-103 at elevations of El. 323.1 feet and El. 354.0 feet, respectively. An elevation datum was not provided in the logs of the additional 1974 borings.

We understand that Miller Engineering & Testing and Environmental Drilling, Inc. advanced nineteen (19) soil borings (B-3, B-4, B-7, B-8, B-8A to B-8C, B-9, B-13, B-13A, B-14, B-14A, B-15, B-15A, NB-B, NB-BA, NB-BB, NB-E, and NB-EA) at the site in July and August of 1996. The 1996 borings were performed within and around the footprint of the existing Clinton High School building. The 1996 boring logs indicate that the subsurface conditions consisted of 5 to 25 feet of topsoil, fill, and organics overlying sand. Boring B-8 terminated in the fill layer at a depth of 16 feet beneath the ground surface. The 1996 boring logs do not provide ground surface elevations for the 1996 borings. The 1996 borings do not provide any information on groundwater within the borings.

The logs of the previous borings described in this section are included in Appendix A.

## **2.3 LGCI's Explorations**

### **2.3.1 General**

LGCI coordinated our exploration locations with LPA and marked the exploration locations in the field. LGCI notified Dig Safe and the Town of Clinton for utility clearance prior to starting our explorations at the site.



Unless notified otherwise, we will dispose of the soil samples obtained during our explorations after three (3) months.

### **2.3.2 LGCI's Soil Borings**

LGCI engaged Soil Exploration Corp. (Soil X) of Leominster, Massachusetts to advance five (5) soil borings (B-1 to B-5) at the site on September 25, 2023. The borings were advanced with a Diedrich D-70 Turbo ATV Drill Rig using 4-1/4" inner-diameter hollow stem augers. The borings extended to depths of 22 feet beneath the ground surface. Upon completion, the boreholes were backfilled with the soil cuttings.

Soil X performed Standard Penetration Tests (SPT) and obtained split spoon samples with an automatic hammer at typical depth intervals of 2 feet or 5 feet as noted on the boring logs in general accordance with ASTM D-1586.

An LGCI geotechnical field representative observed and logged the borings in the field.

### **2.3.3 Exploration Logs and Locations**

The boring locations are shown in Figure 3. Appendix B contains LGCI's boring logs. Table 1 includes a summary of LGCI's borings.

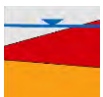
## **2.4 Subsurface Conditions**

The subsurface description in this report is based on a limited number of explorations and is intended to highlight the major soil strata encountered during our explorations. The subsurface conditions are known only at the actual exploration locations. Variations may occur and should be expected between exploration locations. The boring logs represent conditions that we observed at the time of our explorations and were edited, as appropriate, based on the results of the laboratory test data and inspection of the soil samples in the laboratory. The strata boundaries shown in our boring logs are based on our interpretations and the actual transitions may be gradual. Graphic soil symbols are for illustration only.

The soil strata encountered in LGCI's borings were as follows, starting at the ground surface.

Topsoil – A layer of surficial organic topsoil was encountered at the ground surface in all borings. The thickness of the topsoil ranged between 0.3 and 2.0 feet.

Fill – A layer of fill was encountered beneath the topsoil in all borings. The fill extended to depths ranging between 2.0 and 10.0 feet beneath the ground surface. The samples within this layer were mostly described as silty sand. Two (2) samples were described as poorly graded sand, and one (1) sample was described as well graded sand. The fines content in the fill ranged between 10 and 30 percent, and the gravel content ranged between 0 and 25 percent. The fill contained traces of organic soil.



The SPT N-values in this layer ranged between 5 blows per foot (bpf) and 74 bpf, with most values ranging between 14 bpf and 30 bpf, indicating mostly medium dense material. Please note that the high SPT N-values recorded in the fill may be due to obstructions such as cobbles and boulders present in the fill and may not represent the true density of the fill.

Buried Organic Soil – A layer of buried organic soil was encountered within the layer of fill in boring B-4. The buried organic soil was encountered at a depth of 4.0 feet and extended to a depth of 4.8 feet beneath the ground surface. The sample in this layer was described as silty sand. The fines content in this layer ranged between 25 and 30 percent, and the gravel content ranged between 0 and 5 percent. The buried organic soil contained traces of organic soil, roots, and wood.

Sand and Gravel – A layer of sand and gravel was encountered beneath the layer of fill in all borings and extended to the termination depths of the borings, except in boring B-3, where the sand extended to a depth of 15.0 feet beneath the ground surface. The samples in this layer were mostly described as poorly graded sand and well graded sand. Two (2) samples were described as well graded gravel. The fines content in this layer ranged between 0 and 15 percent, and the gravel content ranged between 0 and 45 percent. When described as gravel, the sand content in this layer ranged between 25 and 35 percent.

The SPT N-values in this layer ranged between 9 bpf and refusal, with most values ranging between 10 and 49 bpf, indicating mostly medium dense to dense material. Please note that the high SPT N-values in the sand and gravel may be due to obstructions such as cobbles and boulders in the sand and gravel, and may not represent the true density of the sand and gravel.

Silt – A layer of silt was encountered beneath the sand and gravel in boring B-3 and extended to the termination depth of B-3 at a depth of 22.0 feet beneath the ground surface. The samples in this layer were described as sandy silt. The sand content in this layer ranged between 30 and 35 percent. The silt was described as non-plastic.

The SPT N-values in this layer ranged between 16 bpf and 20 bpf, indicating medium dense material.

## **2.5 Groundwater**

Groundwater was not encountered within the borings.

The groundwater information reported herein is based on observations made during or shortly after the completion of drilling or excavation, and may not represent the actual groundwater conditions, as additional time may be required for the groundwater levels to stabilize. The groundwater information presented in this report only represents the conditions encountered at the time and location of the explorations. Seasonal fluctuation should be anticipated.



**2.6 Laboratory Test Data**

LGCI submitted two (2) soil samples collected from the borings for grain-size analysis. The results of the grain-size analyses are provided in the test data sheets included in Appendix C and are summarized in the table below.

*Grain-Size Analysis Test Results*

Boring No.	Sample No.	Stratum	Sample Depth (ft.)	Percent Gravel	Percent Sand	Percent Fines
B-2	S2	Sand & Gravel	2.0 – 4.0	40.5	49.6	9.9
B-5	S3	Fill	4.0 – 6.0	19.0	56.6	24.4



### 3. EVALUATION AND RECOMMENDATIONS

#### 3.1 General

Based on our understanding of the proposed construction, our observation of our borings, and the results of our laboratory testing, there are a few issues that we would like to highlight for consideration and discussion.

##### 3.1.1 Surficial Topsoil and Existing Fill

- Surficial topsoil, existing fill, and buried organic soil were encountered in the borings. These materials are not suitable to support foundations.
- The surficial topsoil should be removed from within the entire construction area, including the proposed building footprint, proposed driveways and parking lots, and athletic fields.
- The existing fill was observed to be variable in composition and density. In addition, variable amounts of organic matter were noted in several of the fill samples. Existing fill that was not placed with strict moisture, density, and gradation control presents risk of unpredictable settlement that may result in poor performance of floor slabs and foundations. Due to these risks, the existing fill as well as the buried organic soil should be entirely removed from within the proposed building footprint and replaced with Structural Fill. We anticipate that the removal will extend up to depths of about 10 feet. The removal may extend to greater depths at locations not explored by LGCI. Laterally, the removal should extend beyond the proposed building footprint a distance equal to the distance between the bottom of the proposed footings and the top of the natural sand and gravel, or 5 feet, whichever is greater.
- The subgrade of footings should be prepared in accordance with the recommendations in Section 4.1.
- Within paved areas, the existing fill and buried organic soil should be removed to the top of the natural sand and gravel or to a depth of 18 inches beneath the bottom of the proposed pavement. The existing fill and buried organic soil deeper than 18 inches beneath the bottom of the proposed pavement can remain in place provided these materials are firm and unyielding following proofrolling as described in Section 4.1.

##### 3.1.2 Shallow Footings

Based on the results of the borings, the subsurface conditions are suitable to support shallow spread and continuous footings bearing on Structural Fill placed directly on top of the sand and gravel layer after entirely removing the surficial topsoil, the existing fill, and buried organic soil. Our recommendation for net allowable bearing capacity in the sand and gravel is presented in Section 3.2.1. Our estimates for settlement are presented in Section 3.2.2. Our



concrete slab considerations are presented in Section 3.3. Section 4.1 provides recommendations for preparation of subgrades.

### **3.1.3 Reuse of Onsite Materials**

Traces of organic soil were observed in a few samples in the existing fill. In addition, the existing fill was silty. Accordingly, the existing fill may not be reused as Structural Fill or Ordinary Fill. The portion of the existing fill free of organic matter, i.e., with less than 3 percent by weight organic matter, could be reused as Ordinary Fill. The natural sand and gravel may be used as Ordinary Fill and Structural Fill.

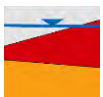
Additional recommendation for reuse of onsite soils are presented in Section 4.4.

The project environmental engineer should be consulted before reusing onsite soils.

## **3.2 Foundation Recommendations**

### **3.2.1 Footing Design**

- We recommend entirely removing the asphalt, concrete, the surficial topsoil, and the existing fill from within the proposed building footprint as described in Section 3.1.
- We recommend supporting the proposed building on spread footings bearing on Structural Fill placed directly on the natural sand and gravel.
- We recommend designing the proposed footings using a net allowable bearing pressure of 4 kips per square foot (ksf). We recommend that the footings bear on a minimum of 12 inches of Structural Fill placed directly on top of the natural sand and gravel. The Structural Fill should extend at least 1 foot laterally beyond the limits of the footings.
- Footing subgrades should be prepared in accordance with the recommendations in Section 4.1.
- Foundations should be designed in accordance with The Commonwealth of Massachusetts State Building Code 780 CMR, Ninth Edition (MSBC 9<sup>th</sup> Edition).
- Exterior footings and footings in unheated areas should be placed at a minimum depth of 4 feet below the final exterior grade to provide adequate frost protection. Interior footings in heated areas may be designed and constructed at a minimum depth of 2 feet below finished floor grades.
- Wall footings should be designed and constructed with continuous, longitudinal steel reinforcement for greater bending strength to span across small areas of loose or soft soils that may go undetected during construction.



- A representative of LGCI should be engaged to observe that the subgrade has been prepared in accordance with our recommendations.

### **3.2.2 Settlement Estimates**

Based on our experience with similar soils and designs using a net allowable bearing pressure of 4 ksf, we anticipate that the total settlement will be approximately 1 inch, and that the differential settlement of the footings will be 3/4 inch or less over a distance of 25 feet. We believe that total and differential settlements of this magnitude are tolerable for a similar structure. However, the tolerance of the proposed structure to the predicted total and differential settlements should be assessed by the structural engineer.

## **3.3 Concrete Slab Considerations**

### **3.3.1 Slabs-on-Grade**

- Floor slabs should be constructed as a slabs-on-grade bearing on a minimum of 12 inches of Structural Fill placed directly on top of the natural sand and gravel. The subgrade of the slabs should be prepared as described in Section 4.1.
- To reduce the potential for dampness in the proposed floor slab, the project architect may consider placing a vapor barrier beneath the floor slab. The vapor barrier should be protected from puncture during the placement of the proposed slab reinforcement.
- For the design of the floor slab bearing on the materials described above, we recommend using a modulus of subgrade reaction,  $k_{s1}$ , of 100 tons per cubic foot (tcf). Please note that the values of  $k_{s1}$  are for a 1 x 1 square foot area. These values should be adjusted for larger areas using the following expression:

$$\text{Modulus of Subgrade Reaction } (k_s) = k_{s1} * \left( \frac{B+1}{2B} \right)^2$$

where:

$k_s$  = Coefficient of vertical subgrade reaction for loaded area;

$k_{s1}$  = Coefficient of vertical subgrade reaction for a 1 x 1 square foot area; and

B = Width of area loaded, in feet.

Please note that cracking of slabs-on-grade can occur as a result of heaving or compression of the underlying soil, but also as a result of concrete curing stresses. To reduce the potential for cracking, the precautions listed below should be closely followed during the construction of all slabs-on-grade:



- Construction joints should be provided between the floor slab and the walls and columns in accordance with the American Concrete Institute (ACI) requirements, or other applicable code.
- The backfill in interior utility trenches should be properly compacted.
- In order for the movement of exterior slabs not to be transmitted to foundations or superstructures, exterior slabs, such as approach slabs and sidewalks, should be isolated from the superstructure.

### **3.3.2 Under-slab Drains and Waterproofing**

Based on the groundwater level observed in the borings, we believe that an under-slab drainage system is not required.

If the proposed building includes an elevator pit or other structure that extends beneath the FFE, such elevator pit or other structure should be designed to be waterproof.

### **3.4 Seismic Design**

Based on the SPT N-values from the borings, we estimate that the seismic criteria for the site are as follows:

- |   |        |
|---|--------|
| • Site Class:   | D      |
| • Spectral Response Acceleration at short period ( $S_s$ ): | 0.194g |
| • Spectral Response Acceleration at 1 sec. ( $S_1$ ):       | 0.068g |
| • Site Coefficient $F_a$ (Table 1613.5.3(1)):               | 1.6    |
| • Site Coefficient $F_v$ (Table 1613.5.3(2)):               | 2.4    |
| • Adjusted spectral response $S_{MS}$ :                     | 0.310g |
| • Adjusted spectral response $S_{M1}$ :                     | 0.163g |

Based on the SPT data from the borings, the site soils are not susceptible to liquefaction.

### **3.5 Lateral Pressures for Wall Design**

#### **3.5.1 Lateral Earth Pressures**

Lateral earth pressures for the design of below-grade walls, if any, and site retaining walls are provided below.

Coefficient of Active Earth Pressure, $K_A$ :	0.31
Coefficient of At-Rest Earth Pressure, $K_0$ :	0.47
Coefficient of Passive Earth Pressure, $K_p$ :	3.3
Total Unit Weight $\gamma$ :	125 pcf





Note: The values in the table are based on a friction angle for the backfill of 32 degrees and neglecting friction between the backfill and the wall. The design active and passive coefficients are based on horizontal surfaces (non-sloping backfill) on both the active and passive sides, and on a vertical wall face.

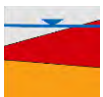
- Exterior walls of below-ground spaces and other retaining walls braced at the top to restrain movement/rotation, should be designed using the “at-rest” pressure coefficient.
- We recommend placing free-draining material within the 3 feet immediately behind retaining walls.
- We recommend providing weep holes at the bottom of site retaining walls, including temporary SOE systems, to promote drainage where possible. Alternatively, a pipe should be placed at the base of the wall to collect the water. Groundwater collected by the wall drains should be discharged into a lower area if gravity flow is possible.
- Passive earth pressures should only be used at the toe of the wall where special measures or provisions are taken to prevent the disturbance or future removal of the soil on the passive side of the wall, or in areas where the wall design includes a key. In any case, the passive pressures should be neglected in the top 4 feet.
- Where a permanent vertical uniform load will be applied to the active side immediately adjacent to the wall, a horizontal surcharge load equal to half of the uniform vertical load should be applied over the height of the wall. At a minimum, a temporary lateral construction surcharge load of 100 pounds per square foot (psf) should be applied uniformly over the height of the wall.
- We recommend using an ultimate friction factor of 0.50 between the natural sand and gravel and the bottom of the wall. Below-grade walls should be designed for minimum factors of safety of 1.5 for sliding and 2.0 for overturning.

### **3.5.2 Seismic Pressures**

In accordance with the Massachusetts State Building Code, 9<sup>th</sup> Edition (MSBC 9<sup>th</sup> Edition), Section 1610, a lateral earthquake force equal to  $0.100 \cdot (S_s) \cdot (F_a) \cdot \gamma \cdot H^2$  should be included in the design of the walls (for horizontal backfill), where  $S_s$  is the maximum considered earthquake spectral response acceleration (defined in Section 3.4),  $F_a$  is the site coefficient (defined in Section 3.4),  $\gamma$  is the total unit weight of the soil backfill, and  $H$  is the height of the wall.

The earthquake force should be distributed as an inverted triangle over the height of the wall. In accordance with MSBC 9<sup>th</sup> Edition, Section 1610.2, a load factor of 1.43 should be applied to the earthquake force for wall strength design.

Temporary surcharges should not be included when designing for earthquake loads. Surcharge loads applied for extended periods of time should be included in the total static lateral soil



pressure, and their earthquake lateral force should be computed and added to the force determined above.

### **3.5.3 Perimeter Drains**

- We recommend that free-draining material be placed within 3 feet of the exterior of walls of below-ground spaces, if any. To reduce the potential for dampness in below-ground spaces, proposed below-ground walls should be damp-proofed.
- We recommend that drains be provided behind the exterior of walls of below-ground spaces. The drains should consist of 4-inch perforated PVC pipes installed with the slots facing down. Perimeter drains should be installed at the bottom of the wall in 18 inches of crushed stone wrapped in a geotextile for separation and filtration.

To the extent possible, groundwater collected by the wall drains should be discharged in a lower area if gravity flow is possible. In any case, the groundwater collected by the wall drains should be discharged in accordance with municipal, state, and other applicable standards.

## **3.6 Parking Lots, Driveways, and Sidewalks**

### **3.6.1 General**

The subsurface conditions encountered at the site are generally suitable to support the proposed driveways, parking lots, and sidewalks after preparation of the subgrade as described in Section 4.1.

- We recommend entirely removing the asphalt and concrete, and topsoil from within the proposed driveways, parking lots, and walkways and sidewalks.
- The existing fill should be improved in accordance with the recommendations in Section 4.1.
- Cobbles and boulders should be removed to at least 18 inches below the bottom of the pavement.

### **3.6.2 Sidewalks**

- Sidewalks should be placed on a minimum of 12 inches of Structural Fill with less than 5 percent fines.
- To reduce the potential for heave caused by surface water penetrating under the sidewalk, the joints between sidewalk concrete sections should be sealed with a waterproof compound. The sidewalks should be sloped away from the building or other vertical



surfaces to promote flow of water. To the extent possible, roof leaders should not discharge onto sidewalk surfaces.

### **3.6.3 Pavement Sections**

A typical, minimum, standard-duty pavement section that could be used for parking areas is as follows:

- 1.5" Asphalt "Top Course"
- 2.0" Asphalt "Base Course"
- 8" Processed Gravel for Sub-Base (MassDOT M1.03.1)

A typical, minimum, heavy-duty pavement section that could be used for areas of heavy truck traffic is as follows:

- 2.0" Asphalt "Top Course"
- 2.5" Asphalt "Base Course"
- 12" Processed Gravel for Sub-Base (MassDOT M1.03.1)

The pavement sections shown above represent minimum thicknesses representative of typical local construction practices for similar use. Periodic maintenance should be anticipated.

Pavement material types and construction procedures should conform to specifications of the "Standard Specifications for Highways and Bridges," prepared by the Commonwealth of Massachusetts Department of Transportation dated 2022.

Areas to receive relatively highly concentrated, sustained loads such as dumpsters, loading areas, and storage bins are typically installed over a rigid pavement section to distribute concentrated loads and reduce the possibility of high stress concentrations on the subgrade. Typical rigid pavement sections consist of 6 inches of concrete placed over a minimum of 12 inches of subbase material.

### **3.7 Underground Utilities**

Boulders at the bottom of utility trenches should be removed to at least 12 inches below the pipe invert and the resulting excavation should be backfilled with suitable backfill. Utilities should be placed on suitable bedding material in accordance with the manufacturer's recommendations. "Cushion" material should be placed, by hand, above the utility pipe in maximum 6-inch lifts. The lift should be compacted by hand to avoid damage to the utility. Where the bedding/cushion material consists of crushed stone, it should be wrapped in a geotextile fabric.

Compaction of fill in utility trenches should be in accordance with our recommendations in Section 4.3. To reduce the potential for damage to utilities, placement and compaction of fill immediately above the utilities should be performed in accordance with the manufacturer's recommendations.



## **4. CONSTRUCTION CONSIDERATIONS**

### **4.1 Subgrade Preparation**

- Organic materials, existing fill, buried organic soil, buried subsoil, abandoned utilities, buried foundations, and other below-ground structures should be entirely removed from within the footprint of the proposed building and site structures, including site retaining walls, and exterior stairs, if any, before the start of foundation work.
- Tree stumps, root balls, and roots larger than ½ inch in diameter should be removed and the cavities filled with suitable material and compacted per Section 4.3 of this report.
- Cobbles and boulders should be removed at least 6 inches from beneath footings and 18 inches beneath the bottom of slabs and paved areas. The resulting excavations should be backfilled with compacted Structural Fill under the building and with Ordinary Fill under the subbase of paved areas.
- The bottom of the excavation resulting from the removal of the existing fill or natural soil should be compacted with a dynamic vibratory compactor imparting a minimum of 40 kips of force to the subgrade.
- The base of the footing excavations in granular soil should be compacted with a dynamic vibratory compactor weighing at least 200 pounds and imparting a minimum of 4 kips of force to the subgrade.
- After the surficial materials are removed to a depth of 18 inches within the proposed paved areas in accordance with the recommendations in Section 3.1, the exposed existing fill and buried organic soil deeper than 18 inches beneath the bottom of the proposed pavement should be improved by compacting the exposed surface with at least six (6) passes of a vibratory roller compactor imparting a dynamic effort of at least 40 kips. Where soft zones or organic soil are observed, the soft zone or organic soil should be removed, and the grade should be restored using Ordinary Fill to the bottom of the proposed subbase layer. If pumping of the existing fill or buried subsoil deeper than 18 inches beneath the bottom of the proposed pavement is observed, the soft and/or pumping material should be removed and replaced.
- Fill placed within the footprint of the proposed building should meet the gradation and compaction requirements of Structural Fill, shown in Section 4.3.1.
- Fill placed under the subbase of paved areas should meet the gradation and compaction requirements of Ordinary Fill, shown in Section 4.3.2.
- Fill placed in the top 12 inches beneath sidewalks should consist of Structural Fill with less than 5 percent fines.



- Loose or soft soils identified during the compaction of the footing or floor slab subgrades should be excavated to a suitable bearing stratum, as determined by the representative of LGCI. Grades should be restored by backfilling with Structural Fill or crushed stone.
- When crushed stone is required in the drawings or is used for the convenience of the contractor, it should be wrapped in a geotextile fabric for separation except where introduction of the geotextile fabric promotes sliding. A geotextile fabric should not be placed between the bottoms of the footings and the crushed stone.
- An LGCI representative should observe the exposed subgrades prior to fill and concrete placement to verify that the exposed bearing materials are suitable for the design soil bearing pressure. If soft or loose pockets are encountered in the footing excavations, the soft or loose materials should be removed and the bottom of the footing should be placed at a lower elevation on firm soil, or the resulting excavation should be backfilled with Structural Fill, or crushed stone wrapped in a filter fabric.

## **4.2 Subgrade Protection**

The onsite fill and natural soils are frost susceptible. If construction takes place during freezing weather, special measures should be taken to prevent the subgrade from freezing. Such measures should include the use of heat blankets or excavating the final 6 inches of soil just before pouring the concrete. Footings should be backfilled as soon as possible after footing construction. Soil used as backfill should be free of frozen material, as should the ground on which it is placed. Filling operations should be halted during freezing weather.

Materials with high fines contents are typically difficult to handle when wet, as they are sensitive to moisture content variations. Subgrade support capacities may deteriorate when such soils become wet and/or disturbed. The contractor should keep exposed subgrades properly drained and free of ponded water. Subgrades should be protected from machine and foot traffic to reduce disturbance.

## **4.3 Fill Materials**

Structural Fill and Ordinary Fill should consist of inert, hard, durable sand and gravel free from organic matter, clay, surface coatings, and deleterious materials, and should conform to the gradation requirements shown below.

### **4.3.1 Structural Fill**

The Structural Fill should have a plasticity index of less than 6 and should meet the gradation requirements shown below. Structural Fill should be compacted in maximum 9- inch loose lifts to at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557), with moisture contents within  $\pm 2$  percentage points of the optimum moisture content.



Sieve Size Percent	Passing by Weight
3 inches	100
1 ½ inch	80-100
½ inch	50-100
No. 4	30-85
No. 20	15-60
No. 60	5-35
No. 200*	0-10

\* 0 – 5 for the top 12 inches under sidewalks, exterior slabs, pads, and walkways

### 4.3.2 Ordinary Fill

Ordinary Fill should have a plasticity index of less than 6 and should meet the gradation requirements shown below. Ordinary Fill should be compacted in maximum 9-inch loose lifts to at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557), with moisture contents within  $\pm 2$  percentage points of the optimum moisture content.

Sieve Size Percent	Passing by Weight
6 inches	100
1 inch	50-100
No. 4	20-100
No. 20	10-70
No. 60	5-45
No. 200	0-20

### 4.4 Reuse of Onsite Materials

Based on our field observations and the results of the grain-size analyses, the existing fill and natural sand and gravel can be reused as recommended in Section 3.1.3.

The contractor should avoid mixing the reusable soils with fine-grained and/or organic soils. The soils to be reused should be excavated and stockpiled separately for compliance testing. Soils with 20 percent or greater fines contents are generally very sensitive to moisture content variations and are susceptible to frost. Such soils are very difficult to compact at moisture contents that are much higher or much lower than the optimum moisture content determined from the laboratory compaction test. Therefore, strict moisture control should be implemented during the compaction of onsite soils with fines contents of 20 percent or greater. The contractor should be prepared to remove and replace such soils if pumping occurs.

If needed, the onsite material could be blended with imported rock and processed in a crusher to produce fill meeting the gradation requirements of the materials described in Section 4.3. Suitable imported material and amended/improved materials should be stockpiled separately from unimproved onsite soils.



Materials to be used as fill should first be tested for compliance with the applicable gradation specifications.

#### **4.5 Groundwater Control Procedures**

Based on the groundwater levels measured in our borings, we do not anticipate that major groundwater control procedures will be needed during construction. We anticipate that filtered sump pumps installed in a series of sump pump pits located at least 3 feet below the bottom of planned excavations may be sufficient to handle groundwater and surface runoff that may enter the excavation during wet weather. The contractor should be prepared to use multiple sump pumps to maintain a dry excavation during the removal of the existing fill.

The contractor should be permitted to employ whatever commonly accepted means and practices are necessary to maintain the groundwater level below the bottom of the excavation and to maintain a dry excavation during wet weather. Groundwater levels should be maintained at a minimum of 1 foot below the bottom of the excavations during construction. The placement of reinforcing steel or concrete in standing water should not be permitted.

To reduce the potential for sinkholes developing over sump pump pits after the sump pumps are removed, the crushed stone placed in the sump pump pits should be wrapped in a geotextile fabric. Alternatively, the crushed stone should be entirely removed after the sump pump is no longer in use, and the sump pump pit should be restored with suitable backfill.

#### **4.6 Temporary Excavations**

All excavations to receive human traffic should be constructed in accordance with OSHA guidelines.

The site soils should generally be considered Type “C” and should have a maximum allowable slope of 1.5 Horizontal to 1 Vertical (1.5H:1V) for excavations less than 20 feet deep. Deeper excavations, if needed, should have shoring designed by a professional engineer.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain the stability of the excavation sides and bottom.



## **5. FUTURE SERVICES**

We recommend engaging LGCI to perform the additional services listed below:

- Additional explorations, including soil borings and test pits after the proposed building layout is finalized to further explore the thickness of the existing fill and buried organic soil;
- Prepare Earth Moving Specifications and review the geotechnical aspect of drawings;
- Review the geotechnical aspect of contractor RFIs and submittals; and
- Provide a field representative during construction to observe the subgrade of footings and slabs.





## **6. REPORT LIMITATIONS**

Our analyses and recommendations are based on project information provided to us at the time of this report. If changes to the type, size, and location of the proposed structures or to the site grading are made, the recommendations contained in this report shall not be considered valid unless the changes are reviewed, and the conclusions and recommendations modified in writing by LGCI. LGCI cannot accept responsibility for designs based on our recommendations unless we are engaged to review the final plans and specifications to determine whether any changes in the project affect the validity of our recommendations, and whether our recommendations have been properly implemented in the design.

It is not part of our scope to perform a more detailed site history; therefore, we have not explored for or researched the locations of buried utilities or other structures in the area of the proposed construction. Our scope did not include environmental services or services related to moisture, mold, or other biological contaminants in or around the site.

The recommendations in this report are based in part on the data obtained from the subsurface explorations. The nature and extent of variations between explorations may not become evident until construction. If variations from anticipated conditions are encountered, it may be necessary to revise the recommendations in this report. We cannot accept responsibility for designs based on recommendations in this report unless we are engaged to 1) make site visits during construction to check that the subsurface conditions exposed during construction are in general conformance with our design assumptions and 2) ascertain that, in general, the work is being performed in compliance with the contract documents.

Our report has been prepared in accordance with generally accepted engineering practices and in accordance with the terms and conditions set forth in our agreement. No other warranty, expressed or implied, is made. This report has been prepared for the exclusive use of Lamoureux Pagano Associates for the Proposed Clinton Middle School in Clinton, Massachusetts as conceived at this time.



## **7. REFERENCES**

In addition to the references included in the text of the report, we used the following references:

American Society of Civil Engineers, “Minimum Design Loads and Associated Criteria for Buildings and Other Structures,” ASCE/SEI 7-16, 2017.

The Commonwealth of Massachusetts (2017), “The Massachusetts State Building Code, Ninth (9<sup>th</sup>) Edition.”

The Department of Labor, Occupational Safety and Health Administration (1989), “Occupational Safety and Health Standards - Excavations; Final Rule,” 20 CFR Part 1926, Subpart P.

USGS Clinton, MA topographic map from <http://mapserver.mytopo.com>.



**Table 1 - Summary of LGCI's Borings  
Proposed Clinton Middle School  
Clinton, MA  
LGCI Project No. 2341**

Boring No.	Ground Surface Elevation (ft.) <sup>1</sup>	Groundwater <sup>2</sup> Depth / El. (ft.)	Bottom of Topsoil Depth / El. (ft.)	Bottom of Fill Depth / El. (ft.)	Bottom of Sand and Gravel Depth / El. (ft.)	Bottom of Silt Depth / El. (ft.)	Bottom of Boring Depth / El. (ft.)
B-1	374.0	- / -	2.0 / <b>372.0</b>	4.0 / <b>370.0</b>	22.0 / <b>352.0</b>	- / -	22.0 <sup>3</sup> / <b>352.0</b>
B-2	375.0	- / -	0.7 / <b>374.3</b>	2.0 / <b>373.0</b>	22.0 / <b>353.0</b>	- / -	22.0 <sup>3</sup> / <b>353.0</b>
B-3	376.0	- / -	0.3 / <b>375.7</b>	6.0 / <b>370.0</b>	15.0 / <b>361.0</b>	22.0 / <b>354.0</b>	22.0 <sup>4</sup> / <b>354.0</b>
B-4	377.0	- / -	2.0 / <b>375.0</b>	10.0 <sup>5</sup> / <b>367.0</b>	22.0 / <b>355.0</b>	- / -	22.0 <sup>3</sup> / <b>355.0</b>
B-5	375.0	- / -	2.0 / <b>373.0</b>	6.0 / <b>369.0</b>	22.0 / <b>353.0</b>	- / -	22.0 / <b>353.0</b>


1. The ground surface elevation was interpolated to the nearest foot from drawing titled: "Existing Conditions Plan, Clinton Middle School, 100W Boylston St, Clinton, MA 01510," prepared by Nitsch Engineering, Inc., dated June 22, 2023, and provided to LGCI by Lamoureux Pagano Associates via e-mail on September 26, 2023.
2. Groundwater was not encountered in the borings.
3. Boring terminated in the sand and gravel layer.
4. Boring terminated in the silt layer.
5. Layer of buried organic soil encountered within the fill layer between depths of 4.0 feet and 4.8 feet.
6. "-" means groundwater or layer was not encountered.

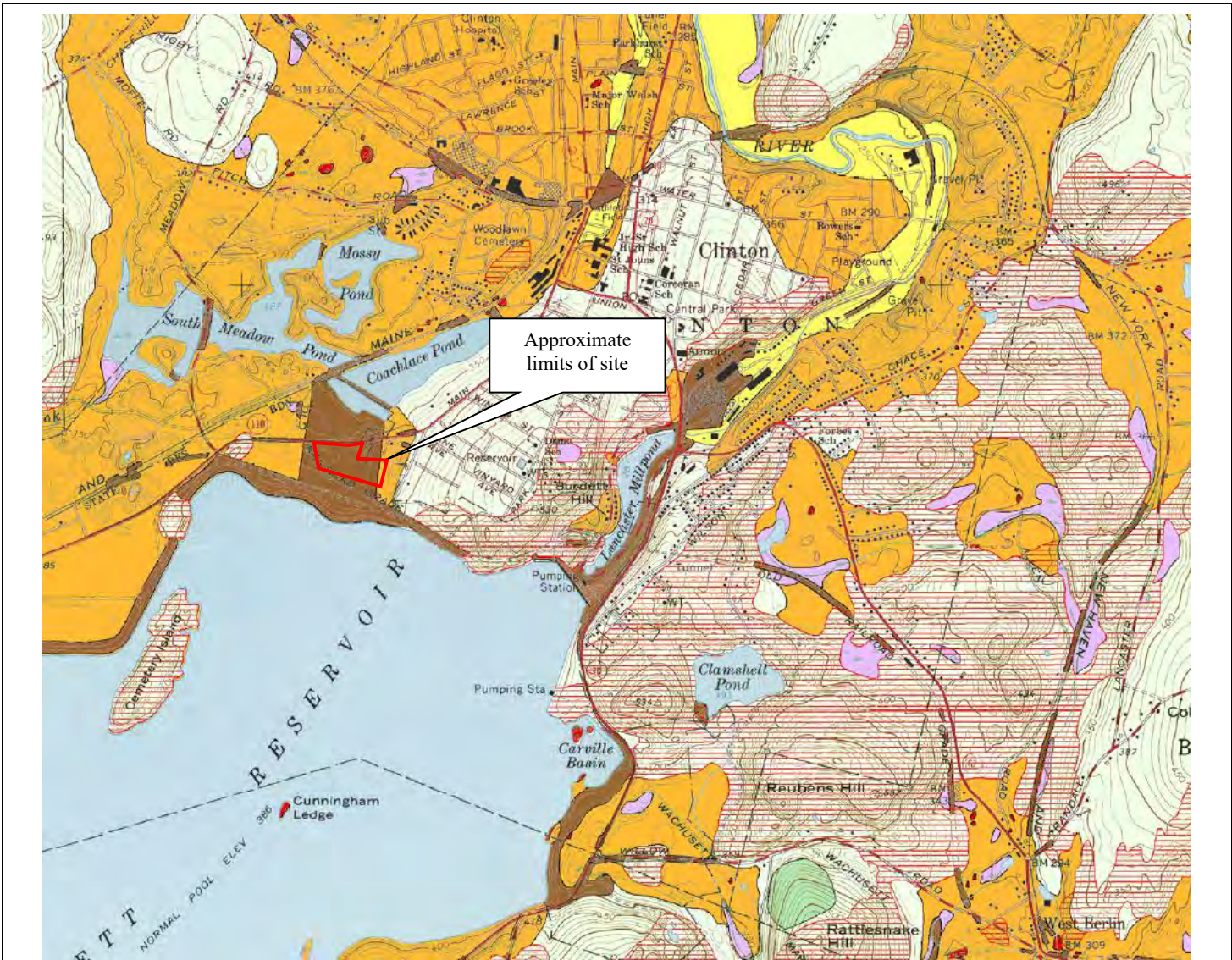


Contour Intervals: 3 meters

0.4 mi

Figure based on USA Topo Maps of Norwood, MA obtained from <https://viewer.nationalmap.gov/>

Client: Lamoureux Pagano Associates	Project: Proposed Clinton Middle School	Figure 1 – Site Location Map	
 <b>LGCI</b> Lahlaf Geotechnical Consulting, Inc.	Project Location: Clinton, MA	LGCI Project No.: 2341	Date: Oct. 2023



Approximate limits of site




**Coarse deposits** consist of gravel deposits, sand and gravel deposits, and sand deposits, not differentiated in this report. Gravel deposits are composed of at least 50 percent gravel-size clasts; cobbles and boulders predominate; minor amounts of sand occur within gravel beds, and sand comprises a few separate layers. Gravel layers generally are poorly sorted, and bedding commonly is distorted and faulted due to postdepositional collapse related to melting of ice. Sand and gravel deposits occur as mixtures of gravel and sand within individual layers and as layers of sand alternating with layers of gravel. Sand and gravel layers generally range between 25 and 50 percent gravel particles and between 50 and 75 percent sand particles. Layers are well sorted to poorly sorted; bedding may be distorted and faulted due to postdepositional collapse. Sand deposits are composed mainly of very coarse to fine sand, commonly in well-sorted layers. Coarser layers may contain up to 25 percent gravel particles, generally granules and pebbles; finer layers may contain some very fine sand, silt, and clay



**Artificial fill**—Earth materials and manmade materials that have been artificially emplaced, primarily in highway and railroad embankments and in dams; unit may also include landfills, urban-development areas, and filled coastal wetlands



Note: Figure based on map titled: "Surficial Materials Map of the Clinton Quadrangle, Massachusetts," prepared by Stone, J.R., and Stone, B.D., Scientific Investigation Map 3402, Quadrangle 85 – Clinton, 2018.

Client: Lamoureux Pagano Associates	Project: Proposed Clinton Middle School	Figure 2 – Surficial Geologic Map	
 <b>LGCI</b> Lahlaf Geotechnical Consulting, Inc.	Project Location: Clinton, MA	LGCI Project No.: 2341	Date: Oct. 2023

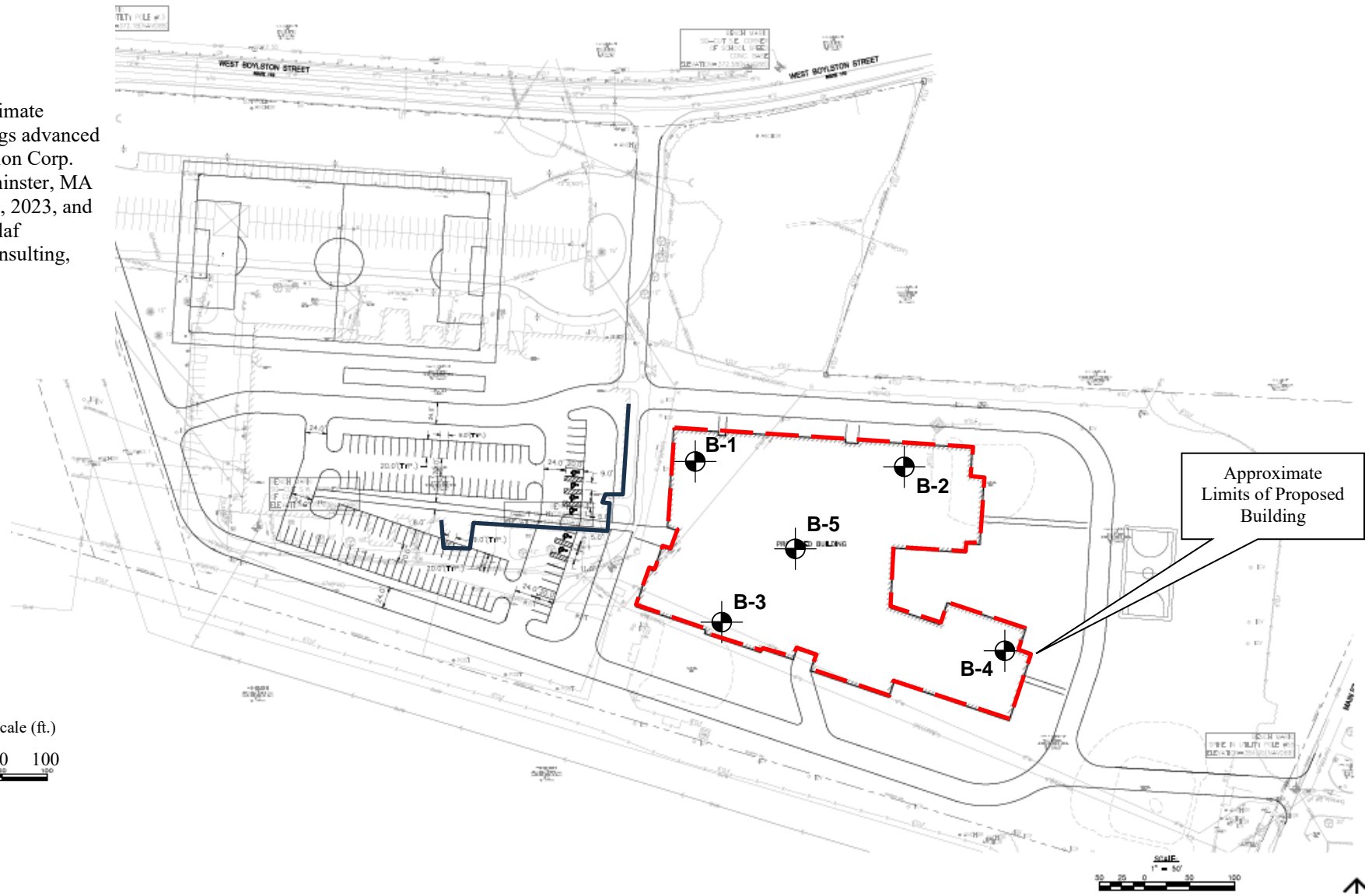
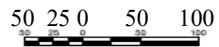
**Legend**



Approximate location of borings advanced by Soil Exploration Corp. (Soil X) of Leominster, MA on September 25, 2023, and observed by Lahlaf Geotechnical Consulting, Inc. (LGCI).




Approximate Scale (ft.)



Approximate Limits of Proposed Building

**Note**

Figure based on drawing CP-1 titled: "Conceptual Site Layout Plan," prepared by Lamoureux Pagano Associates (LPA), dated September 1, 2023, and provided to LGCI by the LPA via e-mail on September 26, 2023.

Client: <b>Lamoureux Pagano Associates</b>	Project: <b>Proposed Clinton Middle School</b>	<b>Figure 3 – Boring Location Plan</b>	
 <b>LGCI</b> Lahlaf Geotechnical Consulting, Inc.	Project Location: <b>Clinton, MA</b>	LGCI Project No.: <b>2341</b>	Date: <b>Oct. 2023</b>

## **Appendix A – Logs of Previous Borings**

STAMP

PROGRESS PRINT:  
NOT FOR CONSTRUCTION

ALL DIMENSIONS ARE SUBJECT  
TO FIELD VERIFICATION

CONSULTANT



PROJECT



MSBA Module 3

Clinton Middle  
School

100W Boylston St, Clinton MA 01510

DRAWING TITLE

**CONCEPTUAL  
SITE LAYOUT  
PLAN**

REVISIONS

No.	Description	Date

FILE:

JOB NO: #1665

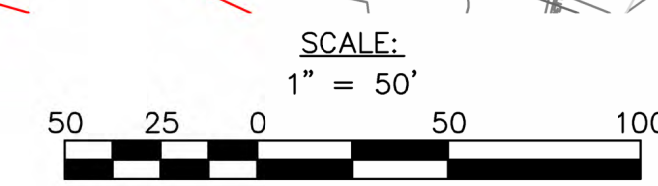
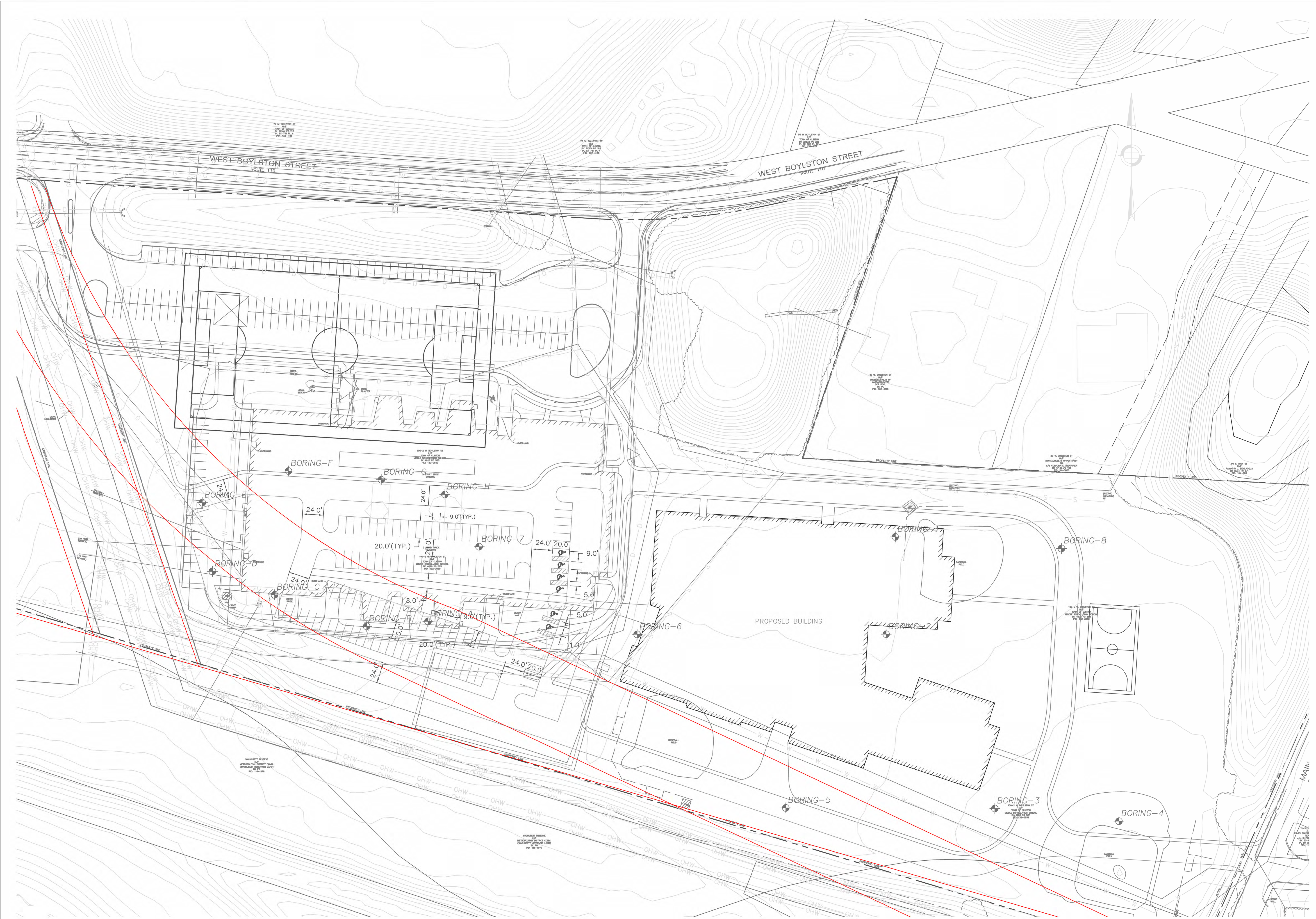
SCALE:

DWN. BY: AC

CKD. BY: CRC

DATE: June 23, 2023

**CP-1**

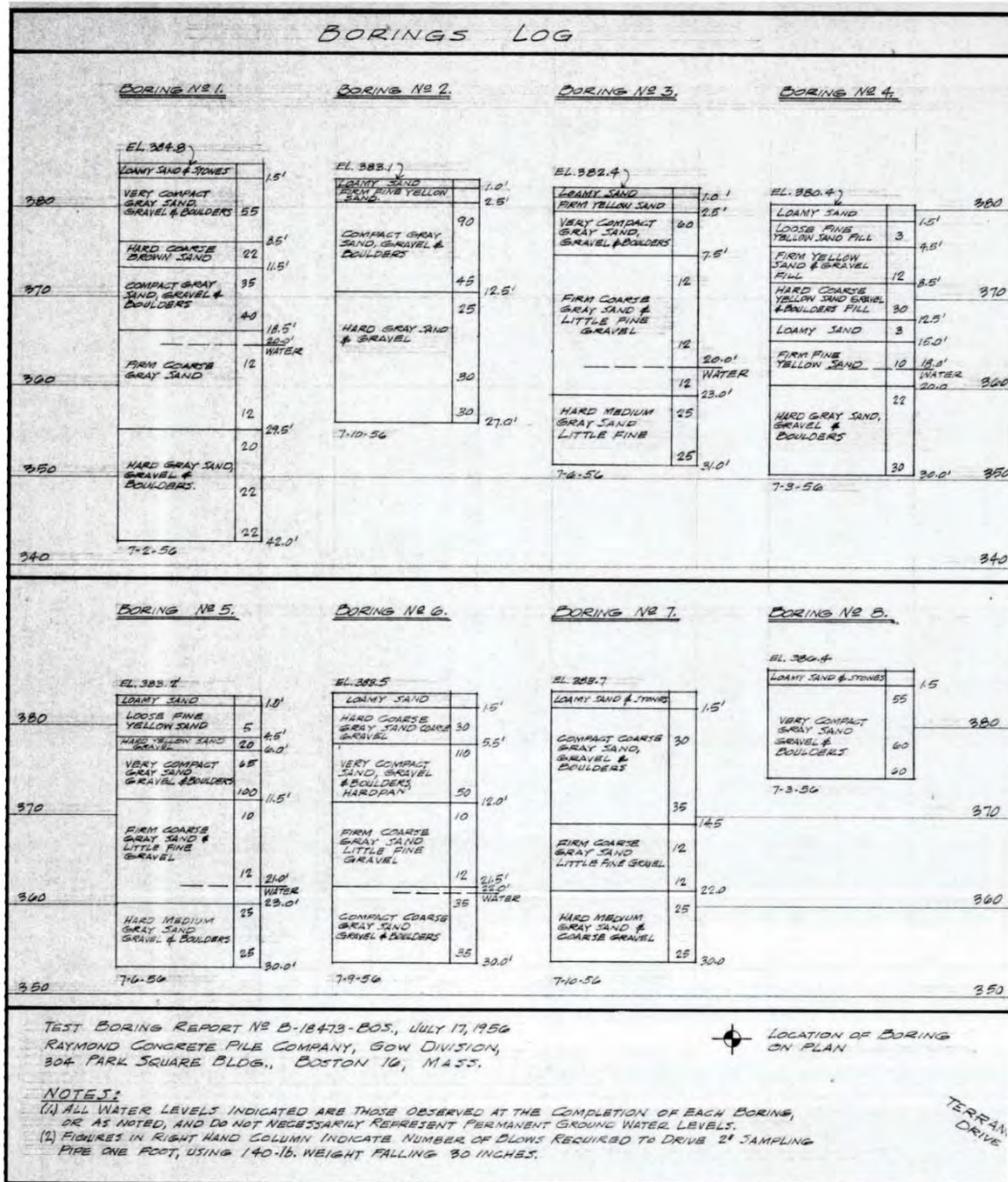




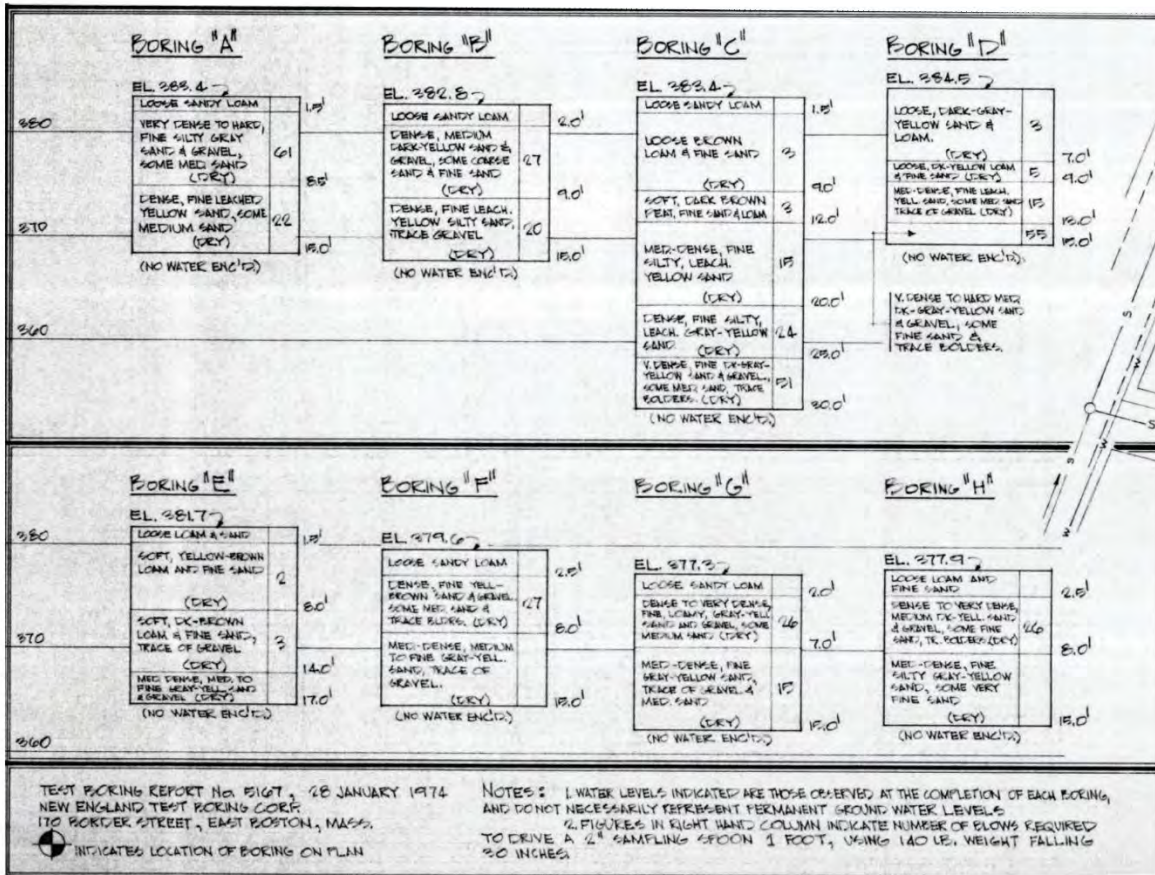
INTRODUCTION

Below are the assembled logs for site borings taken in 1956, 1974, and 1996, in and around the footprints of the existing Clinton Middle School, and Clinton High School. Boring locations shown on 3.1.4.J site plan.

BORINGS LOG 1956



BORINGS LOG 1974



BORINGS LOG 1974

**B-101 (BORING)**  
GROUND EL. 350.8'

1	0.0 ft	V. LOOSE RUST BR & DK. BR. SIF SAND, TR. ROOTS (POOR REC) (FILL)
2	2.0	
3	2.0 ft	V. LOOSE - LOOSE DK. BR. LOAMY F SAND (FILL)
4	4.0	
4	5.0 ft	V. LOOSE - LOOSE DK. BR. LOAMY F SAND (STRATIFIED-HYDRAULIC FILL?)
3	7.0	
3	10.0 ft	LOOSE - MED COMP LIBR SIF SAND W/PKTS (SD?)
5	12.0	LOAMY F SAND, TR. GRAVEL & C-SAND (FILL)
7		
7	15.0 ft	LOOSE DK. BR. LOAMY F SAND, TR. PEAT FIBERS & GRAVEL W/PKTS M-F SAND (FILL)
10	16.5	
11	20.0 ft	MED. STIFF DK. BR. TO BR. SL. ORG. SILT LITTLE F SAND, TR. FIBERS (SL. PL.)
14	22.0	
11	25.0 ft	MED. STIFF DK. BR. ORG. SL. PEAT W/PKTS GR. F SAND & SILT (SL. PL.) (FILL?)
20	27.0	
16	30.0 ft	LOOSE DK. GR. C-F SAND, TR. LITTLE SILT TR. GRAVEL (ORG. ODOR)
28	32.0	
20	35.0 ft	MED. COMP GR. C-F SAND, LITTLE F GRAVEL TR. SILT (ODOROUS)
25	37.0	
23	40.0 ft	V. STIFF BR. GR. SILT, TR. F SAND (SL. PL.)
40	42.0	
40	45.0 ft	STIFF BR. GR. SILT, TR. LITTLE F SAND TR. CL. (LENS) (SL. PL.)
49	47.0	
54		
67		
65	50.0 ft	STIFF - V. STIFF GR. FSA SILT W/M - FSA LENSES
52.0		

B-101 CONTINUED

55.0 ft	MED. COMP GR. SIF SAND.
57.0	
60.0 ft	V. STIFF BR. FSA SILT (V. SL. PL.)
62.0	
65.0 ft	MED. COMP BR. SIF SAND, TR. M-F SAND (LENS)
67.0	
70.0 ft	V. STIFF GR. INTERBEDDED (2") SILT & F SAND (V. SL. PL.)
72.0	
75.0 ft	V. STIFF GR. SILT (NON. PL.) LITTLE F SAND W/FSA. LENSES.
77.0	
87.0 ft	V. COMP. GR. SIM-F SAND (WELL-BONDED) (TILL?)
89.0	
BOTTOM OF EXPLORATION @ 89' (WATER @ 27.2')	

**BOR**

B-102	B-103	B-104
EL. 378.4'	EL. 380.8'	EL. 384.1'
2	1	4
3	1	16
3		35
4		42
4		58
6	4	X
6	16	62
7	13	35
7	15	41
11	15	34
14	11	4
18	11	8
27	12	13
39	16	13
44	14	13
54	4	2
20	10	5
22	11	9
22	13	8
18	14	9
17	4	4
14	10	9
20	17	12
20	16	15
20	19	15
17	5	3
16	14	4
14	15	13
20	16	16
24	16	15
20		30
21		32
23		32.0
20		32.0
16		32.0
17		32.0
35.0 ft		32.0
37.0		

**B-102**  
EL. 378.4'

**B-103**  
EL. 380.8'

**B-104**  
EL. 384.1'

**B-102**  
2 0.0 ft V. LOOSE - LOOSE DK. BR. & RUST BR. LOAMY F SAND (FILL)  
3 2.0  
3  
4  
6 5.0 ft MED. COMP LIBR. M-F SAND, LITTLE GRAVEL TR. C-SAND & LOAM (PKTS) (FILL)  
6 7.0  
7  
10  
11  
14 10.0 ft COMP GR. BR. GRAU. C-F SAND, TR. SILT (FILL)  
18 12.0  
27  
39  
44  
54 5.0 ft V. STIFF (?) GR. BR. FSA SILT TR. C-M SAND & GRAVEL (PUSHED COBBLE)  
20 17.0  
22  
24  
18  
17 20.0 ft MED. COMP GR. M-F SAND, TR. C-SAND  
14 22.0  
20  
20  
19  
17 25.0 ft MED. COMP GR. M-F SAND, TR. C-SAND  
16 27.0  
14 27.0 ft MED. COMP GR. M-F SAND, TR. C-SAND, GRAVEL & SILT (POORLY STRAT)  
20 29.0  
20  
21  
23  
20  
16  
17  
35.0 ft MED. COMP. GR. BR. F SAND LITTLE SILT (POORLY STRAT)  
37.0

**B-103**  
1 0.0 ft V. LOOSE MOTTLED RUST BR. TO BR. LOAMY F SAND (FILL)  
1 2.0  
2  
4  
5  
4 5.0 ft MED. COMP MOTTLED YELL BR. C-F SAND TR. GRAVEL  
16 7.0  
13  
15  
15  
11 10.0 MED. COMP LIGHT GR. BR. F SAND TR. SILT & GRAV. (STRATIFIED)  
11 12.0  
12  
16  
14  
4 15.0 MED. COMP LIGHT GR. BR. F SAND, TR. SILT (STRATIFIED)  
10 17.0  
11  
13  
14  
4 20.0 ft MED. COMP GR. M-F SAND, TR. F. GRAVEL  
10 22.0  
17  
16  
19  
5 25.0 MED. COMP GR. SIF SAND.  
14 27.0  
15  
16  
30.0 ft MED. COMP RUST BR. & GR. BR. FSA SILT W/FSA. LENS. (NON. PL.)  
32.0 MED. COMP GR. INTERBEDDED F SAND & SILT  
32.0

**B-104**  
4 0.0 ft SOFT LI RUST BR. FSA SILT, TR. GRAVEL & ROOTS. MED. COMP MOTTLED GR. BR. GRAU. C-F SAND TR. SILT  
16 2.0  
35  
42  
58  
V. COMP. GR. GRAU. C-F SAND TR. SILT (MANY 4 PIECES - BROKEN COBBLE.)  
X 59.5 ft  
62  
35  
41  
34  
4 10.0 ft COMP. GR. M-F SAND TR. F. GRAVEL & C-SAND W/ LENS. OF BR. SILT  
8 12.0  
13  
13  
2 15.0 MED. COMP MOTTLED F SAND, TR. M SAND  
5 17.0  
9  
8  
9  
4 20.0 ft MED. COMP GRAY M-F SAND, LITTLE GRAVEL TR. C-SAND & SILT.  
9 22.0  
12  
15  
15  
3 25.0 MED. COMP GRAY M-F SAND, TR. GRAVEL & C-SAND  
4 27.0  
13 27.0 ft MED. COMP GRAY M-F SAND, TR. GRAVEL & C-SAND.  
16 29.0  
15  
30.0 ft COMP GR. M-F SAND, LITTLE SILT & C-F GRAVEL (PARTIALLY BONDED)  
32.0

**B-102**  
BOTTOM OF EXPLORATION @ 37'

**B-103**  
BOTTOM OF EXPLORATION @ 34' (WATER @ 28.8')

**B-104**  
BOTTOM OF EXPLORATION @ 32' (NO WATER ENC'D.)

## BORINGS LOG 1996

TABLE 1

**SUMMARY OF SUBSURFACE CONDITIONS AT TEST BORINGS  
PROPOSED NEW HIGH SCHOOL BUILDING  
CLINTON, MASSACHUSETTS  
GSI Project No. 96194**

Boring No.	Depth of Fill (ft)	Depth to Top of Organics (ft)	Depth to Sand Strata (ft)
B-3	20.5	20.5	25
B-4	13	13	14.5
B-7	13	13	20
B-8	16 (B.O.B)	NE	NE
B-8A	13	13	21
B-8B	7	7	16
B-8C	5	NE	5
B-9	3	3	8
B-13	7	NE	7
B-13A	12	NE	12
B-14	8	NE	8
B-14A	10.5	NE	10.5
B-15	7	NE	7
B-15A	6	NE	6
NB-B	12	12	15
NB-BA	11	11	16
NB-BB	6	6	8
NB-E	7	NE	7
NB-EA	11	NE	11

## NOTES:

- Test borings B-1 through B-18 were drilled by Miller Engineering & Testing during July, 1996. Test borings B-8A,B,C, B-13A, B-14A, and B-15A were drilled by Environmental Drilling, Inc. during August, 1996 under the observation of Geotechnical Services, Inc.
- NE means strata not encountered.

00200 - 17

**Appendix B – LGCI’s Boring Logs**



**LGCI**  
Lahlaf Geotechnical Consulting, Inc.

100 Chelmsford Rd Suite 2  
Billerica, MA 01862  
Telephone: 9783305912  
Fax: 9783305056

# BORING LOG

**B-1**

PAGE 1 OF 1

**CLIENT:** Lamoureux Pagano Associates **PROJECT NAME:** Prop. Clinton Middle School  
**LGCI PROJECT NUMBER:** 2341 **PROJECT LOCATION:** Clinton, MA

**DATE STARTED:** 9/25/23 **DATE COMPLETED:** 9/25/23 **DRILLING SUBCONTRACTOR:** Soil Exploration Corp.  
**BORING LOCATION:** Near NW corner of prop. building **DRILLING FOREMAN:** Edwin Fajardo  
**COORDINATES:** NA **DRILLING METHOD:** Hollow Stem Auger (4-1/4" I.D.)  
**SURFACE EI.:** 374 ft. (see note 1) **TOTAL DEPTH:** 22 ft. **DRILL RIG TYPE/MODEL:** Diedrich D-70 turbo  
**WEATHER:** 60's / Rainy **HAMMER TYPE:** Automatic  
**GROUNDWATER LEVELS:** **HAMMER WEIGHT:** 140 lb. **HAMMER DROP:** 30 in.  
 ▽ **DURING DRILLING:** Not encountered **SPLIT SPOON DIA.:** 1.375 in. I.D., 2 in. O.D.  
 ▽ **AT END OF DRILLING:** Dry at the end of drilling **CORE BARREL SIZE:** NA  
 ▽ **OTHER:** - **LOGGED BY:** TG **CHECKED BY:** JKW

Depth (ft.)	EI. (ft.)	Sample Interval (ft.)	Sample Number	Blow Counts (N Value)	Pen./Rec. (in.)	Remark	Strata	Material Description
0			S1	3-2-2-4 (4)	24/16		Topsoil	S1 - Topsoil
2			S2	14-28-46-49 (74)	24/19		Fill	S2 - Silty SAND with Gravel (SM), fine to coarse, 15-20% fines, 20-25% fine to coarse angular gravel, trace of organic soil, gray to brown, moist
370.0			S3	33-52-60-39 (112)	24/11		Sand and Gravel	S3 - Well Graded GRAVEL with Silt and Sand (GW-GM), fine to coarse, angular, 10-15% fines, 30-35% fine to coarse sand, gray, moist
5			S4	10-14-16-20 (30)	24/17			S4 - Poorly Graded SAND with Silt and Gravel (SP-SM), fine to medium, 5-10% fines, 15-20% fine to coarse subangular gravel, light brown, moist
365.0			S5	6-6-5-6 (11)	24/1			S5 - Poorly Graded SAND with Silt and Gravel (SP-SM), fine to medium, 5-10% fines, 15-20% fine to coarse subangular gravel, light brown, moist
10			S6	4-4-6-8 (10)	24/16			S6 - Poorly Graded SAND (SP), fine to medium, 0-5% fines, light brown, moist
15			S7	5-4-5-7 (9)	24/15			S7 - Poorly Graded SAND (SP), fine to medium, trace coarse, 0-5% fines, light brown, moist
360.0								
355.0								
20								
350.0								
25								Bottom of borehole at 22.0 feet. Borehole backfilled with drill cuttings.

**GENERAL NOTES:**

1. The ground surface elevation was interpolated to the nearest foot from drawing titled: "Existing Conditions Plan, Clinton Middle School, 100W Boylston St, Clinton, MA 01510," prepared by Nitsch Engineering, Inc., dated June 22, 2023, and provided to LGCI by Lamoureux Pagano Associates via e-mail on September 26, 2023.



**CLIENT:** Lamoureux Pagano Associates **PROJECT NAME:** Prop. Clinton Middle School  
**LGCI PROJECT NUMBER:** 2341 **PROJECT LOCATION:** Clinton, MA

**DATE STARTED:** 9/25/23 **DATE COMPLETED:** 9/25/23 **DRILLING SUBCONTRACTOR:** Soil Exploration Corp.  
**BORING LOCATION:** Near NE corner of prop. building **DRILLING FOREMAN:** Edwin Fajardo  
**COORDINATES:** NA **DRILLING METHOD:** Hollow Stem Auger (4-1/4" I.D.)  
**SURFACE EI.:** 375 ft. (see note 1) **TOTAL DEPTH:** 22 ft. **DRILL RIG TYPE/MODEL:** Diedrich D-70 turbo  
**WEATHER:** 60's / Rainy **HAMMER TYPE:** Automatic  
**GROUNDWATER LEVELS:** **HAMMER WEIGHT:** 140 lb. **HAMMER DROP:** 30 in.  
 ▽ **DURING DRILLING:** Not encountered **SPLIT SPOON DIA.:** 1.375 in. I.D., 2 in. O.D.  
 ▽ **AT END OF DRILLING:** Dry at the end of drilling **CORE BARREL SIZE:** NA  
 ▽ **OTHER:** - **LOGGED BY:** TG **CHECKED BY:** JKW

Depth (ft.)	EI. (ft.)	Sample Interval (ft.)	Sample Number	Blow Counts (N Value)	Pen./Rec. (in.)	Remark	Strata	Material Description
		0					Topsoil	S1 - Top 8": Topsoil
		0.7	S1	3-15-18-28 (33)	24/16		Fill	Bot. 8": Well Graded SAND with Silt and Gravel (SW-SM), fine to coarse, ~10% fines, 20-25% fine to coarse subangular gravel, brown, moist
		2	S2	24-26-32-32 (58)	24/18			S2 - Well Graded SAND with Silt and Gravel (SW-SM), fine to coarse, 5-10% fines, 40-45% fine to coarse subangular gravel, brown, moist
5	370.0	4	S3	30-31-29-25 (60)	24/8			S3 - Well Graded SAND with Gravel (SW), fine to coarse, 0-5% fines, 20-25% fine to coarse subangular gravel, brown, moist
		6	S4	23-24-25-22 (49)	24/17			S4 - Well Graded SAND with Gravel (SW), fine to coarse, 0-5% fines, 30-35% fine to coarse subangular gravel, brown, moist
		8						
10	365.0	10	S5	6-6-8-9 (14)	24/12		Sand and Gravel	S5 - Well Graded SAND with Gravel (SW), fine to coarse, 0-5% fines, 25-30% fine to coarse subangular gravel, brown, moist
		12						
15	360.0	15	S6	8-13-21-16 (34)	24/7			S6 - Well Graded SAND with Gravel (SW), fine to coarse, 0-5% fines, 30-35% fine to coarse subangular gravel, brown, moist
		17						
20	355.0	20	S7	12-13-11-12 (24)	24/13			S7 - Well Graded SAND with Gravel (SW), fine to coarse, 0-5% fines, 20-25% fine to coarse subangular gravel, brown, moist
		22						Bottom of borehole at 22.0 feet. Borehole backfilled with drill cuttings.
25	350.0							

**GENERAL NOTES:**

1. The ground surface elevation was interpolated to the nearest foot from drawing titled: "Existing Conditions Plan, Clinton Middle School, 100W Boylston St, Clinton, MA 01510," prepared by Nitsch Engineering, Inc., dated June 22, 2023, and provided to LGCI by Lamoureux Pagano Associates via e-mail on September 26, 2023.



**CLIENT:** Lamoureux Pagano Associates **PROJECT NAME:** Prop. Clinton Middle School  
**LGCI PROJECT NUMBER:** 2341 **PROJECT LOCATION:** Clinton, MA

**DATE STARTED:** 9/25/23 **DATE COMPLETED:** 9/25/23 **DRILLING SUBCONTRACTOR:** Soil Exploration Corp.  
**BORING LOCATION:** Near SW corner of prop. building **DRILLING FOREMAN:** Edwin Fajardo  
**COORDINATES:** NA **DRILLING METHOD:** Hollow Stem Auger (4-1/4" I.D.)  
**SURFACE EI.:** 376 ft. (see note 1) **TOTAL DEPTH:** 22 ft. **DRILL RIG TYPE/MODEL:** Diedrich D-70 turbo  
**WEATHER:** 60's / Rainy **HAMMER TYPE:** Automatic  
**GROUNDWATER LEVELS:** **HAMMER WEIGHT:** 140 lb. **HAMMER DROP:** 30 in.  
 ▽ **DURING DRILLING:** Not encountered **SPLIT SPOON DIA.:** 1.375 in. I.D., 2 in. O.D.  
 ▽ **AT END OF DRILLING:** Dry at the end of drilling **CORE BARREL SIZE:** NA  
 ▽ **OTHER:** - **LOGGED BY:** TG **CHECKED BY:** JKW

Depth (ft.)	EI. (ft.)	Sample Interval (ft.)	Sample Number	Blow Counts (N Value)	Pen./Rec. (in.)	Remark	Strata	Material Description
		0					Topsoil	S1 - Top 3": Topsoil
	375.0		S1	3-3-8-10 (11)	24/18		Fill	Bot. 15": Silty SAND (SM), fine to medium, 20-25% fines, 5-10% fine to coarse angular gravel, trace of organic soil, orange brown to dark brown, moist
		2	S2	8-9-6-5 (15)	24/17			S2 - Similar to S1 Bot. 15"
5		4	S3	3-2-3-2 (5)	24/14			S3 - Poorly Graded with Silt (SP-SM), fine, 10-15% fines, brown, moist
	370.0		S4	26-34-33-41 (67)	24/17		Sand and Gravel	S4 - Well Graded SAND with Silt and Gravel (SW-SM), fine to coarse, 5-10% fines, 30-35% fine to coarse angular gravel, gray to brown, moist
10		10	S5	12-14-9-8 (23)	24/14			S5 - Well Graded SAND with Silt and Gravel (SW-SM), fine to coarse, 5-10% fines, 15-20% fine to coarse angular gravel, gray to brown, moist
15		15	S6	6-7-9-10 (16)	24/17		Silt	S6 - Sandy SILT (ML), non-plastic, 30-35% fine sand, gray, moist
	360.0	17						S7 - Sandy SILT (ML), non-plastic, 30-35% fine sand, gray, moist
20		20	S7	7-9-11-10 (20)	24/17			
	355.0	22						Bottom of borehole at 22.0 feet. Borehole backfilled with drill cuttings.
25								

**GENERAL NOTES:**

1. The ground surface elevation was interpolated to the nearest foot from drawing titled: "Existing Conditions Plan, Clinton Middle School, 100W Boylston St, Clinton, MA 01510," prepared by Nitsch Engineering, Inc., dated June 22, 2023, and provided to LGCI by Lamoureux Pagano Associates via e-mail on September 26, 2023.





<b>CLIENT:</b> <u>Lamoureux Pagano Associates</u>	<b>PROJECT NAME:</b> <u>Prop. Clinton Middle School</u>
<b>LGCI PROJECT NUMBER:</b> <u>2341</u>	<b>PROJECT LOCATION:</b> <u>Clinton, MA</u>
<b>DATE STARTED:</b> <u>9/25/23</u> <b>DATE COMPLETED:</b> <u>9/25/23</u>	<b>DRILLING SUBCONTRACTOR:</b> <u>Soil Exploration Corp.</u>
<b>BORING LOCATION:</b> <u>Near SE corner of prop. building</u>	<b>DRILLING FOREMAN:</b> <u>Edwin Fajardo</u>
<b>COORDINATES:</b> <u>NA</u>	<b>DRILLING METHOD:</b> <u>Hollow Stem Auger (4-1/4" I.D.)</u>
<b>SURFACE EI.:</b> <u>377 ft. (see note 1)</u> <b>TOTAL DEPTH:</b> <u>22 ft.</u>	<b>DRILL RIG TYPE/MODEL:</b> <u>Diedrich D-70 turbo</u>
<b>WEATHER:</b> <u>60's / Rainy</u>	<b>HAMMER TYPE:</b> <u>Automatic</u>
<b>GROUNDWATER LEVELS:</b>	<b>HAMMER WEIGHT:</b> <u>140 lb.</u> <b>HAMMER DROP:</b> <u>30 in.</u>
▽ <b>DURING DRILLING:</b> <u>Not encountered</u>	<b>SPLIT SPOON DIA.:</b> <u>1.375 in. I.D., 2 in. O.D.</u>
▽ <b>AT END OF DRILLING:</b> <u>Dry at the end of drilling</u>	<b>CORE BARREL SIZE:</b> <u>NA</u>
▽ <b>OTHER:</b> <u>-</u>	<b>LOGGED BY:</b> <u>TG</u> <b>CHECKED BY:</b> <u>JKW</u>

Depth (ft.)	El. (ft.)	Sample Interval (ft.)	Sample Number	Blow Counts (N Value)	Pen./Rec. (in.)	Remark	Strata	Depth El. (ft.)	Material Description
		0							S1 - Topsoil
	375.0	2	S1	2-2-3-4 (5)	24/19		Topsoil	2.0	
								375.0	S2 - Silty SAND with Gravel (SM), fine to coarse, 15-20% fines, 15-20% fine to coarse subangular gravel, gray, moist
		4	S2	7-8-6-7 (14)	24/12		Fill	4.0	
5							Buried Organic Soil	373.0	S3 - Top 10": Silty SAND (SM), fine to medium, 25-30% fines, 0-5% fine subangular gravel, trace of wood, trace of roots, trace of organic soil, brown, moist
		6	S3	10-14-16-13 (30)	24/19			4.8	
	370.0						Fill	372.2	Bot. 9": Poorly Graded SAND with Silt (SP-SM), fine, 10-15% fines, 0-5% fine to coarse subangular gravel, brown, moist
		8	S4	15-24-18-22 (42)	24/15				S4 - Silty SAND (SM), fine to medium, 15-20% fines, 5-10% fine angular gravel, trace of organic soil, dark brown, moist
10		10				1		10.0	REMARK 1: Strata change assumed.
	365.0							367.0	S5 - Poorly Graded SAND (SP), medium, 0-5% fines, 5-10% fine angular gravel, brown, moist
		12	S5	5-8-9-11 (17)	24/15				
15		14							S6 - Poorly Graded SAND (SP), medium, 0-5% fines, 0-5% fine to coarse angular gravel, brown, moist
	360.0						Sand and Gravel		
		16	S6	5-7-8-10 (15)	24/15				
20		20							S7 - Poorly Graded SAND (SP), fine, 0-5% fines, light brown, moist
	355.0								
		22	S7	4-5-7-8 (12)	24/16			22.0	Bottom of borehole at 22.0 feet. Borehole backfilled with drill cuttings.
25									

**GENERAL NOTES:**

1. The ground surface elevation was interpolated to the nearest foot from drawing titled: "Existing Conditions Plan, Clinton Middle School, 100W Boylston St, Clinton, MA 01510," prepared by Nitsch Engineering, Inc., dated June 22, 2023, and provided to LGCI by Lamoureux Pagano Associates via e-mail on September 26, 2023.



**CLIENT:** Lamoureux Pagano Associates **PROJECT NAME:** Prop. Clinton Middle School  
**LGCI PROJECT NUMBER:** 2341 **PROJECT LOCATION:** Clinton, MA

**DATE STARTED:** 9/25/23 **DATE COMPLETED:** 9/25/23 **DRILLING SUBCONTRACTOR:** Soil Exploration Corp.  
**BORING LOCATION:** Near center of prop. building **DRILLING FOREMAN:** Edwin Fajardo  
**COORDINATES:** NA **DRILLING METHOD:** Hollow Stem Auger (4-1/4" I.D.)  
**SURFACE EI.:** 375 ft. (see note 1) **TOTAL DEPTH:** 22 ft. **DRILL RIG TYPE/MODEL:** Diedrich D-70 turbo  
**WEATHER:** 60's / Rainy **HAMMER TYPE:** Automatic  
**GROUNDWATER LEVELS:** **HAMMER WEIGHT:** 140 lb. **HAMMER DROP:** 30 in.  
 ▽ **DURING DRILLING:** Not encountered **SPLIT SPOON DIA.:** 1.375 in. I.D., 2 in. O.D.  
 ▽ **AT END OF DRILLING:** Dry at the end of drilling **CORE BARREL SIZE:** NA  
 ▽ **OTHER:** - **LOGGED BY:** TG **CHECKED BY:** JKW

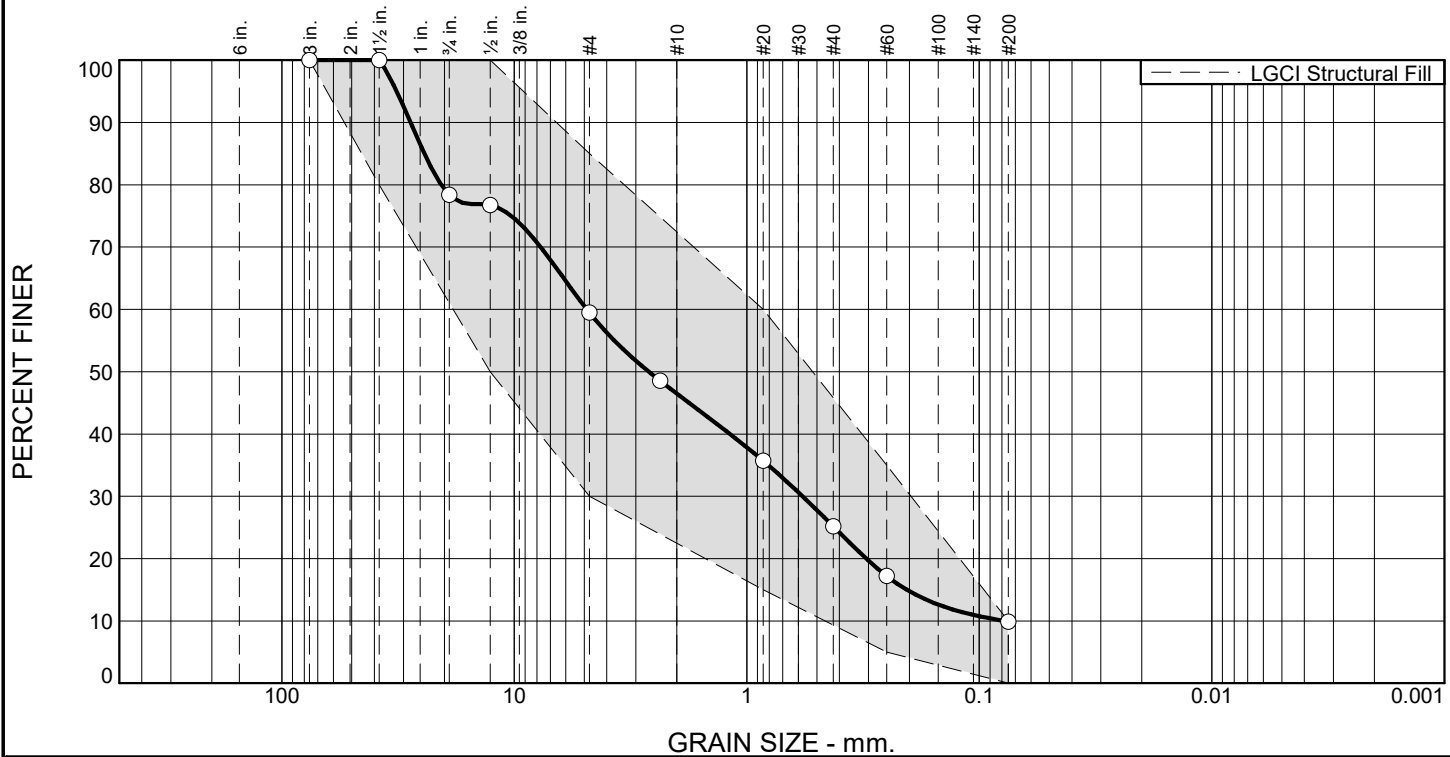
Depth (ft.)	EI. (ft.)	Sample Interval (ft.)	Sample Number	Blow Counts (N Value)	Pen./Rec. (in.)	Remark	Strata	Material Description
0								S1 - Topsoil
2			S1	2-3-5-8 (8)	24/21		Topsoil	
4			S2	9-15-23-20 (38)	24/22		Fill	S2 - Silty SAND (SM), fine to medium, 25-30% fines, trace of organic soil, dark brown, moist
5	370.0		S3	8-9-27-39 (36)	24/21			S3 - Silty SAND with Gravel (SM), fine to coarse, 20-25% fines, 15-20% fine subangular gravel, trace of organic soil, dark brown, moist
6			S4	34-25-22-16 (47)	24/17			S4 - Well Graded GRAVEL with Sand (GW), fine to coarse, angular, 0-5% fines, 25-30% fine to coarse sand, gray, moist
8			S5	11-11-10-11 (21)	24/8		Sand and Gravel	S5 - Well Graded SAND (SW), fine to coarse, 0-5% fines, 10-15% fine angular gravel, brown, moist
10	365.0		S6	9-14-13-11 (27)	24/8			S6 - Well Graded SAND with Silt and Gravel (SW-SM), fine to coarse, 5-10% fines, 20-25% fine to coarse subangular gravel, brown, moist
15	360.0							
17			S7	6-6-6-9 (12)	24/14			S7 - Well Graded SAND with Silt and Gravel (SW-SM), fine to coarse, 5-10% fines, 20-25% fine to coarse subangular gravel, brown, moist
20	355.0		S8	8-10-10-10 (20)	24/12			S8 - Well Graded SAND with Gravel (SW), fine to coarse, 0-5% fines, 15-20% fine to coarse subrounded gravel, brown, moist
22								Bottom of borehole at 22.0 feet. Borehole backfilled with drill cuttings.
25	350.0							

**GENERAL NOTES:**

1. The ground surface elevation was interpolated to the nearest foot from drawing titled: "Existing Conditions Plan, Clinton Middle School, 100W Boylston St, Clinton, MA 01510," prepared by Nitsch Engineering, Inc., dated June 22, 2023, and provided to LGCI by Lamoureux Pagano Associates via e-mail on September 26, 2023.

## **Appendix C – Laboratory Test Results**

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	21.6	18.9	13.0	21.3	15.3	9.9	

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0	100.0	
1.5"	100.0	80.0 - 100.0	
0.75"	78.4		
0.5"	76.8	50.0 - 100.0	
#4	59.5	30.0 - 85.0	
#8	48.6		
#20	35.7	15.0 - 60.0	
#40	25.2		
#60	17.2	5.0 - 35.0	
#200	9.9	0.0 - 10.0	

**Material Description**

ASTM (D 2488) Classification: Well Graded SAND with Silt and Gravel (SW-SM), fine to coarse, 5-10% fines, 40-45% fine to coarse subangular gravel, brown

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 27.9346    D<sub>85</sub>= 24.3650    D<sub>60</sub>= 4.8736  
 D<sub>50</sub>= 2.6361    D<sub>30</sub>= 0.5760    D<sub>15</sub>= 0.2044  
 D<sub>10</sub>= 0.0784    C<sub>u</sub>= 62.17    C<sub>c</sub>= 0.87

**Remarks**

Natural sand and gravel sample

---

Date Received: 9/25/23    Date Tested: 9/27/23

Tested By: JKW

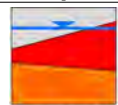
Checked By: TG

\* LGCI Structural Fill

Location: Boring B-2  
 Sample Number: S2

Depth: 2.0'-4.0'

Date Sampled: 9/25/23



# LGCI

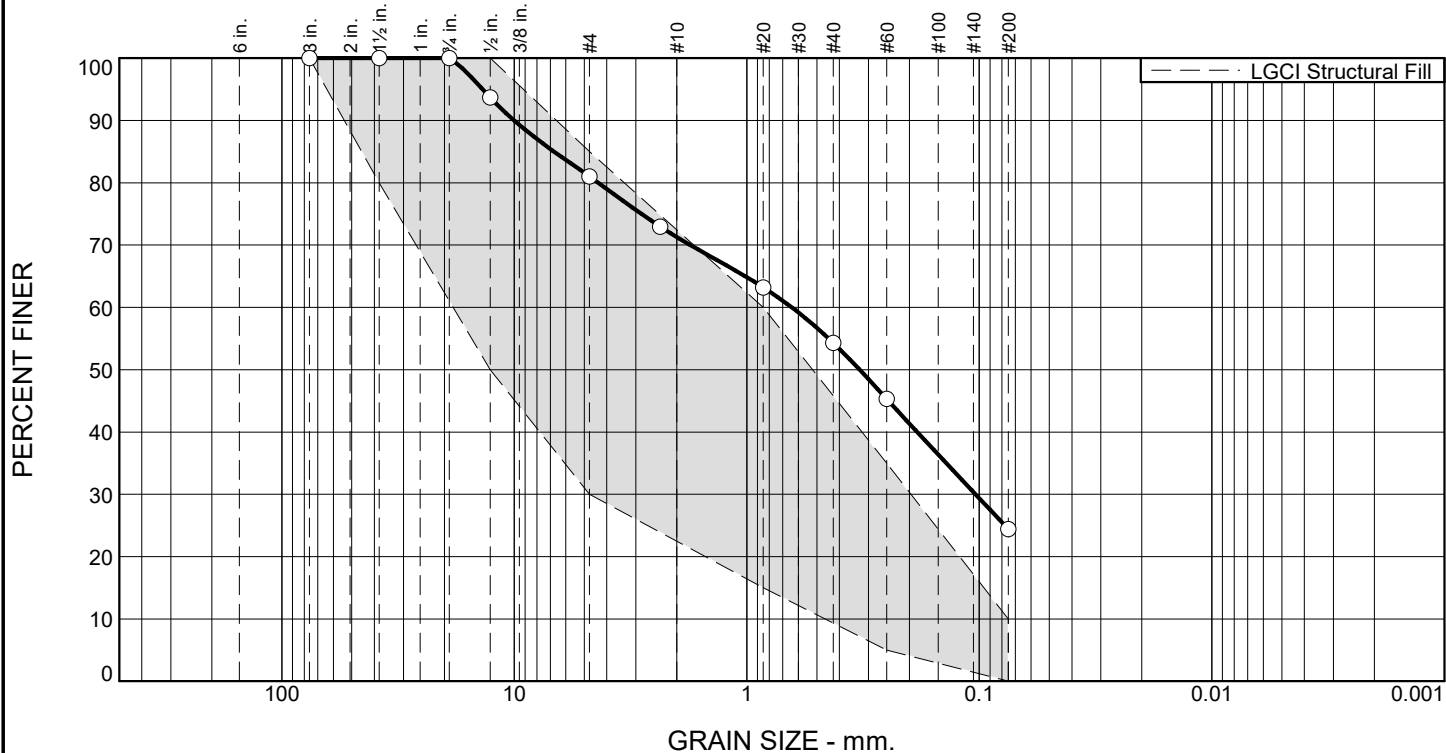
Lahlaf Geotechnical Consulting, Inc.

Client: Lamoureux Pagano Associates  
 Project: Proposed Clinton Middle School, Clinton MA,

Project No: 2341

Figure

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	19.0	9.7	17.0	29.9	24.4	

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0	100.0	
1.5"	100.0	80.0 - 100.0	
0.75"	100.0		
0.5"	93.7	50.0 - 100.0	
#4	81.0	30.0 - 85.0	
#8	73.0		
#20	63.2	15.0 - 60.0	X
#40	54.3		
#60	45.3	5.0 - 35.0	X
#200	24.4	0.0 - 10.0	X

**Material Description**

ASTM (D 2488) Classification: Silty SAND with Gravel (SM), fine to coarse, 20-25% fines, 15-20% fine subangular gravel, trace of organic soil, brown

**Atterberg Limits (ASTM D 4318)**

PL=                      LL=                      PI=

**Classification**

USCS (D 2487)=                      AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>= 10.0110      D<sub>85</sub>= 6.7406      D<sub>60</sub>= 0.6404  
D<sub>50</sub>= 0.3268      D<sub>30</sub>= 0.1038      D<sub>15</sub>=  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

Remarks

Fill sample

---

Date Received: 9/25/23                      Date Tested: 9/27/23

Tested By: JKW

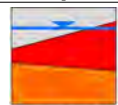
Checked By: TG

\* LGCI Structural Fill

**Location:** Boring B-5  
**Sample Number:** S3

**Depth:** 4.0'-6.0'

**Date Sampled:** 9/25/23



# LGCI

Lahlaf Geotechnical Consulting, Inc.

**Client:** Lamoureux Pagano Associates  
**Project:** Proposed Clinton Middle School, Clinton MA,

**Project No:** 2341

**Figure**

## 4.1.2 SCHEMATIC DESIGN BINDER

---

### F. Code Analysis

1. Code Analysis Narrative
2. Code Report
3. Permitting Requirements

LPA|A contracted consultant RW Sullivan to prepare a Code Assessment of the Schematic Design for the project which is included in the following section of this binder.

LPA|A scheduled meetings with the Fire, Police, and Building Departments to review the code analysis and plans at the Schematic Design phase and will continue to hold meetings with the relevant departments through the Design Development and Construction Document phases. Minutes of the meetings that have already occurred are published under 4.1.2, B.

Code drawings are printed with the Architectural Drawings.

See the following Code Assessment and Permitting Matrix for further information.



Code

.

HVAC

.

Electrical

.

Plumbing

.

Fire Protection

.

Commissioning

# Clinton Middle School

## Clinton, Massachusetts

# Code Report

November 6, 2023

Prepared By: Samantha Sinapi, P.E.  
Reviewed By: Donald E. Contois, P.E.

**Sullivan Code Group**  
**R.W. Sullivan Engineering**  
617.523.8227  
[www.rwsullivan.com](http://www.rwsullivan.com)



## Table of Contents

Introduction .....	1
1. Occupancy Classification:.....	1
2. Min. Construction Type:.....	2
3. Height and Area Limitations:.....	2
4. Fire Department Access: .....	2
5. Fire Resistance Ratings:.....	3
6. Stages/Platform .....	4
7. Exterior Wall Openings & Fire Resistance Rating: .....	5
8. Vertical Floor Openings .....	6
9. Finishes:.....	6
10. Means of Egress:.....	7
11. Required Fire Protection Systems: .....	8
12. Energy Code Provisions .....	9
13. Accessibility for Persons with Disabilities.....	9
APPENDIX A: Egress Plans .....	10

**Introduction**

This project includes the construction of a new middle school building in Clinton, MA. This code summary is based on the schematic design architectural drawings received October 30, 2023. The following is a list of applicable codes:

Code Type	Applicable Code (Model Code Basis)
<b>Building</b>	780 CMR: Massachusetts State Building Code, 9 <sup>th</sup> Edition (Amended 2015 International Building Code (IBC))
<b>Fire Prevention</b>	527 CMR 1: Massachusetts Fire Prevention Regulations (Amended 2021 NFPA 1) M.G.L. Chapter 148 Section 26G – Sprinkler Protection
<b>Accessibility</b>	521 CMR: Massachusetts Architectural Access Board Regulations
<b>Electrical</b>	527 CMR 12: Massachusetts Electrical Code (Amended 2023 National Electrical Code)
<b>Elevators</b>	524 CMR: Massachusetts Elevator Code (Amended 2013 ASME A17.1)
<b>Mechanical</b>	2015 International Mechanical Code (IMC)
<b>Plumbing</b>	248 CMR: Massachusetts Plumbing Code
<b>Energy Conservation</b>	225 CMR 23: Massachusetts Stretch Energy Code (Amended 2021 International Energy Conservation Code (IECC))

**1. Occupancy Classification:**

Non-separated mixed uses

- Use Group A-3 (Gymnasium)
- Use Group E (Educational)
- Accessory Use Group B (Offices)

*For the purposes of this report, we have assumed that the Cafeteria/Auditorium are considered part of the Use Group E occupancy. However, the Gymnasium could be used for non-school events and therefore must also be classified as a Use Group A-3 Occupancy (780 CMR 303.1.3).*

*Note that this building contains hazardous materials. The hazardous materials will be maintained below the exempt limits per the control area, and therefore there is no Use Group H within the building (780 CMR 307.1, 414). The building will be one control area. Since there are science labs throughout the building, the following table, based on 780 CMR Table 414.2.2, shows the % of the maximum allowable quantity permitted on each floor. In addition, the combination of all floors cannot go over 100% the maximum allowable quantities from 780 CMR Table 307.1(1).*

Floor	Percentage of the Maximum Allowable Quantity
Ground Floor	100%
Level 2	50%
Overall Building	100%

**2. Min. Construction Type:**

- Type IB Construction (noncombustible, 2-hr rated)

**3. Height and Area Limitations:**

The following table summarizes the height and area limitations for the most restrictive use (Use Group E) based on Type IB construction:

Code Reference	Use Group E	
	Height	Area
<u>780 CMR Tables 504.3, 504.4 &amp; 506.2:</u> Tabular Value	6 St. (180 ft)	UL
<u>780 CMR Section 506.2</u> Frontage Increase	-	-
<b>Allowed Height and Area</b>	<b>6 St. (180 ft)</b>	<b>UL</b>
<b>Actual Height and Area</b>	<b>2 St.</b>	<b>~82,271 ft<sup>2</sup></b>

**4. Fire Department Access:**

All newly constructed facilities, buildings, or portions thereof are required to be provided with a fire department access road which may consist of roadways, fire lanes, parking lot lanes, or some combination thereof (527 CMR 1 Section 18.2.3.1). These access roads must have the following features,

- Must extend to within 50' of an exterior door that can be opened from the outside and provide access to the interior of the building
- No portion of the facility or exterior wall on the first story of a building is greater than 150' from fire department access roads measured along an approved route (250' if protected by NFPA 13 sprinkler system)
- Multiple access roads can be required by the AHJ if it is determined that a single road can be significantly impaired by external factors
- Unobstructed minimum width of 20' unless constructed boulevard-style which a 10' minimum width is permitted
- Unobstructed vertical clearance of 13'-6"

If access roads cannot be provided due to location, topography, waterways, etc. the AHJ has the authority to require additional fire protection features (527 CMR 1 Section 18.2.3.1.4).

*The building will be provided on driveways on all sides that provide the required fire department access.*

## 5. Fire Resistance Ratings:

The following fire resistance ratings are required in accordance with 780 CMR Table 601 and various sections of the code.

Building Element	Fire Resistance Rating (Hrs)
Primary Structural Frame <sup>A</sup>	2 <sup>B,C</sup>
Exterior Bearing Walls	2
Interior Bearing Walls	2 <sup>B,C</sup>
Exterior Non-Bearing Walls	Based on FSD
Interior Non-Bearing Walls	0
Floor Construction	2 <sup>C</sup>
Roof Construction	1 <sup>D</sup>

<sup>A</sup>. Includes beams, trusses, floor members, etc. having a direct connection to the columns (780 CMR 202).

<sup>B</sup>. Fire resistance ratings of structural frame and bearing walls are permitted to be reduced by one hour but not less than 1 hour rated where supporting a roof only (780 CMR Table 601).

<sup>C</sup>. Not less than the rating supported (780 CMR 707.5.1, 708.4. and 711.2.3).

<sup>D</sup>. Fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Note that this exception does not apply to the structural members that are considered part of the primary structural frame as defined by 780 CMR 202.

Building Element	Fire Resistance Rating (Hrs)	Opening Protectives (Hrs)
Exit Access Corridors (780 CMR 1020.1)	0	0
Stair Shafts (780 CMR 1023.2) <sup>A</sup>	2	1½
Other Shafts (780 CMR 713.4)	2	1½
Elevator Machine Room (780 CMR 3005.4)	2	1½
Emergency Electrical Room (527 CMR 12.00 700-10(D)(2))	2 <sup>B</sup>	1½
Emergency Generator Room – Level 1 Installation (NFPA 110 Section 7.2.1.1)	2	1½
Electrical Closets	With Sprinklers	0
	Without Sprinklers	2
Fuel Oil Storage > 660 gallons	2	1½
Furnace room where any piece of equipment is over 400,000 Btu per hour input	Smoke resistant <sup>C</sup>	
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	Smoke resistant <sup>C</sup>	
Laboratories and vocational shops	Smoke resistant <sup>C</sup>	
Fire pump room (780 CMR 913.2.1)	1 hour <sup>D</sup>	

- A. If exterior walls expose the stair at an angle of less than 180 degrees either the stair wall or adjacent wall must be 1 hour rated with 3/4 hour opening protectives for a distance of 10 feet from the stair wall (780 CMR Section 1023.7).
- B. No rating is required for the room when fully sprinklered, however a 2-hr rating is still required for the emergency feeder-circuit wiring and rooms containing an emergency generator (NFPA 110 Section 7.2.1.1).
- C. Where smoke resistant construction and automatic fire-extinguishing system are permitted, accessory occupancies shall be separated from the remainder of the building by construction capable of resisting the passage of smoke and doors shall be self- or automatic-closing upon detection of smoke.
- D. Location and access to the fire pump room shall be pre-planned with the fire department. The room must be directly accessed from the exterior or through a 1 hour fire resistance rated passageway that connects to the exterior (NFPA 20 Section 5.12.1.1.3).

Fire walls, fire barriers, fire partitions, smoke barriers, and smoke partitions, or any other wall required to have protected openings or penetrations must be identified with signs or stenciling within accessible concealed spaces (i.e. floor-ceiling, attic spaces) at 30 ft intervals with at least 3" letters stating: "FIRE AND/OR SMOKE BARRIER – PROTECT ALL OPENINGS" or similar wording (780 CMR 703.7).

## 6. Stages/Platform

Performance area in the cafeteria/auditorium that do not contain any overhead effects other than lighting, it would be classified as a platform. If there is overhead effects then the performance area must be considered a stage.

### Platform:

The platform area must comply with 780 CMR 410.4. The following requirements must be met.

- Platforms shall be constructed of noncombustible materials as is required for the type of construction of the building, Type IB Construction.
- Platforms in construction Type I buildings that are no more than 30 inches above the floor and not more than 3,000 square feet in area can be made of fire retardant treated wood.
- The bottom of the platform shall be rated 1 hour if the space underneath the platform is used for storage or any other purpose other than equipment, wiring, or plumbing.
- Spaces beneath the platform is not required to be protected if it is only used for equipment, wiring, or plumbing.

### Stage:

The stage area must comply with 780 CMR 410. The following requirements must be met.

- Stages must be constructed of materials as required for floors for the type of construction of the building, except where the finished floor is constructed of wood or approved non-combustible materials and openings through stage floors shall be equipped with tight-fitting, solid wood trap doors with approved safety locks (780 CMR 410.3.1 Exception 3).
- Galleries, gridirons, and catwalks shall be constructed of approved materials consistent with the requirements of the type of construction of the building (780 CMR 410.3.2).
- Stages that are greater than 50 feet in height shall have a proscenium wall, with a fire resistance rating not less than 2 hours, separating the stage from the seating area (780 CMR 410.3.4).
- Where a proscenium wall is required a 1 hour fire resistance rated curtain complying with NFPA 80 or approved water curtain complying with 780 CMR 903.3.1.1, or a smoke control system complying with 90 (780 CMR 410.3.5).
- Combustible materials used for sets and scenery shall meet NFPA 701 fire propagation performance criteria (780 CMR 410.3.6).
- Emergency ventilation shall be provided for stages that are greater than 1,000 sqft or greater than 50 ft in height and follow one of the below (780 CMR 410.3.7).
  - Two or more heat activated roof vents with aggregate opening of not less than 5% of stage area.
  - Smoke control system that maintains a smoke layer interface not less than 6 feet above the highest level of the assembly seating.
- Stage shall be separated from other parts of the building including dressing rooms and scene docks by 1 hour-rated construction (2 hour for stages greater than 50 feet) (780 CMR 410.5.1).
- Appurtenant rooms to the stage, such as dressing rooms, scene shop, and storerooms, must be separated by 1 hour-rated construction for each other (780 CMR 410.5.2).
- Exit access doors on each side of the stage must be provided (780 CMR 410.6.1)

## **7. Exterior Wall Openings & Fire Resistance Rating:**

The exterior wall rating requirements and opening limitations are based on the fire separation distance for each wall. The fire separation distance is measured perpendicular to the exterior wall to the centerline of a public street, an interior lot line, or an imaginary lot line between two buildings on the same lot (780 CMR 202.0). Since the fire separation distance is more than 20 ft the exterior walls are not required to be rated and the allowable area of openings is not limited (780 CMR Table 602 note g and Table 705.8).

## 8. Vertical Floor Openings

Vertical openings are required to comply with 780 CMR 712. The building contains many floor openings that are enclosed in 2 hour fire resistance rated shafts including the stairs, elevators, and mechanical chases.

Unprotected floor openings that connect the 1<sup>st</sup> and 2<sup>nd</sup> Floor of the building, including the open stair are allowed per 712.1.9 and 1019.3(1).

*Other stairs can be open as long as the means of egress on the second floor can meet the travel distance when including the travel down the stairs to outside. Based on the size of the school most of the enclosed stairs will have to be maintained as exit stairs and cannot become exit access stairs.*

## 9. Finishes:

### Interior Finish

The interior finish of walls and ceilings must comply with the table below.

#### Walls & Ceilings (IBC Table 803.11)

Building Component	Use Group A-3	Use Group B & E
Exit Enclosures and Passageways	Class B	Class B
Corridors	Class B	Class C
Rooms & Enclosed Spaces	Class C	Class C

*Note that where exit stairs and exit access corridors serve all use groups, the most restrictive interior finish is required.*

### New Floor Finishes

Since the building will be equipped with an automatic sprinkler system, traditional floor coverings such as wood, vinyl and other resilient floor coverings as well as carpeting passing the DOC FF-1 pill test are allowed throughout the building, including all exits, exit passageways and exit access corridors (780 CMR Section 804.4.2).

### Exterior Finish

Exterior wall finishes must fully comply with the requirements of 780 CMR 14. Combustible materials are permitted to be used as an exterior wall finish for this building in accordance with 780 CMR Section 1406.0; however, all exterior wall finishes and architectural trim located greater than 40 feet above grade plane must be constructed of approved noncombustible materials and must be secured to the wall with metal or other approved noncombustible brackets (780 CMR Section 1406.2.2). Additionally, combustible exterior wall finish is limited to 10% of the exterior wall surface area where the fire separation distance is 5 ft or less.

The use of foam plastic materials as part of the exterior wall assembly must comply with 780 CMR 26. The wall assembly must be tested in accordance with NFPA 285 (780 CMR 2603.5.5). Note that this test standard is a full scale assembly test. We recommend confirming with the manufacturer that the foam plastic insulation is part of an approved NFPA 285 assembly or complies with one of the alternative standards listed in 780 CMR Section 2604.1.

**10. Means of Egress:**

The calculated occupant load for the proposed floor plans, the corresponding required number of exits, the provided number of exits, and the provided egress capacity are summarized below (780 CMR Table 1004.1.2, Table 1006.3.1, and Section 1005.3). See Appendix A of this report for detailed egress calculations.

**Means of Egress**

Floor	Occupant Load	Number of Exits		Exit Capacity (persons)
		Required	Provided	
1	2,085	4	6	2,380
2	1,034	4	5	1,100

*As shown in the table above and detailed egress analysis in Appendix A, the building is provided with sufficient exit capacity for the proposed occupant load.*

General Egress Requirements:

- The required maximum exit travel distances for a fully sprinklered building are listed below (780 CMR Table 1017.2, Table 1006.2.1, and 1020.4).

Occupancy	Exit Travel Distance	Common Path of Travel	Dead-End
E	250 ft.	75 ft.	50 ft.
A-3	250 ft.	75 ft.	20 ft.
B	300 ft.	100 ft.	50 ft.

- Maximum dead-end corridor length cannot exceed the value above or 2.5 times the least width of space (780 CMR 1020.4).
- All rooms or spaces with an occupant load greater than 49 people or a travel distance greater than the value in the table above must be provided with two egress doors swinging in the direction of egress and illuminated exit signs at each exit (780 CMR Table 1006.2.1 & Sections 1010.1.2.1 & 1013.1).
- Boiler rooms require two means of egress if the room is greater than 500 sqft. and includes individual fuel-fired equipment greater than 400,000 Btuh input capacity. Also, one of the two required exit access doorways is permitted to be a fixed ladder or alternating tread device (780 CMR Section 1006.2.2.1).



- Doors serving more than 49 people in group E and A occupancies must swing in the direction of egress and be provided with panic hardware (780 CMR 1010.1.10).
- Main electrical rooms must be provided with 2 means of egress via doors that swing in the direction of egress with panic hardware when containing large equipment (rated 1200 amperes or more and over 6' wide) (NFPA 70 Section 110.26(C)(2 & 3)).
- All means of egress lighting and exit signs throughout the building must be provided with an emergency power supply to assure continued illumination for not less than 1.5 hours in case of primary power loss (780 CMR 1008.2 & 1008.3.4). Exit signs leading to accessible exits must include the international symbol of accessibility on the first floor (521 CMR 41.1.3).
- Remote means of egress must be separated by  $\frac{1}{3}$  of the diagonal dimension of the room or space they serve (780 CMR 1007.1.1). The distance between exits must be measured in a straight line between exit doors / paths.
- Roofs and penthouses containing elevator equipment that must be accessed for maintenance are required to be accessed by a stairway (780 CMR 1011.12.1). Permanent means of access to any roof containing mechanical equipment must be provided in accordance with the Mechanical Code.
- All exits must discharge to the exterior of the building except that a maximum of 50% of the number and capacity of the exit enclosures are allowed to exit through areas on the level of discharge if the exit enclosures discharge to a free and unobstructed path of travel to an exterior exit that is readily visible from the discharge of the exit enclosure; the entire area of the level of exit discharge is separated from areas below by construction consistent with the rating of the exit enclosure; and the egress path and all areas open to the egress path on the level of exit discharge must be fully sprinklered (780 CMR 1028.1).
- A two-way communication system is required at each elevator landing on accessible floors that are one or more stories above or below the level of exit discharge (780 CMR 1009.8).
- At least one passenger elevator must be sized to accommodate the loading and transportation of an ambulance gurney or stretcher sized 24" wide by 84" long with 5" radius corners (524 CMR 17.40(1)).

#### **11. Required Fire Protection Systems:**

- NFPA 13 sprinkler system (780 CMR Table 903.2 & M.G.L. c148 s26G)
- Fire alarm system with emergency voice/alarm communication capabilities (780 CMR 907.2.3)

- Emergency responder radio coverage (780 CMR 916)
- Carbon monoxide detection in accordance with 780 CMR 915 and 527 CMR 1 chapter 13.
- Fire extinguishers (780 CMR 906.1)

## 12. Energy Code Provisions

The project is subject to the Stretch Code with amendments to 2021 international Energy Conservation Code. The building will have an area over 20,000 square feet and it is assumed it will have an average ventilation less than 0.5 cfm/sf and therefore must comply with the Targeted Performance Compliance Method or the Passive House Compliance Method.

## 13. Accessibility for Persons with Disabilities

### Massachusetts Architectural Access Board Regulations

All areas open to the general public are required to comply with the requirements of the Massachusetts Architectural Access Board (521 CMR). This section includes the following major provisions:

- All public entrances must be accessible (521 CMR 25.1).
- All public and common use areas must be accessible and provided with an accessible route thereto (521 CMR Section 12.2.2 and 20.1).
- Accessible toilet rooms must be provided (521 CMR 30.1).
- Where tables, study carrels, computer workstations or fixed seating is provided at least 5% with a minimum of one of each item must be accessible (521 CMR Section 12.2.2).
- The auditorium and gymnasium must be provided with integral accessible seating in multiple locations as well as other features such as assistive listening in accordance with 521 CMR Chapter 14.
- An accessible route must be provided to the platform located in the Multipurpose Room (521 CMR 14.6).

### American's with Disabilities Act

The ADA Guidelines are not enforced by the Commonwealth of Massachusetts, they can only be enforced through a civil lawsuit or complaint filed with the U.S. Department of Justice. All public and common use areas must be accessible.

*Although the provisions of the MAAB do not apply to employee only areas, the ADAAG requires that employee only work spaces must be designed to allow employees to approach, enter, and exit the work area. However, the work areas are not required be provided with accessible features (i.e. shelves, etc.).*

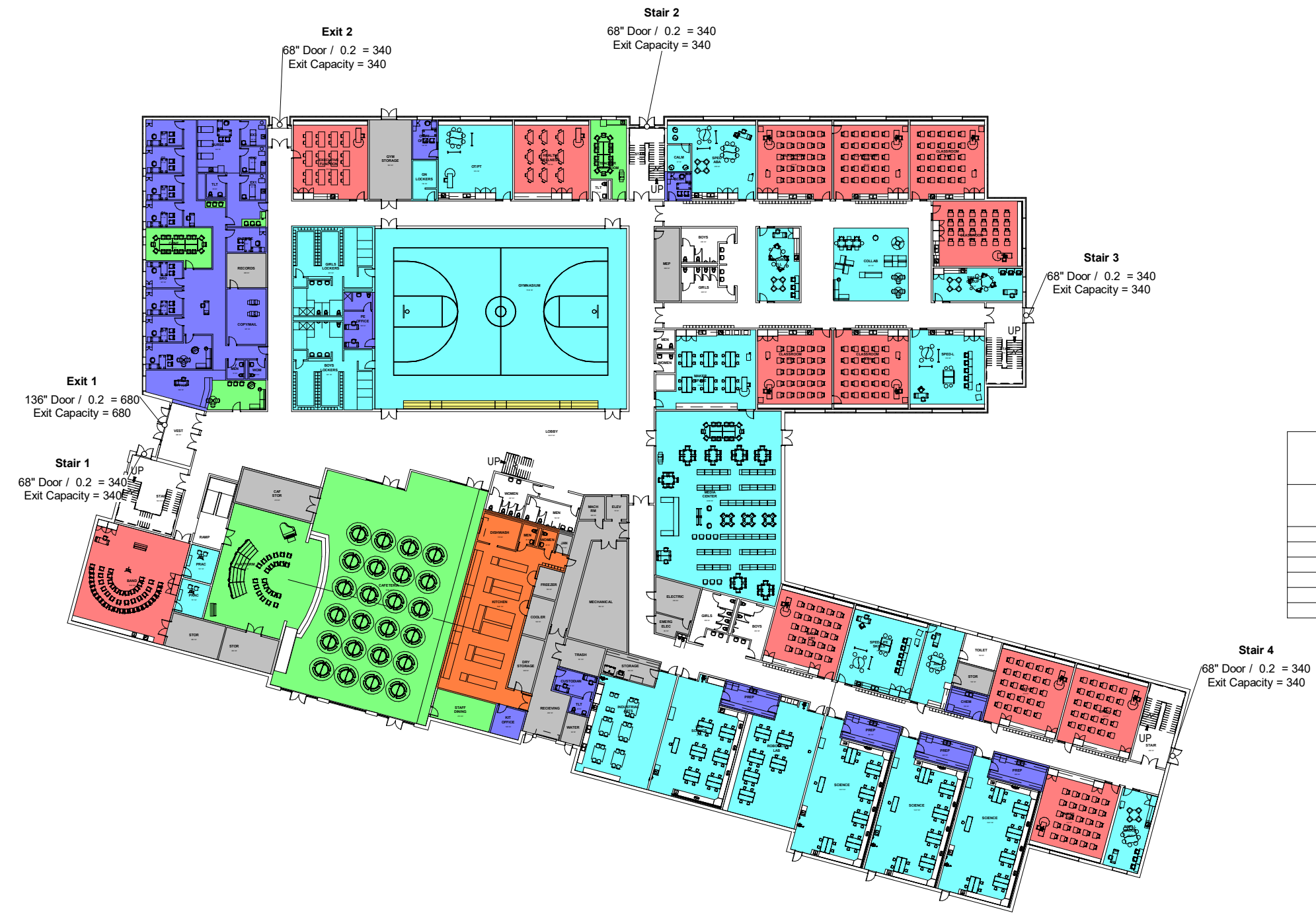


**APPENDIX A: Egress Plans**

Occupant Load Level 1			
Use	Floor Area	Floor Area Per Occupant (SF / OCC)	Occupant Load
ADL	416 SF	50	8.3
Band	1454 SF	20	72.7
Band Prac	302 SF	50	6.0
Bleachers	249 SF	3	84.0
Cafeteria	7057 SF	15	470.5
Classroom	9695 SF	20	484.8
Collab	841 SF	50	16.8
Conference	366 SF	15	24.4
Gymnasium	6780 SF	50	135.6
Industrial Arts	1103 SF	50	22.1
Kitchen	2162 SF	200	10.8
Life Science	1132 SF	50	22.6
Locker Room	2274 SF	50	45.5
Maker Space	911 SF	50	18.2
Media	3497 SF	50	69.9
Office	5439 SF	100	54.4
OT/PT	800 SF	50	16.0
Prep	1127 SF	100	264.9
Resource	444 SF	50	8.9
Robotics Lab	1220 SF	50	24.4
Science	3629 SF	50	72.6
Small Group	874 SF	50	17.5
Sped	2525 SF	50	50.5
Staff Dining	273 SF	15	18.2
Storage/Mechanical	5680 SF	300	18.9
Teacher Workroom	376 SF	15	25.0
Waiting	310 SF	15	20.7
	60936 SF		2084.2

Exit Capacity Level 1 (780 CMR 1005.3)							
Exit	Stair Width	Stair Exit Allowance (in / person)	Stair Capacity (persons)	Door Width	Door Exit Allowance (in / person)	Door Capacity (persons)	Exit Capacity (persons)
Exit 1				136"	0.2	680	680
Exit 2				68"	0.2	340	340
Stair 1				68"	0.2	340	340
Stair 2				68"	0.2	340	340
Stair 3				68"	0.2	340	340
Stair 4				68"	0.2	340	340
							2380

Occupant Load Densities (780 CMR TABLE 1004.1.2)	
Actual Occupants	Actual Number of Occupants
15 Net S.F. / Occ.	Assembly without Fixed Seats - Unconcentrated (Tables and Chairs)
20 Net S.F. / Occ.	Classrooms
50 Net S.F. / Occ.	Educational - Shops and Laboratories
50 Gross S.F. / Occ.	Exercise and Fitness Areas; Locker Rooms
100 Gross S.F. / Occ.	Office Areas
200 Gross S.F. / Occ.	Kitchen
300 Gross S.F. / Occ.	Storage / Mechanical

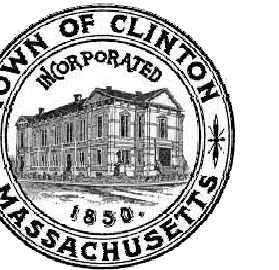


Occupant Load Level 2			
Use	Floor Area	Floor Area Per Occupant (SF / OCC)	Occupant Load
Art	2260 SF	50	45.2
Classroom	14516 SF	20	725.8
Collab	1582 SF	50	31.6
Conference	377 SF	15	25.1
Office	1139 SF	100	11.4
Resource	1755 SF	50	35.1
Small Group	1414 SF	50	28.3
Sped	4815 SF	50	96.3
Storage/Mechanical	3445 SF	300	11.5
Teacher Workroom	353 SF	15	23.6
	31657 SF		1033.9

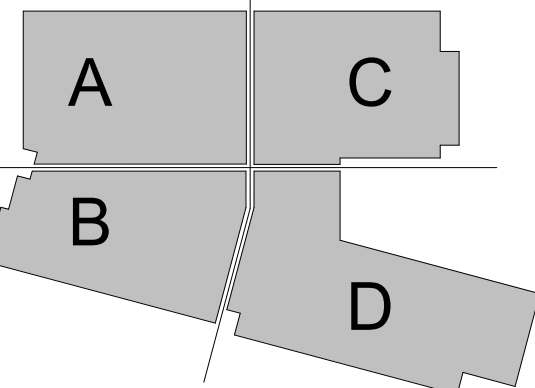
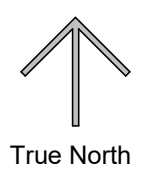
Exit Capacity Level 2 (780 CMR 1005.3)							
Exit	Stair Width	Stair Exit Allowance (in / person)	Stair Capacity (persons)	Door Width	Door Exit Allowance (in / person)	Door Capacity (persons)	Exit Capacity (persons)
Stair 1	66"	0.3	220	68"	0.2	340	220
Stair 2	66"	0.3	220	68"	0.2	340	220
Stair 3	66"	0.3	220	68"	0.2	340	220
Stair 4	66"	0.3	220	68"	0.2	340	220
Stair 5	66"	0.3	220				220
							1100



Occupant Load Densities (780 CMR TABLE 1004.1.2)	
Actual Occupants	Actual Number of Occupants
15 Net S.F. / Occ.	Assembly without Fixed Seats - Unconcentrated (Tables and Chairs)
20 Net S.F. / Occ.	Classrooms
50 Net S.F. / Occ.	Educational - Shops and Laboratories
50 Gross S.F. / Occ.	Exercise and Fitness Areas; Locker Rooms
100 Gross S.F. / Occ.	Office Areas
200 Gross S.F. / Occ.	Kitchen
300 Gross S.F. / Occ.	Storage / Mechanical



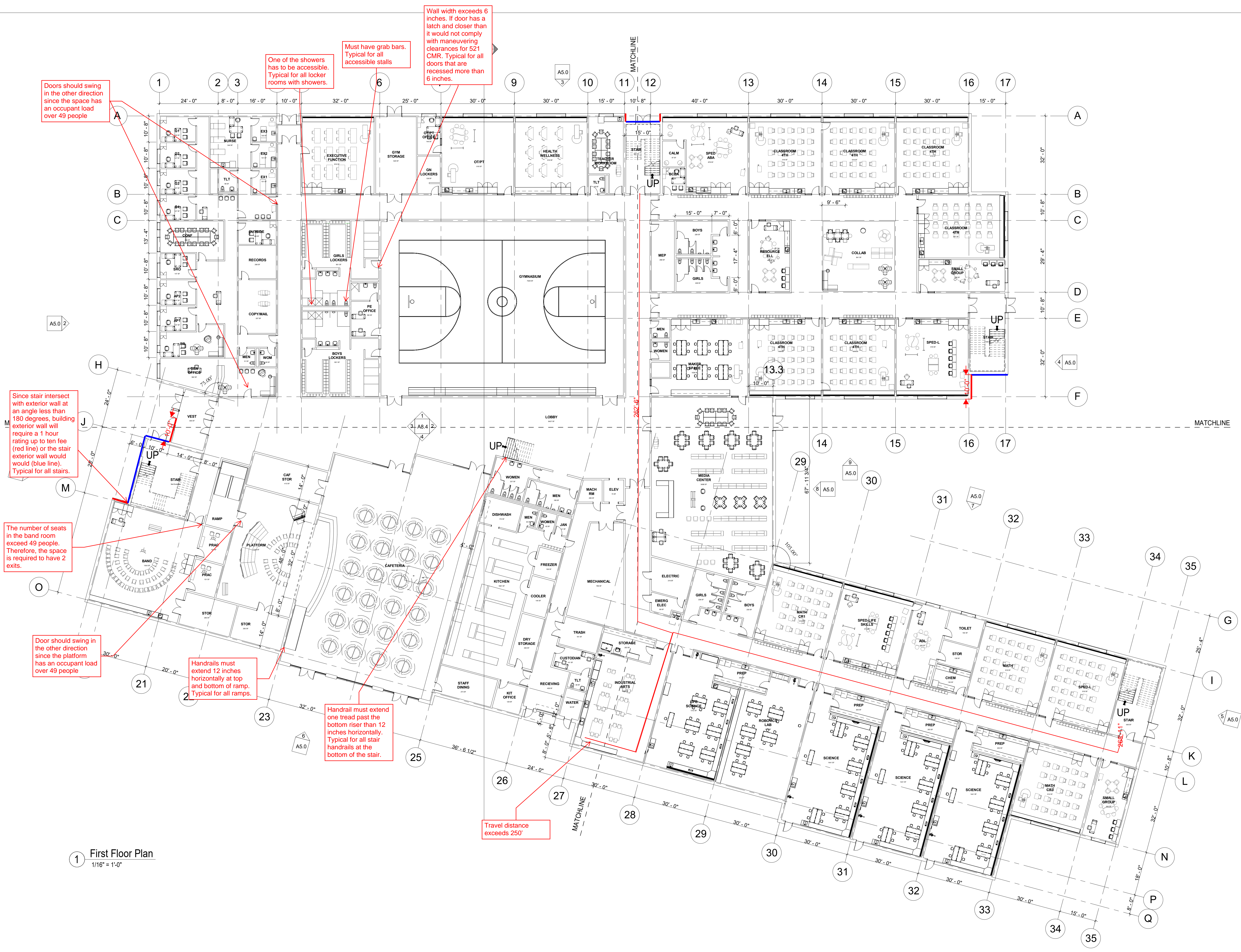
First Floor Plan



No.	Description	Date

FILE:	#1605
JOB NO:	#1605
SCALE:	1/16" = 1'-0"
DWN. BY:	Author
CKD. BY:	Checker
DATE:	August 28, 2023

A2.1



Doors should swing in the other direction since the space has an occupant load over 49 people

One of the showers has to be accessible. Typical for all locker rooms with showers.

Must have grab bars. Typical for all accessible stalls

Wall width exceeds 6 inches. If door has a latch and closer than 6 inches, it would not comply with maneuvering clearances for 521 CMR. Typical for all doors that are recessed more than 6 inches.

Since stair intersect with exterior wall at an angle less than 180 degrees, building exterior wall will require a 1 hour rating up to ten feet (red line) or the stair exterior wall would (blue line). Typical for all stairs.

The number of seats in the band room exceed 49 people. Therefore, the space is required to have 2 exits.

Door should swing in the other direction since the platform has an occupant load over 49 people

Handrails must extend 12 inches horizontally at top and bottom of ramp. Typical for all ramps.

Handrail must extend one tread past the bottom riser than 12 inches horizontally. Typical for all stair handrails at the bottom of the stair.

Travel distance exceeds 250'

1 First Floor Plan  
1/16" = 1'-0"

GENERAL NOTES: FLOOR PLANS

- FIRE RATED PARTITION
- MILLWORK AND/OR CASEWORK ITEM

NOTES:  
1. REFER TO DRAWING A1.1 FOR PARTITION TYPES  
2. REFER TO DRAWINGS A11.2, A11.3, A11.4 FOR FLOOR FINISH TYPES, PATTERNS AND DETAILS.

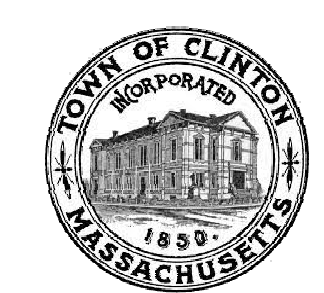
ARCHITECT'S STAMP

PROGRESS PRINT:  
NOT FOR CONSTRUCTION  
10/25/2023 12:03:46 PM  
ALL DIMENSIONS ARE SUBJECT  
TO FIELD VERIFICATION

CONSULTANT

CONSULTANT'S STAMP

OWNER



Project Name

Address

PROJECT

SCHEMATIC DESIGN

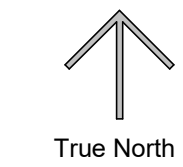
Clinton Middle School

100W Boylston St, Clinton MA 01510

DRAWING TITLE

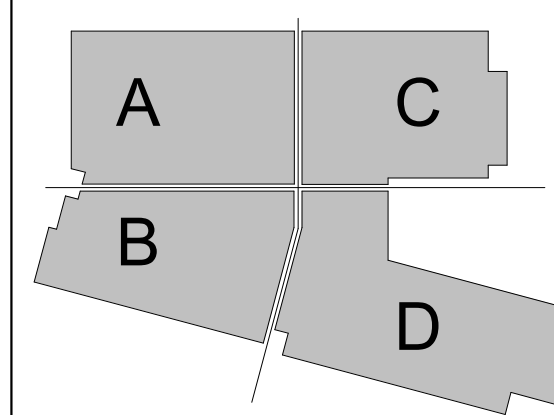
Second Floor Plan

Locus Map



True North

Key Plan



REVISIONS

No.	Description	Date

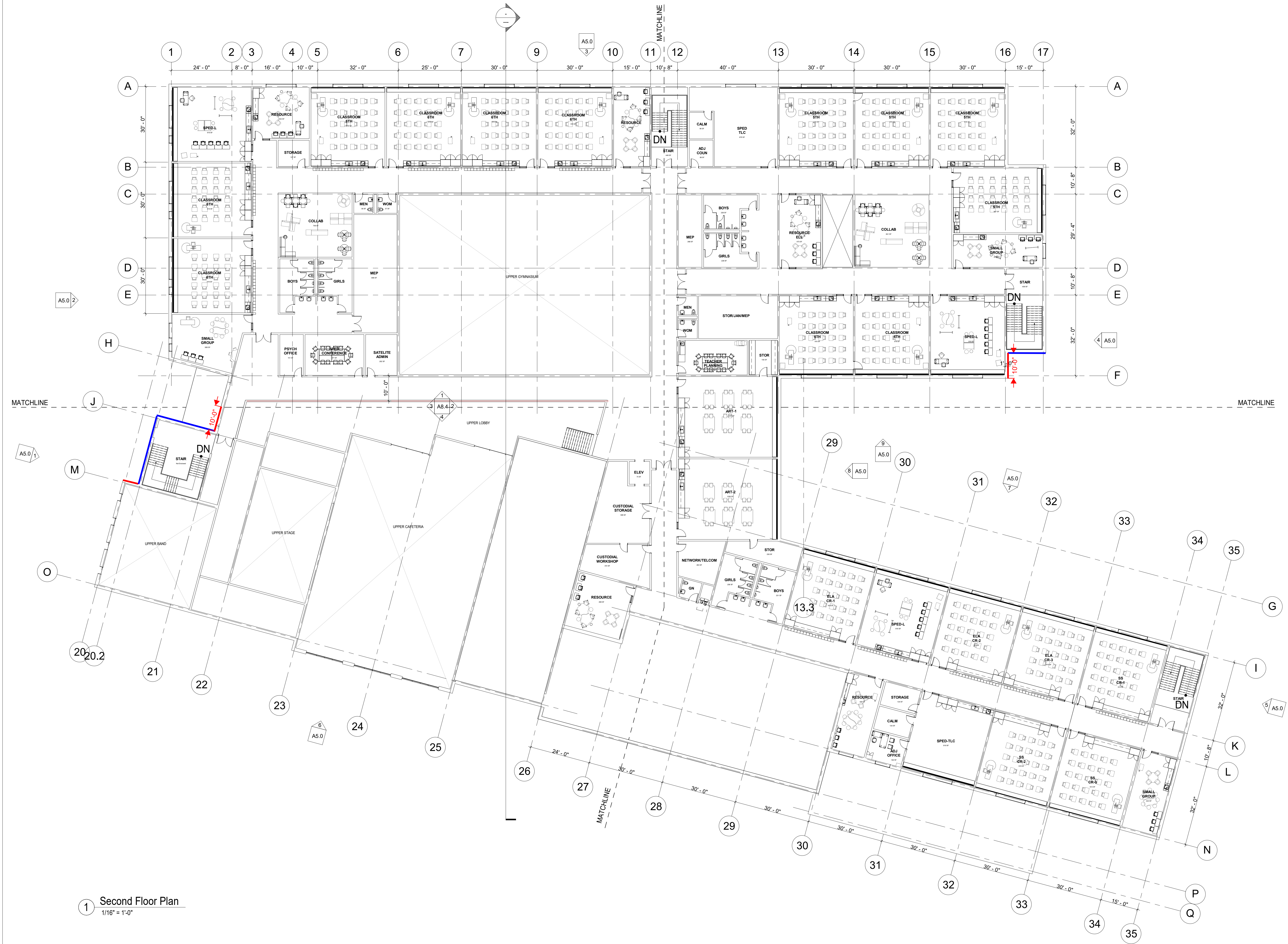
FILE:	#1605
JOB NO.:	#1605
SCALE:	1/16" = 1'-0"
DWN. BY:	Author
CKD. BY:	Checker
DATE:	August 28, 2023

GENERAL NOTES: FLOOR PLANS

- FIRE RATED PARTITION
- MILLWORK AND/OR CASEWORK ITEM

NOTES:  
1. REFER TO DRAWING A1.1 FOR PARTITION TYPES  
2. REFER TO DRAWING A11.2, A11.3, A11.4 FOR FLOOR FINISH TYPES, PATTERNS AND DETAILS.

A2.2



1 Second Floor Plan  
1/16" = 1'-0"

#	AGENCY	PERMIT/ISSUE	COMMENTS	STATUS	FEE
1	Massachusetts DEP/Worcester Conservation Commission	WPA Form 4A  Abbreviated Notice of Resource Area Delineation	Wetlands and Riverfront Areas have been flagged and located on the site plan	Not Required (no wetlands present on any of the sites)	NA
2	US EPA	Stormwater Pollution Protection Plan (SWPPP) approval	Draft required per Order of Conditions; required prior to NPDES NOI filing; draft SWPPP to be included with WPA NOI; refer to Item #6 below	Pending prior to beginning of construction	NA
3	US EPA	National Pollutant Discharge Elimination System (NPDES) NOI for Discharge Associated with Construction Activity and Notice of Termination (NOT)	Filed by Contractor (NOI system) prior to construction and at project completion	Pending; NOI at least 14 days prior to beginning of construction	NA
4	Environmental Notification Form (ENF/EIR)  301cmr 11.00	Executive Office of Energy and Environmental Affairs  MEPA	Not Required; project below all thresholds, or thresholds are not applicable.	NA	NA
5	Project Notification Form (PNF) for Historic Buildings or Archeological  MHC 950 CMR	Massachusetts Historical Commission Project Notification Form	PNF Filed 6/23/2023	Approved 11/17/23	NA
6	Massachusetts DCR	Watershed Protection Act Request for	Advisory Ruling received 3/28/23	Complete	N/A



#	AGENCY	PERMIT/ISSUE	COMMENTS	STATUS	FEE
		Watershed Determination of Applicability			
7	Massachusetts DEP	Sewer Extension Permit	Not required	N/A	N/A
8	Town of Clinton- Hydrant flow test	Water/Fire Department	W. Boylston Street flow test conducted on 10/04/23 by Rustic Fire Protection	Complete	\$1,750
9	National Grid	New electrical service for school	Work request submitted: #30921073	Backcharge to be determined, Review at the DD/ CD phase	TBD
10	National Grid	Temporary electric service (if required)	Work request to be submitted	By Contractor prior to construction	TBD
11	National Grid	Comprehensive Design Approach rebate program	Independent energy modeling study must be performed	MOU signed 12/04/23. Net Zero Specialist assigned. Scoping session held on 1/19/24	
12	Massachusetts DEP	Asbestos Removal Permit & Notifications	Requirements outlined in Hazardous Materials Identification Report.	Pending; beginning of construction or demolition	TBD
13	Massachusetts DEP	BWP AQ06 Notification	Filed by Contractor prior to construction	Pending; beginning of construction	TBD
14	Massachusetts AAB	Application for Variance (if required)	Not Required	Not required	NA

#	AGENCY	PERMIT/ISSUE	COMMENTS	STATUS	FEE
	Architectural Access Board				
15	Town of Clinton	Request for Determination of Applicability/Notice of Intent	Completion of Design Development Phase	Not required	NA
16	Town of Clinton	Site Plan Review	Completion of Design Development Phase	Pending	NA
17	Town of Clinton	Building Department (including Electrical and Plumbing)	Final required for Building Permit filing	Reviewed during Schematic Design Additional reviews at subsequent phases	NA
18	Town of Clinton	Police/Fire Departments, School Resource Officer, DPW, Board of Health	Review as part of program development	Ongoing during Schematic Design and subsequent phases	NA
19	Town of Clinton	Demolition Permit	Filed by Contractor prior to construction.		TBD
20	Town of Clinton	Building Permit, Certificate of Occupancy	Filed by Contractor prior to construction		TBD

## Peter Caruso

---

**From:** Peter Caruso  
**Sent:** Thursday, February 1, 2024 3:10 PM  
**To:** jsalmon@clintonma.gov  
**Cc:** Steven Meyer; Eric Moore; telmore; Elias Grijalva; Sean Brennan  
**Subject:** RE: New Clinton Middle School Project

Good afternoon Mr. Salmon,

Thank you for taking the time to review the permitting requirements document I sent to you last week. I appreciate your time. Per our phone conversation, I will submit the document as is with no further edits necessary.\

Also, I'm confirming that the BDA is included in the base scope of work.

Thank you,

**Peter A. Caruso, Jr.**

 LPA|Architects

508.752.2831 | [www.lpaa.com](http://www.lpaa.com)

---

**From:** Peter Caruso  
**Sent:** Friday, January 26, 2024 4:48 PM  
**To:** jsalmon@clintonma.gov  
**Subject:** New Clinton Middle School Project

Good afternoon Mr. Salmon,

I'm reaching out to see if you would be able to assist me with the attached document. We are required to provide permitting requirements for the new school project as part of the next submission to the state.

I was wondering if you would be able to review the attached file and, to the best of your abilities, advise if I'm missing anything or if I have something listed that's not applicable with the town. If you could just look at the Town of Clinton items I have listed towards the end of the list, in particular.

I would greatly appreciate your help with this.

I would welcome a call if that would be simpler for you.

Thank you for your time.

**Peter A. Caruso, Jr., AIA, NCARB, LEED AP**

Associate Principle | Director

 **LPA** | Architects

108 Grove Street, Suite 300  
Worcester, MA 01605

508.752.2831 | [www.lpaa.com](http://www.lpaa.com)

## 4.1.2 SCHEMATIC DESIGN BINDER

---

### G. Utility Analysis

1. Utility Analysis Narrative
2. Flow Test

**Site Utilities Analysis**

This is an acknowledgement that the project design team has contacted all applicable utility companies/agencies and confirmed that building utilities are available in sufficient capacity to meet the needs of the proposed School, while maintaining the utility connections to the existing school while in service. Brief summaries are outlined as follows:

**Storm Drainage**

Refer to Nitsch Engineering basis of design narrative in section 4.1.2, I for information relative to stormwater management on the site.

**Sanitary Sewerage**

Refer to Nitsch Engineering basis of design narrative in section 4.1.2, I for information relative to sanitary sewerage to the new building.

**Natural Gas**

Considering the school building will be designed as fully electric, the existing gas line connecting to the existing building will be capped to the site.

**Electrical / Tele-comm**

Refer to Nitsch Engineering basis of design narrative in section 4.1.2, I for information relative to electrical and telecommunications to the new building.

NGRID work request number for Clinton Middle School is: 30921073

Photovoltaic (PV) arrays are being included as an add alternate at this phase of the project. Currently, the Town is considering using a third party to install and manage a PV system. Due to current code requirements, no PV array that can generate greater than 500kW is being considered due to the necessary on-site battery storage. PV cells would be location on the new building roof as well as on a canopy installed over a portion of the parking lot to provide the remaining power.

**Telecom and Fiber Optics**

The design team has not contacted Verizon for the telephone service lines, the design will include 4- 4" Schedule 40 PVC telecommunications underground duct system from the building to the utility company connections. The contractor will coordinate telecommunications services (analog, fiber, and CATV) required for the building with the Owner. Note that the Fire Department connections for alarms are

through a radio transmitter or cellular system, which is included in the specifications. The radio booster system for Police and Fire Departments is included in the specifications as well.

**Domestic Water**

Refer to Nitsch Engineering basis of design narrative in section 4.1.2, 1 for information relative to domestic water to the new building.

**Fire Protection Water**

A hydrant flow test was performed on 10/04/23 by Rustic Fire Protection and the Clinton Water Department. The results determined that a fire pump is not required. Refer to 4.1.2, 1, 3 for more information regarding the results and additional comments from the fire protection engineer.

# Hydrant Flow Test Report

Test Date 10/4/2023

Test Time 11AM

## Location

100 West Boylston Street, Clinton, MA.  
01510

## Tested by

RUSTIC FIRE PROTECTION  
CLINTON WATER DEPARTMENT

## Notes

4.5" HYDRANT BUTT FLOWED WITH 4" HOSE  
MONSTER BIG BOY.

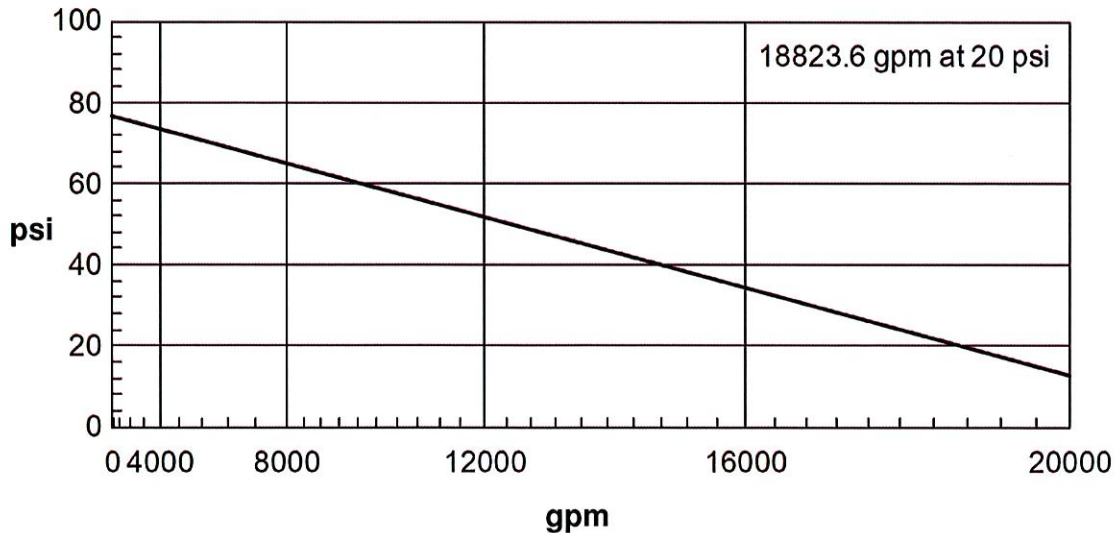
## Read Hydrant

77 psi **static pressure**  
76.5 psi **residual pressure**  
375 ft **hydrant elevation**

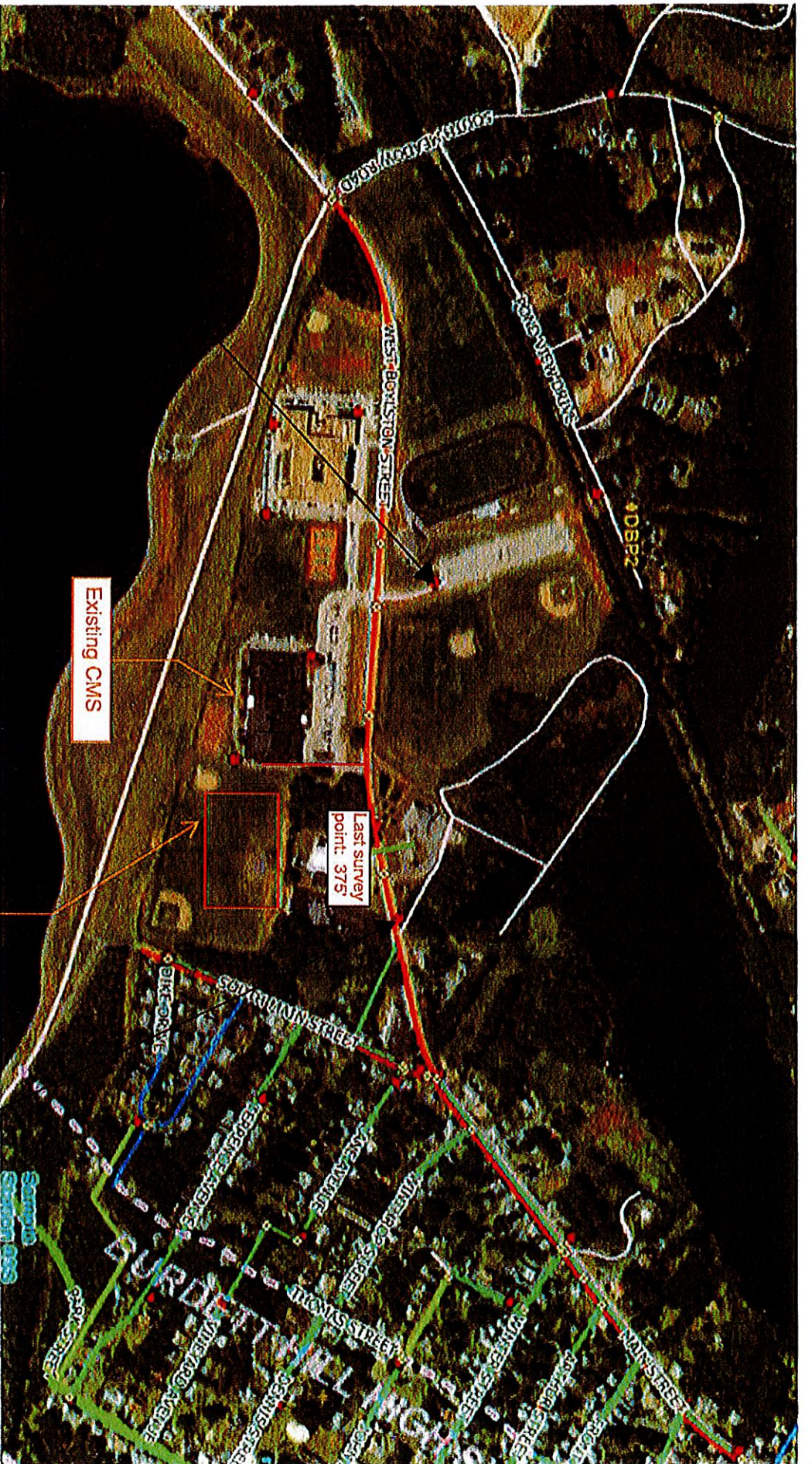
## Flow Hydrant(s)

Outlet	Elev	Size	C	Pitot Pressure	Flow
#1	358	4.5	.9	15	1455 gpm

## Flow Graph







Flow Hydrant  
 4.5" Butt, 4" BIG BOY HOSE MONSTER  
 15 PITOT, 1455 GPM FLOWING  
 358" ELEVATION

10/4/23 HYDRANT FLOW TEST  
 CLINTON MIDDLE SCHOOL

RUSTIC FIRE PROTECTION, INC

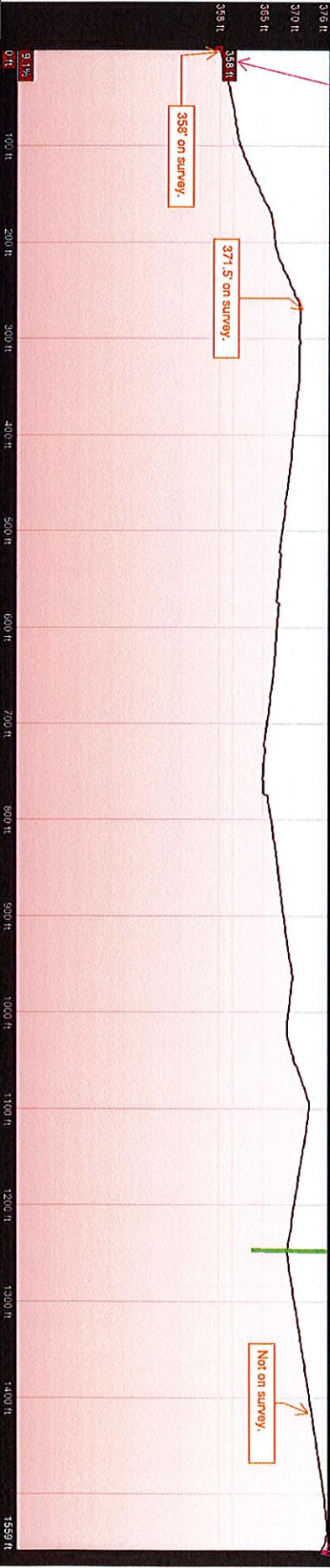
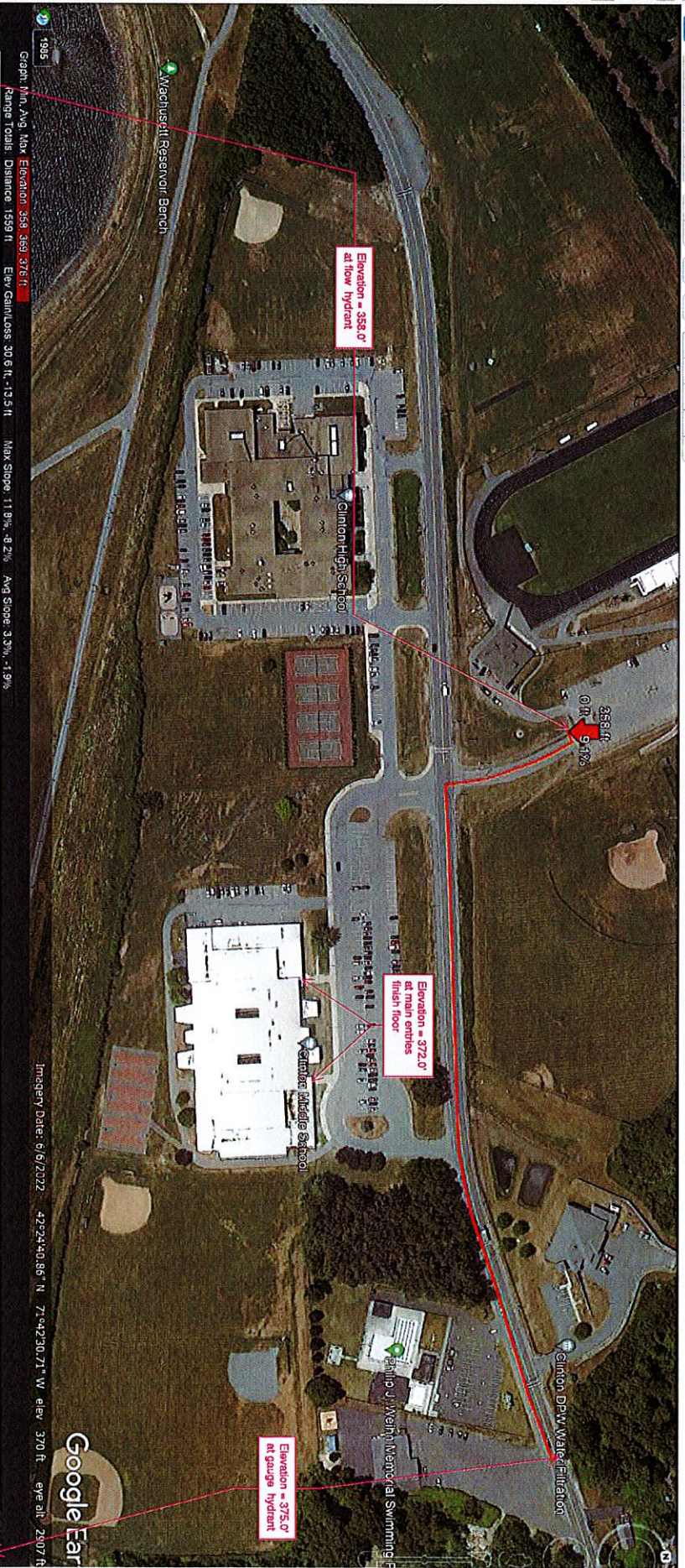
- Sample Stations
- DBPs
- Hydrants from MRPC 2018
- Valves
- Pressure Zones
- Water Distribution Pipes
- 4" and smaller
- 6"
- 8"
- 10"
- 12"
- 14"
- 16"
- 24"
- Unk

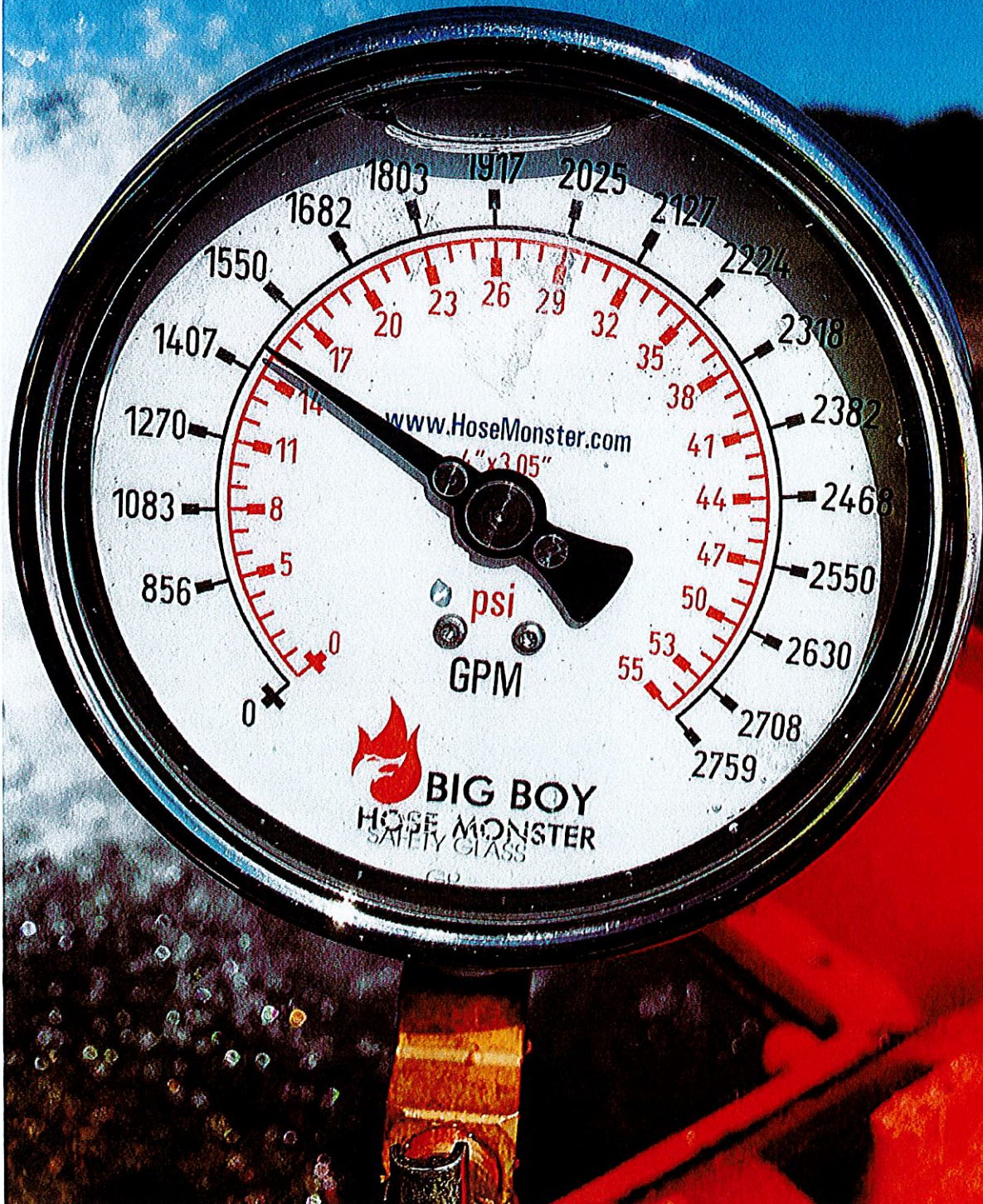
Approximate location of  
 new Clinton Middle School

Existing CMS

Last survey  
 point: 375'

GAUGE HYDRANT  
 2.5" GAUGE  
 77 STATIC  
 76.5 RESIDUE  
 ELEVATION 375'





www.HoseMonster.com  
1" x 3.05"

psi

GPM

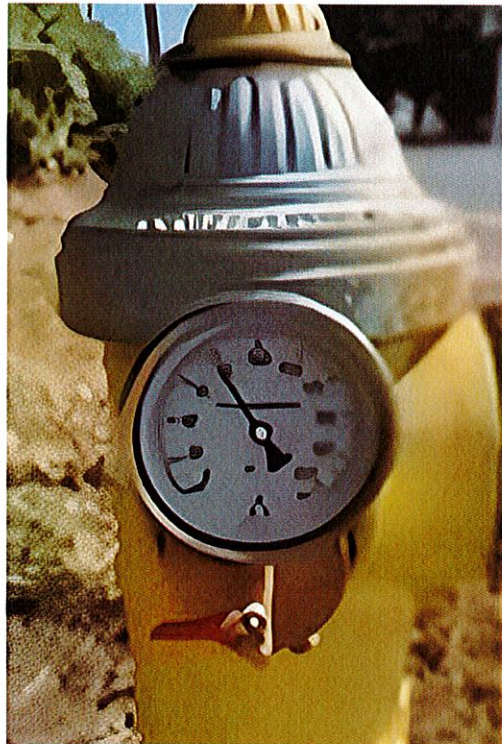
 **BIG BOY**  
HOSE MONSTER  
SAFETY GLASS



Original Version of Screen Grab of Residual Pressure



Enhanced Version of Screen Grab of Residual Pressure



## 4.1.2 SCHEMATIC DESIGN BINDER

---

### H. Massing Study

Please refer to 4.1.2, A Introduction, 3. Visual Arts for plans, sections, renderings, and massing studies.

## 4.1.2 SCHEMATIC DESIGN BINDER

---

### I. Building Systems Narratives

- 1a. Architectural &  
Sustainable Design  
Elements
- 1.b. FF&E Narrative
2. Structural
3. Fire Protection
4. Plumbing
5. HVAC
6. Electrical
7. Site Civil
8. Site Landscape
9. Food Service
10. Technology



## 1a. Architectural &amp; Sustainable Design Elements Narrative

**GENERAL**

It is assumed that the work will begin with construction of the new building, including associated sitework infrastructure, on the existing softball/baseball fields southeast of the existing Middle School. We anticipate that most of the existing athletic fields will be utilized by the Contractor for material laydown/storage, worker/equipment parking areas and temporary office trailers. During this time the existing building would remain fully occupied and function, at least internally, much like it does presently. Externally, construction access would impact vehicular traffic and parking around the existing building and most athletic fields and courts would be unavailable. We expect that the Contractor will access the site via the easternmost curb cut off West Boylston; however, construction access may also be possible from the southeast corner of the site adjacent to the intersection of South Main Street and Dyke Drive. It is also anticipated that summer vacation months will be leveraged to maximize productivity for work (i.e. sitework such as repaving, new site utilities, drainage infrastructure, etc.) that would disturb school vehicular/pedestrian traffic. The construction phasing is currently envisioned to be in three stages:

- **Phase 1: Enabling Phase**
  - Establish separate existing school and new construction entrances that are essential for daily use.
  - Install perimeter fencing and erosion control.
  - Install temporary construction parking, access road, and signage around existing school.
- **Phase 2: Building Construction**
  - Maintain separation of existing school and construction site
  - Construct new school building.
  - Prepare for moving to the new school and demolition of the existing school.
- **Phase 3: Existing Building Demolition & Site Construction**
  - Maintain separation of new school and construction site
  - Abate and demolish existing school.
- **Phase 4: Site Construction**
  - Construct athletic field and basketball court.
  - Complete all landscape work.
  - Site completion: Spring 2028

Refer to Section 4.1.2.M Proposed Construction Methodology for phasing graphics.

While there will be **temporary** construction impacts, most notably the loss of the existing athletic fields on the east side of the site, they are primarily site-related and the end result is a solution that meets the Educational Program requirements.

Proposed square footage areas are approximately as follows:

- **New Construction** =136,000 GSF
- **Demolition (existing building)** =130,000 GSF

**BUILDING EXTERIOR/INTERIOR:**

Provide new construction as follows:

- Exterior walls: Steel stud backup walls with batt insulation, glass fiber reinforced gypsum board sheathing, fluid applied vapor permeable air barrier, air barrier transitions to door openings and roof systems, mineral wool rigid insulation, masonry brick veneer wall system including anchors and flashings, joint sealants, glass fiber reinforced concrete wall panel system including external cladding supports with qualifying thermal breaks and other accessories required for a complete air and watertight installation.
- Roofing: Adhered PVC roofing system throughout, including all membrane/flushing, roof edging, sheet metal work, roof board, roof vapor barrier, insulation, protection board, wood blocking, and other roof accessories (ladders, walkway pads, etc.) required for a complete watertight installation.
- Windows, Storefront and Curtainwall: Thermally broken aluminum systems, including high performance triple-glazed, Low-E insulating glass, insulated spandrel glass, perimeter joint sealants, insulated panels, screens, operable hardware, sheet metal work, air barrier transitions, window treatments and other accessories required for a complete air and watertight installation.
- Interior partitions: Metal stud and Gypsum Wall Board (GWB) assemblies as required for structural and acoustical requirements; Concrete Masonry Units CMU at Gymnasium, and other high-abuse areas.
- Doors, Frames and Hardware: Hollow metal and solid-core wood veneer doors; custom welded steel frames and borrowed lites; and lever type mortise hardware, electrified at exterior entries.
- Millwork/Casework:
  - Classroom units with storage shelving, tall wardrobe and material storage units, and lockable/open low storage cabinets.
  - Wall paneling system at Lobby.
  - Custom cabinetry at main Administrative offices, Media Center, Cafetorium/Stage, and other locations as required.
- Finishes:
  - Corridors, Stairs and Cafetorium: Linoleum flooring and resilient base, resilient stair treads, porcelain wall tile to 7' with painted GWB above, ACT.

1a. Architectural & Sustainable Design Elements Narrative

- Classrooms: Linoleum flooring, resilient base, painted GWB, ACT.
- Kitchen: Epoxy flooring/base, FRP wall paneling, washable ceiling tile system.
- Administrative/Guidance Offices and Media Center: Modular carpet flooring, resilient base, painted GWB, ACT.
- Cafetorium and Stage: Linoleum flooring, resilient base, wood and acoustic wall paneling, acoustic ceiling panels and exposed painted structure above.
- Gymnasium: Resilient tongue and groove maple flooring system (competition court) vented resilient base, painted CMU to 15' with abuse-resistant GWB above, wall padding, acoustical wall panels, painted acoustical cellular roof deck.
- Locker Rooms: Seamless epoxy flooring/base, painted CMU walls, wood fiber tile ceilings.
- Bathrooms: Seamless epoxy flooring/base, ceramic tile and painted GWB walls, ACT.
- STEM/STEAM Rooms: Linoleum flooring, resilient base, painted GWB walls, exposed painted structure above.

**FIXTURES, FURNISHINGS & EQUIPMENT (FF&E)/TECHNOLOGY:**

- Provide FF&E throughout including furnishings, equipment, maintenance items, etc.
- Provide new teacher devices (laptops).
- Provide Classroom technology including short throw interactive projectors, and document cameras.
- Provide hand-held radio system.
- Provide main servers and UPS.
- Provide Classroom local speech reinforcement system (refer to Electrical scope).
- Provide telecommunications infrastructure (refer to Electrical scope).
- Provide Wi-Fi system throughout including exterior learning spaces (refer to Electrical scope).
- Provide digital clock/PA system (refer to Electrical scope).
- Provide video surveillance, access control and security systems (refer to Electrical scope).
- Provide VOIP telephone system (refer to Electrical scope).

**HAZARDOUS MATERIALS:**

- Abate entire existing building prior to demolition. Refer to Section 4.1.2, D for Hazardous Material report.
- Provide radon mitigation system at slab-on-grade areas.

**SITE:**

- Refer to Nitsch Engineering Civil Basis of Design narrative in section 4.1.2.I.

**LANDSCAPE:**

- Refer to Studio 2112 Landscape Basis of Design narrative in section 4.1.2.1.

**FOOD SERVICE:**

- Refer to Colburn & Guyette Food Service Basis of Design narrative in section 4.1.2.1.

**STRUCTURAL:**

- Refer to Bolton & DiMartino Structural Basis of Design narrative in section 4.1.2.1.

**FIRE PROTECTION:**

- Refer to Sensible Solutions Fire Protection Basis of Design narrative in section 4.1.2.1.

**PLUMBING:**

- Refer to Seaman Engineering Plumbing Basis of Design narrative in section 4.1.2.1.

**HVAC:**

- Refer to Seaman Engineering HVAC Basis of Design narrative in section 4.1.2.1.

**ELECTRICAL:**

- Refer to ART Engineering Electrical Basis of Design narrative in section 4.1.2.1.

**TECHNOLOGY:**

- Refer to Edvance Technology Design Technology narrative in section 4.1.2, B, 10.

**SUSTAINABLE DESIGN:**

- Refer to section 4.1.2, J Sustainable Building Design for the current LEED Scorecard, Sustainability narrative and additional details on the sustainable goals for the project.

The Total Project Budget identifies \$3857 per student or a total of \$2,700,000 for FF&Technology. It is assumed at this time that the budget will be divided appropriately, as needed, between the following three (3) categories:

- Furniture
- Equipment
- Technology

This distribution must be evaluated further during the upcoming FF&E/Technology programming phase and will be adjusted as needed. At this phase, the following table outlines the items currently assumed to be within the base contract and FF&E budget, respectively:

FF&E BUDGET	BASE CONTRACT
<ul style="list-style-type: none"> <li>a) Classroom Interactive Projectors including cabling for projectors.</li> <li>b) Flat Panel Display Technology– Collaborative and Interactive</li> <li>c) Servers, storage, firewall, etc.</li> <li>d) Document Cameras</li> <li>e) Desktop Computers (may be leased)</li> <li>f) Mobile Technology charging Carts</li> <li>g) Teacher Mobile Technology (leased)</li> <li>h) Mobile Audio/Visual Equipment</li> <li>i) Printers</li> <li>j) Copiers (leased)</li> <li>k) Portable projector carts</li> <li>l) Furniture</li> </ul>	<ul style="list-style-type: none"> <li>a) Category 6A cabling</li> <li>b) Fiber Optic Cabling between Main Technology rooms and Intermediate Technology rooms</li> <li>c) Environmental conditioning in all Technology equipment rooms.</li> <li>d) School Wide Public Address</li> <li>e) Master and Secondary Clock System</li> <li>f) Network Switch Electronics</li> <li>g) Telephone and Voicemail Equipment</li> <li>h) Classroom Speech Reinforcement</li> <li>i) Wireless Equipment</li> <li>j) Security – Intrusion, Access Control and Video Surveillance</li> <li>k) Audio–Video for large assembly spaces (Auditorium, Black box, Gym, Cafeteria, Media Center, Large Group Meeting Room).</li> </ul>

**Basis of Design – Structural**

The proposed Clinton Middle School consists of 136,000 sq. ft. of one- and two-story buildings. The project conforms to Type IB Construction.

It is assumed that the foundations will be standard spread footings supported on structural fill placed over natural sand and gravel with a bearing capacity of 4 ksf. The perimeter concrete foundation walls will be standard frost walls with wall pilasters at columns and continuous wall footings. Our assumptions are based on Lahlaf Geotechnical Consulting, Inc.'s "Preliminary Geotechnical Report," dated October 7, 2023.

The slab-on-grade will be a 5" thick concrete slab-on-grade reinforced with welded-wire fabric (6x6-W2.9 W2.9). Control joints consisting of sawn cuts, and formed construction joints will be shown on the plans and will be located at about 12 feet on center to minimize shrinkage cracks in the slab.

The framed slabs will be 7½" thick concrete composite slabs supported on steel beams and 3" composite metal deck (18 Gauge). Framed slabs include a thickness of 4 ½" of concrete over the top of the metal decking, which will be sufficient to provide a 2-hour rated slab. Framed slabs will be reinforced with welded wire fabric (6x6-W2.9 W2.9) and additional #4 diaphragm reinforcing at the perimeter of the slabs. The composite concrete slab is made composite with the steel beams by using ¾" diameter headed shear studs; and "partial composite design" is used for the economy of installing fewer shear studs. ASTM A992, with yield strength of 50 ksi, will be specified for the structural steel. However, the beams will be selected on serviceability requirements to reduce the problems of vibrations and deflections, so they will not necessarily be fully stressed.

The roof framing will incorporate steel beams and long-span, open-web steel joists. Long-span joists will be limited to the Cafeteria and Gymnasium roofs. Concrete slabs will be placed below HVAC roof units near classroom spaces to help with sound attenuation. The roof steel pitches to the roof drains to reduce the amount of tapered insulation, where possible. The roof metal deck will be 1-1/2"-20 Gauge, Type B. The metal deck over the Gymnasium and cafeteria will be 3" Cellular Acoustic (20/20 Gauge) to aid acoustic properties of the open spaces. All roofs will be designed to support future photovoltaic equipment.

Wherever possible, hollow structural shapes will be selected for the columns. The Classroom Building will use HSS6x6 tubes that are easily concealed in the wall and partition framing. The Cafeteria will use wide flange steel columns at exterior walls due to their length and wind loading requirements.

The lateral stability of the buildings will be achieved with concentrically braced steel frames throughout the building. Concrete floor diaphragms and metal deck roof diaphragms will collect the seismic loads at each level. Steel braces will typically be HSS6x6 tubes. The braces will resist the lateral loads in both tension and compression. The buildings will be structurally isolated at two expansion joint locations to isolate the two Classroom Wings from the core Gymnasium/Cafeteria Building.

Bolton & DiMartino, Inc.

Christopher Tutlis, P.E.  
President

### **EXECUTIVE SUMMARY**

---

This report summarizes the code required and recommended Fire Protection (FP) systems for an all-new middle school at the existing Clinton Middle School (CMS) site.

The PSR report (dated 6-23-23) summarizes the proposed building structure, layout, and various hazard levels. That same report noted available street water flow and pressure from the 12" W Boylston St main was "sufficient" (73 psi static pressure, 67 psi residual pressure, with 1210 gpm flowing) in 1996. Current flow and pressure are expected to be somewhat better than these numbers, as the formerly-dead-end 12" main is now connected to other mains at both ends. A new flow test was provided on 10-4-23, (report attached at end) but there are issues with the test, discussed under Fire Protection Service and Fire-fighting Summary. further down.

This narrative also includes several storage recommendations that will help minimize FP costs.

The following work will be provided:

#### **Installations:**

- Revise the existing underground site loop (running between W Boylston St. and S Main St), as required for the location of the new school. Provide a new FP service from the site loop.
- Provide a new, NFPA 13 (2013) wet sprinkler system through-out the building with 1 riser and 2 zone control valve stations (ZCVs) for the North half of the building, and 1 riser for each floor of the South half of the building., .
- Sprinkler system will be sized primarily for non-combustible, un-obstructed construction in spaces with ceilings, and non-combustible, obstructed construction in spaces without ceilings.
- Protect small isolated cold areas (i.e. walk-in coolers, loading dock) by "dry sprinklers" off of the wet system.
- Omit sprinklers under outside roof overhangs (other than the loading dock), as they are of completely non-or-limited combustible construction, with no potential for storage below.

- Review available storage areas and storage needs. Re-organize storage to keep it confined to designated storage rooms, with appropriate FP coverage.
  1. Keep all storage heights less than 12', and top of storage a minimum of 18" below the sprinkler deflector level.
  2. Where large amounts of plastics or foam are stored (i.e. recycling room, gym storage and theatre set-storage), store materials in an enclosed room with a ceiling under 17' high. Store materials in solid piles, bin-boxes, single-row shelves, or back-to-back shelves, with top of storage under 12' high – for an “extra hazard group 2”, (EH2) hazard rating. Where feasible, keep plastics storage rooms under 400 sqft. (to minimize the required hose demand).
- Connect new FP system alarms to a new central Fire Alarm Control Panel (FACP), provided under Electrical.
- New Kitchen Exhaust Hood and Hood FP system will be provided under kitchen equipment.
- Portable fire extinguishers per NFPA 10 provided by the General Contractor.

**Maintenance:**

- Train in-house personnel, and provide required, regular, sprinkler system and fire extinguisher inspections using in-house inspectors
- Provide additional required maintenance and testing of FP and fire extinguisher systems, alarms and flow via maintenance contract.

**1. BUILDING DESCRIPTION:**

---

The new CMS will be a 2-story building with type 2A non-combustible construction – primarily steel, block, and brick. Total occupied building area is approximately 134,000 square feet.

The building is approximately 78% “light hazard” and 21% “ordinary hazard”, and 1% “extra hazard”.



“Ordinary hazard” areas would include (group 1) the main kitchen and kitchen service areas, and (group 2) boiler room, mechanical rooms, exterior loading docks, most storage-areas, construction craft labor shops, ETA shops, and the stage.

The recycling room, gym storage room, and theatre set storage (under 1% of the building), may contain significant amounts of group A plastics. We expect the recycled plastics, gym storage, and set storage materials may extend up to a height of 10' AFF, resulting in an EH-2 area.

Areas requiring special types of protection include the:

- kitchen hood exhausts (dry-agent packaged hood suppression by kitchen equipment)
- storage areas with shelves (aisle to aisle) over 30” deep would be considered “rack storage”. Hazard level would depend on what materials are stored in that manner, and could vary from OH2 to EH2. We are at this time, unaware of any rack storage areas in the designed building.
- There will be no combustibile concealed spaces in the all-new building except for the under bleacher area in the gym. This area will be protected by extended coverage sidewalls spraying down the slope under the open-bleachers.
- The Mass Building Code, (IBC 2015) permits unlimited miscellaneous wood blocking to be used inside walls for hanging railings, wall-mounted cabinets and accessories, etc. All other wood blocking (above ceilings, inside chases, etc) is specified to be Class A fire-retardant (NFPA 13 “limited combustibile”).

Any flammable liquids such as paints, thinners, and flammable science materials will be stored in listed flammable-cabinets. There are no other known special hazards in the building,

## 2. DESIGN RESPONSIBILITY

---

The design engineer of record for the fire protection system is Lily Kara Barak – of Sensible Solutions – Hadley, Ma. The design engineer of record for the fire alarm system is Azim Rawji – of ART Engineering Inc. – Clinton, Ma.

### 3. APPLICABLE REGULATIONS

---

The Mass. Building Code and Fire Prevention regulations primarily define *where* fire protection systems are required and the required system components.

Massachusetts is currently governed by the 2015 International Building Code, with Mass. Amendments listed in 780 CMR 9<sup>th</sup> Edition. Current building code requires the following in a facility of this sort:

1. Although the building is not high-rise by the IBC 2015 definition, it is high rise by the Mass Amendments definition. This affects several aspects of fire protection – most notably standpipe and fire pump requirements. A manual-wet standpipe system has been approved, and the fire pump has been waived, however, by the Clinton Building Dept, as permitted by CMR 780 104.10.
2. An Educational-use building over 12,000 square feet requires a sprinkler system “through-out” per NFPA 13. The system must be designed and installed per the 2013 edition of NFPA 13.
3. Water-sprinkler systems must be maintained per NFPA 25.
4. In a fully sprinkled building, Class I standpipes are required if a building’s top floor is more than 30’ above the lowest (adjacent) Fire Department vehicle access. The top floor levels in all of the multi-story portions of the building are much less than 30 ft above lowest fire department access. Thus, stairwell standpipes **are not** required through-out.
  - A. Stages over 1,000 square feet require fire-hose stations on both sides of the stage. This building has a platform, not a stage. so no stage hose stations will be provided.

Minor requirements include:

5. Identification signs with specific text messages must be installed on all equipment, valves, etc. (See “Fire Protection Systems Provided”)
6. All critical system components must be monitored by listed Fire alarm control units, and all alarms, trouble signals, and supervisory signals must be automatically transmitted to the local fire dept. via approved means. Water flow alarms must also activate local Audio / visual alarms to trigger evacuation.

7. Kitchens with commercial cooking equipment under type 1 hood exhausts require fire suppression that also must be regularly tested and inspected.
8. Labeled, approved, and visible fire extinguishers are required in all E-use buildings. In buildings covered thru-out with quick response sprinklers, however, portable fire extinguishers are only required in the following locations:
  - A. within 30' of commercial cooking equipment (type K);
  - B. areas with flammable or combustible liquids; (type B)
  - C. per NFPA 241 when structures are under construction / renovation;
  - D. special hazard areas listed in the code (such as wood-working or auto repair areas – that would apply only to the CCL and ETA shop area of CMS);
  - E. as required by the local fire dept.
9. Areas where toxic gasses are used require gas leak detectors with distinct audio-visual emergency alarms, and automatic shut-down of gas supplies. There is no toxic gas storage in the building except in a central chemical storage room. Natural gas will be used to power HVAC and kitchen equipment, but there will be *no* natural gas supplies in science rooms, which are designed as an light hazard.  
  
10. An unobstructed, readily accessible Fire Dept. Connection (FDC) that permits the Fire Dept. to pump extra water into the sprinkler and standpipe systems is required. As agreed with CFD, 1 FDCs will be provided. Location must be approved by CFD. The FDC is currently shown on drawing FP- 4 as just outside the water room entrance. The FDC will be a4” Storz, angled down 30 degrees.

The NFPA standards primarily define how the Fire Protection Systems must perform and how they will be installed. Requirements vary greatly by hazard type and building combustibility and are only briefly summarized here.

#### **NFPA 13 2013 Edition – Sprinkler Systems**

1. Sprinklers are required “through-out”, except where specifically permitted to be omitted. Throughout means not only occupied spaces, but in electrical / mechanical rooms, closets,

walk-in-coolers, combustible concealed spaces, and several other spaces that the CMS will *not have* such as attics and crawl-spaces.

2. Each wet Sprinkler “system” is limited to 52,000 sqft (light or ordinary hazard) or 40,000 sqft (extra hazard) on a single floor, per riser. This minimizes the area taken out of service in the event of an equipment failure, or fire. Areas on different floors are *not* added together – for example, up to 52,000 sqft on each of two floors can be served by a single riser. CMS will have 3 sprinklers to cover it’s 134,000 total sqft.
3. The number and spacing of sprinklers in any room, and the minimum amount of water each sprinkler must discharge is defined based on the room’s “hazard group”. The basic hazard groups in NFPA 13 are
  - a. “Light hazard (Light)”
  - b. “Ordinary Hazard (OH-1 or OH-2) and
  - c. “Extra Hazard (EH-1 or EH-2)”
  - d. Spaces used for storage have special classifications depending on what materials are stored and how they are stored.
4. Sprinkler piping may be sized based on hydraulic calculations or using pre-defined pipe schedules. All piping in this building is hydraulically designed.
5. In addition to the hazard rating of an area, the fire protection requirements also depend on whether the construction is
  - a. “combustible” or “non-combustible”.
  - b. “Obstructed” or “non-obstructed”.

This sprinkler system is designed for predominately non-combustible, non-obstructed construction in spaces with ceilings, and non-combustible, obstructed construction in spaces without ceilings.

Sprinkler systems can be “wet” (piping always filled with water), “dry” (piping always filled with air, except in a fire), or one of several specialty types. NFPA recommends wet systems be

used where-ever possible, as they provide the fastest response to a fire. A wet-system is provided for the entire building.

6. Small isolated cold areas in CMS will be sprinkled by “dry sprinklers” off of a wet system. This would apply to Walk-in freezers and coolers, and the loading dock. All other canopies are non-or-limited-combustible construction, and per NFPA 13, these canopies will not be sprinkled.

### NFPA 10 – Fire Extinguishers

1. Selection of fire extinguishers is based on the type and size of fires expected to occur.
2. Classes of fires:
  - a. A – ordinary combustibles – wood, paper, cloth, rubber, many plastics
  - b. B – Flammable liquids, greases, tar, oil, paints, solvents, alcohols, gasses.
  - c. C – Energized electrical equipment
  - d. D – combustible metals
  - e. K – cooking oils
3. The size and quantity of extinguishers required is based on the room’s hazard level. Room hazards are defined as:
  - a. Light hazard if has normal amounts of Class A materials, with less than 1 gallon/room class B
  - b. Ordinary Hazard if occasionally has more than normal amounts of Class A, and less than 5 gal./room class B
  - c. High hazard – storage, manufacturing, or packaging of Class As, or class B over 5 gal./room
4. Building structure is be protected by Class A extinguishers. Specific occupancies are protected by extinguishers with an appropriate class. Extinguishers can be “multi-purpose, for example, type ABC is very widely used.

5. Class B fires must be protected with large (over 10 lb) dry chemical medium, with minimum discharge of 1 lb/second.
6. Class K (cooking oil) fires must be protected with class K extinguisher. ID all K extinguishers “Activate FP system prior to using extinguisher”
7. Extinguishers should be inspected monthly to ensure they are in place, are full (“hefting” test), with no visible damage. They require annual minor maintenance and 6 and 12-year interval major maintenance / testing.

### **NFPA 25 – FP Maintenance**

Current NFPA maintenance requirements are summarized below:

1. Annual, visual inspection (from the floor) of all sprinklers for: leaks; “loading” (accumulation of foreign materials such as grease, lint, paint, etc); corrosion; physical damage;
2. Annual visual inspection of the spare sprinkler cabinet to ensure it contains the proper type and quantity of sprinklers and wrenches.
3. Annual visual inspection (from the floor) of pipe and hangers for: leaks, corrosion, extra weight, damage.
4. Annual inspection (just before cold weather) of building to ensure all areas with water-filled piping have heat, and dampers, windows, etc. are all closed.
5. Monthly inspection of pressure gages for normal pressures, and damage.
6. Quarterly inspection and operational test of alarm devices (flow switches)..
7. Quarterly inspection of the hydraulic name-plates to ensure they are in place.
8. Monthly inspection and annual test of control valves,
9. Monthly inspection and annual testing of the back-flow preventor

10. Quarterly inspection of fire dept. connections.
11. Annual full-flow test out main drain.
12. Sprinkler testing – laboratory testing of a “representative sample (minimum 1% of total installed). Test after 20 years, then every 10 years there-after. If any tested samples fail – replace all sprinklers represented by that test sample.

Sprinkler system maintenance will increase the school’s annual maintenance costs. This will be at least partially offset by a reduction in fire extinguisher maintenance, however, since far fewer extinguishers will be required with a sprinkler system installed.

**NFPA 241:**

Since Oct, 2017, NFPA 241 has been adopted by the State of Massachusetts. Most of its requirements are common sense, though some will increase construction costs. Requirements are summarized here:

1.2.4 A fire safety program shall be included in all constructions, alteration, or demolition contracts. Per 7.1 this shall include at minimum:

1. Good housekeeping
2. On-site security
3. Installation of new FP systems as construction progresses
4. Preservation of existing systems during demolition (no existing systems at CMS)
5. Organization and training of an on-site fire-brigade
6. Development of a pre-fire plan with the local FD
7. Rapid communication
8. Consideration of special hazards resulting from prior occupancy
9. Protection of existing structures and equipment from exposure fires caused by construction, alternation or demolition operations.

4.3.1 Temporary Enclosures: Only non-combustible panels, flame resistant tarps or approved materials with equivalent fire-retarding capacity shall be used.

4.3.4.1 All Temporary enclosures shall be equipped with a minimum of 1 fire extinguisher suitable for all classes of fires expected inside the enclosure.

4.3.4.2 Travel distance to a fire extinguisher from anywhere in the construction area shall not exceed 50 ft.

5.1 Hot Work – defined as work involving burning, welding, or a similar operation that is capable of initiating fires or explosions.

5.1.1 FP precautions, permits, and fire watches shall be per NFPA 51B.

5.1.3.1 Fire watches shall be assigned no other duties.

5.5.1.1, 2 and 5 Storage and handling of Flammable and combustible liquids: shall be per NFPA 30 – in approved safety containers, in areas posted “no smoking”. Storage of class I and II liquids shall not exceed 60 gallons within 50 ft of the structure.

7.2.5: Guard service shall be provided where required by the local AHJ.  
Security fences shall be provided where required by the local AHJ.  
Entrances shall be secured where required by the AHJ

7.4 Fire Alarm reporting – There shall be a nearby, readily available public fire alarm box or telephone service with FD number and address conspicuously posted near each telephone.

7.5 Access for Fire Fighting: A command post with plans, emergency info, keys, communications, and equipment shall be provided at a suitable site location. The local AHJ may require an approved-type, locked key box installed in an accessible location.

7.5.5 Access roadways: The following may be relaxed by the local FD, if they feel fire-fighting / rescue operations would not be impaired:

Every building shall be accessible for FD apparatus. Min. standards: All-weather driving surface that can withstand live loads of FD trucks, min 240” wide, min 162” vertical clearance. The required width shall not be obstructed in any way – including by parked vehicles. Access roads shall extend to within 150 ft of all portions of the 1<sup>st</sup> floor exterior walls.



8.6.1.1 Fire walls and exit stairways – where required for the construction – shall be given priority for installation.

8.6.1.2 and .3 Fire doors with approved closing devices and hardware shall be installed as soon as is practicable, and shall not be obstructed from closing once installed.

#### **4. FIRE PROTECTION SERVICE AND FIRE-FIGHTING SUMMARY**

---

Water to the new school will be fed from two directions. A combination existing–new 8” site main will loop around the new building, with one end connecting to a 12” W. Boylston St. main, and the other end connecting to a 12”, S. Main St. main.

Existing site hydrants around the existing school will be removed, and new site hydrants are planned. See site plans for exact location and number of new hydrants. There will be a site hydrant within 100 ft. of the FDCs.

A 10–4–23 flow test performed by Rustic Fire Protection on the W. Boylston St. 12” main showed a static pressure of 77 psi with a residual pressure also 77 psi, and 1,455 gpm flowing. (The DPW staff person videoing the residual pressure gage stated verbally that the gage “never budged”.) We wrote to the Clinton DPW, describing the situation, and asking if they had any good explanation for the lack of pressure drop. Our hypothesis is that a valve was closed on W. Boylston St, between our gage and flow hydrants, and the water flowing was actually back–feeding down S. Main St, and thru the existing CMS site hydrant to the flow hydrant. The DPW stated they would check if any valves were closed, but they have not responded further yet.

A new flow test will be performed by the successful bidder before installation of the new FP system. We will use the same set–up used on 10–4–23, but add a residual pressure gage on the existing CMS site loop. If there is still 0 pressure drop on the W Boylston St. residual gage, and 5 psi or more on the site loop residual gage, this will help locate the problem.

Emergency vehicle access will be excellent, – with 100% of the building accessible to apparatus.

#### **5. FIRE PROTECTION SYSTEMS TO BE INSTALLED**

---

A new “wet-type” system will be installed through-out the occupied building.

Sprinklers will be intermediate temperature throughout the building, except where a higher temperature rating is required by NFPA 13.

All spaces with ceilings will utilize concealed pendants, to minimize potential for vandalism of sprinklers. Clinton K-factor will be 5.6 in most areas, with K11.2 Light-listed extended coverage sprinklers used in **some** light hazard areas, and K11.2 OH-listed extended coverage sprinklers used in **some** ordinary hazard areas. All extended coverage sprinklers will have a 3/4” (larger-than-standard) thread size, to prevent accidental replacing of any EC sprinkler with a standard coverage sprinkler.

Areas with no ceilings will utilize exposed piping, with fusible link, upright sprinklers.

Mechanical and electrical spaces, walk-in coolers with auto-defrost, cooking areas, and the Art-kiln room will be covered by high temperature sprinklers, to prevent false activation in the event of a pressure relief valve blowing, or defroster / cooking heat, .

All exposed upright or pendant sprinklers in the gymnasium, mechanical spaces, storage areas, under-stairs, or installed under 12’ AFF will have protective head-cages. Sidewalls under the bleachers will not have head cages.

All above-ceiling spaces are non-or-limited-combustible, so **none** of these are “combustible concealed spaces” requiring sprinklers. Some ceilings are not solid-and-continuous, however, so do require 2 (or more) levels of sprinklers. Ceilings have not been designed yet, but such areas may include the cafeteria, auditorium, media center, career center, and band-music areas. In general, 1 level of sprinklers is at the deck, and one at the ceiling level. There is **no** accessible space under the platform, so no sprinklers there.

Walk-in coolers / freezers are protected by dry sprinklers piped from wet-piping in heated space.

A new kitchen exhaust-hood will be provided, and a new, dry-agent, packaged fire suppression system provided as part of the kitchen equipment / hood package.

Interior piping systems will be schedule 40 threaded or grooved, black steel for pipe 2" and under, and schedule 10, grooved steel for pipe 2-1/2" and over. All pipe will be sized for a maximum water velocity of 30 fps.

Seismic bracing to be provided will include riser-4-way bracing and main-longitudinal sway bracing thru-out. Where possible, sprinkler main hanger rods will be less than 6" long from point of attachment to top of pipe, eliminating the need for lateral bracing. Where this is not possible, all mains and cross mains will have both lateral and longitudinal seismic bracing. Per NFPA 13, branches 2-1/2" and over will have lateral bracing only. Branch lines carrying 2 or more sprinklers will also have end-of-line restraints.

**Fire Protection Equipment and Controls Locations:**

The fire protection service entrance, backflow preventor, and sprinkler risers will be located in the Water Service room, located on the South exterior wall of D-area. there will also be 2, zone-control-valve stations (ZCVs - one per floor) located in the north stairwell of ther C-area. CFD Zone control valve stations will be typically located above the stair-landing ceiling, and will all have a supervised control valve, check valve, pressure relief valve, pressure gages, flow-switch alarm, and test and drain (to a 2-1/2" drain riser) per NFPA 13.

Per the Clinton Fire Dept. (CFD) standards, 1, new, Storz FDC will be provided. Awater-flow bell will be located above the FDC.

Cross-contamination between the sprinkler system and city water system will be prevented by a new, double check valve backflow preventer installed at the new FP service entrance.

There is no smoke control system or exhaust required for this building, and none is provided. The only non-wet fire suppression system in the building is the kitchen hood wet-chemical system, located in the main kitchen.

Identification signs per NFPA 13 and the 9<sup>th</sup> Edition Building Code will be provided on:

1. All control valves - must state area served.
2. All test and drain valves and all auxiliary drains.
3. Fire Dept. connections

Schematic Design

I. Building Systems Narratives

3. Fire Protection

4. Hose valves
5. Fire Suppression Control Room door
6. Spare sprinkler cabinet (typed list of sprinklers and their characteristics and use)
7. Hydraulics calculations signs at the service entrance

**Sequence of Operations:** All control valves will have continuously monitored tamper switches, and all risers, and all zone-control valve stations will each have a flow switch. Flow switch alarms will trigger all building notification devices and evacuation. Both tamper switch and flow switch activation will be communicated to the Clinton fire dept. See fire alarm narrative for details.

**6. ACCEPTANCE CRITERIA**

---

The following written certifications shall be provided (by the person noted) to all local AHJs.

The Fire Suppression Engineers of record will certify that the systems have been installed in compliance with the construction documents, and that submittal data was reviewed and is acceptable.

The owner will certify that as-built drawings have been received from the contractors, and that the engineer(s) have confirmed their reasonable accuracy.

The sprinkler contractor will provide completed NFPA 13 test and acceptance report(s) for each riser (above-ground reports) and for the FP-only underground service main (underground report). Reports will include the name, address, and telephone number of a person to contact for any system failures or emergencies.

If any portion of their system fails to operate satisfactorily, each contractor must repair or replace the faulty components. They must then retest those components individually, as well as retest all related system functions in the presence of the engineer and all AHJs.

The sprinkler contractor will also provide a signed letter certifying the sprinkler system is installed in full compliance with all laws, regulations, and the pre-approved narrative, and shall obtain written approval from all AHJs certifying that they have witnessed the final acceptance testing.

The site contractor (responsible for installing all underground piping) shall also provide NFPA test and acceptance reports, certifying that their main-loop piping has been installed, flushed, and pressure tested per NFPA.

To: Peter Caruso  
Sean Brennan  
Eric Moore

From: Lily Kara Barak

Date: 2-7-24

RE: Clinton Middle School SD Quality Assurance and Fire Pump Certification

**1. FP design coordination and quality assurance**

- a. The FP SD design is coordinated with the Structural design. When ceiling plans are further developed, we will also be in an on-going process of checking coordination with the architectural, electrical, and HVAC designs.
- b. We are aware that many ceiling designs will not be finalized until the CD phase. We will continue to coordinate the FP design as the architectural designs evolve.

**2. Fire pumps:**

- a. A flow test was provided by Rustic Fire Protection and the Clinton Water Dept. on 10/4/23. With a static pressure of 77 psi and 1455 gpm flowing, there is no need for a fire pump to serve this 2-story, sprinklers-only system.
- b. There was 1 anomaly in the flow test, which is that the residual pressure gage never moved between it's zero flow reading (77) and the 1455 gpm reading (77). We theorize that a valve was closed on W. Boylston St, between the flow and gage hydrants. And that flow to the flow hydrant was back-feeding thru the existing school loop from S. Main St. We requested that the Town Water Dept. check for any closed valves (or offer an reasonable, alternative explanation), but after a brief email conversation with them, we have nothing further.
- c. The FP contractor is required to provide a new flow test at the time of construction. If this anomaly is not resolved by then, we will require 2 gage hydrants, 1 on W Boylston, and 1 on the existing school loop. As a further check, we will close a valve on the school loop while the flow hydrant is flowing, and record the impact this has.

It would be easy for a valve to be accidentally left closed on W. Boylston St, since it is fed from 2 directions, and the impact of a closed valve would be invisible under normal operation. But we do not want construction to start on the new school site, and leave W. Boylston St (west of the closed valve) without water because the site loop has been shut down.

**Code Criteria Listing**

- International Building Code (IBC), 2015 Edition
- International Mechanical Code (IMC), 2015 Edition
- International Energy Conservation Code (IECC), 2015 Edition
- Massachusetts State Building Code Amendments, Ninth Edition, 780 CMR
- Massachusetts Architectural Access Board (MAAB), 521 CMR
- NFPA 54, ANSI Z223.1: National Fuel Gas Code, 2018 Edition
- Commonwealth of Massachusetts “Fuel Gas & Uniform State Plumbing Code”, 248 CMR, 12/8/23

**Fixtures and Fixture Count**

Number of plumbing fixtures will be distributed throughout the proposed facility to accommodate a population of 350 male students, 350 female students and 100 faculty/staff and shall be in accordance with 248 CMR Paragraph 10.10, Table 1.

Plumbing fixtures will be equipped with the following water conserving features (for 30% indoor water use reduction per LEED v4 Water Efficiency)

- Water Closets:            Electronic Sensor Flush Valve @ 1.28 GPF (Sloan #111-1.28 ES-S)  
Hard-wired (owner preferred) or Battery Operated
- Urinals:                    Electronic Sensor Ultra Low-Flow Flush Valve Style @ 0.125 GPF (Sloan #WEUS  
1000.1301)  
Hard-wired (owner preferred) or Battery Operated
- Lavatories:                Electronic Sensor Faucets @ 0.35 GPC (Sloan SF-2300 Series)  
Hard-wired (owner preferred) or Battery Operated
- Showers:                    Non-ADA Low Flow Institutional Shower Head, Ball Joint, Adjustable Spray, 1.5  
GPM (Moen Commercial #8375EP15 or equal)  
ADA Compliant Hand Shower with 30” Glide Rail, Single Handle Shower Valve,  
1.5 GPM (Moen Commercial #8346EP15 or equal)

Water closets and urinals will be commercial vitreous china, wall hung (ADA compliant where shown). There may be a floor mounted water closet depending on if there is a wet-wall plumbing chase provided.



## Feasibility Study PSR

## D.1 Basis of Design Narratives

## f. Plumbing

Lavatories throughout the building will be commercial vitreous china, wall hung. Each floor includes a janitor's closet with a floor mounted mop service basin. Toilet cores on each floor will include alcove-recessed electric water cooler, in a high-low handicapped accessible configuration nearby. All water coolers will have integral bottle fillers mounted above the handicap cooler. Restrooms, kitchen and mechanical room will have floor drains with trap primer connections & valves. Hose bibs are required in restrooms with more than one flushing fixture.

Shower stalls are made from mud-set tile. Non-handicap shower shall have a terrazzo base and the handicap shower stalls have tiled floors with a center floor drain. For non-handicap showers, a shower drain and shower valve with fixed showerhead will be installed (2 total). For handicap showers, a shower drain and shower valve with a hand shower on slide bar (ADA compliant) shall be provided for each (4 total).

Any rooms with sinks except art & science rooms will have a self-rimming stainless steel sink with gooseneck type faucets (Chicago#201-RSGN8AE35VPXKABCP or equal). Sinks located in classrooms which are piped off of the main domestic hot water system shall have point of use mixing valve to ensure the hot water temperature does not exceed 112°F. Hose bibs are provided in any bathroom that has a floor drain and the mechanical room. Exterior non-freeze wall hydrants will be provided as requested by the owner as they are not required by code. There will be a mixture of non-freeze wall hydrants and roof hydrants mounted at the roof to clean the HVAC equipment and solar panels.

Science Classrooms will be provided with gooseneck faucets for the classrooms sinks with integral vacuum breakers and serrated nozzles. The student and demonstration tables shall have mixing faucets (Chicago Faucets model #LWM2-B11-A) and the handicap lab sinks shall have similar faucets with wrist blade handles(Chicago Faucets model #LWM2-A13-A).

Art Classrooms will be provided with two (2) 36"x17"x8"deep self-rimming stainless steel sinks with a faucet and drain each. Also, each Art Classroom will also be provided with one (1) 19"x18"x6.5"deep self-rimming stainless steel sink with a faucet and drain which is ADA compliant. The faucets shall be similar to Chicago Faucets model #201-AE35XKABCP or equal. Each sink will be provided with a solids interceptor, in lieu of a p-trap, mounted in the base cabinet. A solids interceptor is designed to recover all types of solids which enhances sanitation through efficient prevention of clogged waste lines. All sinks will be provided with a cup strainer.

There shall be emergency fixtures installed in all the Science Classrooms and Prep Rooms, the Chemical Storage Room, and STEM rooms as required by code. There is a mixture of styles for these fixtures.





Combination emergency showers and eyewash units shall be exposed floor mounted style that is handicap accessible (Chicago Faucets model #8405–NF or equal). In the mechanical room, a single eyewash/facewash fixture shall be installed within the room and readily accessible (Chicago Faucets model #840–NF or equal).

Mop sinks throughout the school shall be floor mounted molded stone basins with 10” high walls. The specified Fiat model #MSBID–3624, or equal, shall be overall outside dimensions of 36”x24”x10” and shall have an integral drain. Wall mounted, manual mop sink faucets shall be similar to Moen model #8124 or Chicago Faucets model #445–897SRCXKCP, or equal. The sinks shall have the following accessories: mop hanger, hose and hose bracket.

### **Roof Storm Drainage System**

Roof is sloped to interior roof drains. The storm drain system will incorporate primary roof drains at low points and emergency overflow roof drains with 4” high internal water dams in case the primary roof drain fails. The drawing indicate side-by-side roof drains, but bi-functional roof drains can also be utilized. The primary roof drains will be piped to internal rain leaders and combine below grade to several exit locations to connect to the site storm drainage system. The emergency roof drains will be piped to discharge independently from the primary building storm system and shall terminate a minimum of 18” above grade. A wall lip will be provided at the outlets without screens to keep water off of the building.

Since the building is fully air conditioned, the HVAC system will produce condensate. Per the MA Plumbing Code, this is considered “Clear Water Waste” and only 12.5 gallons per hour, or 300 gallons per day, may be discharged to the sanitary drainage system. Alternate discharge locations are outside or to the storm drain system. Pipe connections to the storm drains/rain leaders must be made using standpipes with vented p-traps connected to backwater valves to prevent back-ups.

### **Sanitary Systems**

The sanitary sewer system within the building envelope to 10’ beyond the building foundation wall shall be service weight cast iron and will drain by gravity. External to the building, underground PVC piping shall be used or other material as dictated by the site engineer. The entire building can be drained by gravity, so a sewerage ejector pump system is not required for the sanitary waste.



The science rooms and prep rooms have sinks and floor drains that discharge through a separate piping system since they are considered “Special Hazardous Waste” per code or Lab Waste. The pipe material can be PVC, CPVC, FRPP (fire retardant polypropylene) or PVDF (polyvinylidene fluoride) which are all resistant to a broad range of acids and corrosive chemicals, but each has different strengths and weaknesses with certain chemicals. All waste from the science labs generating acidic waste shall be run through a passive acid neutralizing tank with outflow pH sampling tank connected to a pH monitor. Currently the pH system is located in a vault at the rear of the school near the exterior grease trap.

In addition to a two local grease traps serving the dishwasher and pre-rinse sink (GI-1); as well as the pot sink and floor troughs (GI-2), all waste requiring treatment (i.e. floor drains and floor sinks at or near the cooking line) from the kitchen shall be piped to a large exterior grease trap prior to discharge to the municipal sewer system. Fixtures that do not require treatment such as hand sinks, floor drains or floor sinks receiving clear water waste, prep sinks and discharge from disposers/food waste grinders, could be piped to the sanitary sewer system. Currently, the entire kitchen is piped to the exterior grease trap.

There are two sanitary sewer exits from the building instead of combining all of the drains and exiting once. This is required for several reasons.

- 1) Due to water saving measures, low flow fixtures have had a negative impact on the sanitary sewer system creating clogged pipes. Reducing the overall drainage system length should theoretically reduce clogging within the building.
- 2) The building layout lends itself to multiple sewer exits.

In an effort to prevent sanitary sewer stoppages or clogs, we recommend the following:

- 1) Keep the sanitary sewer runs as short as possible. In the current design, a distance of 250 feet is considered short.
- 2) Slope all sanitary drain lines at  $\frac{1}{4}$ " per foot (2%) below grade. This is only required for 2" or 3" drain lines per code, but the piping slope increases the drain line carry from a fixture.
- 3) Discuss toilet paper options with the owner as this will impact the drain line performance.



Above ground sanitary drainage and will be piped in cast iron with “no-hub” joints. (3” or larger) . Piping smaller than 3 inch will be piped in copper. Piping below floor shall be service weight cast iron hub and spigot with rubber gaskets.

**Radon Systems**

Each section of the building will have a radon system installed (i.e. building divided into sections by the architect). The system consists of perforated PVC piping directly under a vapor barrier below the slab which is piped to a vertical riser to the roof. Above the roof, a radon fan is installed which provides a negative pressure below the slab. This captures the radon vapors and discharges them above the roof instead of rising through the floor. Each radon system (8 total) will have two fans, one primary and one back-up. The stainless steel piping at the roof will extend 10 feet above the roof (called a mast). Note that the stainless steel mast and radon fans will be furnished and installed by the HVAC contractor. The fans are monitored by the BMS (Building Management System). Please note that this system is recommended due to possible elevated radon levels at this site.

**Sub-Soil Drainage Systems**

The sub-soil drainage systems will be installed by the site contractor as they do not connect to the municipal storm water drainage system. Most of the sub-soil drainage pipes will be installed below the proposed underground plumbing.

**Domestic Cold Water Service**

New main 5” domestic water supply in the water room will be installed from the new looped water main that circles the building. A Reduced Pressure Backflow Preventer will be provided to the main domestic water supply to protect the service (per the DEP regulation 310 CMR 22). Boiler/Chiller water feed and make-up, and any other mechanical take-off’s will branch off through a reduced pressure-principle backflow preventer. The science lab cold water feeds will need to be a protected water supply, therefore a reduced pressure backflow preventer will be installed in the mechanical room to service these fixtures.

LEED recommends monitoring the water usage in multiple systems to determine how the water is used and how much water is used for the processes. For schools, water sub-meters are added to the domestic hot water system cold water feed and to the heating plant cold water feed. In this building, there will also be a chilled water plant, so multiple water feeds and sub-meters may be required.



There may be a site irrigation system installed for this site. If required, this is piped before the domestic water service entrance building water meter and will have a separate water meter installed. The purpose is to meter water that does not go down the drain to the sewer treatment plant (different rate charge for water use). This will have an RPZ Backflow Preventer installed and a PRV, if required. There will be a separate piping system for the site irrigation system. Based on the street water pressure, this system will not require a water pressure booster pump.

A water analysis will need to be performed to see if water filtration or water softeners are required. There are point-of-use water filters installed for some of the kitchen equipment (ice maker and combi-ovens), but these are mainly for odor and taste. We are assuming a whole building system is not required for either..

The domestic cold water piping inside the building will be distributed in “L” type copper tube with wrought or cast copper fittings. Press-fit fittings are allowed as an alternate joining method to soldering. The piping will be insulated to prevent condensation. Note that polypropylene, an alternate piping material, is acceptable in MA, but it does not meet the flame spread and smoke development rating required and would need to be protected in plenum spaces with insulation.

#### **Domestic Hot Water Service**

The domestic hot water will be generated by a heat pump water heater system. The specified system is a Mitsubishi Heat<sub>2</sub>O system which is an all-electric domestic hot water (DHW) heating system. The Heat<sub>2</sub>O heat pump water heater reduces the environmental impact of DHW through energy-efficient operation while using CO<sub>2</sub>, a natural and environmentally friendly refrigerant with a global warming potential (GWP) of one and an ozone depletion potential (ODP) of zero. The system includes pre-assembled and pre-plumbed components designed and selected to ensure installation quality and ensure optimal performance of the heat pump. Components include hot water storage tanks, swing tanks, secondary heat exchangers and variable-speed secondary circuit pumps.

Heat<sub>2</sub>O transfers ambient thermal energy from outdoor air to potable water by cycling refrigerant. Natural CO<sub>2</sub>, refrigerant enables Heat<sub>2</sub>O to supply hot water up to 176°F even in low ambient conditions without burning fossil fuels.

Using Mitsubishi Electric’s patented Twisted Spiral Gas Cooler, the system achieves highly efficient heat exchange with three refrigerant lines wrapped around a twisted water pipe.



The CO<sub>2</sub> refrigerant flows in the opposite direction of the water. Running the refrigerant lines along the pipe's grooves increases the heat conductive area while the spiral helps create a vortex in the pipe, accelerating the turbulence effect of water and reducing pressure loss in the heat exchanger. Additionally, the copper pipes make for double-walled construction.

An INVERTER-driven scroll compressor increases Heat<sub>2</sub>O's energy efficiency by enabling the system to modulate refrigerant flow and heating capacity to match loads.

Heat<sub>2</sub>O can provide over four times more energy as heat than the system consumes in electricity. With a coefficient of performance of up to 4.52, Heat<sub>2</sub>O offers energy savings of 60 to 70% for building owners and tenants compared to electric-resistance water heaters. Energy savings combined with incentives from utilities can ultimately offset first costs.

Heat<sub>2</sub>O can operate at high capacity even in cold climates such as climate zones 5 and 6. The system delivers 100% heating capacity of 40 kW at ambient temperatures as low as 36° F. When down to -13° F outside, the system can still supply 176° F hot water but at 50% of the heating capacity.

In extreme cold, Heat<sub>2</sub>O's compressor uses flash-injection technology to operate at high speed, maintaining high discharge pressure and ensuring the compressor shell is kept cool at all times to capture ambient heat.

Heat<sub>2</sub>O heat pump water heater is capable of operating at three capacities: 136,485 BTU/H (40 kW), 170,607 BTU/H (50 kW) and 204,728 BTU/H (60 kW). Up to six units can be piped in parallel for a maximum size of 682,425 BTU/H (240 kW).

This system shall be used to support the buildings domestic hot water needs. The domestic hot water distribution system will be recirculated from the furthest points in the school back to the storage tanks. There will be one hot water piping systems within the building to serve everything. The other system will operate at 125°F. Each lavatory and hand sink faucet will reduce the hot water temperature to 110°F at the outlet.

The domestic hot water will be reduced in temperature via a central thermostatic mixing valve in the mechanical room. A second mixing valve will be installed on the emergency shower/eyewash system water feed with recirculation loop. This system will provide 75-80°F tempered water to these fixtures only and will incorporate mono-flo fittings to maintain constant flow to the fixture inlet to minimize stagnation.



The science lab hot water feed will need to be a protected water supply, therefore a reduced pressure backflow preventer will be installed in the mechanical room to service all of the science lab fixtures. Since the protected hot water cannot be recirculated to the domestic hot water system, electric temperature maintenance heat trace will be installed for the entire run serving the science rooms.

**Sustainable Opportunities:**

Many of the proposed fixtures and control sequences noted above minimize water usage and conserve energy however, further optimization may be obtained by investigating the use of storm water recovery systems. These systems collect, filter and utilize storm water to supply water to water closets and urinals throughout the building. In addition, vacuum tube thermal solar panels mounted on the roof can be considered to supplement the building domestic hot water needs. If geo-thermal systems are utilized, then installing a desuperheater with transfer heated gases from the heat pump compressor to the water heater, but note in the winter months, a desuperheater does not produce enough so electric resistance back-up heaters are used in the hot water tanks to achieve the desired hot water temperature. A life cycle evaluation must be performed to ascertain the initial first costs, annual operating costs and projected savings associated with such a system.

Also, there is a higher efficient water closet available that is 1.1 GPF vs. 1.28 GPF. There is a concern that there will not be enough water discharged from these fixtures for drain line carry, thus creating blockages in the piping, leading to sewer back-ups. We feel that even though a LEED point could be gained, it is not worth the risk and aggravation.

**End of Plumbing Narrative**



**HVAC – Basis of Design**

---

**BUILDING CODE SUMMARY**

The HVAC systems and components shall be designed in accordance with the requirements of the Commonwealth of Massachusetts State Building Code – 9<sup>th</sup> Edition, 780 CMR. In addition, the systems shall conform to the energy conservation requirements of Chapter 13 of that code which references the International Energy Conservation Code (IECC) 2021 with MA amendments. Ventilation requirements shall meet or exceed those requirements of ASHRAE Standard 62.1 – 2016 ‘Standard for Ventilation and Indoor Air Quality’ with review of the more recent 2022 version. In addition, there is an on-going effort to comply with ASHRAE Standard 241–2023 ‘Control of Infectious Aerosols’ especially within classroom areas.

We do understand that the 10<sup>th</sup> edition of the building code shall most likely will be release and enforced at the time this project is permitted for construction. Although this is a code has yet to be published, we plan to have our design meet and in most cases exceed the current code requirements particularly with regard to ventilation and system efficiencies.

**DESIGN CRITERIA**

As noted previously, the HVAC systems and components are designed in accordance with the requirements of the Commonwealth of Massachusetts State Building Code – 9<sup>th</sup> Edition, 780 CMR, and conform to the energy conservation requirements of Chapter 13 of that code referencing IECC 2021 International Energy Conservation Code with MA amendments.

The Clinton Middle School is located in Clinton, MA and the systems design and loads comply with the criteria for Climate Zone 5A. Outdoor design conditions utilized were from the nearest weather station at the Worcester Regional Airport :

Heating Degrees Winter:	2.4°F
Cooling Degrees (db) Summer:	85.8°F
Cooling Degrees (wb) Summer:	70.9°F

Interior design temperature set points are 70°F for heating and 75°F for cooling (for spaces with cooling cycles) during occupied conditions. Setpoints shall insure a minimum 5 degree deadband between cooling and heating exists. Space conditions are allowed to drop to 62°F during the heating season and rise to 83°F during the cooling season when spaces are in the unoccupied condition. Morning warm-up

or cool-down period is optimized to achieve design space conditions at the commencement of occupied periods.

Design occupant levels by space are contained within the architectural documents included as part of the approved schematic documents.

Outside air ventilation requirements are based on the ICC International Mechanical Code 2015 as referenced by the building code as well as cross references to ASHRAE Standard 62.1 – 2016 ‘Standard for Ventilation and Indoor Air Quality’ with review of the more recent 2022 version. In addition, there is an on-going effort to comply with ASHRAE Standard 241–2023 ‘Control of Infectious Aerosols’ especially within classroom areas. Ventilation requirements are based on space use, room occupancy, square footage and ventilation effectiveness.

Cooling and heating load calculations were performed utilizing the design data referenced above. Hourly Climate data for Worcester, MA was selected for load and energy calculations in that it offers the most applicable environmental conditions for the project site.

The building heating and cooling load requirements under peak design load conditions as indicated above are estimated as follows and are preliminary pending further advancement of building plans for improved load estimation:

	Heating Load	Cooling Load	Tons
Building Loads	3,300,000 BTUH	4,200,000 BTUH	350

The estimates do not include localized cooling loads for tel/data and MDF rooms.

**BASIS OF DESIGN**

The design incorporates a hydronic based hot water and chilled water system to support a majority of the buildings classroom spaces. This style system was chosen to reduce the refrigerant loading within the occupied spaces due to new refrigerant flammability concerns as well as allow for improved future compatibility with new technology such as clean hydrogen boilers, CO2 heat pumps, etc... All building HVAC systems do not rely on the use of on-site fossil fuels.

The hydronic systems feed out to the various building terminals and are supplied by modular water to water heat recovery chiller/heater heat pumps with source water fed from a closed loop geothermal



heat exchange ground loop. The heat pumps can generate chilled water, hot water or both simultaneously if needed based on building demand. A 4-pipe chilled water and hot water system is proposed which provides improved flexibility.

The hydronic system is designed for low temperature (125°F maximum) hot water and elevated temperature (57°F minimum) chilled water so as to maximize efficiency of the heat pump chiller/heaters. These temperatures also allow for future integration of more efficient equipment as technology advances.

Fresh air to all spaces shall be provided by new dedicated outdoor air systems (DOAS) consisting of high efficiency custom and packaged rooftop heat pump units. These units shall provide tempered, filtered and dehumidified air to all spaces served. The units shall incorporate high efficiency heat pump cycles, hot gas reheat or heat pipes, total energy recovery wheels, variable speed supply and exhaust fans and back-up heat consisting of electric heat. These DOAS units shall be independent of the central hydronic hot and chilled water system.

Fresh air to each space shall be controlled via variable air volume (VAV) and fan-powered variable air terminals. In classrooms and many other areas, to achieve improved room air rotation and filtration, we recommend DOAS style fan powered variable air volume (FVAV) terminals fitted with MERV 13 filtration, hot water coils and sensible only chilled water coils. Distribution to the rooms shall be either mixed air or optimally via displacement ventilation with low wall supply diffusers.

As a supplemental back-up to the heat pump chiller-heater, hot water shall be provided by electric boilers located in the main mechanical room. The heating water is distributed to the fin-tube radiation, cabinet and unit heaters, select FVAV's and fan coil units located throughout the building.

Cooling for the building is supported by various types of systems based on space type and use varying from the central air cooled heat recovery chiller/heaters to VRF heat pumps and air source heat pumps.

A brief description of the types of systems for the respective areas is as follows:

Standard Classrooms:

A closed loop ground coupled geothermal field provides source fluid to a high efficiency modular water to water heat recovery chiller/heater plant. This plant supports a majority of the space cooling and

heating needs of the classroom wings of the structure by supplying chilled water to DOAS FVAV units located throughout these areas as well as hot water to coils and fin-tube radiation. The chiller has a capacity of 150-tons+/- . The chiller shall incorporate multiple variable speed compressors for high part load (IPLV) energy efficiency ratings. Elevated chilled water temperature (57°F+/-) and low hot water temperatures (125°F+/-) also result in higher chiller/heater efficiencies.

Two (2) glycol anti-freeze to water heat exchangers and duplex pump sets shall be provided between the chiller/heater and the building chilled water and hot water loops to minimize the amount of glycol required, as a reduction in heat transfer efficiency can occur with the use of glycol. In addition, duplex pump sets shall be provided for distribution of building hot water and chilled water. A separate duplex set of pumps shall circulate glycol between the chiller/heater and geothermal field.

Chilled water shall be delivered at an elevated 57°F+/- temperature to the classroom wing FVAV's and fan coils. Most DOAS style FVAV's serve displacement diffusers. Each chilled water coil shall be controlled by a zone valve operated by the building energy management system (EMS) to respond to space temperature demands.

Outdoor ventilation air for the standard classrooms shall be provided via roof mounted dedicated outdoor air units (DOAS) of varying size. The DOAS units shall be custom fabricated units incorporating total energy recovery wheels, DX cooling and heat pump coils, wrap around heat pipe coils and electric back-up heat. Each unit shall be coupled to roof mounted VRF style DX air cooled condensing units with variable speed compressors for high full load (EER) and part load (IEER) energy efficiency ratings.

Dedicated outdoor air style fan powered variable air volume (FVAV) terminals connected to displacement diffusers in most spaces. These units shall vary airflow based on Indoor Air Quality using space temperature, CO<sub>2</sub> and humidity information.

Heating for classrooms and many other spaces with exterior exposures shall be accomplished through the use of fin-tube radiation as the primary form of heat. Interior spaces shall incorporate VAV/FVAV mounted hot water coils.

#### Science, Art Classrooms and Maker Spaces:

As these style areas require high levels of 100% outside air ventilation and exhaust, they shall be supported off dedicated packaged VAV rooftop heat pump units with total energy recovery wheels, electric back-up heat, cooling, heating and dehumidification cycles utilizing DX based system with hot

gas reheat cycle. The units shall incorporate variable speed compressors for high full load (EER) and part load (IEER) energy efficiency ratings.

DOAS type fan powered variable air volume (FVAV) terminals on the supply air and VAV terminals on the exhaust air from each room shall be connected to ceiling air terminals. The FVAV and VAV's shall control to maintain required space pressure relationships as well as Indoor Air Quality using space temperature and CO2 information.

Heating for science and art rooms shall be accomplished through a mix of fin-tube radiation as well as FVAV mounted hot water coils.

Offices, Media Center & Music :

Spaces shall be supported by a VRF heat pump system coupled to packaged DOAS VAV rooftop heat pump units with total energy recovery wheels, electric back-up heat, heating, cooling and dehumidification cycles utilizing DX based system with hot gas reheat cycle. The units shall incorporate variable speed compressors for high full load (EER) and part load (IEER) energy efficiency ratings.

Supply air variable air volume (VAV) terminals connected to each zone space shall vary airflow based on Indoor Air Quality using space temperature, CO2 and humidity information.

Heating for these areas shall be accomplished through the VRF heat pump system with some fin-tube radiation in spaces with large glazing exterior exposures.

Gymnasium and Cafeteria:

Space shall be supported by packaged rooftop unit with total energy recovery wheels, electric back-up heat, heating, cooling and dehumidification cycles utilizing DX based system with hot gas reheat cycle. The systems shall control to vary total air volume, outdoor air volume as well as supply air temperature to control as a single zone VAV. Several anti-stratification fans shall be used to bring warm-air down from the high ceiling/roof areas.

Exhaust and Other Systems:

Exhaust fans shall vent specific areas such as bathrooms, storage areas and the kitchen. All exhaust fans shall have efficient ECM motors which shall vary speed where applicable. Kitchen hood system

shall have variable flow capabilities using smoke and/or heat sensors to vary exhaust airflow and associated make-up air based on cooking demand.

Supplemental ductless split systems are located in IT closets and other similar rooms requiring such. Cabinet and unit heaters are located at building entrances and other areas to mitigate drafts from entering internal building spaces.

#### Controls:

The school is designed with a direct digital control (DDC) energy management system (EMS) that monitors and controls the HVAC equipment for efficient use. The system is designed on PC based architecture and adjustments are made on a graphics-based presentation of building systems. The system also supports maintenance and record keeping needs of the facility. Occupancy of the school is based on the standard school year with occupied/unoccupied conditions based on current school day practice. This is an adjustable feature that can be made to reflect additional operating needs and use of the school building by staff or others.

The adjustable operating schedule, in general, is from 7:00 a.m. to 5:00 p.m., five days per week. It is expected that the building or certain areas within the building will also be used several evenings a week and on weekends.

Attendees:

- Steven Meyer | Superintendent of Schools | CPS
- Robert Seed | Assistant Principal, CMS
- Brian Farragher | Director of Facilities & Grounds, TOC
- Eric Moore | Senior Project Architect | LPA|A
- Sean Brennan | Project Architect | LPA|A
- Peter A. Caruso, Jr. | Project Manager | LPA|A
- Kevin Seaman | Seaman Engineering, Inc (SEI)
- Trip Elmore | Owner’s Project Manager | D&W
- Elias Grijalva | Owner’s Project Manager | D&W

Item:	Description:	Responsibility:
08.08.23.01	<p><b>Purpose:</b></p> <ul style="list-style-type: none"> <li>▪ The purpose of this meeting is to review the level of complexity that the Owner expects for the building management system (BMS) as well as touching upon training and maintenance of the mechanical system throughout the building.</li> </ul>	<b>Info.</b>
08.08.23.02	<p><b>Existing Conditions:</b></p> <ul style="list-style-type: none"> <li>▪ The existing elementary school uses Automated Logic for its BMS system; there is nothing in use at the existing high school.</li> <li>▪ Owner advised that there is no need for a proprietary specification for the middle school project.</li> </ul>	<b>Info.</b>
08.08.23.03	<p><b>Open Access Control:</b></p> <ul style="list-style-type: none"> <li>▪ SEI will write the specification to allow for more than one vendor to be able to service the BMS.</li> </ul>	
08.08.23.04	<p><b>Packaged Units vs. Stripped Down Units:</b></p> <ul style="list-style-type: none"> <li>▪ On recent projects, SEI has been specifying the units without fully packaged manufacturer’s controls. Units with compressors shall have refrigeration related controls to maintain manufacturer safeties and warranty.</li> </ul>	<b>Info.</b>

**Item:** **Description:** **Responsibility:**

- Instead, the BMS vendor installs their own controls inside the units. The benefits include:
  - One source of responsibility
  - Commonality amongst all the units that serve the building.
  - Improved commissioning and testing.
- Level of BMS controls in packaged units in lieu of manufacturer controls will depend on complexity of unit/system (i.e.: VRF systems must have primarily manufacturer controls).

08.08.23.05

**Additional system integration:**

- CO2 monitoring in each classroom and high occupancy room.
- Temperature control in each room
- Humidity monitoring in each room
- Occupancy sensors where applicable.
- Monitoring of the generator.
- Monitoring of the overall building power.
- Will NOT control lighting– always have a problem due to 2 different filed sub bids.
- Will NOT interface with fire protection system nor security

Brian advised that the new school will not be staffed with a building engineer every day. Additionally, there currently is not a demand response policy in place for the town.

**Info.**

08.08.23.06

**Level of Complexity:**

- The owner expects a system that is user–friendly where a service call is not needed each time something happens.
- The owner can diagnose to some extent before a service call is placed.
- Flexibility with service– can call more than one service vendor.
- Priority alarms shall report–out via email and/or text.
- Ensure that sensors are accessible for future replacement.

**Info**

**Item:** **Description:** **Responsibility:**

08.08.23.07 **Training:**  
 A training process will be specified for this project. Recording each training session will also be specified for future use by the Owner. D&W expressed concern with current staff retiring and future staff not understanding how to manage the BMS since they weren't trained.

Info.

08.08.23.08 **Spaces with AC:**  
 General discussion was had with Owner relative to what spaces will be provided with air conditioning within the building. Those spaces include the following:

- Cafeteria
- Main Administration
- Special Education
- Miscellaneous IT data rooms, select offices, etc.

Remaining spaces will have tempered air dehumidification. Owner was reminded of added equipment and operational expense with air conditioning. Kevin reminded attendees that air conditioning of entire building was included in the PSR narrative.

Info.

08.08.23.09 **Maintenance:**  
 There will be a 1-year warranty for the equipment from the installer. A multi-year maintenance contract is not allowed to be included in a public bid project.

08.08.23.10 **Additional Meetings:**  
 There will be follow up meetings with attendees as the project develops including with the fire department.

Attachments:

Minutes by: Peter A. Caruso, Jr.

Distribute to: Attendees

File location: I:\PROJECTS\2022\2220 – Clinton Middle School\MINUTES\Owner\2023.08.07 BMS\2220-MO-BMS Complexity.docx

**BASIS OF DESIGN - ELECTRICAL SYSTEMS**

A. ELECTRICAL SERVICE

1. Provide 2-4" Schedule 40 electrical primary duct bank to a utility company padmount transformer located on the exterior of the building. The primary duct bank shall be encased in 3" of concrete.
2. Provide secondary electrical service conductors, main switchboard and distribution equipment in the main electrical room.
3. The electrical service shall be 4000A, 65kAIC, 480/277V, 3-phase, 4-wire fed by eight sets of 4-600kCMIL copper cables in 10-4" Schedule 40 PVC conduits.
4. Provide 4-4" Schedule 40 PVC telecommunications underground duct system to the entrance facility. The telecommunications duct bank shall be encased in 3" of concrete when running under vehicular traffic areas and roadways.
5. Coordinate with utility company to disconnect power to the existing building at the end of construction to facilitate demolition by the Construction Manager.

B. EMERGENCY POWER

1. Provide diesel backup generators to feed life safety and optional standby loads, as well as transfer and distribution equipment.
2. The generator shall be rated 600kW/750kVA, 480/277V, 3-phase, 4wire with duct mounted load back sized at 30% of the generator kW rating, fuel polishing system and 700-gallon fuel tank.
3. The generator shall be housed in a factory standard Level 2 weatherproof sound attenuated enclosure furnished with steel platform and stairs.
4. The generator shall be integrated with the BMS system for alarm monitoring and reporting.
5. Emergency equipment must be separated from normal and standby power equipment per the Massachusetts Electrical Code.
6. The emergency power system shall be divided into two branches:



- a. Life Safety Branch: all life safety branch equipment shall be installed in 2-hour rated rooms. All life safety branch feeders shall be 2-hour rated MI cables. The life safety branch shall supply power to:
  - 1) Egress and exit lighting
  - 2) Alarm and alerting systems
  - 3) Emergency communications systems
  - 4) Elevator cab lighting
  - 5) Automatic doors.
- b. Optional Standby Branch: shall power the entire community side of the building. Additionally, the standby branch shall supply power to:
  - 1) Boilers, associated controls and associated pumps to keep building from freezing.
  - 2) Telecom and server room lighting, power and ac systems.
  - 3) Building management system (BMS).
  - 4) Power outlets at roof equipment, mechanical room, loading area, cafeteria and kitchen.
  - 5) Radon fans on roof.
  - 6) Selected kitchen and cafeteria loads.
  - 7) Selected mechanical loads.

C. SUB-METERING

- 1. Provide a digital sub-metering system capable of providing electrical consumption data.
- 2. End-Use Metering Categories
  - a. Meters or other approved measurement devices shall be provided to collect energy use data for each end-use category indicated below.

- b. Where multiple meters are used to measure any end-use category, the data acquisition system shall total all of the energy used by that category. No more than 5 percent of the measured load for each of the end-use categories shall be permitted to be from a load that is not within that category.
- c. Energy Use Categories
  - 1) Total Building Consumption
  - 2) Total HVAC system
  - 3) Interior lighting
  - 4) Exterior lighting
  - 5) Plug loads
  - 6) Process load
  - 7) Building operations and other miscellaneous loads

D. GENERAL PURPOSE POWER

- 1. See drawings and Room Data Sheets for receptacle quantities in each space.
- 2. Multiple service floor outlets or fire rated poke-through devices shall be provided for equipment and appliances in the commons areas when the equipment is to be placed on worktables, counters, systems furniture, or cabinets that are not against fixed walls.
- 3. Multi-outlet raceways or surface mounted wiring devices shall be provided where it is not feasible to install recessed outlets.
- 4. All general-purpose receptacles in offices and classrooms shall be controlled via vacancy sensor and/or time clock integrated with the lighting control system.

E. LIGHTING

- 1. Provide a high efficiency lighting system in all interior spaces as well as on the exterior of the building. The design aim is to deliver a lighting system with a light power density not exceeding 0.5W/sq. ft. All light fixtures shall be LED type.
- 2. Interior lighting shall be controlled with an automatic control device to shut off building lighting in all spaces. This automatic control device shall function on either:

Schematic Design

I. Building Systems Narratives

6. Electrical

- a. A scheduled basis using a time of day operated control device that turns lighting off at specific programmed times; or
  - b. An occupant sensor that shall turn lighting off within 20 minutes of an occupant leaving a space; or
  - c. An unscheduled basis by occupant intervention.
3. Each space enclosed by ceiling-height partitions shall have at least one control device to independently control the general lighting within the space. Each control device shall be activated either manually by an occupant or automatically by sensing an occupant.
  4. Each perimeter office space enclosed by ceiling-height partitions shall have a manual control to allow the occupant to uniformly reduce the connected lighting load by at least 50% or shall be provided with automatic daylighting controls.
  5. Each perimeter classroom space shall have a manual control to allow the occupant to uniformly reduce the connected lighting load by at least 50% and shall be provided with automatic daylighting controls. The classrooms shall have the ability to dim or switch off lights at the presentation/teaching front wall. The lighting controls shall be integrated with the HVAC controls.
  6. Provide LED emergency egress and exit lighting fed from the emergency life safety branch of the emergency/standby system.
  7. Integrate lighting control system with the BMS system to optimize energy performance of the building.

F. EXTERIOR LIGHTING

1. Pedestrian walkways shall be designed for illuminance value at the ground plane of 0.6 foot-candles, the minimum illuminance shall not be lower than 0.15 foot-candles.
2. All parking lots shall be designed for illuminance value at the ground plane of 1.0 foot-candles, the minimum illuminance shall not be lower than 0.2 foot-candles.
3. Roadways shall be designed for illuminance value at the ground plane of 0.6 foot-candles, the minimum illuminance shall not be lower than 0.15 foot-candles.
4. Pedestrian walkway lighting shall be LED bollard fixtures; parking and roadway lighting shall be LED fixtures mounted on 20 ft. aluminum poles.



G. FIRE ALARM

1. Provide an addressable fire alarm system with voice evacuation and connection to the fire department.
2. The design of the fire alarm system shall be based on engineering criteria as defined by NFPA 72 and The Massachusetts State Building Code 780 CMR. The system shall be supported by standby batteries. The batteries shall support 24-hours of full supervisory operation followed by 15 minutes of alarm.
3. Provide combination audiovisual signaling appliances as required per NFPA 72. Standalone devices may be used to augment combination units when necessary. The audiovisual notification appliances shall be located in all egress pathways, classrooms, public and common areas. Provide visual devices in all offices. The devices shall be in compliance with the Americans with Disabilities Act (ADA).
4. Manual pull stations shall be located within 5 ft. of each means of egress and mounted at 44 in. above the floor to the activating lever of the box. The pull stations shall mechanically latch upon operation and remain so until manually reset by a key common to all system locks.
5. Photoelectric smoke detectors shall be located in all egress pathways spaced 30 feet on center, and 15 feet from all stairwells and opposing walls. Smoke detectors shall also be located at the top, bottom of each stairway; mechanical equipment; electrical; transformer; telephone equipment; elevator machine; or similar room. Elevator recall smoke detectors shall be located in the elevator lobby on each floor.
6. Sprinkler tamper and flow devices shall be wired for trouble and alarm indication into the fire alarm control panel.
7. Provide public safety radio distributed antenna system.

H. TELECOMMUNICATIONS CABLING INFRASTRUCTURE

1. Provide a telecommunication cabling infrastructure in compliance with the latest TIA standards. The utility company services shall be terminated in a telecommunications entrance facility (EF). Fire rated plywood backboards, grounding, equipment racks, 110-type punch down blocks, patch panels, conduit sleeves, and corridor cable tray system shall be provided in the EF, the telecommunications equipment room (TER) and the telecommunications rooms (TR). The pathway system, racks and equipment shall

be sized for complete utilization of the service entrance cables and all voice and data outlets plus room for a minimum of 50% growth.

2. Voice and data outlets shall be provided in all administration areas and in the classrooms. Voice and data horizontal cabling shall be Category 6A, unshielded, twisted pair, 8 conductor copper cable from each jack to the nearest telecommunications closet. Wireless access point cabling shall be Category 6A, shielded, twisted pair, 8 conductor copper cable from each jack to the nearest telecommunications closet. Each end of each cable shall be labeled.
3. See drawings and Room Data Sheets for quantities of data outlets in each space. Wi-Fi access point outlets shall be provided throughout the building.
4. Backbone cables shall be provided between the EF, TER and each TR. Copper backbone cables shall be voice grade Category 3 cable. Optical fiber cables shall be 24-strand (50/125 $\mu$ m) OM4 multimode laser optimized and 24-strand single mode cables. The cables shall be terminated in fiber optic patch panels at both ends. The circuits shall be tested for insertion loss at both ends at 1310 and 1550nm. High-resolution Optical Time Domain Reflectivity (OTDR) tests shall be performed on each fiber at one end.

#### I. PUBLIC ADDRESS & CLOCK SYSTEM

1. A public address (PA) and digital clock system shall be provided throughout the building.
2. Speakers shall be located in classrooms, administration areas, assembly areas and in public and common areas. Classroom speakers shall be talk-back type. Two emergency call stations shall be provided in each classroom, as well as in all instructional and public areas.
3. The system shall provide the front office with the ability to make announcements throughout the building premises, to a limited area, or to an individual room. Any telephone handset in the building shall be capable of initiating a page. In the front office, the administrative staff can select whether they want to initiate or respond to a call via the PA attendant handset, make announcements or play background music through the speaker. The system shall be capable of supporting multiple and simultaneous communications.

Schematic Design

I. Building Systems Narratives

6. Electrical

4. A master time & control system shall be provided. The system shall comprise a master clock that controls and synchronizes the time on peripheral digital clocks located throughout the school. The system shall also control other peripheral devices such as bells, etc. and utilize the school public address system to sound pre-programmed tones for class changes. Clocks shall be provided in classrooms, offices, public and assembly areas, and in administration areas.

J. DATA COMMUNICATIONS EQUIPMENT

1. Data communications equipment shall comprise a server and storage farm, and 10/100/1000 Power-over-Ethernet (PoE) switches.
2. The servers and storage shall provide a platform on which to run applications, like the school's enrollment and financial databases as well as student and teacher applications.
3. The switches shall provide connection of a number of devices together (PCs, servers, printers, etc.) over a wired data system and control access to various parts of the network.
4. Provide data network switches based on Extreme Networks.
5. Provide access points in each classroom, instructional space, and in public and assembly spaces. The basis of design shall be Cisco Meraki with cloud management.

K. VOICE COMMUNICATIONS EQUIPMENT

1. Provide a voice communications system. The system shall comprise of a voice-over-IP (VoIP) telephone switching system, voicemail, distribution infrastructure, and telephone handsets. Telephone handsets shall be provided in each classroom, in each administration office, gym, and cafe and in each telecommunications/electrical room.
2. Provide VoIP telephone system and handsets based on Mitel.

L. AUDIO-VIDEO SYSTEMS

1. Provide integrated audio-video systems in the following spaces:
  - a. Gymnasium
  - b. Cafeteria

c. Media Center

M. IN-CEILING CLASSROOM AUDIO SYSTEM

1. Provide speech reinforcement system in each classroom and instructional space. The basis of design shall be Lightspeed Topcat Classroom Audio 2-way Communication System.
2. The speech reinforcement system shall consist of:
  - a. Two pendant-style Flaxlike® teacher microphone utilizing Access Technology (1.9 GHz) for transmission.
  - b. Wireless Media Connector utilizing Access Technology (1.9 GHz) to integrate with and wirelessly transmit all classroom multimedia to be played through the Topcat.
  - c. In ceiling all-in-one whole group audio system to enable communication to the whole class with Access technology and integrated amplifier and speaker system.

N. IN-BUILDING CELLULAR AMPLIFICATION SYSTEM

1. Provide in-building cellular amplification system to amplify cellular signal within the building. Coverage shall include all classrooms, offices, public and common areas.
2. The system shall consist of:
  - a. Donor antennas that are mounted outside of a building in order to capture strong signals from nearby towers. These antennas are placed on the roof or side of a building.
  - b. Amplifier unit that amplifies the signal captured from the cell tower.
  - c. Broadcast antenna installed indoors that delivers the amplified cell signal to phones and other mobile devices.

O. HANDHELD RADIO AMPLIFICATION SYSTEM

1. Provide handheld radio amplification system for Motorola 3500 handheld radios. Furnish and install Motorola SL5700 UHF 50W Digital Repeater.

P. SECURITY SYSTEMS

1. Provide an integrated video surveillance, access control and intrusion detection system.
2. The video surveillance system shall monitor all entry/exits, building perimeter, each stair landing, public spaces and all corridors.
3. Provide vape/THC detection in all bathrooms.
4. An access control system consisting of proximity card readers and key fobs shall be provided at entry/egress doors. An electric lock and an intercom at the front door with the ability to release the front door from the administration office shall be provided.
5. The intrusion detection system shall monitor all exterior doors and ground floor windows. Door position switches shall be provided on all exterior doors. Motion detectors shall be provided in all rooms with windows accessible from the ground.
6. The basis of design for the security system shall be Verkada.

Q. LIGHTNING PROTECTION SYSTEM

1. Provide Early Streamer Emission (ESE) lightning protection system.
2. Provide mast and grounding per the manufacturer's requirements.

R. ELECTRIC VEHICLE CHARGING STATION

1. Provide a dual electric vehicle charging station to charge two electrical vehicles simultaneously.
2. Basis of design shall be ChargePoint Model CT4021-GW1 Dual Port Bollard USA Gateway Station with Concrete Mounting Kit CY4001-CCM and cellular communications.



### **SITE DEVELOPMENT SUMMARY**

---

The new Clinton Middle School will be constructed on the existing Clinton Middle School site located at 100 West Boylston Street in Clinton, Massachusetts (the site). The associated parcel is listed as Clinton Assessor's Office Parcel ID 132-3659 and includes approximately 26.8-acres shared with adjacent Clinton High School site and is owned by the Town of Clinton. The site is bounded by West Boylston Street to the North, the Wachusett Reservoir to the South, Philip J. Weihn Memorial Swimming Pool to the East, and Clinton High School to the West. The project includes complete demolition of the existing school, construction of a new school building, new access drives and parking facilities, and associated landscape areas.

### **ZONING CONDITIONS**

---

The Site is located within the R-2 Residential zoning district. The existing school use is allowed by right in this district. No portion of the Site appears to be located within any overlay districts. The Clinton Zoning By-Law indicates municipal facilities are exempt from all dimensional requirements of the By-Law.

### **EASEMENTS AND OTHER PROPERTY LIMITATIONS**

---

The site includes an easement for the New England Power Company, as well as a parcel of land owned by the New England Power Company. In 1974, when the Town of Clinton was in the process of constructing the existing Middle School, there was an agreement between New England Power Company and the Town of Clinton to transfer property and grant easements for the relocation of the power lines. While the power lines were physically relocated, the deeds and easements were not recorded with the Registry of Deeds. The parties recently retained Nitsch Engineering to update the existing conditions, prepare plans and descriptions to record, and finalize the agreements. The Town of Clinton is actively working to ensure that these documents are recorded before February 23, 2024. There do not appear to be any other easements, rights of way, historic registrations, or other encumbrances related to use on the Site.

### **SOILS**

---

Based on National Resources Conservation Service (NRCS) data, the site consists primarily of Udorthents, smoothed soils. Udorthents, smoothed soils consist of very deep, excessively drained to moderately well drained soils that have been altered by cutting and filling. This soil unit is mainly

located in and adjacent to urban areas, highways, and borrow (i.e., excavated) areas. Udorthents that have a wet substratum, areas of urban land, areas of rock outcrop, and areas of undisturbed soils. In general, the Udorthents soil properties and characteristics are varying. Subsurface investigation of the high school site in 1996, performed by Geotechnical Services, Inc. indicates the site is primarily fill over outwash sand.

A Preliminary Geotechnical Report has been prepared by Lahlaf Geotechnical Consulting Inc. for the proposed Clinton Middle School in October 2023. This report indicates the site consists primarily of fill over sand and gravel, with a few areas of organics and silt. Groundwater was not encountered within the borings which extended 22 feet below existing grade.

#### **ACCESS DRIVES AND PARKING**

---

The Site is accessed by two existing curb cuts on West Boylston Street which will remain in their current locations. Vehicles enter the site through the western curb cut. The eastern curb cut will remain one-way for exit only. The western curb cut will remain two-way. Site circulation will become one-way beginning west of the new parking area, along the south of the site and around the building perimeter. The project includes an additional curb cut on South Main Street for emergency vehicle access only. The new parking area includes 125 parking spaces including 6 accessible parking spaces 7 electric vehicle charging stations for 14 electric vehicles.

Busses will circulate along the south of the site in the left lane and drop off along the west side of the building. Parents will circulate along the south of the site in the right lane, counterclockwise around the building, and drop off along the north of the building. Service vehicles will access the building at a loading dock located to the south of the building.

ADA-compliant pedestrian access will be provided throughout the Site. See the Landscape narrative for a description of the pedestrian access and circulation system.

#### **SANITARY SEWERAGE**

---

The existing sewer main from the High School will remain in the south of the site to the existing manhole southwest of the new building. The sewer main will then be relocated along the west and north of the new building, reconnecting to an existing sewer manhole north of the new building.

The new building includes 3 sewer services from the south of the building. Kitchen waste is directed through a grease trap south of the building. Waste from the science laboratories is directed through an acid neutralization tank. See plumbing narrative for more information regarding acid neutralization. These services will be directed to the existing sewer manhole southwest of the new building and into the relocated sewer main west of the building.

## **WATER**

---

A new water main is proposed to connect through the site from the existing main in West Boylston Street to the existing main in South Main Street. Fire and domestic water services will connect to the south side of the building. New hydrants are located throughout the site.

## **STORMWATER MANAGEMENT**

---

A new stormwater management system that complies with the requirements of the MA DEP Stormwater Standards will be required for the project. The system will include provisions for peak flow management, groundwater recharge, and water quality treatment. The compact nature of the site layout and topographic constraints restrict stormwater management BMPs to structured/subsurface systems. Surface bioretention basins are proposed to the east and southeast of the building, and west of the parking area. A subsurface retention system consisting of 12-inch depth of crushed stone is proposed below the recreational field north of the parking area. The existing surface detention basins along the north of the Site will remain. Pretreatment of flows to these systems will be achieved by use of standard deep-sump hooded catch basins and water quality structures (stormwater treatment units).

The stormwater management system for the project will be designed to meet the Department of Environmental Protection's (DEP) Stormwater Management Standards to the maximum extent practicable as a combination of new development and redevelopment. The corresponding DEP Standards and anticipated project compliance are listed below:

### **Department of Environmental Protection's Stormwater Management Standards**

**Project Type:** The project site is previously developed and the proposed work will result in an increase in impervious area. Therefore, the project is considered a mix of new development and redevelopment under the DEP Stormwater Management Standards.

**Standard 1:** No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

Compliance: The project will comply with this standard. There will be no untreated stormwater discharges from the site.

Water quality treatment BMPs will be incorporated into the stormwater management system to provide adequate treatment of stormwater prior to discharge. These water quality BMPs will include Deep-Sump, Hooded Catch Basins as pretreatment BMPs and Proprietary Water Quality Structures as treatment BMPs.

**Standard 2:** Stormwater management systems shall be designed so that the post-development peak discharge rates do not exceed pre-development peak discharge rates.

Compliance: The project will comply with this standard. The stormwater management system will be designed to mitigate post-development peak discharge rates to less than pre-development levels for the 2-year, 10-year, 100-year 24-hour storm events. The project includes an increase in the impervious area resulting in higher rate and volume of runoff. Underground recharge/detention systems will be included in the stormwater design to mitigate the increase in runoff rate.

**Standard 3:** Loss of annual recharge to groundwater shall be eliminated or minimized through the use of environmentally sensitive site design, low impact development techniques, stormwater BMPs, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

Compliance: The project will comply with this standard to the maximum extent practicable. Infiltration BMPs will be incorporated into the proposed stormwater management system where feasible and will be sized to capture and infiltrate the required recharge volume for the proposed site. The required recharge volume is based on the total impervious cover and the NRCS Hydrologic Soil Group for the project site. For this site, the soil has been categorized as Hydrologic Soil Group A. Infiltration systems will be incorporated into the stormwater management system where feasible to provide the required recharge volume.

**Standard 4:** Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS).

Compliance: The project will comply with this standard. Structured water quality BMPs will be incorporated into the design and sized to provide 80% TSS removal. A Long-Term Pollution Prevention Plan (post-construction) for the storm drainage system will be developed that will define suitable practices for post-construction source control and pollution prevention for the site. The plan will identify good housekeeping practices, provisions for storing materials and waste products inside or under cover, vehicle washing controls, requirements for routine inspection and maintenance of stormwater BMPs, spill prevention and response plans, provisions for landscaping maintenance, requirements for storage and use of fertilizers, herbicides, and pesticides, provisions for solid waste management, snow disposal and plowing plans relative to the proposed infiltration BMPs, winter road salt and/or sand use and storage restrictions, street sweeping schedules, provisions for preventing illicit discharges to the stormwater management system, training for personnel involved with implementing the plan, and a list of emergency contacts.

**Standard 5:** For land uses with higher potential pollutant loads...

Compliance: Not applicable. The project is not associated with Higher Potential Pollutant Loads (as defined under Standard 5 in Volume 1, Chapter 1 of the DEP Stormwater Management Handbook).

**Standard 6:** Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or to any other critical area...

Compliance: Not applicable. The site does not contain critical areas and will not discharge untreated stormwater to a sensitive resource area.

**Standard 7:** A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural stormwater best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Compliance: The project is a combination of new development and redevelopment. The project will improve existing conditions to comply with the Stormwater Management Standards.

**Standard 8:** A plan to control construction-related impacts, including erosion, sedimentation, and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

Compliance: The project will comply with this standard. Sedimentation and erosion controls will be incorporated as part of the design of this project and employed during site construction. Land disturbance will be kept to a minimum and the phasing of the work will be planned so that only the areas actively being developed are exposed. All other areas should have natural vegetation preserved, have good temporary cover, or permanent vegetation established. Permanent structures, temporary or permanent vegetation and mulch/erosion netting should be employed as quickly as possible after land is disturbed. Disturbed areas will be protected from stormwater runoff by installing erosion control or stormwater management measures to prevent water from entering and running over disturbed areas, and to prevent erosion damage to downstream facilities. Perimeter control practices will be installed to isolate the construction site from surrounding areas. Siltation fence, temporary covers for drainage structures, and temporary settlement basins will be utilized where applicable.

The project will disturb more than one (1) acre of land and therefore a Notice of Intent (NOI) under the Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) program will be required. As part of this application, the Applicant is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) and implement the measures in the SWPPP. The SWPPP, which is to be kept onsite during the entire construction phase, includes erosion and sediment controls (stabilization practices and structural practices), temporary and permanent stormwater management measures, Contractor inspection schedules and reporting of all SWPPP features, materials management, waste disposal, offsite vehicle tracking, spill prevention and response, sanitation, and non-stormwater discharges.

**Standard 9:** A Long-Term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed.

Compliance: The project will comply with this standard. An operations and maintenance plan including long-term BMP operation requirements will be prepared to assure proper maintenance and functioning of the proposed stormwater management system.

**Standard 10:** All illicit discharges to the stormwater management system are prohibited.

Compliance: The project will comply with this standard. There will be no illicit connections associated with this project.

#### **NATURAL GAS**

---

Gas service is not proposed on the site. Refer to the mechanical engineering narrative for information related to the building fuel system.

#### **ELECTRICAL / TELECOMMUNICATIONS**

---

Electrical and Telecommunication services will be provided from the utility infrastructure along the south of the site to the south of the new building. The project includes installation of a new transformer and generator. Refer to the electrical and telecommunication systems narratives for information related to the building electric and telecommunications systems.

**PRELIMINARY PERMITTING CONSIDERATIONS**

**Zoning Conditions**

The Site is located within the R-2 Residential zoning district. The existing school use is allowed by right in this district. No portion of the Site appears to be located within any overlay districts. The Clinton Zoning By-Law indicates municipal facilities are exempt from all dimensional requirements of the By-Law.

**Wetlands Protection Act (310 CMR 10.00)**

The Wetlands Protection Act ensures the protection of Massachusetts' inland and coastal wetlands, tidelands, great ponds, rivers, and floodplains. It regulates activities in coastal and wetlands areas and contributes to the protection of ground and surface water quality, the prevention of flooding, and storm damage and the protection of wildlife and aquatic habitat.

A review of the Massachusetts Department of Environmental Protection (DEP) wetland layers available on the Oliver Map provided by Massachusetts Geographic Information System (MassGIS) indicates that a wetland area is located northeast of the site, with a 100-foot buffer zone extending into the site. Work within the buffer zone would require permitting through the Clinton Conservation Commission. It is not anticipated work will be required within the buffer zone.

**Floodplain**

Based on the Flood Insurance Rate Map (FIRM) the site is located outside area of 0.2% Annual Chance/500-year Flood Hazard.

**Surface Water Supply Protection (310 CMR 22.20)**

The Massachusetts DEP ensures the protection of surface waters used as sources of drinking water supply from contamination by regulating land use and activities within critical areas of surface water sources and tributaries and associated surface water bodies to these surface water sources.

A review of the Massachusetts DEP resource layers available on the MassGIS, appear to indicate the site is located within Zone A Surface Water Supply Protection Zone. Zone A represents "a) the land area between the surface water source and the upper boundary of the bank; b) the land area within a 400 foot lateral distance from the upper boundary of the bank of a Class A surface water source, as defined in 314 CMR 4.05(3) (a); and c) the land area within a 200 foot lateral distance from the upper boundary of the bank of a tributary or associated surface water body."

Regulated uses and activities are described in 313CMR 11.04 (3). Restrictions include limitation on storage of potentially hazardous materials, as well as the location of sewer conveyance and treatment



systems. Such materials include, but are not limited to, the storage of liquid petroleum products, outdoor Storage of road salt or other de-icing chemicals, outdoor Storage of fertilizers, herbicides and pesticides, use or Storage of pesticides or herbicides which carry a mobility rating as provided for by the United States Environmental Protection Agency or which have been determined by the Commonwealth using United States Environmental Protection Agency standards to pose a threat or potential threat to Ground Water, and the rendering Impervious of more than 10% of any Lot or 2,500 square feet, whichever is greater. The Clinton Conservation Commission has indicated they do not have any local bylaws governing work within Zone A.

The site is adjacent to the Wachusett Reservoir, which is a Public Water Supply. The site does not drain towards the reservoir. A request for an Advisory Ruling for Watershed Protection Act (WSPA) jurisdiction was filed with The Massachusetts Department of Conservation and Recreation (DCR), Division of Water Supply Protection in March 2023. DCR has confirmed the site is located outside areas of jurisdiction and no further action is needed.

#### **Wellhead Protection Areas**

The Massachusetts DEP ensures the protection of drinking water supplies from contamination by regulating land use and activities within wellhead protection areas. A review of the Massachusetts DEP resource layers available on the MassGIS, appear to indicate the site is NOT located within Wellhead Protection Areas.

#### **Natural Heritage & Endangered Species Program**

The Natural Heritage & Endangered Species Program is responsible for the conservation and protection of hundreds of species that are not hunted, fished, trapped, or commercially harvested in the state, as well as the protection of the natural communities that make up their habitats. A review of the MassGIS data layers, appear to indicate the site is NOT within the protection areas.

#### **USEPA NPDES**

Construction activities that disturb more than one acre are regulated under the United States Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Program. In Massachusetts, the USEPA issues NPDES permits to operators of regulated construction sites. Regulated projects are required to develop and implement stormwater pollution prevention plans in order to obtain permit coverage. Any proposed site modifications over one acre will require a NPDES permit.

#### MEPA

Nitsch Engineering has reviewed Massachusetts Environmental Policy Act (MEPA) thresholds related to site work. The project is not expected to exceed the thresholds related to these categories. Below is a summary of the thresholds for submitting an Environmental Notification Form (ENF) in these categories:

##### (1) Land.

- Direct alteration of 25 or more acres of land, unless the Project is consistent with an approved conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices. **Site disturbance is less than 10 acres and will not exceed this threshold.**
- Creation of five or more acres of impervious area. **The increase of impervious area is less than 1 acre and will not exceed this threshold.**
- Disposition or change in use of land or an interest in land subject to Article 97 of the Amendments to the Constitution of the Commonwealth, unless the Secretary waives or modifies the replacement land requirement pursuant to M.G.L. c. 3, § 5A and its implementing regulations. **The projects is not a change in use.**
- Conversion of land in active agricultural use to nonagricultural use, provided the land includes soils classified as prime, state-important or unique by the United States Department of Agriculture, unless the Project is accessory to active agricultural use or consists solely of one single family dwelling. **The site is not within an agricultural use.**
- Release of an interest in land held for conservation, preservation or agricultural or watershed preservation purposes, unless the Secretary waives or modifies the replacement land requirement pursuant to M.G.L. c. 3, § 5A and its implementing regulations. **The site is not conservation, preservation, or agricultural land.**
- Approval in accordance with M.G.L. c. 121A of a New urban redevelopment project or a fundamental change in an approved urban redevelopment project, provided that the Project consists of 100 or more dwelling units or 50,000 or more sq. ft. of nonresidential space. **The site is not associated with a new urban redevelopment project.**
- Approval in accordance with M.G.L. c. 121B of a New urban renewal plan or a major modification of an existing urban renewal plan. **The site is not associated with a new urban renewal plan.**

##### (2) State-listed Species under M.G.L. c. 131A (Massachusetts Endangered Species Act). **The Natural Heritage & Endangered Species maps do not show any endangered species at the site.**

- Alteration of designated significant habitat.
- Greater than two acres of disturbance of designated priority habitat, as defined in 321 CMR 10.02, that results in a take of a state-listed endangered or threatened species or species of special concern.

(3) Wetlands, Waterways and Tidelands. **The project does not propose work within any wetland resource areas or buffer zones.**

- alteration of coastal dune, barrier beach or coastal bank;
- alteration of 500 or more linear feet of bank along a fish run or inland bank;
- alteration of 1,000 or more sf of salt marsh or outstanding resource waters;
- alteration of 5,000 or more sf of bordering or isolated vegetated wetlands;
- New fill or structure or Expansion of existing fill or structure, except a pile-supported structure, in a velocity zone or regulatory floodway; or
- alteration of ½ or more acres of any other wetlands.
- Construction of a New roadway or bridge providing access to a barrier beach or a New utility line providing service to a structure on a barrier beach.
- Dredging of 10,000 or more cy of material.
- Disposal of 10,000 or more cy of dredged material, unless at a designated in-water disposal site.
- Provided that a Chapter 91 License is required, New or existing unlicensed non-water dependent use of waterways or tidelands, unless the Project is an overhead utility line, a structure of 1,000 or less sf base area accessory to a single family dwelling, a temporary use in a designated port area, or an existing unlicensed structure in use prior to January 1, 1984.
- Construction, reconstruction or Expansion of an existing solid fill structure of 1,000 or more sf base area or of a pile-supported or bottom-anchored structure of 2,000 or more sf base area, except a seasonal, pile-held or bottom-anchored float, provided the structure occupies flowed tidelands or other waterways.

(4) Water.

- New withdrawal or Expansion in withdrawal of 100,000 or more gpd from a water source that requires New construction for the withdrawal. **The project is estimated to draw less than 10,000 gpd from the existing water source.**
- New withdrawal or Expansion in withdrawal of 500,000 or more gpd from a water supply system above the lesser of current system-wide authorized withdrawal volume or three-years' average system-wide actual withdrawal volume. **The project is estimated to draw less than 10,000 gpd from the existing water source.**
- Construction of one or more New water mains five or more miles in length. **The proposed water main within the site is less than one mile.**
- Construction of a New drinking water treatment plant with a Capacity of 1,000,000 or more gpd. **The project does not include construction of a new drinking water treatment plant.**
- Expansion of an existing drinking water treatment plant by the greater of 1,000,000 gpd or 10% of existing Capacity. **The project does not include expansion of a water treatment plant.**

## Schematic Design

## I. Building Systems Narratives

## 7b. Site Permitting Narrative

- Alteration requiring a variance in accordance with the Watershed Protection Act, unless the Project consists solely of one single family dwelling. **The project does not require a variance under Watershed Protection Act.**
- Non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking water supply for purpose of forest harvesting activities. **The project does not include any stream crossings.**

## (5) Wastewater.

- Construction of a New wastewater treatment and/or disposal facility with a Capacity of 100,000 or more gpd. **The project does not include construction of a wastewater treatment or disposal facility.**
- Expansion of an existing wastewater treatment and/or disposal facility by the greater of 100,000 gpd or 10% of existing Capacity. **The project does not include expansion of a wastewater treatment or disposal facility.**
- Construction of one or more New sewer mains: **The project does not include a new sewer main. The section of relocated sewer main is approximately 400 feet.**
  - that will result in an Expansion in the flow to a wastewater treatment and/or disposal facility by 10% of existing Capacity;
  - five or more miles in length.
- New discharge or Expansion in discharge:
  - to a sewer system of 100,000 or more gpd of sewage, industrial waste water or untreated stormwater; **The estimated sewer flow is 7,500 gpd**
  - to a surface water of: **The project does not include sewer discharge to surface waters.**
    - 100,000 or more gpd of sewage;
    - 20,000 or more gpd of industrial waste water; or
    - any amount of sewage, industrial waste water or untreated stormwater requiring a variance from applicable water quality regulations; or
  - to groundwater of: **The project does not include sewer discharge to groundwater.**
    - 10,000 or more gpd of sewage within an area, zone or district established, delineated or identified as necessary or appropriate to protect a public drinking water supply, an area established to protect a nitrogen sensitive embayment, an area within 200 feet of a tributary to a public surface drinking water supply, or an area within 400 feet of a public surface drinking water supply;
    - 50,000 or more gpd of sewage within any other area;
    - 20,000 or more gpd of industrial waste water; or

- any amount of sewage, industrial waste water or untreated stormwater requiring approval by the Department of Environmental Protection of a variance from Title 5 of the State Environmental Code for New construction.
- New Capacity or Expansion in Capacity for: **The project does not include combustion, storage, or treatment of sewage.**
  - combustion or disposal of any amount of sewage sludge, sludge ash, grit, screenings, or other sewage sludge residual materials; or
  - storage, treatment, or processing of 50 or more wet tpd of sewage sludge or sewage sludge residual materials.

(6) Transportation.

- Unless the Project consists solely of an internal or on-site roadway or is located entirely on the site of a non-roadway Project: **The project consists solely of an on-site circulation driveways.**
  - construction of a New roadway one-quarter or more miles in length; or
  - widening of an existing roadway by four or more feet for one-half or more miles, excluding widening to add bicycle or pedestrian accommodations.
- Construction, widening or maintenance of a roadway or its right-of-way that will: **The project does not include work within a roadway.**
  - alter the bank or terrain located ten more feet from the existing roadway for one-half or more miles, unless necessary to install a structure or equipment;
  - cut five or more living public shade trees of 14 or more inches in diameter at breast height; or
  - eliminate 300 or more feet of stone wall.
- Expansion of an existing runway at an airport. **The project is not associated with an airport.**
- Construction of a New taxiway at an airport. **The project is not associated with an airport.**
- Expansion of an existing taxiway at Logan Airport. **The project is not associated with an airport.**
- Expansion of an existing terminal at Logan Airport by 100,000 or more sf. **The project is not associated with an airport.**
- Expansion of an existing terminal at any other airport by 25,000 or more sf. **The project is not associated with an airport.**
- Construction of New or Expansion of existing air cargo buildings at an airport by 100,000 or more sf.
- Conversion of a military airport to a non-military airport. **The project is not associated with an airport.**
- Construction of a New rail or rapid transit line for transportation of passengers or freight. **The project is not associated with rail or rapid transit lines.**

## Schematic Design

## I. Building Systems Narratives

## 7b. Site Permitting Narrative

- Discontinuation of passenger or freight service along a rail or rapid transit line. **The project is not associated with rail or rapid transit lines.**
- Abandonment of a substantially intact rail or rapid transit right-of-way. **The project is not associated with rail or rapid transit lines.**
- Generation of 2,000 or more New adt on roadways providing access to a single location. **The existing adt is approximately 1010. The project is estimated to generate 1235 vehicle trips a day, or 225 New adt.**
- Generation of 1,000 or more New adt on roadways providing access to a single location and construction of 150 or more New parking spaces at a single location. **The project is estimated to generate 225 new adt and includes 55 less parking spaces than existing.**
- Construction of 300 or more New parking spaces at a single location. **The project includes 123 parking spaces which is 55 less spaces than existing.**

## (7) Energy.

- Construction of a New electric generating facility with a Capacity of 25 or more MW. **The project does not include an electric generating facility.**
- Expansion of an existing electric generating facility by 25 or more MW. **The project does not include an electric generating facility.**
- Construction of a New fuel pipeline five or more miles in length. **The project does not include a fuel pipeline.**
- Construction of electric transmission lines with a Capacity of 69 or more kv, provided the transmission lines are one or more miles in length along New, unused or abandoned right of way. **The project includes electrical transmission for the middle school building only. See electrical narrative for more information about the proposed electrical systems and transmission.**

(8) Air. **The project does not include any Station Sources of Air Pollution**

- Construction of a New Stationary Source with federal potential emissions, after construction and the imposition of required controls, of: 100 tpy of PM10, PM 2.5, CO, lead or SO<sub>2</sub>; 50 tpy of VOC or NO<sub>x</sub>; 10 tpy of any HAP; or 25 tpy of any combination of HAPs.
- Modification of an existing Stationary Source resulting in a "significant net increase" in actual emissions, provided that the stationary source or facility is major for the pollutant. For purposes of this threshold, a "significant net increase" in actual emissions shall mean an increase in emissions of: 15 tpy of PM10; 10 tpy of PM 2.5; 100 tpy of CO; 40 tpy of SO<sub>2</sub>; 25 tpy of VOC or NO<sub>x</sub>; 0.6 tpy of lead.

(9) Solid and Hazardous Waste. **The project does not include processing of solid waste.**

Schematic Design

I. Building Systems Narratives

7b. Site Permitting Narrative

- New Capacity or Expansion in Capacity for combustion or disposal of any quantity of solid waste, or storage, treatment or processing of 50 or more tpd of solid waste, unless the Project is exempt from site assignment requirements.
- Provided that a Permit is required in accordance with M.G.L. c. 21D, New Capacity or Expansion in Capacity for the storage, recycling, treatment or disposal of hazardous waste.

(10) Historical and Archaeological Resources.

- Unless the Project is subject to a Determination of No Adverse Effect by the Massachusetts Historical Commission or is consistent with a Memorandum of Agreement with the Massachusetts Historical Commission that has been the subject of public notice and comment

**The project is not associated with any historic sites or buildings:**

- demolition of all or any exterior part of any Historic Structure listed in or located in any Historic District listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth; or
- destruction of all or any part of any Archaeological Site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth.

(12) Regulations.

- Promulgation of New or revised regulations, of which a primary purpose is protecting against Damage to the Environment, that significantly reduce **The project does not propose changes to regulations:**
  - standards for environmental protection;
  - opportunities for public participation in permitting or other review processes; or
  - public access to information generated or provided in accordance with the regulations.

(11) Areas of Critical Environmental Concern. **The site is not within an ACEC.**

- Any Project of ½ or more acres within a designated ACEC, unless the Project consists solely of one single family dwelling.

**National Register of Historic Places (NRHP)**

According to the National Register of Historic Places (NRHP), the Wachusett Dam Historic District forms the mouth of the Wachusett Reservoir. This district consists of a dam, waste weir and spillway, two bridges, a listening arrestor chamber, and gate chamber/powerhouse all of which is located in Clinton Massachusetts. The property ID is 89002269. The site is located outside the boundary of the Historic Place.

**Massachusetts Department of Transportation (MassDOT)**

Roadways located within a MassDOT State Highway Layout are subject to review by MassDOT. The State Highway Layout Map indicates Route 110 is NOT within the State Highway Layout.

**SITE PERMITTING SCHEDULE**

<b>Permit</b>	<b>Permitting Authority</b>	<b>Anticipated Filing Date</b>	<b>Status</b>
Site Plan Review	Planning Board	Completion of Design Development Phase	Not started
Request for Determination of Applicability/Notice of Intent	Conservation Commission	Completion of Design Development Phase	Not Anticipated
Watershed Protection Act Request for Watershed Determination of Applicability	DCR	March 2023	Complete
NPDES Notice of Intent	EPA	14 calendar days prior to construction	Not started



**LANDSCAPE DESIGN SUMMARY:** The landscape scope of work includes replacement and extension of circulation paths for code compliance and universal access, lighting improvements for code compliance and security, and pedestrian crossing improvements at vehicular interfaces for improved safety. Entry plazas include unit paving to reinforce hierarchy and wayfinding, as well as seating and landscaping improvements. Rain garden plantings provide a buffer between the new recreation field and the road and improved drainage adjacent to the parking lot and building. Parking is relocated and reconfigured for improved program relationships. Site amenities include basketball court replacement/relocation, drainage improvements at the recreation field, and a playground and outdoor learning classroom. Service area improvements include screening at dumpsters and utility equipment. The scope also includes 50% perimeter fence replacement to maintain site security.

#### **LANDSCAPE DESIGN SCOPE OF WORK:**

##### **General:**

Provide hierarchy in entry sequence, paths, and design, to clarify and reinforce the school entry. Incorporate crime prevention through environmental design (CPTED) best practices. Provide site safety measures during construction with protected pedestrian access to the shared outdoor space west of the power lines for PE classes and/or to the existing field further east, as construction laydown allows.

##### **Site Circulation – Vehicular:**

- Provide new parking lot west of building, with distinct bus loop.
- Vehicular access for bus and parent pick-up and drop-off is separated from parking for improved efficiency.
- Wide concrete sidewalks at south side of recreation field allows for emergency access.
- See Civil and Electrical narratives for EV parking requirements.
- See Civil narrative for additional information about vehicular circulation and parking.

##### **Site Circulation – Pedestrian:**

- Provide 6ft wide pathways with 4,000 psi cast in place concrete.
- Provide simulated wood decking (Basis of Design should be Resysta mineral-based decking material, Acre Decking by Modern Mill or equivalent NOT plastic composite material) at boardwalk west of parking lot.
- Provide raised table pedestrian crossing across from primary school entrance, and at the intersection with the next most anticipated pedestrian vs vehicular traffic, to facilitate pedestrian safety and traffic calming.

##### **Site Elements:**

- Provide new digital sign at west vehicular entrance from road for improved placemaking and wayfinding.

### Schematic Design

#### I. Building Systems Narratives

#### 8. Landscape

- Provide new multi-purpose field at existing parking lot location, with below surface drainage, sand-based well draining soils, pathway access. Provide stabilized aggregate south of recreation field for future temporary bleachers. Provide chain link perimeter fence with 4 access gates. (Add/Alternate: provide synthetic turf at recreation field with continuous concrete curb perimeter, refer to site plan and details).
- Provide entry plaza west of building with unit pavers, planters, benches, and site lighting. (4,600 sf)
- Provide plaza at south side of building with stabilized aggregate, fixed tables and chairs, and pre-engineered fabric shade structures. (3,800 sf)
- Provide outdoor classroom / maker space at east side of building, with 50% concrete and 50% unit pavers, fixed seat walls, raised planters, shade trees, power and water access, and fence with gate. (3,500 sf) Refer to electrical drawings for power and wifi at outdoor classroom.
- Provide playground for 8-10 year old age group east of building with parkour and physical challenge/obstacle type play areas. Include poured in place rubber surfacing, shade trees, fixed benches, and lighting. Provide perimeter fence and screening at playground. (8,300 sf)
- Provide (2) basketball courts at east of school.
- Replace 50% of site perimeter fence.
- Provide 22 bike racks (44 total spaces).
- Provide 5 trash/recycling receptacles.
- Provide 8ft high mechanical screen at south side service area.
- Provide guardrail at loading dock edge.

#### **Planting:**

- Provide landscape buffer and raingarden plantings within existing drainage channel (between road and recreation field).
- Provide tree islands at parking to reduce heat island effect, improve biodiversity and carbon sequestration.
- Provide row of trees along access drives.
- Provide flowering trees and grove trees to add visual appeal throughout the site.
- Provide shrub and perennial beds on either side of the main building entrance, outdoor classroom, playground perimeter, and east side of building.
- Provide low mow fescue and sod at locations indicated on the site plan.
- Provide smart sensor drip irrigation at all planting beds. Provide spray irrigation at all sod areas. Provide temporary spray irrigation at low mow fescue areas for establishment.

#### Cafeteria Basis of Design

---

The Clinton Middle School Food Service operation will consist of the kitchen, servery and seating area. The kitchen and servery area will be approximately 2,900 square feet to accommodate 700 students for grades 4 through 8 and facilitate four meal periods. Breakfast and lunch will be served daily.

The cafeteria will have the typical components of a middle School cafeteria. Dry, refrigerated, and frozen storage will be provided. Stainless steel worktables with sinks for food preparation and workspace. Ancillary equipment such as slicers, mixers and food processors will be provided. Commercial grade cooking equipment with associated exhaust hoods, demand control system, utility distribution system and fire suppression systems. The tray/pot wash area will have a drop-off window for students, a three-bay pot sink and a commercial grade conveyor dishmachine with ample storage for clean wares and carts. A dedicated Janitor's closet with mop sink and storage shelving will be provided. The serving area will have three redundant serving counters that will provide hot, cold, and free counter space at each serving line. One of the counters may be extended for a-la-carte items. The serving counters will have back support work counters, reach-in refrigerators, and heated cabinets for additional support. At the end of each serving line there will be milk coolers and a POS station. Beyond the serving area, trash, recycling, and condiment counters will be placed strategically throughout the seating area.

All Food Service equipment, including exhaust hoods and fire suppression will be commercial grade and meet all NSF Standards, NFPA, UL and food equipment and/or health required codes.

Notes: Clinton Middle School Visit on 3/2/23 and two subsequent meetings on 10/4 and 12/5 of 2023.

Meeting Dates: 3/2/23, 10/4/23, 12/5/23

Attendees: Eric Moore – LPA/A, Christina Bazelmans – LPA/A, Scott Goodrich – Edvance, Chris Tahan – CPS, Brian Sharon – CPS, Steven Meyer – CPS, Azim Rawji – ART, Peter Caruso – LPA/A, Sean Brennan – LPA/A, Trip Elmore – D+W, Elias Grijalva – D+W. Note: Not all Attendees were present for all of the meetings. Meeting notes were compiled for each meeting and distributed to attendees.

#### Structured Cabling System

The school is currently comprised of an MDF room with four satellite closets feeding back to the MDF over Fiber. Two of these closets are actual rooms and two are cubby storage areas with limited access from the hallway. Fully equipped rooms, with adequate space for equipment racks, power distribution, cable management, environmental conditioning, and room for carrying on administrative functions should be part of any building project.

Category 6A copper cabling is the standard for all new renovation and construction projects with OM4 multimode fiber optic and single mode fiber between all satellite closets and the main distribution room. A typical structured cabling system distribution would include:

General Classrooms – two teacher outlets, one on the projector wall and one on the opposite wall should also contain a USB-C power connection at both locations with power receptacles. Phone connection at the wall, two data at the wireless access point, and two for projector.

ART, Resource, and Health – should be set up like classrooms.

Collab spaces – shall have floor outlets and a projector.

Media Center – shall have 1 ultrashort projector for classroom sessions and one high lumen ceiling mount built-in projector with motorized projection screen with a local sound system. Power and data should be provided for copier/printer.

Gym – shall have a sound system with wireless microphones, Bluetooth inputs, motorized projection screen as part of the construction project. A high lumen projector on a cart be purchased during the equipment phase for use in making large assembly presentations. A smaller projection cart or flat panel on a cart for use by Gym teachers may also be procured at the same time during the FFE project.

Cafeteria – shall have a built-in sound system with wireless and wired microphone jacks, Bluetooth inputs, built-in projection system with motorized projection screen and a touch panel on the stage for controlling sources, inputs, volume, etc.

Digital Signage – Lobby, Cafeteria, Main Office, and outside Gym were discussed as possible locations for signage displays. Exact locations, sizes, etc. to be worked out later. These are signage locations and do not require high/low connections.

Maker Space – should be equipped with power and data, and ventilation for 3D printing.

Art – should be equipped with technology and infrastructure like classrooms. Include power and data for the possibility of a network printer.

Science – should be equipped with technology and infrastructure like classrooms.

Administrative Offices – Multiple data connections for phones and computers. Larger wall mounted displays should be planned for use in local conferencing or for monitoring security cameras. High/low connections are required.

Administrative Conference Room – Floor boxes with connections to an ultrashort projector. Use the same display technology as classrooms for ease of use.

Teacher Planning – They should be equipped with ultrashort projectors and power and data for Printer/Copier device.

#### Distributed Communication System (Public Address and Clock System)

The current system is antiquated and will require replacement during a construction and/or renovation project. For future projects, two hands-free call-in stations per room is acceptable, with a in ceiling speaker, and digital clock on the wall. There was a discussion about using a larger flat panel type display (ie South HS). It was mentioned that it would be beneficial to have a display device in the classroom in place of the clock, which could be used to not only display time, but also informational messages and emergency notifications.

The preference was for more simplified digital clocks that could also receive messages. Something that is flush mounted or has a very low-profile on the wall rather than something that is attached to the wall with a mount. The request was for an IP based system at the core and between MDF and IDF's, with analog end points in all school spaces. A reliable digital clock system with a master clock is essential. No standard for manufacturer was noted. Easy to use GUI is required for setting up bell schedules,

zones, and programming. The ability to create different zones and groups of zones in the building for announcements is critical to the Owner. This is so that only sixth grade classroom or fifth grade classrooms and related spaces, including corridors can be paged and not the whole building.

#### Networking and Wireless

Currently the standard for local area network switches is Extreme Networks. The wireless network currently relies on access devices from Cisco Meraki. Access points are in all classrooms and educational spaces as well as large assembly spaces such as the library/media Center, Gymnasium and Cafeteria. These two manufacturers should be listed as proprietary manufacturers and included within the construction project, with the Owner providing the specific model numbers for each the time of design.

#### Telephone System

The Current Middle School is standardized on Mitel for its' phone system, which is only 4–5 years old. It was installed and is supported by Metropolitan Telephone. A building project would assess reuse and/or refreshing with all new telephone VoIP equipment that meets the current requirements of Ray Baum's Act and Kerri's Law.

#### Display Technology

Epson Projectors are used throughout classrooms. It provides the appropriate size display for classrooms. The newest projectors available from Epson should be considered for any building project. Teacher connections to the projectors are provided at the wall near the teacher's desk location and include HDMI and USB connections. Pathways for cabling and blocking for the projectors should be provided during construction, with the latest technology and cabling purchased during the equipment phase.

The district currently uses non-interactive projectors in all instructional spaces at the Middle School level. Projectors with interactive features are perceived to be a better fit in lower elementary grades. The latest Epson projectors shall be specified at the time of technology equipment purchase during the FFE phase. The district is also evaluating flat panels and has recently purchased 26 TouchView panels for elementary schools. During the meeting in December of 2023, the design team was instructed to carry the latest interactive short throw projector technology for all classrooms, conference rooms, teacher planning and common areas, to be utilized with a minimum 5'H x 8'W whiteboard. During the design process, a final decision will be made on whether flat panel display technology should be substituted for projectors in the Fifth through Sixth Grades.

The current thinking is that the flat panel are good for elementary schools and that projectors with whiteboard space are better for use at the Middle School level. Preparation shall be provided as part of construction for all pathways between low mounted connections on the wall and the projectors and/or flat panels so that cabling can be easily procured and installed as part of the projection system.

Document Cameras are used with projectors and should be purchased during the equipment phase.

Discussed that Speech Reinforcement Systems are currently a standard for new classroom designs and shall be part of the construction project.

#### Chromebook Technology

School utilizes Chromebooks Fifth through Eighth Grades. Fifth graders are issued a new Chromebook when entering Middle School, which are managed onsite in charging carts in the Fifth and Sixth Grade classrooms. When students reach the Seventh Grade, they are allowed to take the Chromebook home with them where they manage charging and use time. Chromebooks are then refreshed in 4 years when students become freshman at High School, where they are issued a new Chromebook for their four years of High School.

Therefore, any building project may only have to carry account for the purchase of the incoming fifth grade Chromebooks and Chromebook Charging carts.

A determination will need to be made on how the project addresses Chromebooks for the fourth grade if this grade is incorporated into the building project.

All Chromebook for students in the Fourth through the Sixth Grades will require a charging cart in the classrooms to facilitate storing and charging of devices. Grades seven and eight take their Chromebooks home, but their rooms should be equipped for powering a cart, in the case of the room being repurposed in the future.

Administration uses Chromebooks as well, with some being equipped with either desktops or laptops. Two monitors with a docking station are common for administrative computer workstations. Nothing special is required of the mounting of monitors to furniture.

The basis of their current Chromebooks for students is the HP Chromebook 11 for Students

Chromebooks for Teachers are also refreshed every 4 years and the building project may or may not have to account for new Chromebooks, depending on how recent they were refreshed for Teachers when a new school opens. Teacher Chromebooks are higher end devices with touch capability and are

based on Acer or Asus. For budgeting purposes, new teacher Chromebooks should be included in the project.

#### Security

Exacq Technologies is their current platform for Surveillance. Various camera manufacturers are used throughout the building without any real standard for camera technology.

Intrusion Alarm systems are currently being evaluated for other schools in the district and there does not appear to be a proprietary standard at the current time. A building project would allow for determining standards that could integrate with the access control and surveillance systems.

Access Control is limited and there does not appear to be a standard currently. Access control platforms from Genetec and Evo are in use in the district. The building project would allow for setting a standard for access control that could be integrated with the surveillance and intrusion detection systems. This would provide greater partitioning and control of interior spaces during a lockdown, while also providing routine control of exterior doors and spaces.

Building projects are the best time to establish proprietary standards within the district for an Integrated Security Systems platform involving surveillance, access control and intrusion detection. Standardizing on an integrated platform from a major provider serving the school market like Motorola/Avigilon was well received. It was revealed during later meetings that the district is now standardizing Verkada for video surveillances and door access control, which should be listed as proprietary for any future projects.

Motorola radios are used within the building between key administrative personnel. Since

Video Intercom and Door Control – An Iphone like system shall be specified for the main entrance and receiving door and shall be equipped with video intercom capability that can be used to communicate through audio and visual signals with visitors to these building access doors and provide remote unlocking of exterior doors. All other entrances shall be controlled with access control system card readers.

#### Other Systems

Cell Phone Booster System – Some level of cell phone booster system for Verizon at a minimum (the District's SRO's cell phone service company), like high school should be included.



Gun Shot Detection and Vape Detection were briefly discussed. There seemed to be consensus that at a minimum cabling for these systems should be included.

#### Servers

The school has some legacy server resources housed in the MDF, but most of their information storage has moved to the cloud.

#### Technology Phases

We reviewed the technology is included as part of a typical construction (renovation) project and the technology that shall be purchased during the equipment phase.

Technology provided during construction phase includes the Structured Cabling System; Public Address and Clock System; Large venue Audio Visual Systems; classroom Speech Reinforcement Systems; Network Switches and Wireless; Telephone System; Security System (Surveillance, Access Control and Intrusion Alarm), and Handheld Radios.

Technology provided during the equipment phase includes Core IT equipment; user IT equipment such as Chromebooks, computers, tablets, charging printers, etc., and the POS system; Instructional Display Technologies; Digital Signage, and Portable AV equipment.

#### Internet Service Provider and Current Vendors

Technology vendors include CDWG, Insight, Custom Computer, and Whalley to name a few.

CELT is their Internet Service Provider providing Crown Castle 5G internet pipe that is split between the Middle School and High School, with 600Mb of Comcast internet being provided as a backup.

Maintaining this connection between the High School and Middle and/or re-establishing it shall be an important part of the project during design. The cost of providing a separate internet service to the High School independent of the Middle School should also be evaluated at the time of design.

Ockers handles some of their AV equipment.

AKuity/ICS handles their Extreme Networks switch equipment.

Custom Computer handles their Wireless.

#### Proprietary Technology

## MSBA Module 4

### Schematic Design

#### 4.1.2 SCHEMATIC DESIGN BINDER

##### I. Building Systems Narratives

##### 10. Technology

It will be important to identify the list of proprietary technologies that shall be required so that the School Building Committee can approve them for the project. Proprietary systems as determined from our meetings will include the following systems:

Network Switches – Extreme Networks

Wireless Access Devices – Cisco Meraki

Telephone System – Mitel

Security Surveillance and Access Control – Verkada

**Refer to section 4.1.2, S, 1, meeting #23 when the School Building Committee voted to approve the proprietary items noted above.**

Attendees:

- Steven Meyer | Superintendent of Schools | CPS
- Chris Tahan | Director of Technology | CPS
- Azim Rawji | Electrical Engineer | ART Engineering (was having technical difficulties)
- Scott Goodrich | Technology Consultant | Edvance Technology Design
- Peter A. Caruso, Jr. | Architect | LPA|A
- Trip Elmore | Owner’s Project Manager | D&W
- Elias Grijalva | Owner’s Project Manager | D&W

Item:	Description:	Responsibility:
12.05.23.01	<p><b>Purpose</b></p> <ul style="list-style-type: none"> <li>▪ The purpose of the meeting is to identify potential proprietary items for the new school.</li> </ul>	
12.05.23.02	<p><b>Proprietary Items</b></p> <ul style="list-style-type: none"> <li>▪ Steve confirmed the following items will be proprietary:                             <ul style="list-style-type: none"> <li>○ Network Switches– Extreme Networks</li> <li>○ Wireless Access Devices– Cisco Meraki</li> <li>○ Telephone System– Mitel</li> <li>○ Integrated Security System– Verkada</li> </ul> </li> <li>▪ ART Engineering will specify all 4 proprietary systems with input from Scott.</li> </ul>	<b>ART/LPA A</b>
12.05.23.03	<p><b>Proprietary Justification</b></p> <ul style="list-style-type: none"> <li>▪ Scott and Azim will work on a brief narrative that provides justification for going with these proprietary items.</li> <li>▪ Chris will review and provide input where necessary.</li> <li>▪ Will ultimately be included in SD submission to MSBA and will also be used in the discussion with the SBC for when they must vote to approve of proprietary items.</li> </ul>	<b>ART/ET/LPA A</b>
12.05.23.04	<b>Technology Budget</b>	

**Item:**                                      **Description:**                                      **Responsibility:**

- Scott will provide budget numbers for these systems. LPA|A will forward the budget to the cost estimator. Scott was made aware that the cost estimate is due on 2/05/24.

**12.05.23.05                                      Chromebooks**

- Chris advised that the school is strictly Chromebook based with NO PC’s.
- Scott advised that Chromebooks can now support interconnectivity with interactive short-throw projectors.

**12.05.23.06                                      Interactive Short-Throw Projectors**

- Steve directed the team to carry interactive short-throw projectors (ISTP) in the SD cost estimate at ~\$3500 each installed. As of this meeting, the projectors will be included as part of the FF&E package.
- Steve advised that there might be a change to mobile 75-inch flat panel displays for grades 4-6 in the future but for now, carry the ISTP for each space.
- The interactive short-throw projectors can provide up to a 100-inch diagonal viewing area.
- The ISTP requires a 5’high x 8’wide whiteboard to project images onto. LPA|A will need to specify this size whiteboard.
- ISTP will be in all classrooms, conference rooms, teacher planning, and common areas.

**12.05.23.07                                      Projectors**

- Will be in Gym, Media Center, and Cafeteria
- Scope location TBD.

Attachments:                                      none  
 Minutes by:                                      Peter A. Caruso, Jr.  
 Distribute to:                                      Attendees  
 File location:                                      I:\PROJECTS\2022\2220 – Clinton Middle School\MINUTES\Owner\2023.12.05 Proprietary Technology\2220MO Proprietary Tech 12.05.23

## 4.1.2 SCHEMATIC DESIGN BINDER

---

### J. Sustainable Building Design

1. Sustainability Narrative
2. LEED-S v/4 Sustainability  
Scorecard
3. Mass Save MOU
4. Signed Designer  
Statement
5. LEED Registration  
Documentation

## **Clinton Middle School – Clinton, MA PSR Sustainability Narrative**

The Clinton Middle School has identified environmental sustainability as an important goal for this project. This goal is one that is shared by the members of the design team. The team is committed to meeting the minimum MSBA Sustainable Requirements with a project team goal to qualify for the additional 4% (both the Opt-In Specialized Code for 3% and the five LEED IEQ points for 1%) reimbursement from the MSBA under the Green Schools Program.

Clinton Middle School has determined the project will pursue LEED v4. The project has been registered due to the USGBC's recent announcement updating energy performance thresholds, which affects points earned in the Optimize Energy Performance credit. Since the change goes into effect on March 1, 2024, registering before this date allows the project to lock into the old thresholds.

The goals and targets for a sustainable project include designing an energy-efficient building with minimal environmental impact that actively serves as an educational tool, (interactive/hands-on in some cases) for its inhabitants, including staff, educators, students, and visitors. Sustainable features will be further reviewed and refined as the design develops.

Making sustainable choices for the built environment requires the collaboration of all design disciplines in an integrated process. Sustainable design and energy efficiency decisions impact not only the building and grounds, but also the end users - students and educators, building visitors and those that will be responsible for operations and maintenance. The entire project team, including Clinton Public Schools representatives have met to collectively review and discuss sustainable design and energy efficiency.

The Sustainability workshop gave the team the opportunity to brainstorm ideas, and to create a shared set of sustainable goals and expectations for the project that are in alignment with the LEED for Schools v4 rating system. The outcome of this workshop included a preliminary set of sustainability goals. The workshop was an important part of the integrated design process and continued to inform the team's work moving forward. Follow-up meetings have occurred to further discuss sustainability goals and advance synergies between team members. Energy has been a large focus point during these meetings, examining different energy system options.

The project will actively promote environmental stewardship. The site of the project is a previously developed site that is bound by Sandy Pond to the south. At the workshop the team discussed building siting, stormwater management, and preserving the natural landscape and the educational opportunities the site can offer.

The building systems have been selected to maximize energy efficiency while providing essential heating, cooling, and ventilation needs. The project team is committed to an all-electric building and will utilize a geothermal heat pump system. Systems will include air source heat pumps and VRF heat-recovery. Plumbing fixtures with low flush and flow rates and high efficiency commercial kitchen equipment will be specified to minimize the demand for potable water for sewage conveyance and process uses.

Materials and products used in the construction of the project will carry product disclosure declarations, have recycled content, and be regionally obtained to the greatest extent possible. Finishes will be low VOC compliant to provide a healthy interior learning environment.

The interior layout will reflect the school's curriculum and will provide a highly collaborative learning environment while maximizing access to daylight and views.

The attached project LEED scorecard represents an assessment of the project against the LEED for Schools v4 requirements. The scorecard indicates 51 points as 'Yes; and 49 as 'Maybe'. A project must earn a

minimum of 50 points for LEED Silver certification. The team has strong confidence that those points tracked as 'Yes' will be earned, however, some credits may prove unattainable due to unforeseen circumstances as design and construction progresses. A large number of credits remain 'Maybe' at this point, where final decisions or calculations have not been made. The team's goal is to pick up an additional 5 or 6 points from the 'Maybe' column, which will give us the buffer we need to achieve LEED Silver certification.

It should be noted that while the project seeks to achieve certification under LEED for Schools v4, our approach is not one of "point chasing" to maximize a LEED score. Rather the project team will endeavor to design and construct a building which minimizes its impact on the environment as well as its life-cycle and long-term operating costs, while managing and reducing the burden the building will place on the local infrastructure. We will use LEED primarily as a validation tool and to check the project against the sustainable design goals. In general, the project team will not base design decisions strictly on achieving LEED certification.



# LEEDv4 BD+C: Schools (LEEDv4 SC) Project Scorecard

Project: **Clinton School**

Address: **100 W Boylston Street, Clinton, MA 01510**

Date: **2/16/2024**

Yes Maybe No

<b>0</b>	<b>1</b>	<b>0</b>	<b>INTEGRATIVE PROCESS</b>	<b>1</b>
	1		IPc1 Integrative Process	1

Yes Maybe No

<b>2</b>	<b>4</b>	<b>9</b>	<b>LOCATION &amp; TRANSPORTATION</b>	<b>15</b>
		<b>N</b>	LTc1 LEED for Neighborhood Development Location	15
<b>1</b>			LTc2 Sensitive Land Protection	1
	<b>2</b>		LTc3 High Priority Site (RP 2 pts)	1-2
		<b>5</b>	LTc4 Surrounding Density and Diverse Uses (RP 4 pts)	1-5
		<b>4</b>	LTc5 Access to Quality Transit	1-4
	<b>1</b>		LTc6 Bicycle Facilities	1
	<b>1</b>		LTc7 Reduced Parking Footprint	1
<b>1</b>			LTc8 Green Vehicles	1

Yes Maybe No

<b>4</b>	<b>8</b>	<b>0</b>	<b>SUSTAINABLE SITES</b>	<b>12</b>
<b>Y</b>			SSpr1 Construction Activity Pollution Prevention	Req'd
<b>Y</b>			SSpr2 Environmental Site Assessment	Req'd
<b>1</b>			SSc1 Site Assessment	1
	<b>2</b>		SSc2 Site Development - Protect or Restore Habitat	1-2
<b>1</b>			SSc3 Open Space	1
	<b>3</b>		SSc4 Rainwater Management	2-3
	<b>2</b>		SSc5 Heat Island Reduction	1-2
<b>1</b>			SSc6 Light Pollution Reduction	1
	<b>1</b>		SSc7 Site Master Plan	1
<b>1</b>			SSc8 Joint Use of Facilities	1

Yes Maybe No

<b>5</b>	<b>7</b>	<b>0</b>	<b>WATER EFFICIENCY</b>	<b>12</b>
<b>Y</b>			WEpr1 Outdoor Water Use Reduction	Req'd
<b>Y</b>			WEpr2 Indoor Water Use Reduction	Req'd
<b>Y</b>			WEpr3 Building-level Water Metering	Req'd
<b>1</b>	<b>1</b>		WEc1 Outdoor Water Use Reduction (RP 2 pts)	1-2
<b>3</b>	<b>4</b>		WEc2 Indoor Water Use Reduction	1-7
	<b>2</b>		WEc3 Cooling Tower Water Use	1-2
<b>1</b>			WEc4 Water Metering	1

Yes Maybe No

<b>20</b>	<b>11</b>	<b>0</b>	<b>ENERGY &amp; ATMOSPHERE</b>	<b>31</b>
<b>Y</b>			EApr1 Fundamental Commissioning and Verification	Req'd
<b>Y</b>			EApr2 Minimum Energy Performance	Req'd
<b>Y</b>			EApr3 Building-level Energy Metering	Req'd
<b>Y</b>			EApr4 Fundamental Refrigerant Management	Req'd
<b>6</b>			EAc1 Enhanced Commissioning	2-6
<b>14</b>	<b>2</b>		EAc2 Optimize Energy Performance (RP 8 pts)	1-16
	<b>1</b>		EAc3 Advanced Energy Metering	1
	<b>2</b>		EAc4 Demand Response	1-2
	<b>3</b>		EAc5 Renewable Energy Production (RP 2 pts)	1-3
	<b>1</b>		EAc6 Enhanced Refrigerant Management	1
	<b>2</b>		EAc7 Green Power and Carbon Offsets	1-2



Yes Maybe No

4	8	1	<b>MATERIALS &amp; RESOURCES</b>	<b>13</b>
Y			MRpr1 Storage & Collection of Recyclables	Req'd
Y			MRpr2 Construction and Demolition Waste Management Plan	Req'd
	4	1	MRc1 <u>Building Life-Cycle Impact Reduction (RP 2 pts)</u>	2-5
1	1		MRc2 Building Product Disclosure & Optimization-EPD's	1-2
	2		MRc3 Building Product Disclosure & Optimization-Raw Materials	1-2
1	1		MRc4 Building Product Disclosure & Optimization-Material Ingredients	1-2
2			MRc5 Construction and Demolition Waste Management	1-2

Yes Maybe No

9	7	0	<b>INDOOR ENVIRONMENTAL QUALITY</b>	<b>16</b>
Y			EQpr1 Minimum IAQ Performance	Req'd
Y			EQpr2 Environmental Tobacco Smoke (ETS) Control	Req'd
Y			EQpr3 Minimum Acoustical Performance	Req'd
2			EQc1 Enhanced IAQ Strategies	1-2
3			EQc2 Low-Emitting Materials	1-3
1			EQc3 Construction IAQ Management Plan	1
1	1		EQc4 IAQ Assessment	1-2
1			EQc5 Thermal Comfort	1
1	1		EQc6 Interior Lighting	1-2
	3		EQc7 Daylight	1-3
	1		EQc8 Quality Views	1
	1		EQc9 Acoustic Performance	1

Yes Maybe No

6	0	0	<b>INNOVATION</b>	<b>6</b>
1			INc1.1 Innovation: O&M Toolkit: Green cleaning and Pest management	1
1			INc1.2 Innovation: Building as an Educational Tool	1
1			INc1.3 Innovation: EP for EPDs or HPDs	1
1			INc1.4 Innovation: Occupant Comfort Survey or Other IN	1
1			INc1.5 Pilot credit: Integrative Analysis of Building Materials	1
1			INc2 LEED Accredited Professional	1

Yes Maybe No

1	3	0	<b>REGIONAL PRIORITY 01510 (underlined)</b>	<b>4</b>
	1		RPc1 <u>Renewable Energy Production (2 pnts)</u>	1
	1		RPc2 <u>Building Life-Cycle Impact Reduction v4.1 (2 pnts)</u>	1
	1		RPc3 <u>Outdoor Water Use Reduction (2 pnts)</u>	1
1			RPc4 <u>Optimize Energy Performance (8 pnts)</u>	1
			RPcX <u>High Priority Site (2 pnts)</u>	1
			RPcX <u>Surrounding Density and Diverse Uses (4 pnts)</u>	1

Yes Maybe No

51	49	10	<b>PROJECT TOTALS (Certification Estimates)</b>	<b>110</b>
----	----	----	---	------------

Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80+ points



# NEW CONSTRUCTION & MAJOR RENOVATIONS

## 2022 Memorandum of Understanding for Path 1: Net Zero & Low EUI Buildings (K-12 School)

Welcome to the Path 1, Net Zero & Low EUI Buildings Program! This Program encourages customers to pursue a sustained focus on low Site Energy Use Intensity (EUI) from early design all the way through post occupancy. Path 1 is a performance-based participation pathway, such that final customer incentives are based on the building's post occupancy site EUI. While the Program is a path to zero incentive offer, customers are not required to install solar or purchase renewable energy offsets to participate.

Definition: Site EUI is a measure of a building's gross annual site energy consumption (including all fuels) relative to its gross square footage. The units are kBtu/sf/year. For this Program, gross square footage excludes parking garages and penthouse square footage, as these are not typically conditioned spaces.<sup>1</sup> The Program's EUI calculation does not include onsite renewables.

### Project Eligibility:

1. To participate, customers must engage Mass Save Sponsors<sup>2</sup> before the end of their project's Design Development phase, but preferably during their project's Feasibility or Conceptual Design phases.
2. Projects must be whole buildings and must have a minimum of 10,000 square feet of comfort conditioned (heated and cooled) space.
3. Customers must anticipate year round occupancy. For K-12 schools, this requirement means a minimum of 4 weeks of anticipated summer use in classroom areas.
4. Building must be separately metered (not on same meters as other buildings).
5. Projects must be new buildings, building additions, or full gut renovations. Gut renovations would qualify for this Program if the scope is such that occupancy is not possible during construction and where scope includes at least 3 of the following 5 systems: (1) HVAC, (2) DHW, (3) lighting, (4) envelope, and (5) process equipment.
6. The project may not include Combined Heat and Power (CHP) or utilize district steam. Projects on campus central plants may or may not be eligible – talk with your Mass Save Sponsors.
7. Participants must be customers of one of the Mass Save Sponsors. Note that projects located in the service territory of a municipal electric utility are not eligible for this path.

#### WE ARE MASS SAVE\*:



1. EUI calculations will exclude exterior lighting loads (parking garages/lots) and associated loads in garage space (i.e., exhaust fans). If there are enclosed spaces in garages with equipment loads (i.e., unit heaters in elevators lobbies), these loads and square footages will be included in the building's EUI calculation.

2. The Mass Save Sponsors are National Grid, Eversource, Unitil, Cape Light Compact, Liberty Utilities, and Berkshire Gas. To determine your Mass Save Sponsors, please visit <https://www.masssave.com/en/saving/business-rebates>.



**Key Customer Commitments:**

1. To participate, project teams must be willing to set a site EUI target within Tier 1 or Tier 2 per Table 1 below. Note that Tier 2 is only relevant for high school projects.

**Table 1: EUI Targets & Incentives**

K-12 Schools	Site EUI Range	Incentives				
		Payable at end of Construction		Payable at end of 1 yr. post occupancy		
		Construction Incentive \$/sf	Heat Pump Adder*	Post Occ. Inc. \$/sf	Adder for getting under ZNE EUI target	Certification Incentive
Tier 2 (high schools only)	26-29	\$1.50	Air Source Heat Pumps: \$800/ton		Not applicable	
Tier 1 - Net Zero Level (all Schools)	25 or less	\$2.00	Variable Refrigerant Flow (VRF): \$1200/ton Ground Source Heat Pumps: \$4500/ton	\$ 1.50	\$0.05/EUI point reduction/sf	\$3,000

\* Equipment must be used as a primary heating source to qualify. The heat pump adder is only available for equipment that transfers heat from a source outside of the building (i.e. outside air or a ground loop) for space heating purposes. In order to maximize the benefits of electrification designs, supplemental electric resistance and/or fossil fuel use (if any) must be limited. Projects not achieving an average annual heating system performance greater than a COP of 2.0 will be considered on a case-by-case basis.

The incentive calculation is based upon the nominal heating capacity (btu/h) at AHRI or ISO conditions divided by 12,000.

\* Air Source Heat Pumps (ASHP): heating capacity at AHRI standard rating conditions

Air-to-Air Systems: AHRI 340/360 - OA 47°F db

Air-to-Water Systems: AHRI 550/590 - OA 17°F db, LWT 120°F

\* Variable Refrigerant Flow – Air Source (VRF): heating capacity at AHRI 1230 standard rating conditions

Air-to-Refrigerant Systems: OA 47°F db

\* Ground Source Heat Pumps: heating capacity at ISO 13256 or AHRI 1230 (if VRF) standard rating conditions

Ground Loop Heat Pump (GLHP): 32°F liquid entering heat exchanger

Ground Water Heat Pump (GWHP): 50°F liquid entering heat exchanger

Incentives for ground source heat pump projects will be based upon the lesser value of the peak heating load capacity of the heat pump systems or the peak heating load capacity of the ground loop/well.

2. Agree to cost share the services of the Mass Save net zero/EUI expert.
3. Continuously monitor the predicted EUI of the project with iterative energy modeling throughout each phase of design. Design team's energy model should meet the requirements of ASHRAE 90.1 G2.2. At minimum, whole building energy modeling runs must take place at 100% Schematic Design, 50% Design Development, 100% Design Development and 100% Construction Documents (National Grid may request additional runs). Project teams will need to report predicted EUIs to their Mass Save Sponsors at each of these intervals.
4. Ensure electric vehicle charging stations are separately metered.
5. Ensure any on site generation is separately metered.
6. Ensure any non-ancillary unconditioned spaces (e.g., parking garages) are separately metered.
7. Meet the requirements of ASHRAE 90.1-2016, para. 8.4.3 related to metering and data storage and provide post occupancy data to the Sponsors of Mass Save as listed in Step 6 of this document at the end of an agreed-upon one-year post occupancy period.

**Key Mass Save Sponsor Commitments:**

1. Cost share the services of a net zero/low EUI expert (50% of fee up to \$10,000 cost share) with the customer to help the project team develop a roadmap to low EUI and net zero success.
2. Offer project incentives per Table 1 above. Note that the "Certification Incentives" referenced in the table will be offered for projects certified to the specific net zero or Passive House standards listed at the end of this document.
3. Offer a separate Verification Incentive (50% cost share up to \$10,000) to help customers and their teams achieve the predicted EUI once the building is operating. Ask your Mass Save Sponsors for details.



## NEW CONSTRUCTION & MAJOR RENOVATIONS

This document outlines the roles and responsibilities of each party to set transparent expectations for all parties participating in the Program. Under no circumstances does this Memorandum require customers or design teams to incorporate any particular EUI reduction strategy, nor does this document bind customers or design teams to a particular EUI target. All assistance offered by Mass Save Sponsors through this Program is offered in an advisory capacity only and is subject to change.

### THE MASS SAVE SPONSORS UNDERSTAND THAT THE FOLLOWING CUSTOMER:

**The Customer (name):** Clinton Public Schools, Town of Clinton, MA

will undertake the following (check applicable):

<input checked="" type="checkbox"/>	new construction	<input type="checkbox"/>	major renovation	<input type="checkbox"/>	addition
Project Schedule (Dates)	100% SD	100% DDs	100% CDs	Expected Construction Completion	
	2/2024	10/2024	05/2025	8/2027	

**Premises (address):** 100 West Boylston Street, Clinton, MA 01510

<b>Premises SF (excluding un-conditioned space):</b>	136,000	<b>Premises EUI Target (kBTU/SF):</b>	25
--	---------	---------------------------------------	----

**This project's design team professionals include:**

- Architect: Lamoureux Pagano Associates | Architects, Inc.
- Electrical Engineer: ART Engineering, Inc.
- Mechanical Engineer: Seaman Engineering Corporation

**Participating Mass Save Sponsors:**

- Electric Sponsor: National Grid
- Gas Sponsor: N/A

### IMPORTANT:

Customers participating in this pathway may not also participate in the Mass Save midstream programs where incentives for HVAC, domestic hot water, food service and lighting equipment are offered directly to distributors. To ensure participation in only one Mass Save program pathway, designers must include language in project documents informing contractors that this project is participating in a Mass Save downstream program pathway, and that they may not pursue or accept any HVAC, domestic hot water, food service or lighting midstream incentives for this project.



## Detailed Process:

---

### Step 1 – Set an EUI Target and Take Advantage of the Services of a Net Zero Expert

Engage with your Mass Save Sponsors as early as possible in design. You'll need to participate in a net zero scoping session and set a target EUI as early as possible in design. To assist the project team in achieving its target EUI, Mass Save Sponsors will enlist the support of a net zero specialist who will provide technical assistance and road mapping services for the project through feasibility and early design. We'll work with you on the best scope to suit your project needs, though we do have a minimum scope that we require and ask customers to cost share.

### Step 2 – Design to the Target EUI

The project team will pursue the EUI target throughout design and will conduct the iterative energy modeling necessary to ensure the design remains on track.

### Step 3 – Make Sure You're Ready to Assess Post Occupancy Performance

Develop a plan to collect post occupancy EUI data (data collection requirements are detailed in Step 6 below). Consider how you'll take corrective action if the project strays from the final design EUI. Mass Save Sponsors offer a separate "Verification Incentive" that can help. Ask your Mass Save Sponsors for more information.

### Step 4 – Mass Save Sponsors Issue Incentive Offer Letters

At the end of design, provide the Mass Save Sponsors with the design team's energy model and a short report that details:

- The final design's site EUI.
- The final predicted energy use for electricity as well as any fossil fuels (natural gas, propane, oil).
- The building's total gross square footage per the definition on the first page of this MOU.
- Whether there is a natural gas meter associated with the building for any purpose, including backup generation.
- If heat pumps are included in the design, state the heat pump type(s) and nominal heating capacity (btu/h) at AHRI conditions divided by 12,000 for each heat pump type.

Mass Save Sponsors will issue incentive offer letters per Table 1 in this document based on the Tier in which the final design EUI lands. If more than one Mass Save Sponsor is participating, the customer may receive two incentive offers summing to the incentive levels in Table 1. The incentive offers will be split into two major components and payment timeframes:

- Payment 1: Mass Save Sponsors will make their first payment at the end of construction. It will include both the \$/sf Construction Incentive and the Heat Pump Adder, if applicable.
- Payment 2: Mass Save Sponsors will make the second payment(s) at the end of an agreed upon one-year post occupancy period.
  - The post occupancy payment will be made if the operating EUI lands within the Tier the project set out to achieve.
  - The \$3,000 certification incentive payment will be made if the project achieves ZNC/ZNE or Passive House certification.

Customer incentives are capped at 100% of the combined incremental cost of the EUI reduction strategies included in the project. Projects must be cost-effective to receive the full customer incentives and are subject to each Mass Save Sponsor's program budget.

Customers are required to sign:

1. Custom application, formally requesting Mass Save incentives.
2. The Mass Save incentive offer letter from each Mass Save Sponsor, and



3. The Mass Save Minimum Requirements Document (MRD), which lays out the energy-using equipment and system details that will lead the project to achieve the target EUI.

Customers must commit to constructing the building as it was designed and documented in the MRDs. Major deviations from the design could jeopardize the project's ability to achieve the target EUI and opportunity to obtain full incentives.

At the end of design, the Mass Save Sponsors will request pdfs of the Final Design Documents. The Mass Save Sponsors may conduct further analysis at their own expense to determine more granular information regarding Mass Save program energy savings. The Mass Save Sponsors will share the design documents with at least one additional vendor at their discretion at this time.

### **Step 5 – Construction and Construction Phase Incentive Payment**

A few weeks before substantial completion, customers must provide a set of approved submittals, invoices and photographs corresponding with major equipment that is key in attaining the predicted EUI. All projects participating in the Program are subject to inspection by each participating Mass Save Sponsor.

Once Mass Save Sponsors complete their review and affirm the project was built substantially in accordance with the design, they will make the construction phase incentive payments to the customer.

### **Step 6 – Post Occupancy Incentive, Verification Incentive, and Certification Incentive**

Once the building is functioning in a steady state, the customer and the Mass Save Sponsors agree to begin the Mass Save Performance Period, which will last for one year. At the end of the Mass Save Performance Period, the customer is responsible for supplying post occupancy energy usage data for Mass Save Sponsors to review.

The Mass Save Performance Period as it relates to the post occupancy incentive will begin once the customer affirms:

- The metering system is set up and operating properly per ASHRAE 90.1-2016, para. 8.4.3. The system shall be capable of maintaining all data collected for a minimum of 36 months.
- All significant corrective action the customer intends to take has been completed.
- The occupancy and use of the building have reached a “steady state.”

Customer shall supply the Sponsors of Mass Save with the following at the end of the Performance period:

- Final commissioning report, if available.
- Electrical energy usage for the following loads shall be recorded and reported to Mass Save on at least an hourly, daily, monthly and annual basis for the one-year period (Exception – up to 10% of the load for each of the following categories (b) through (e) shall be allowed to be from other electrical loads):
  - a. Total building electrical energy
  - b. HVAC systems
  - c. Interior lighting
  - d. Exterior lighting
  - e. Receptacle circuits
  - f. On site generation
- Energy use from non electrical sources (e.g., gas or propane for space heating, cooking, hot water, etc.) must be recorded and reported at least monthly (or if using delivered fuels, as often as deliveries are made) and annually for the same one-year period as for the electrical usage.
- All data shall be provided in either an Excel or CSV format.

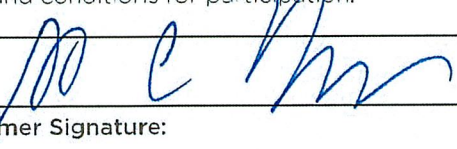
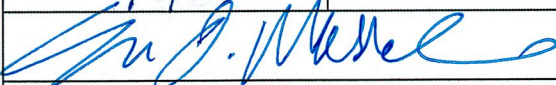


## NEW CONSTRUCTION & MAJOR RENOVATIONS

If, at the end of the Mass Save Performance Period, the building achieves an operational EUI, which, when adjusted for weather by the Mass Save Sponsors, falls within the Tier in which the project's final design EUI landed, the Mass Save Sponsors will pay the customer the additional \$1.50/sf incentive for this Program. The post occupancy EUI is adjusted for weather so that customers are not unfairly penalized for particularly harsh weather and are not unfairly benefitted by particularly mild weather.

If the customer opts to certify the project as net zero in accordance with LEED Zero or the International Living Future Institute's (ILFI's) Living Building Challenge 4.0 (including Zero Carbon, Zero Energy, CORE, Petal or Living Certification), the New Buildings Institute's (NBI's) zero energy standards, or if they receive Passive House certification from either PHIUS or PHI, the Mass Save Sponsors will pay a \$3,000 certification incentive.

By signing below, customers represent that they (1) will be the lawful utility customers of the Premises and (2) have read, understand, accept, and agree to the terms and conditions for participation in the Program outlined above. The project's lead architect is required to also review and sign the MOU acknowledging that he/she has read and understands the terms and conditions for participation.

		Steven Meyer
Customer Signature:		Customer Printed Name:
Date: 12/4/23	Phone: 508-365-4200	Email: smeyer@clinton.k12.ma.us
		Eric Moore, Lamoureux Pagano Associates
Architect Signature:		Architect Printed Name and Company Affiliation:
Date: 12/4/2023	Phone: 508-752-2831	Email: emoore@lpaa.com

### Disclaimers

Except for payment of incentives as set forth hereunder, the Mass Save Sponsors do not make any representations, warranties, promises or guarantees in connection with the Program, energy conservation measures (ECMs), EUI reduction strategies, energy savings, benefits, adequacy or safety of ECMs or other items, or any work, services or other item performed in connection with the Program including, without limitation, the warranty of merchantability or fitness for a particular purpose. Also, other than the (i) energy cost savings realized by Customer, (ii) energy or ancillary service market revenue achieved through market sensitive dispatch, (iii) alternative energy credits, and (iv) renewable energy credits (altogether, the "Customer Credits"), the Mass Save Sponsors have unilateral rights to apply for any credits or payments resulting from the Program or ECMs (the "Sponsor Credits"). Such Sponsor Credits include but are not limited to credits and payments for: (a) ISO-NE capacity, (b) forward capacity credits, (c) other electric or natural gas capacity and avoided cost payments or credits, and (d) demand response program payments. Customer waives, and agrees not to seek, any right to any Sponsor Credit. The Mass Save Sponsors are not responsible for the payment of any taxes assessed by federal, state or local governments on either benefits conferred on the customer by the Sponsor(s) or design incentives paid to the design team.

This is an acknowledgement that the Clinton Public Schools District has identified a minimum goal of 4% additional reimbursement from the MSBA High Efficiency Green School Program. As their Designer, I have submitted a completed LEED scorecard showing a minimum of fifty-one (51) attempted points, which will meet that goal.

The scope of work for this project will include the construction elements and performance tasks to achieve that goal, and all subsequent documents, including but not limited to, specifications, drawings, and cost estimates will match the scope of work indicated in the submitted scorecard.

Eric Moore, AIA

Lamoureux Pagano Associates | Architects

A handwritten signature in black ink, reading "Eric Moore", written over a horizontal line.



**From:** Grace Healy [grace@greenengineer.com](mailto:grace@greenengineer.com)  
**Subject:** FW: Thank you for your LEED Project Registration  
**Date:** February 13, 2024 at 12:41 PM  
**To:** Carrie Havey [carrie@greenengineer.com](mailto:carrie@greenengineer.com)



**Grace Healy, LEED AP BD+C**  
Sustainability Consultant I

The Green Engineer | [Sustainable Design Consulting](#)  
D: 978.341.5466 | O: 978.369.8978  
E: [grace@greenengineer.com](mailto:grace@greenengineer.com)

[Web](#) | [Twitter](#) | [LinkedIn](#) | [Facebook](#) | [Subscribe to Mixed Greens](#) | [2023 Roundup](#)

We are an Employee-Owned, Certified B Corporation, and a Massachusetts Benefit Corporation.

---

**From:** LEED Info <[leedinfo@usgbc.org](mailto:leedinfo@usgbc.org)>  
**Sent:** Tuesday, February 13, 2024 9:03 AM  
**To:** Grace Healy <[grace@greenengineer.com](mailto:grace@greenengineer.com)>  
**Subject:** Thank you for your LEED Project Registration

## U.S. GREEN BUILDING COUNCIL



Dear Grace Healy,

Your LEED project has been successfully registered in [LEED Online](#). You may now log into [LEED Online](#) to manage your project and prepare documents for submittal to GBCI. To find out more about what to expect during the certification process, please refer to our [Guide to LEED Certification](#).

Project ID	: 1000193738
Project Name	: Clinton Middle School
Project Rating System	: LEED v4 BD+C: SC
Registration Type	: Individual Project
Registration Date	: 02/13/2024
Project Location	: Clinton, MA, US, 01510

We wanted to alert you to some great resources for you and your team as you get started with the LEED Certification process.

### KEY RESOURCES

- [Guide to LEED Certification](#)
- [Web-based Reference Guides](#)

- [web-based Reference Guides](#)
- [GBCI Reviewer Submittal Tips](#)
- [LEED Credit Library](#)
- [LEED v4/v4.1 Course Playlist](#)
- [Performance Tracking in Arc](#)

Did you know some of your most useful tools can be accessed directly from [LEED Online](#)? When you click on the "**Credits**" tab in your project, and click on a credit that is 'attempted' you will see several helpful resources buttons appear, including:

- The "*Credit Library*" button will take you directly to the credit-specific credit language. Once you are in the credit library, be sure to check out the "*Resources*" button. For most credits, this contains key Worksheets, Calculators, Guidance Documents, as well as credit-specific Submittal Tips.
- Click the "*Education*" button for a credit-specific, web-based tutorial.

For more information, please refer to our [Help Center](#).

Please don't hesitate to reach out and [Contact us](#). We are here to help!

1-800-795-1747(within U.S.)

+ 1-202-742-3792 (outside U.S.)

<https://gbc.org/contact>

*\*This is an automatically generated email. Please do not reply to this message.\**



## 4.1.2 SCHEMATIC DESIGN BINDER

---

- K. Accessibility Compliance & Historical Commission
  - 1. Accessibility Compliance
  - 2. MHC PNF & Approval

## MSBA Module 4

### Schematic Design

## 4.1.2 SCHEMATIC DESIGN BINDER

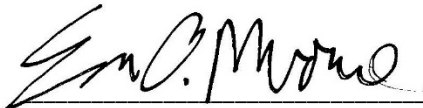
### K. Accessibility Compliance & Historic Commission

#### 1. Accessibility Compliance

The proposed Clinton Middle School, as new construction, is required to comply fully with the Rules and Regulations of 521 CMR: Architectural Access Board. This is an acknowledgement that the proposed design is in accordance with those requirements; and complies with ADA Standards for Accessibility (unless superseded by MA-AAB rules and regulations).

Eric Moore, AIA

Lamoureux Pagano Associates | Architects

A handwritten signature in black ink, reading "Eric Moore", with a horizontal line underneath.

23 October 2023

Massachusetts Historical Commission  
220 Morrissey Boulevard  
Boston, MA 02125

Re: Clinton Middle School  
Clinton, Massachusetts  
Project Notification Form

To Whom it May Concern:

On behalf of the Town of Clinton, please find attached the Massachusetts Historical Commission Project Notification Form for the Clinton Middle School located at 100 West Boylston Street, Clinton, Massachusetts, prepared by our office.

We have included reduced size drawings for this submission. If you require full size drawings, electronic file, or have any other questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Eric D. Moore".

Eric D. Moore, AIA  
Sr. Project Architect

EM/pf

cc: Steven Meyer, Superintendent, Clinton Public School District  
Michael Ward, Town Administrator, Town of Clinton  
Trip Elmore, OPM, Dore + Whittier Architects  
Clinton Historical Society

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

APPENDIX A

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD  
BOSTON, MASS. 02125  
617-727-8470, FAX: 617-727-5128

**PROJECT NOTIFICATION FORM**

Project Name: Clinton Middle School

Location / Address: 100 West Boylston Street

City / Town: Clinton, MA

Project Proponent

Name: Lamoureux Pagano Associates Architects, Inc.

Address: 108 Grove Street, Suite 300

City/Town/Zip/Telephone: Worcester, MA 01605; Tel: 508-752-2831

Agency license or funding for the project (list all licenses, permits, approvals, grants or other entitlements being sought from state and federal agencies).

Agency Name

Type of License or funding (specify)

Massachusetts School Building Authority (MSBA) – New Construction Funding

MA Save – Utility Incentive/Grant Funding

Town of Clinton, MA

**Project Description (narrative):**

This Project includes New Construction of a 136,000 GSF, 700–student replacement Middle School building for grades 4–8 with related access, parking, fields, and site amenities. The existing school was constructed in 1976 and will remain occupied through the phased construction and demolished over the summer/fall of 2027 after completion of the new building.

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

The Town engaged in a feasibility study based on the detailed Massachusetts School Building Authority (MSBA) process, which included reviewing the possibility of renovation/additions of the existing school building and new construction on the existing site. At the Town's direction, there are no available properties with the District that could support the new school program. This study concluded that phased new construction at the existing Clinton Middle School site was the preferred option. The Feasibility Study was conducted using a transparent public meeting process and voted on by the Town's Permanent Building Committee. Existing floor plans, proposed site plan, and existing exterior photos are attached to this form for reference. The full Feasibility Study is available for review on the Town's associated project website here: <https://www.clintonmiddleschoolbuildingproject.com/>

**Does the project include demolition? If so, specify nature of demolition and describe the building(s) which are proposed for demolition.**

Yes; the project scope will include the complete demolition of the existing 1976 middle school and site features. The existing Middle School is a two-story, 126,000 square foot building with unreinforced 8" CMU/4" brick veneer exterior walls. The floors are concrete slabs-on-deck with steel framing to support the second floor and roof. Most of the original windows were replaced in the past decade with new aluminum-framed windows. The existing building and systems are vintage to the original construction. The Feasibility Study concluded that renovations or additions and renovations of the existing building would not adequately meet the school District's program needs.

**Does the project include rehabilitation of any existing buildings? If so, specify nature of rehabilitation and describe the building(s) which are proposed for rehabilitation.**

No.

**Does the project include new construction? If so, describe (attach plans and elevations if necessary).**

Yes; the proposed new middle school building is increased in size from the existing building in order to accommodate the larger enrollment (grades 4-8), additional STEM programs, the need to bring all the program spaces up to compliance with the MSBA guidelines, and the District's educational program. The new school will be on two floor levels, with two academic wings and core facilities. The Auditorium, Gymnasium, Cafeteria, Media Center, and medical/guidance/administrative suites are positioned in the school so that they may be securely accessed by the community after hours for sports, arts, or other after-school activities.

The landscape scope of work for the new Clinton Middle School provides a sensitivity to the

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

surrounding context while improving universal pedestrian access, vehicular circulation, stormwater mitigation strategies and expanded outdoor programming for the school. The adjacent berm to the reservoir is to remain with the project work beginning to the north at the base of the slope. Entry plazas include unit paving to reinforce hierarchy and wayfinding as well as seating and landscaping improvements. Rain garden plantings provide a buffer between the new recreation field and the road (in the existing drainage swale). Site amenity upgrades include basketball court replacement/relocation, drainage improvements at recreation fields, and a new playground and outdoor learning classroom. Service area improvements include screening at dumpsters. The scope also includes perimeter fence replacement to maintain site security.



950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

APPENDIX A (continued)

**To the best of your knowledge, are any historic or archaeological properties known to exist within the project's area of potential impact? If so, specify.**

No. The Clinton Middle School building/site is not listed on either the Massachusetts Cultural Resource Information System (MACRIS) or the National Register of Historic Places.

The Clinton Middle School building/site is near, but not part of, the Wachusett Dam Historic District (Property ID 89002269) located at the north end of the Wachusett Reservoir at Lancaster Millpond. The Wachusett Dam Historic District consists of the Wachusett Dam, Lower Gatehouse, lightning arrestor chamber, two bridges and two maintenance buildings.

**What is the total acreage of the project area?**

Woodland	3.967	acres	Productive Resources:		
Wetland	0.0	acres	Agriculture	0.0	acres
Floodplain	0.0	acres	Forestry	0.0	acres
Open space	5.702	acres	Mining/Extraction	0.0	acres
Developed	9.964	acres	Total Project Acreage	26.80	acres

**What is the acreage of the proposed new construction?** 15.665 acres


**What is the present land use of the project area?**

Middle School building, parking access, playground, and athletic fields.

**Please attach a copy of the section of the USGS quadrangle map which clearly marks the project location.**

Refer to attach "Clinton Quadrangle" map.

This Project Notification Form has been submitted to the MHC in compliance with 950 CMR 71.00.

Signature of Person submitting this form: 

Date: 10/23/2023

Name: Eric Moore

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

Address: 108 Grove Street, Suite 300

---

City/Town/Zip: Worcester, MA 01605

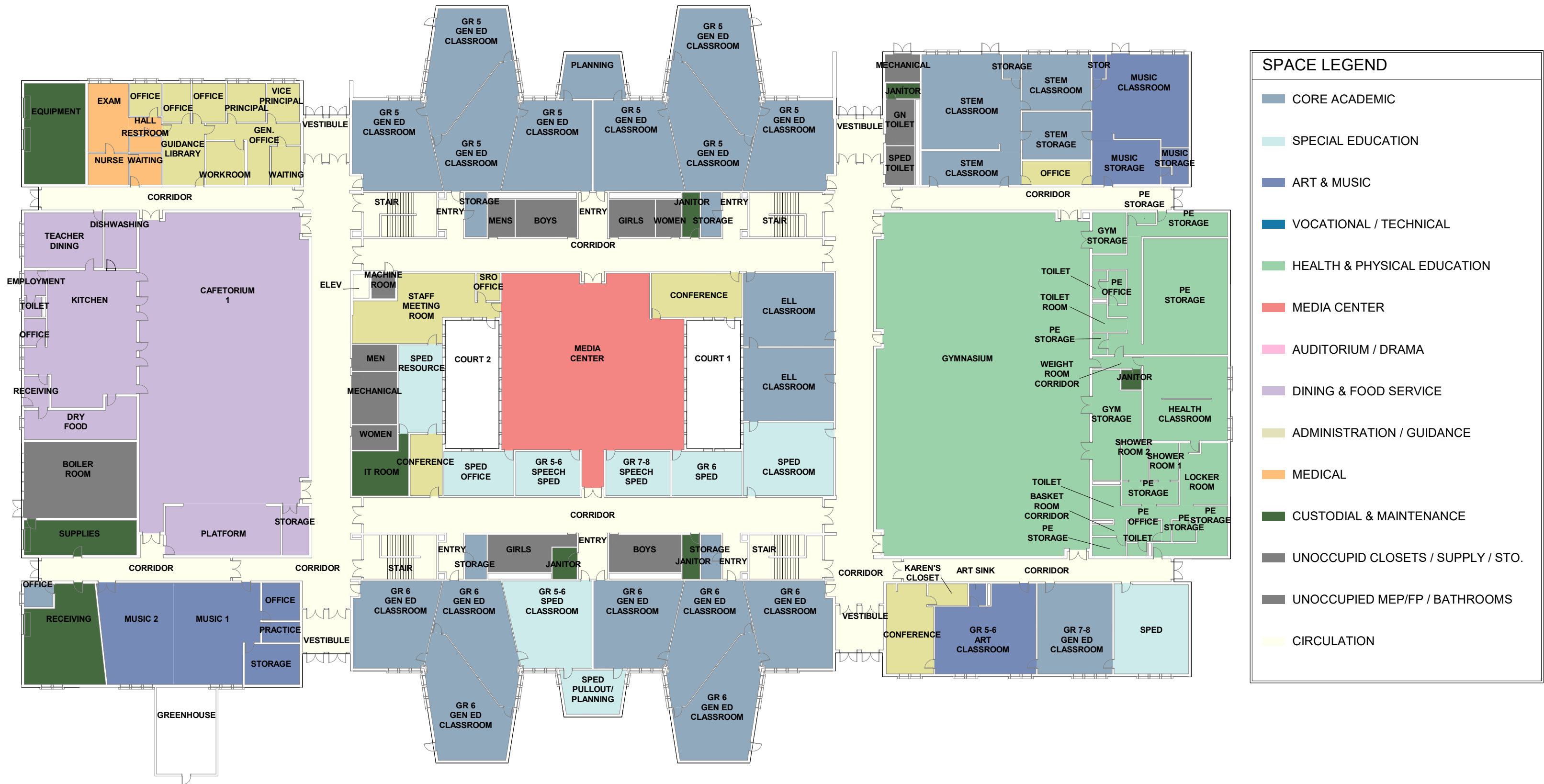
---

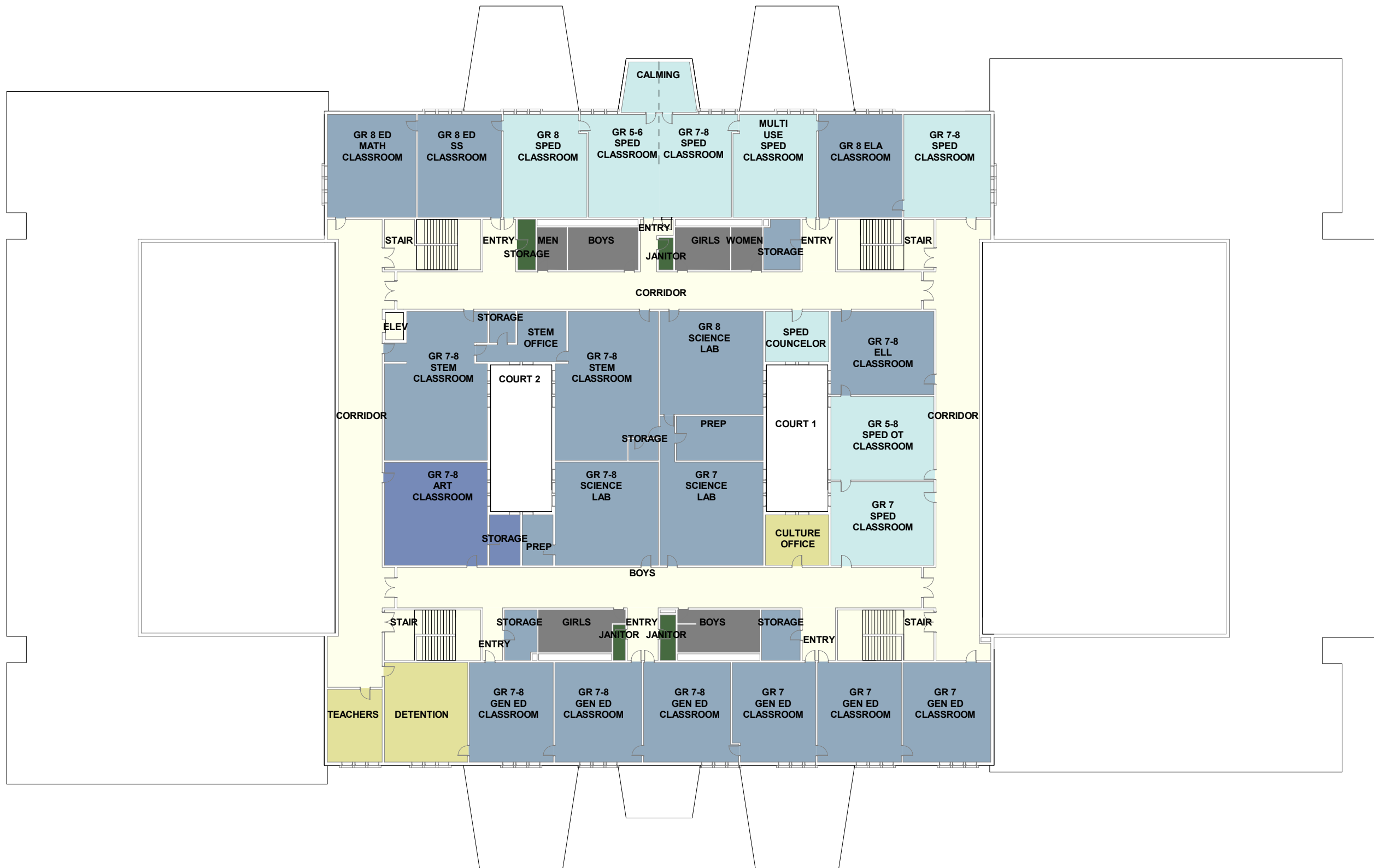
Telephone: 508-752-2831

---

REGULATORY AUTHORITY

950 CMR 71.00: M.G.L. c. 9, §§ 26-27C as amended by St. 1988, c. 254.





SPACE LEGEND	
<span style="display:inline-block; width:15px; height:10px; background-color:#4F81BD; border:1px solid black;"></span>	CORE ACADEMIC
<span style="display:inline-block; width:15px; height:10px; background-color:#A9E0E0; border:1px solid black;"></span>	SPECIAL EDUCATION
<span style="display:inline-block; width:15px; height:10px; background-color:#3A609E; border:1px solid black;"></span>	ART & MUSIC
<span style="display:inline-block; width:15px; height:10px; background-color:#0070C0; border:1px solid black;"></span>	VOCATIONAL / TECHNICAL
<span style="display:inline-block; width:15px; height:10px; background-color:#70C070; border:1px solid black;"></span>	HEALTH & PHYSICAL EDUCATION
<span style="display:inline-block; width:15px; height:10px; background-color:#E07070; border:1px solid black;"></span>	MEDIA CENTER
<span style="display:inline-block; width:15px; height:10px; background-color:#F0A0D0; border:1px solid black;"></span>	AUDITORIUM / DRAMA
<span style="display:inline-block; width:15px; height:10px; background-color:#C0A0D0; border:1px solid black;"></span>	DINING & FOOD SERVICE
<span style="display:inline-block; width:15px; height:10px; background-color:#D0C080; border:1px solid black;"></span>	ADMINISTRATION / GUIDANCE
<span style="display:inline-block; width:15px; height:10px; background-color:#F0A070; border:1px solid black;"></span>	MEDICAL
<span style="display:inline-block; width:15px; height:10px; background-color:#508050; border:1px solid black;"></span>	CUSTODIAL & MAINTENANCE
<span style="display:inline-block; width:15px; height:10px; background-color:#808080; border:1px solid black;"></span>	UNOCCUPIED CLOSETS / SUPPLY / STO.
<span style="display:inline-block; width:15px; height:10px; background-color:#606060; border:1px solid black;"></span>	UNOCCUPIED MEP/FP / BATHROOMS
<span style="display:inline-block; width:15px; height:10px; background-color:#FFFFE0; border:1px solid black;"></span>	CIRCULATION



Project Notification Form



View of south side of building, showing the greenhouse, looking northeast.



View of south side main entrance, looking northeast.

Project Notification Form



View of south side main entrance, looking northeast.



View of south side main entrance, looking northwest.

Project Notification Form



View at the southeast corner of the building, looking northeast.



View of the southeast corner of the building, looking northwest.

Project Notification Form



View of east side of building, looking northwest.



View of east side of building, looking southwest.



Project Notification Form



View of northeast corner of building, looking southwest.



View of north side of building, looking southwest.

Project Notification Form



View of secondary entrance on north side of building.



View of north side of building.

Project Notification Form



View of main entrance on north side of building.



View of main entrance on north side of building.

Project Notification Form



View of north side of building, looking southeast.



View of northwest corner, looking southeast.

Project Notification Form



View of northwest corner of the building, looking south.

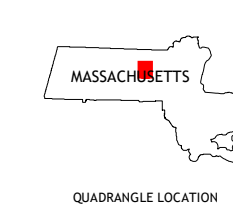
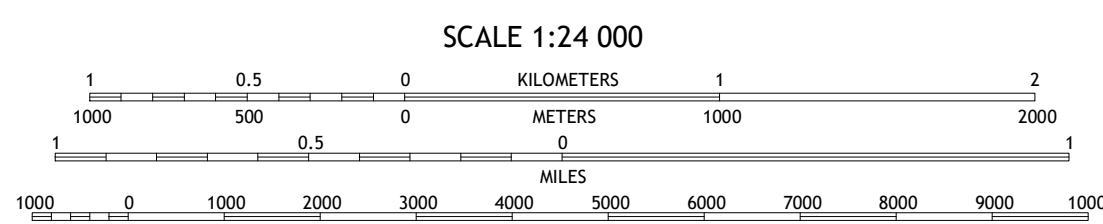
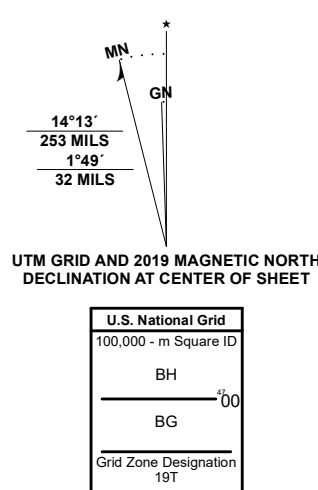


View of west side of building, looking east.



Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84). Projection and  
1 000-meter grid/Universal Transverse Mercator, Zone 17T  
This map is not a legal document. Boundaries may be  
generalized for this map scale. Private lands within government  
reservations may not be shown. Obtain permission before  
entering private lands.

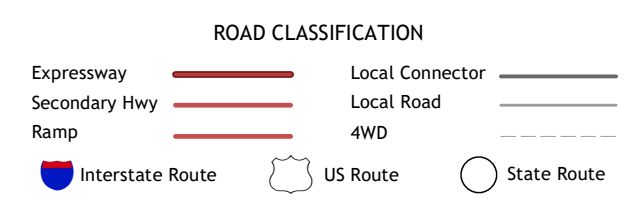
Imagery.....NAIP, July 2016 - September 2016  
Roads.....U.S. Census Bureau, 2018  
Names.....GNIS, 1974 - 2018  
Hydrography.....National Hydrography Dataset, 2004 - 2015  
Contours.....National Elevation Dataset, 2012  
Boundaries.....Multiple sources; see metadata file 2016 - 2017  
Wetlands.....FWS National Wetlands Inventory 1992 - 2008



QUADRANGLE LOCATION

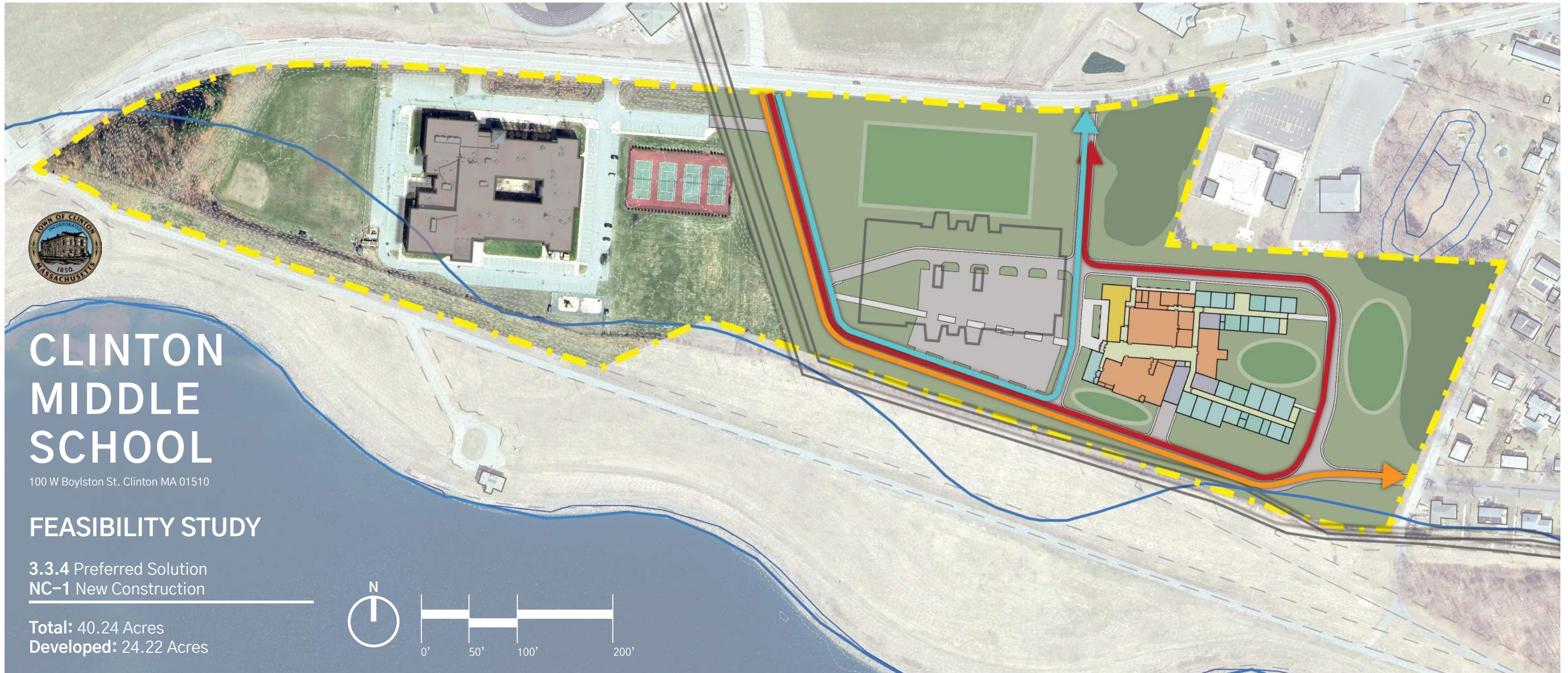
1	2	3
4	5	6
7	8	

1 Fitchburg  
2 Shirley  
3 Ayer  
4 Sterling  
5 Hudson  
6 Worcester North  
7 Shrewsbury  
8 Marlborough



CLINTON, MA  
2021

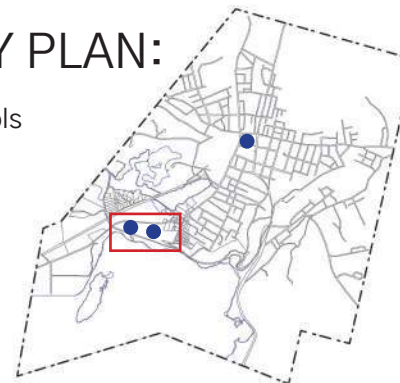
\*7643016369503\*  
NSN 7540-01-6369503  
NGA REF. NO. USGS X 2.4 K 9.2 09



NOTES:

QUADRANT KEY PLAN:

- Existing K-12 Schools
- Proposed Site



LEGEND:

- ▬ Parcel Property Line
- ▬ New Construction
- ▬ New Athletic Field
- ▬ Existing Building
- ▬ DCR Buffer Zone
- ▬ Bus Circulation
- ▬ Parent Circulation
- ▬ Access Road

RECEIVED

APPENDIX A

MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD  
BOSTON, MASS. 02125  
617-727-8470, FAX: 617-727-5128

OCT 24 2023

MASS. HIST. COMM

RC. 73957

**PROJECT NOTIFICATION FORM**

Project Name: Clinton Middle School

Location / Address: 100 West Boylston Street

After review of MHC files and the materials you submitted, it has been determined that this project is unlikely to affect significant historic or archaeological resources.

City / Town: Clinton, MA

RC. 73957

Project Proponent

Name: Lamoureux Pagano Associates Architects, Inc.

Elizabeth Sherva 11/17/23  
Date

Preservation Planner  
Massachusetts Historical Commission

Address: 108 Grove Street, Suite 300

XC: MSBA

City/Town/Zip/Telephone: Worcester, MA 01605; Tel: 508-752-2831

Agency license or funding for the project (list all licenses, permits, approvals, grants or other entitlements being sought from state and federal agencies).

Agency Name

Type of License or funding (specify)

Massachusetts School Building Authority (MSBA) – New Construction Funding

MA Save – Utility Incentive/Grant Funding

Town of Clinton, MA

**Project Description (narrative):**

This Project includes New Construction of a 136,000 GSF, 700–student replacement Middle School building for grades 4–8 with related access, parking, fields, and site amenities. The existing school was constructed in 1976 and will remain occupied through the phased construction and demolished over the summer/fall of 2027 after completion of the new building.



950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

The Town engaged in a feasibility study based on the detailed Massachusetts School Building Authority (MSBA) process, which included reviewing the possibility of renovation/additions of the existing school building and new construction on the existing site. At the Town's direction, there are no available properties with the District that could support the new school program. This study concluded that phased new construction at the existing Clinton Middle School site was the preferred option. The Feasibility Study was conducted using a transparent public meeting process and voted on by the Town's Permanent Building Committee. Existing floor plans, proposed site plan, and existing exterior photos are attached to this form for reference. The full Feasibility Study is available for review on the Town's associated project website here: <https://www.clintonmiddleschoolbuildingproject.com/>

**Does the project include demolition? If so, specify nature of demolition and describe the building(s) which are proposed for demolition.**

Yes; the project scope will include the complete demolition of the existing 1976 middle school and site features. The existing Middle School is a two-story, 126,000 square foot building with unreinforced 8" CMU/4" brick veneer exterior walls. The floors are concrete slabs-on deck with steel framing to support the second floor and roof. Most of the original windows were replaced in the past decade with new aluminum-framed windows. The existing building and systems are vintage to the original construction. The Feasibility Study concluded that renovations or additions and renovations of the existing building would not adequately meet the school District's program needs.

**Does the project include rehabilitation of any existing buildings? If so, specify nature of rehabilitation and describe the building(s) which are proposed for rehabilitation.**

No.

**Does the project include new construction? If so, describe (attach plans and elevations if necessary).**

Yes; the proposed new middle school building is increased in size from the existing building in order to accommodate the larger enrollment (grades 4-8), additional STEM programs, the need to bring all the program spaces up to compliance with the MSBA guidelines, and the District's educational program. The new school will be on two floor levels, with two academic wings and core facilities. The Auditorium, Gymnasium, Cafeteria, Media Center, and medical/guidance/administrative suites are positioned in the school so that they may be securely accessed by the community after hours for sports, arts, or other after-school activities.

The landscape scope of work for the new Clinton Middle School provides a sensitivity to the

**950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH**

surrounding context while improving universal pedestrian access, vehicular circulation, stormwater mitigation strategies and expanded outdoor programming for the school. The adjacent berm to the reservoir is to remain with the project work beginning to the north at the base of the slope. Entry plazas include unit paving to reinforce hierarchy and wayfinding as well as seating and landscaping improvements. Rain garden plantings provide a buffer between the new recreation field and the road (in the existing drainage swale). Site amenity upgrades include basketball court replacement/relocation, drainage improvements at recreation fields, and a new playground and outdoor learning classroom. Service area improvements include screening at dumpsters. The scope also includes perimeter fence replacement to maintain site security.

2/10/2016 10:13:11 AM

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

APPENDIX A (continued)

To the best of your knowledge, are any historic or archaeological properties known to exist within the project's area of potential impact? If so, specify.

No. The Clinton Middle School building/site is not listed on either the Massachusetts Cultural Resource Information System (MACRIS) or the National Register of Historic Places.

The Clinton Middle School building/site is near, but not part of, the Wachusett Dam Historic District (Property ID 89002269) located at the north end of the Wachusett Reservoir at Lancaster Millpond. The Wachusett Dam Historic District consists of the Wachusett Dam, Lower Gatehouse, lightning arrestor chamber, two bridges and two maintenance buildings.

What is the total acreage of the project area?

Woodland	3.967	acres	Productive Resources:	
Wetland	0.0	acres	Agriculture	0.0 acres
Floodplain	0.0	acres	Forestry	0.0 acres
Open space	5.702	acres	Mining/Extraction	0.0 acres
Developed	9.964	acres	Total Project Acreage	26.80 acres

What is the acreage of the proposed new construction? 15.665 acres


What is the present land use of the project area?

Middle School building, parking access, playground, and athletic fields.

Please attach a copy of the section of the USGS quadrangle map which clearly marks the project location. Refer to attach "Clinton Quadrangle" map.

This Project Notification Form has been submitted to the MHC in compliance with 950 CMR 71.00.

---

Signature of Person submitting this form:  Date: 10/23/2023

Name: Eric Moore

---

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

Address: 108 Grove Street, Suite 300

City/Town/Zip: Worcester, MA 01605

Telephone: 508-752-2831

REGULATORY AUTHORITY

950 CMR 71.00: M.G.L. c. 9, §§ 26-27C as amended by St. 1988, c. 254.

RECEIVED  
NOV 22 2023  
LAMBARTON, PAGANO  
& ASSOC., INC.

## 4.1.2 SCHEMATIC DESIGN BINDER

---

L. Room Data Sheets

Clinton Middle School

**Room Data Sheets**

Prepared by: Lamoureux Pagano Associates  
September 2023





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### TABLE OF CONTENTS

#### Contents

KEY PLAN . . . . .	5
MILLWORK / CASEWORK KEY . . . . .	7
1. GENERAL CLASSROOM 4TH – 6TH . . . . .	9
2. GENERAL CLASSROOM 7TH – 8TH . . . . .	13
3. SCIENCE LAB & PREP . . . . .	17
4. INDUSTRIAL ARTS LAB . . . . .	21
5. COMPUTER SCIENCE . . . . .	25
6. LIFE SCIENCE LAB . . . . .	29
7. TLC CLASSROOM . . . . .	33
8. ABA CLASSROOM . . . . .	37
9. LIFE SKILLS CLASSROOM . . . . .	41
10. ADULT DAILY LIVING . . . . .	45
11. OT/PT . . . . .	49
12. CALMING . . . . .	53
13. SPED LIAISON CLASSROOM . . . . .	57
14. SMALL GROUP/ RESOURCES / SPEECH/ ELL	61
15. COLLABORATIVE WORK . . . . .	65
16. ART CLASSROOM . . . . .	69
17. ART STORAGE . . . . .	73
18. MEDIA CENTER . . . . .	77
19. MAKER SPACE . . . . .	81
20. GYMNASIUM . . . . .	85
21. LOCKERS . . . . .	89
22. WELLNESS CLASSROOM . . . . .	93
23. EXECUTIVE FUNCTIONING . . . . .	97
24. CAFETORIUM & TABLE STORAGE . . . . .	101
25. KITCHEN & STORAGE . . . . .	105
26. PLATFORM & PLATFORM EQUIPMENT . . . . .	109
27. STAFF DINING . . . . .	113
28. BAND . . . . .	117
29. MUSIC PRACTICE & STORAGE . . . . .	121
30. MEDICAL SUITE . . . . .	125
31. ADMINISTRATION SUITE . . . . .	129
32. SPED ADMINISTRATION . . . . .	133
33. TEACHER PLANNING . . . . .	137
34. GUIDANCE SUITE . . . . .	141
35. STUDENT TOILET ROOMS . . . . .	145
36. PUBLIC TOILET ROOMS . . . . .	149
37. CUSTODIAL & MECHANICAL . . . . .	153





**KEY PLAN**



**LEVEL 2 FLOOR**



**LEVEL 1 FLOOR**



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

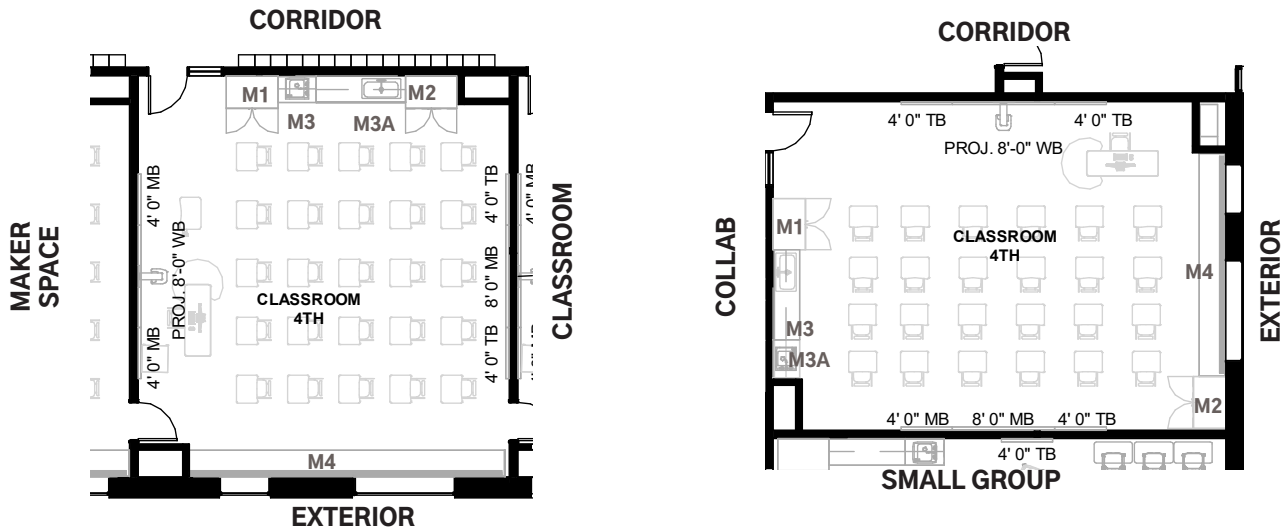
### MILLWORK / CASEWORK KEY

- M1 48”w x 84”h lockable teacher wardrobe with clothes pole and 5 shelves for storage
- M2 48”w x 84”h supply cabinet with lockable doors, center divider and 5 adjustable shelves
- M3 34”h base cabinet with drawers and doors, a plastic laminate counter top, and a backsplash. May contain a sink (refer to plan). 30”h wall cabinet with doors when sink not included.
- M3A 34”h ADA compliant base unit with sink, plastic laminate counter top and backsplash. 18” h wall cabinet with doors
- M4 30” high base cabinet unit with plastic laminate counter/backsplash, pencil grille at base and top. Half of cabinets to be open shelving (in center); other half to be lockable (at ends)
- M4A 30” high base cabinet unit with plastic laminate counter/backsplash, pencil grille at base and top. Vertical slots at 2” wide (clear) for art storage.
- M5 30”h ADA compliant base unit with sink, plastic laminate counter top and backsplash. 18” h wall cabinets with doors
- M6 24”d plastic laminate work surface with painted aluminum support brackets
- M6A 30”d plastic laminate work surface with painted aluminum support brackets
- M7 Tall cabinet with large drawers in the art classrooms
- M8 Plastic laminate adjustable shelving on heavy duty brackets and standards with vertical every 36”, 4” high base, and plastic laminate cap
- M9 34” high base unit with doors and plastic laminate counter with 12”d x 12”w x 5” h mailbox open cubby units with label holders
- M10 Custom 30”h desk unit with 12” h deal shelf above. All counters solid surface with grommets for wire management. Drawer/door and file base units
- M11 Coat and backpack cubby units: 43” h x 30” d open storage unit with tiled bench below at 16” high (open boot storage below bench) and 2 rows of heavy duty coat hooks above; 4” h base. 25” high storage cabinets with doors above cubby units
- M13 Science laboratory casework: base cabinets with chemical resistant plastic laminate and epoxy countertop with 30” h wall cabinets above. Lab tables with epoxy counter tops and lockable casters are at windows to be offset from wall and to include backsplash with pencil grille and toe kick pencil grille to accommodate radiant heating.





**1. GENERAL CLASSROOM 4TH – 6TH**



**GENERAL CRITERIA**

Description:

Typical classroom intended to support a variety of teaching methods for Grades 4–6. Provisions for a teacher and one instructional assistant

Area: 900SF

Quantity: (6) 4th Grade @ 900 SF; (6) 5th Grade @ 900 SF; (6) 6th Grade @ 900 SF

Users:

- (1) Teacher
- (20–25) Students
- Instructional assistant as required

Adjacencies:

Communicating door(s) to adjacent classroom(s)

Adjacent classroom(s) when possible  
Common Room

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe 4'wide teacher's wardrobe closet;
- M2 – Wall storage cabinet at Corridor wall
- M3 – Continuous countertop with base/upper cabinets
- M3A 34"h ADA compliant base unit with sink, plastic laminate counter top and backsplash. 18" h wall cabinet with doors
- M4 – Under-window shelving w/doors. ½ locked and ½ open shelves

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8'–0" Interactive Display Whiteboard (front)
- (1) 8'–0" Magnetic white board (back)
- (2) 4'–0" Magnetic white boards (front)
- (2) 4'–0" Tack boards (back)

Window Treatments:

Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 1. GENERAL CLASSROOM 4TH – 6TH

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door
  - ↳ Classroom Security Lock set
  - ↳ Side lite
- Communicating door
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4” resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (1) Accessible sink with hot/cold water and accessible integral drinking fountain.
- (1) Sink deep bowl for cleaning equipment

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at sink area
- Duplex receptacle for projector
- Quad receptacles for teacher workstation
- General duplex receptacle for charging cabinet
- 50% of general purpose power receptacles to turn off automatically when the school is unoccupied

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (2 data ports) for teacher workstation
- (1) Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 1. GENERAL CLASSROOM 4TH – 6TH

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (1) Paper towel dispenser (at sink)
- (1) Soap dispenser (at sink)

##### Equipment/Technology included in FF&E contract:

###### Mobile Technology:

- (1) Teacher laptop
- (25) Student tablets
- (1) Mobile charging cart
- (1) Interactive Short – Throw Projector

##### Equipment included GC Contract:

- (1) Overhead speech reinforcement speaker

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (1) Adjustable height table attachment for teacher desk
- (1) Aide chair
- (25) Flat top student desks with storage
- (25) Student chairs

#### OTHER INFORMATION

- Collaborative work areas will connect all classrooms in grade cluster

#### NOTES:



**1. GENERAL CLASSROOM 4TH – 6TH**

Review Comments:

Reviewed by:

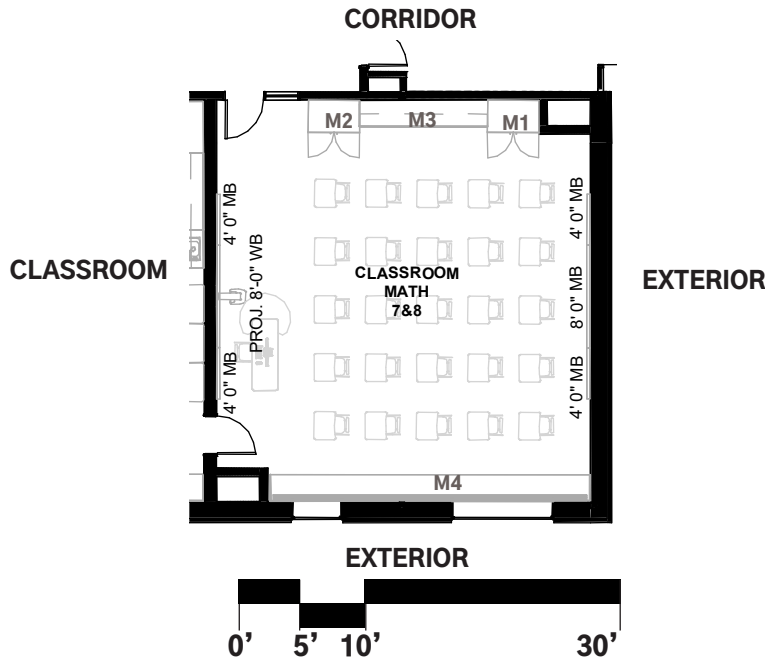
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**2. GENERAL CLASSROOM 7TH – 8TH**



**GENERAL CRITERIA**

Description:

Typical classroom intended to support a variety of teaching methods for Grades 7th & 8th. Provisions for a teacher and one instructional assistant

Area: 900SF

Quantity: (3) Math @ 900 SF; (3) English Language Arts @ 900 SF; (3) Social Studies @ 900 SF

Users:

- (1) Teacher
- (20–25) Students
- Instructional assistant as required

Adjacencies:

Communicating door(s) to adjacent classroom(s)

Adjacent classroom(s) when possible  
Common Room

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe 4’wide teacher’s wardrobe closet;
- M2 – Wall storage cabinet at Corridor wall
- M3 – Continuous countertop with base/ upper cabinets
- M4 – Under-window shelving w/doors. ½ locked and ½ open shelves

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’–0” Interactive Display Whiteboard
- (1) 8’–0” Magnetic white board (back)
- (2) 4’–0” Magnetic white boards (front)
- (2) 4’–0” Tack boards (back)

Window Treatments:

Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 2. GENERAL CLASSROOM 7TH – 8TH

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Security Lock set
  - ↳ Side lite
- Communicating door:
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- N/A

##### Mechanical:

- Air conditioning

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at sink area
- receptacle for projector
- Quad receptacles for teacher workstation
- General duplex receptacle inside millwork for charging cabinet
- 50% of general purpose power receptacles that turn off automatically when the school is unoccupied

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (2 data ports) for teacher workstation
- Connection for speech reinforcement system
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 2. GENERAL CLASSROOM 7TH – 8TH

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- N/A

##### Equipment/Technology included in FF&E contract:

###### Mobile Technology:

- (1) Teacher laptop
- (1) Mobile charging cart
- (1) Interactive Short – Throw Projector

##### Equipment included GC Contract:

- (1) Overhead speech reinforcement speaker

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (1) Adjustable height table attachment for teacher desk
- (1) Aide chair
- (25) Flat top student desks with storage
- (25) Student chairs

#### OTHER INFORMATION

- Communicating doors between classrooms where possible

#### NOTES:

All 6 classroom spaces will be fit up the same; meant for flexibility



---

**2. GENERAL CLASSROOM 7TH – 8TH**

Review Comments:

Reviewed by:

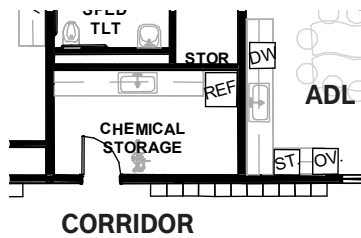
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**3. SCIENCE LAB & PREP**



**GENERAL CRITERIA**

Description:

Science Lab grades 7–8th with dedicated prep room for each science lab.

Area:

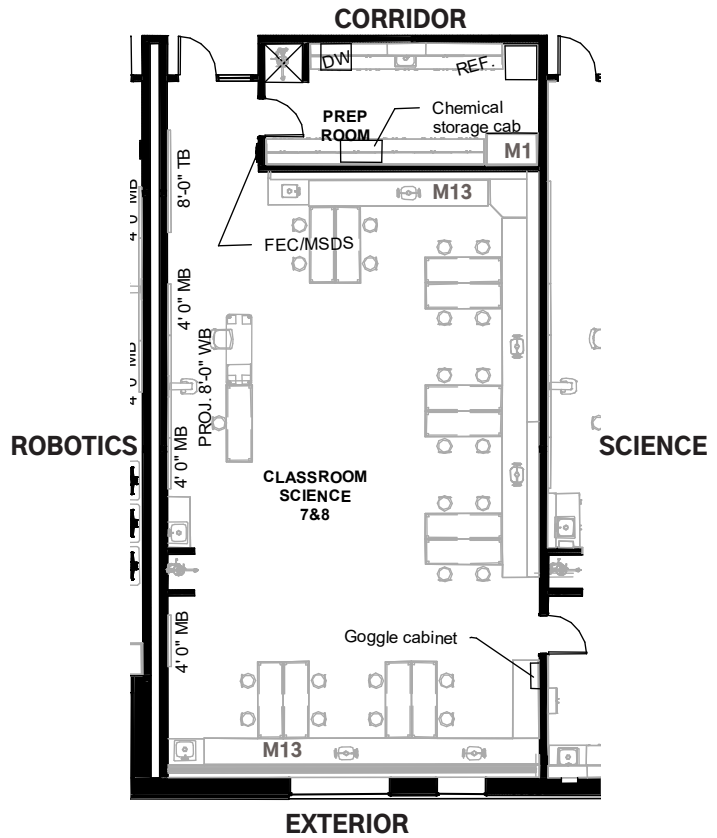
- (3) Grade 7–8 Science Labs @ 1440 SF
- (3) Adjacent prep rooms @ 200 SF
- (1) Central Chemical Storage room @ 150 SF

Users:

- (1) Teacher
- (24) Students
- Inst. Assistants as required

Adjacencies:

Clustered together with grade 7–8 STEM neighborhood



**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe– prep room
- (1) Special chemical or flammable storage cabinets– Prep room and Chem Room
- M13 – Chemical resistant Laboratory casework: 36” base cabinets with epoxy tops , sinks and wall cabinets. All doors lockable.
- Accessible hand wash sink and lab sinks
- Perimeter lab stations and mobile lab tables.

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’–0” Magnetic white board
- (2) 4’–0” Magnetic white boards
- (2) 4’–0” Tack boards

Window Treatments:

Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 3. SCIENCE LAB & PREP

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Security Lockset
- Communicating door:
  - ↳ Passage Lockset
- Prep room door:
  - ↳ Storeroom Lockset; Keyed  
separate from labs/classrooms

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT, suspended pipe frame for hanging experiments, min 10 lb Weights

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (5) 8" x 12.5" x 6" d under-mount epoxy lab sinks (with hot and cold water) with two lab faucets with interchangeable nozzles and flush epoxy covers
- (1) Demonstration sink and (1) Accessible lab sink
- (1) Prep room sink (1) accessible handwash sink in classroom (with hot and cold water)
- (1) Emergency Eye-washing and shower
- (1) Dish Washer in prep room
- (1) Freezer/refrigerator with ice maker – in Chemical Storage room
- (1) Freezer/refrigerator with ice maker – in Prep room

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- Each mobile table should have its own duplex outlet to use
- GFCI receptacle at sink area
- Duplex receptacle for projector
- Quad receptacles for teacher workstation

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (1 voice/2 data ports) for teacher workstation
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (2) 75 candela audiovisual device





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 3. SCIENCE LAB & PREP

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (1) Paper towel dispenser (each sink)
- (1) Soap dispenser (each sink)
- (1) First Aid Kit at each exit

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (24) Student chairs stools with backs
- (13) Lab Tables with Lockable Casters 2 students per desk
- (1) Glassware racks – Prep room

#### OTHER INFORMATION

- Communicating doors between classrooms where possible
- Dedicated prep room for each science lab.
- Structure beams to be hung below the ceiling

##### Equipment/Technology included in FF&E contract:

- (1) Document camera
- (1) Microscope cart with (24 microscopes)
- (1) Interactive Short-Throw projector
- (12) Hot Plates
- (12) Scales
- (12) Microscopes
- (12) Stirrer Plates
- (2) Small Portable air compressors
- Acid spill clean up station
- Broken glass disposal container

##### Mobile Technology:

- (1) Teacher laptop
- (24) Student tablets

##### Equipment included GC Contract:

- (1) Overhead speech reinforcement speaker
- (1) Goggle cabinet/sterilizer unit per lab
- (1) Fire blanket and fire extinguisher cabinet(s)
- (1) Recessed fire extinguisher cabinet. –Prep room
- (1) Stacked Chemical storage cabinets for acids flammable and corrosion –Chemical storage/room
- (3) Chemical storage cabinets – one per prep room
- (1) MSDS binder holder
- (1) Freezer/refrigerator with ice maker – in Chemical Storage room
- (1) Freezer/refrigerator with ice maker – in Prep room
- (1) Residential dishwasher–Prep Room
- (#) 12”d. x7’-0”h. X3’-0”w. Open shelves per unit. with chemical lip



**3. SCIENCE LAB & PREP**

Review Comments:

Reviewed by:

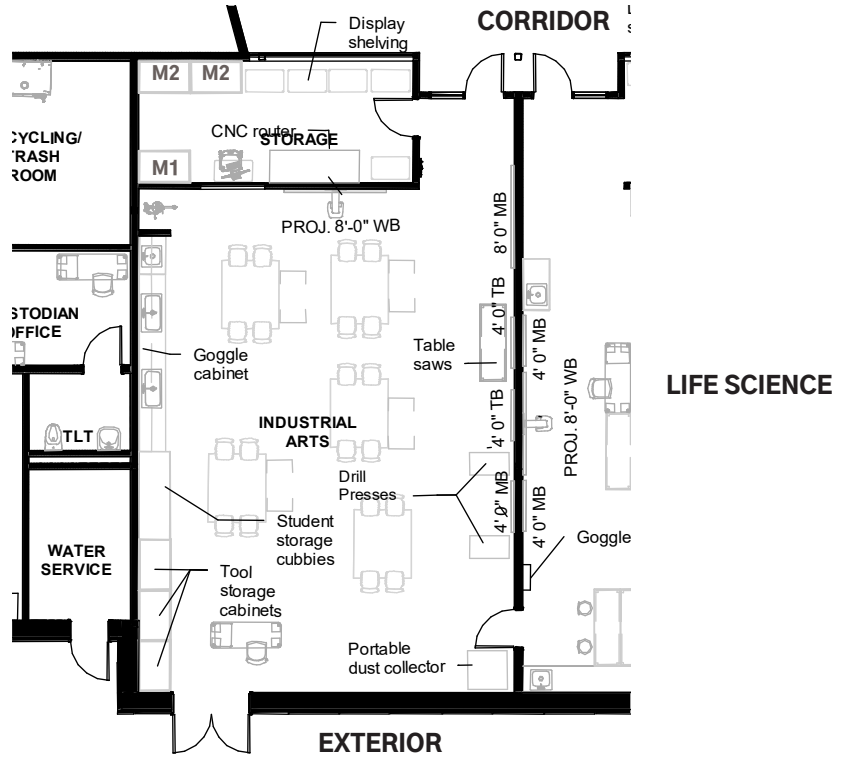
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**4. INDUSTRIAL ARTS LAB**



**GENERAL CRITERIA**

Description:

Hands on shop for building and testing projects. Supports PLTW Modeling and Design curriculum. Desire to limit distractions from corridor or other students.

Area: 1,440 SF

Users:

- (1) Teacher
- (20) Students
- Instructional Assistants as required

Adjacencies:

- STEM labs
- Adjacent storage area with flexible shelving (approx. 400 SF)

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe
- M2 lockable tool cabinets/shelving
- M3 – base/wall cabinet unit w/sinks
- Project display/storage within shop
- (30) Shoe box size cubbies for student project storage

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’-0” Magnetic White Board for short throw projector
- (1) 8’-0” Magnetic white board
- (2) 4’-0” Magnetic white boards
- (2) 4’-0” Tack boards

Window Treatments:

Woven fabric translucent shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 4. INDUSTRIAL ARTS LAB

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Security Lockset
- Communicating door:
  - ↳ Classroom Lockset
- Prep room door:
  - ↳ Storeroom Lockset; Keyed  
separated from labs/classrooms

##### Architectural Finishes:

- Flooring – epoxy or sealed concrete
- Base: Epoxy or 4” resilient vinyl
- Walls–Impact resistant GWB, Plywood or FRP
- Ceiling: ACT, suspended pipe frame for hanging experiments, min 10 lb Weights Weights
- Painted Exposed structure

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (1) Accessible sink
- (2) Deeper art sinks with solid interceptors
- (1) Safety Equipment – eye wash/shower

##### Mechanical:

- Air conditioning
- Individual climate control
- Exhaust Identify special requirements (i.e. exhaust for 3D printers, dust collection, etc.)

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at sink area
- Duplex receptacle for projector
- Quad receptacles for teacher workstation
- Ceiling power drops
- Power for CNC machine and desktop

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (1 voice/2 data ports) for teacher workstation
- Power/data for High powered desktop computer for CNC machine.
- Power for Goggle cabinet
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (2) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (2) 75 candela audiovisual device
- Fire extinguisher and blanket



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 4. INDUSTRIAL ARTS LAB

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (1) Paper towel dispenser (at sinks)
- (1) Soap dispenser (at sink)
- (1) First Aid Kit
- Peg board tool storage

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (20) Stools with backs
- (5) Sturdy work benches on lockable casters, removable clamps/vices & lockers below the tables for project storage
- (#) Adjustable metal shelves in storage room
- (5) Rolling lockable carts
- (3) Tool storage cabinets within shop

##### Equipment/Technology included in FF&E contract:

- (1) High powered desktop computer for CNC machine
- (2) Drill Presses
- (2) Table Top band saws
- (12) Small saws, sanders, files
- (1) Interactive short-throw projector
- (#) Hand tools – saws and sanders
- (10) Table vices
- (1) Portable dust –collection system
- CNC router

##### Mobile Technology:

- (1) Teacher laptop
- (20) Student tablets
- (1) Mobile Charging cart

##### Equipment included GC Contract:

- (1) Overhead speech reinforcement speaker
- (1) Goggle Cabinet

#### OTHER INFORMATION

##### NOTES:

Locked storage cabinets to control access to certain tools.



**4. INDUSTRIAL ARTS LAB**

Review Comments:

Reviewed by:

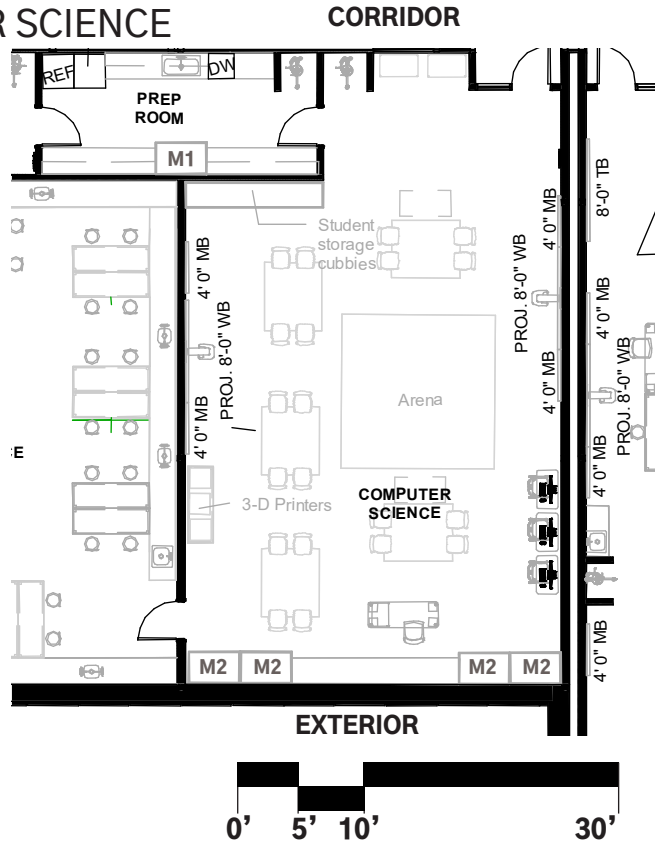
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**5. COMPUTER SCIENCE**



**GENERAL CRITERIA**

Description:

Technology rich lab for robotics and computer programming. Supports PLTW Automation & Robotics curriculum. Presentation space for 3D presentations

Area: 1,440 SF

Quantity: (1)

Users:

- (1) Teacher
- (20) Students
- Instructional Assistants as reqd.

Adjacencies:

Adjacent to Life Science Lab with shared prep room

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe– prep room
- M2 – Storage cabinets
- M5 – accessible base/wall cabinet unit w/sink
- Display to the corridor–visible to other students
- Storage for raw materials
- (20) storage cubbies for robots in progress. 1’ wide x 2’ tall cubbies with doors, accessible from the classroom

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’-0” Interactive white board
- (1) 8’-0” Magnetic white board
- (2) 4’-0” Magnetic white board
- (2) 4’-0” Tack boards

Window Treatments:

Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 5. COMPUTER SCIENCE

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Security Lockset
- Communicating door:
  - ↳ Classroom Lockset
- Prep room door:
  - ↳ Storeroom Lockset; Keyed  
separated from labs/classrooms

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (1) Emergency eye wash/shower

##### Mechanical:

- Air conditioning
- Individual climate control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at sink area
- Duplex receptacle for projector
- Quad receptacles for teacher workstation
- The 3D printer connections
- General duplex receptacle inside millwork for charging cabinet
- Ceiling power drops

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port) and (1) VoIP telephone handset
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (1 voice/2 data ports) for teacher workstation
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (2) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 110cd speaker-strobe
- (1) 75 candela audiovisual device
- (1) Fire extinguisher with blanket





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 5. COMPUTER SCIENCE

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (1) Paper towel dispenser (at sink)
- (1) Soap dispenser (at sink)

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (6) workshop style tables with integral power and storage
- (20) Student stools with backs
- (3-4) rolling storage lockers carts with bins for small robotics pieces
- (5) Durable table to seat 4
- (3) computer stations with chairs

#### OTHER INFORMATION

##### Equipment/Technology included in FF&E contract:

- (3) 3D printers (of varied sophistication) with clean print enclosures with filters
- (3) high-powered desktop computers
- VEX arena (12'x12') could be located in the common area/corridor
- (2) Interactive Short - Throw Projector

##### Mobile Technology:

- (1) Teacher laptop
- (20) Student tablets
- (1) Mobil Charging cart

##### Equipment included GC Contract:

- (1) Overhead speech reinforcement speaker
- (1) Goggle cabinets/sterilizer unit per lab
- (1) Fire blanket and fire extinguisher cabinet(s)
- (1) Recessed fire extinguisher cabinet. -Prep room
- (1) MSDS binder holder
- (2) Freezer/refrigerator - in Prep room
- (1) Ice Maker - in Prep room
- 12"d. x7'-0"h. X3'-0"w. Open shelves per unit. with chemical lip
- (1) Stacked Chemical storage cabinets for acids flammable and corrosion -Chemical storage/room
- (1) Chemical storage cabinets - one per prep room

##### NOTES:

3D printer enclosure or ventilation to be determined.



**5. COMPUTER SCIENCE**

Review Comments:

Reviewed by:

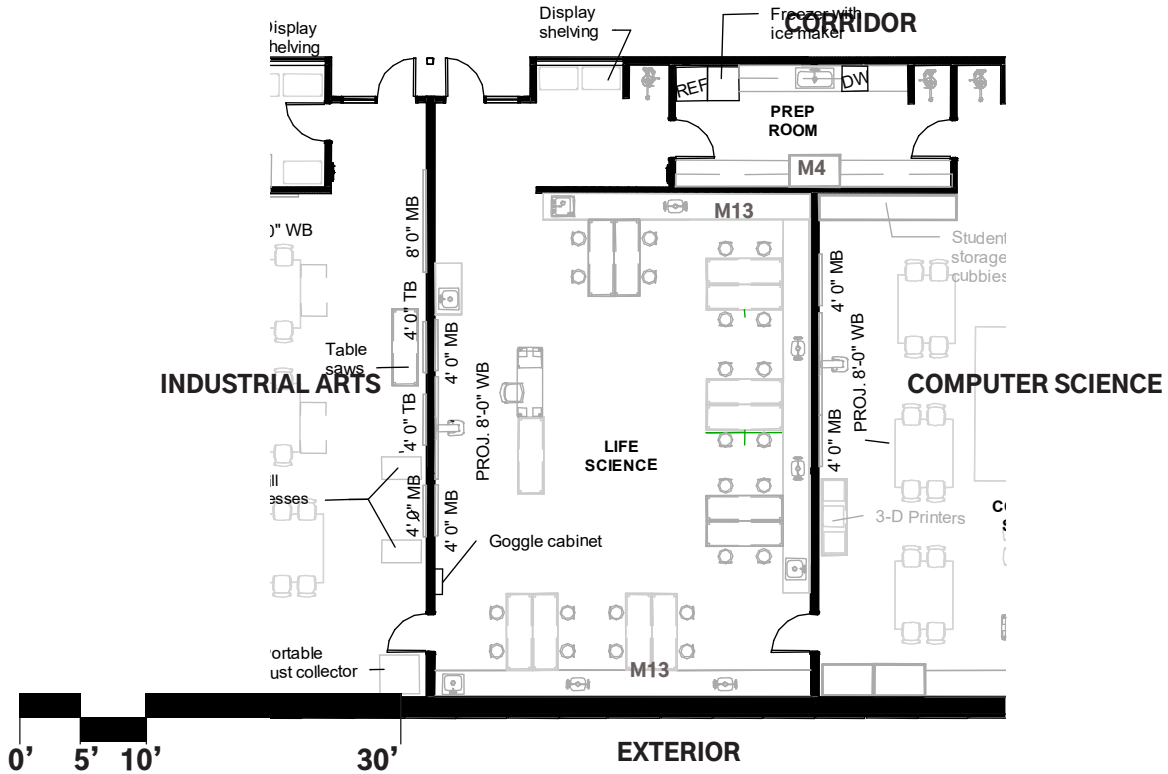
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**6. LIFE SCIENCE LAB**



**GENERAL CRITERIA**

Description:

STEM lab to support Project Lead the Way Medical Detectives curriculum, which includes dissections and hands on science experiments. Requires a typical science lab layout with an adjacent prep room.

Area: 1,440 SF

Users:

- (1) Teacher
- (24) Students
- Instructional assistants as required

Adjacencies:

-Robotics Lab, with shared prep room

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe
- Epoxy countertop
- (1) Special chemical or flammable storage cabinets –Chem Room
- M13 –Chemical resistant Laboratory casework: 36” base cabinets with epoxy tops , sinks and wall cabinets. All doors lockable.
- Accessible hand wash sink and lab sink
- Perimeter lab stations and mobile lab tables.

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’-0” Magnetic whiteboard for projector
- (2) 4’-0” Magnetic white boards
- (2) 4’-0” Tack boards

Window Treatments:

Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 6. LIFE SCIENCE LAB

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Security Lockset
- Communicating door:
  - ↳ Classroom Lockset
- Prep room door:
  - ↳ Storeroom Lockset; Keyed separated from labs/classrooms

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: exposed structure

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (5) 8" x12.5" x 6"d under-mount epoxy lab sinks (with hot and cold water) with two lab faucets with interchangeable nozzles and flush epoxy covers
- (1) Demonstration sink and (1) Accessible lab sink
- (1) Prep room sink (1) accessible handwash sink in classroom (with hot and cold water)
- (1) Emergency eye wash/shower
- (1) Deep sink in prep room
- (1) Refrigerator ice maker in prep room

##### Mechanical:

- Air conditioning
- Individual Climate Control
- Increased exhaust ventilations due to dissections

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at perimeter lab stations / sink area
- Quad receptacle for projector
- Quad receptacles for teacher workstation
- Overhead power drops

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (2 data ports) for teacher workstation
- (1) Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (2) 75 candela audiovisual device
- Fire extinguisher with blanket



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 6. LIFE SCIENCE LAB

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (1) Paper towel dispenser (at sinks)
- (1) Soap dispenser (at sinks)

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (24) Student stools with backs
- (1) (100) "mail slots" would provide one per student. Label each shelf for students—standard size notebook, 9x12
- (8) Lab Tables with Lockable Casters 2 students per desk

##### Equipment/Technology included in FF&E contract:

- (2) Residential Refrigerator/Freezer
  - (1) Ice maker
  - Dishwasher
  - (1) Technology cart
  - (1) Interactive Short – Throw Projector

##### Mobile Technology:

- (1) Teacher laptop
- (24) Student Chrome-books

##### Equipment included GC Contract:

- (1) Overhead speech reinforcement speaker
- (1) Goggle cabinets/sterilizer unit per lab

#### OTHER INFORMATION

#### NOTES:

For Prep room refer to computer science



**6. LIFE SCIENCE LAB**

Review Comments:

Reviewed by:

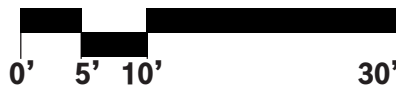
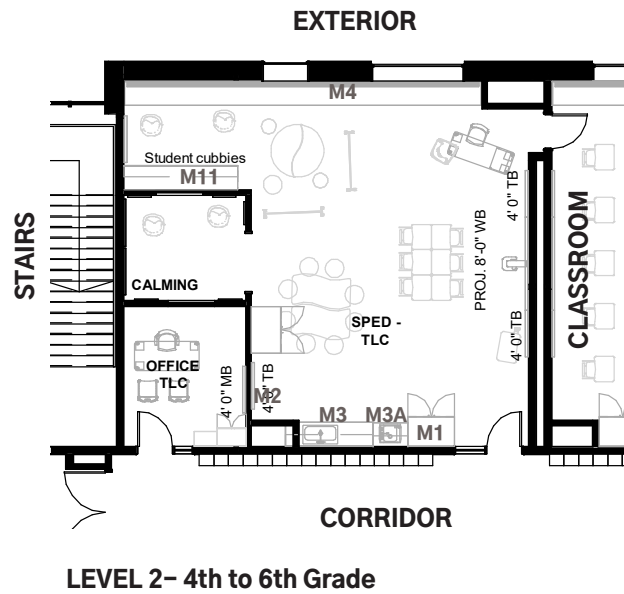
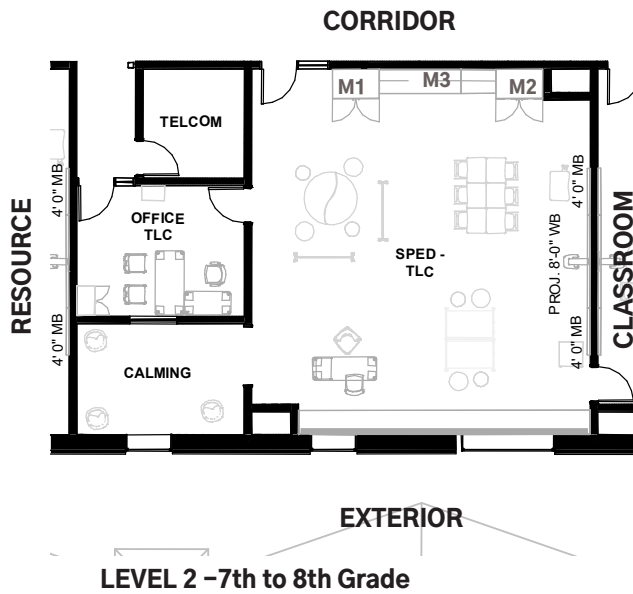
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**7. TLC CLASSROOM**



**GENERAL CRITERIA**

Description:

There will be two SPED TLC classrooms, one associated with grades 4th to 6th, and one associated with Grades 7&8. This substantially separate classroom provides academic instruction and support for students with social/emotional disabilities.

- (2) 900 SF classroom
  - (2) Adjacent dedicated toilet room
- Quantity: 4

- Users:
- (8-12) Students
  - (1) Teacher
  - (2-3) Instructional assistants

- Adjacencies:
- Adjacency to general education classroom

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe
- M2 – Storage Cabinet
- M3 – Base/wall cabinet
- M3A Accessible base/wall cabinet unit w/ sink
- M4 – Under-window shelving, all open
- M11 – (12) Student cubbies (at Grade 4-6 TLC classroom)

**SPECIALTIES**

- Visual Display boards / accessories:
- (1) 8'-0" Interactive Display Board
  - (1) 8'-0" Magnetic white board
  - (4) 4'-0" Magnetic white boards
  - (1) 4'-0" Tack board

- Window Treatments:
- Woven fabric translucent roller shades



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 7. TLC CLASSROOM

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Security Lockset
  - ↳ Side lite
- Communicating door:
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between Self Contained SPED and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (1) Accessible sink with hot/cold water and integral drinking fountain (at 4-6 Grade TLC)
- (1) Deep sink

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at counter sink area; (2) duplex receptacles at counters
- Duplex receptacle for projector
- Quad receptacles for teacher workstation
- General duplex receptacle for technology charging cart
- Single outlet for speech reinforcement amplifier

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (2 data ports) for teacher workstation
- (1) Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 7. TLC CLASSROOM

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (2) Paper towel dispensers (at each sink area)
- (2) Soap dispensers (at each sink area)
- (2) Free standing waste receptacle(s)
- Wall mats in calm down room

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (2) Wheeled chairs
- (12) Student chairs
- (6) Student desks
- (6) alternative seating options (bean bags, study carrels etc)
- (2-4) group work tables
- (2) Mobile partitions

##### Equipment/Technology included in FF&E contract:

- (1) Technology charging cart
- (1) Document Camera
- (1) Interactive Short – Throw Projector

##### Mobile Technology:

- (12) Student Chrome-books
- (1) Teacher laptop
- (1) Mobil Charging cart

##### Equipment Included in GC Contract:

- (1) Overhead speech reinforcement speaker

#### OTHER INFORMATION

- Communicating doors to adjacent classrooms

#### NOTES:



**7. TLC CLASSROOM**

Review Comments:

Reviewed by:

Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



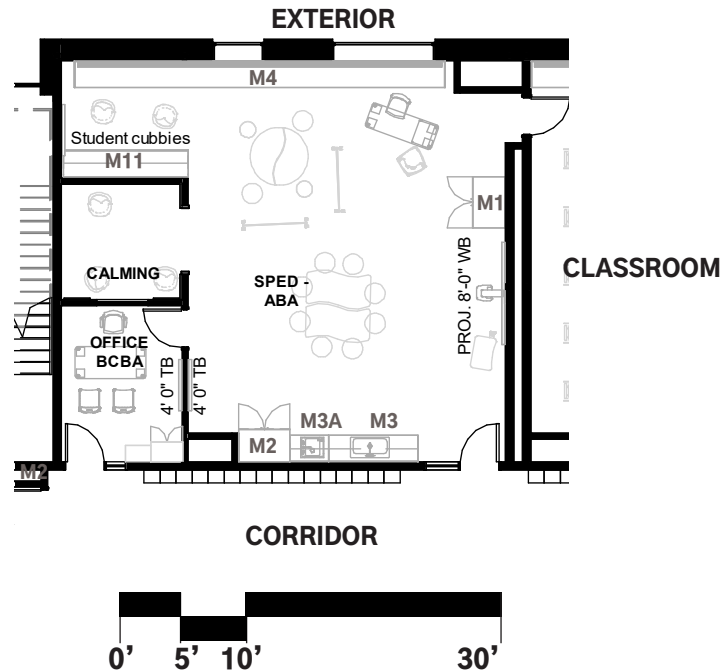
# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 8. ABA CLASSROOM



#### GENERAL CRITERIA

Description:

There will be one ABA SPED classroom. These spaces provide separate but adjacent classrooms in cases where students with special needs require a separate setting for instruction.

Applied Behavior Analysis (ABA) is education and support for students who are typically on the Autism spectrum. Associated with grades 4-6.

Area: 900SF (1 Adjacent BCBA office @ 150 SF)

Quantity: 1

Users:

- (8-12) Students
- (1) Teacher
- (2-3) Instructional assistants

Adjacencies:

- Adjacency to general education classrooms
- Adjacent calm down area directly visible from the classroom
- Bean bags & Mats on walls

#### MILLWORK / CASEWORK

- M1 – Teacher Wardrobe
- M2–Storage cabinet
- M3– Continuous countertop with base/ upper cabinets at corridor wall
- M4 – Under-window shelving
- M5 – accessible cabinet unit w/sink
- M11 – (12) student storage cubbies

#### SPECIALTIES

Visual Display boards / accessories:

- (1) 8'-0" Projector White Board
- (1) 8'-0" Magnetic white board
- (3) 4'-0" Magnetic white boards
- (1) 4'-0" Tack board

Window Treatments:

Woven fabric translucent roller shades



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 8. ABA CLASSROOM

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Security Lockset
  - ↳ Side lite
- Communicating door:
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between Self Contained SPED and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (1) Accessible sink with hot/cold water and integral drinking fountain
- Deep sink with solids interceptor (same as typical 4-6 classroom)

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at counter sink area; (2) duplex receptacles at counters
- Duplex receptacle for projector
- Quad receptacles for teacher workstation
- General duplex receptacle inside millwork for charging cabinet
- Single outlet for speech reinforcement amplifier

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (2 data ports) for teacher workstation
- (1) Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 8. ABA CLASSROOM

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (2) Paper towel dispensers (at each sink area)
- (2) Soap dispensers (at each sink area)
- (2) Free standing waste receptacle(s)
- Wall mats in calm down room

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (2) Wheeled chairs for aides
- (12) Student chairs
- (2) Group work tables with
- (6) Student desks
- Alternative seating such as bean bags, study carrels etc.
- (2) Mobile partitions
- (1) Desk, task chair for ABA office
- (2) Guest chairs
- (1) Cabinet and (1) bookshelf

#### OTHER INFORMATION

- Communicating doors to adjacent classrooms

##### Equipment/Technology included in FF&E contract:

- (1) Document camera
- (1) Short throw interactive projector

##### Mobile Technology:

- (12) Student Chrome books
- (1) teacher laptop
- (1) Mobil Charging cart
- 

##### Equipment Included in GC Contract:

- (1) Overhead speech reinforcement speaker

#### NOTES:



**8. ABA CLASSROOM**

Review Comments:

Reviewed by:

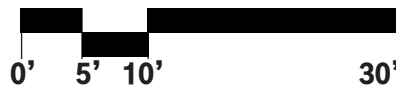
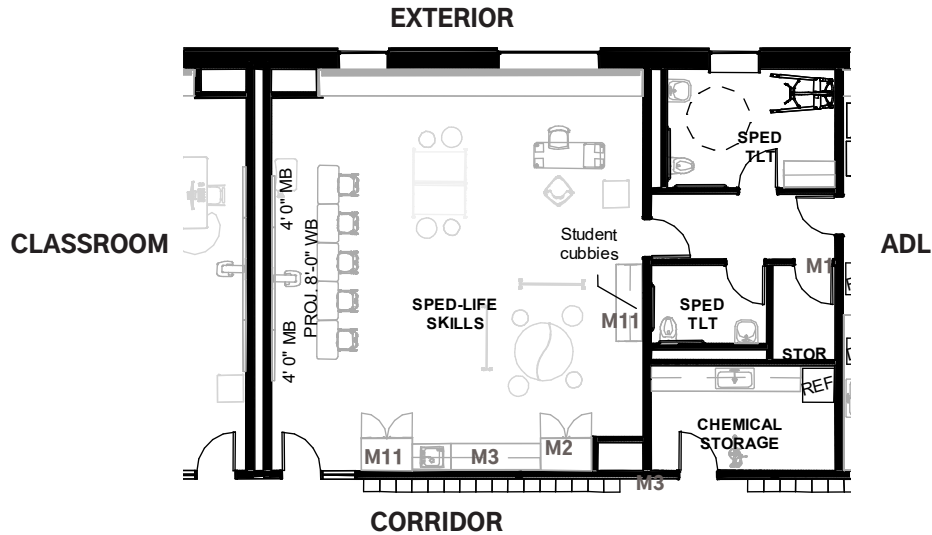
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**9. LIFE SKILLS CLASSROOM**



**GENERAL CRITERIA**

Description:

There will be one self-contained SPED – Life Skills room. These spaces provide separate but adjacent classrooms in cases where students with special needs require at separate setting for instruction. This curriculum focus includes teaching students Life skills. This is located in the 7–8th grade Neighborhood at grade level.

Area: 900 SF

Quantity: 1

Users:

- (8–12) Students
- (1) Teacher
- (2–3) Instructional assistants

Adjacencies:

- Adjacency to general education classrooms
- Adjacency to Adult Daily Living

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe
- M2 – Storage cabinet
- M4 – Under-window shelving,
- M3– Typical wall/base cabinets
- M3A – accessible base/wall cabinet unit w/ sink
- M11 – Storage cubbies in classroom and toilet room

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’–0” Interactive Display Whiteboard
- (3) 4’–0” Magnetic white boards
- (1) 4’–0” Tack board

Window Treatments:

Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 9. LIFE SKILLS CLASSROOM

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Lockset
- Communicating door:
  - ↳ Classroom Security Lockset
- Prep room door:
  - ↳ Classroom Security Lockset; Keyed separated from/ classrooms

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between Self Contained SPED and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- Accessible sink in classroom with tempering/ mixing valve and drinking fountain
- Adjacent toilet rooms in interstitial space

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/ daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at counter sink area; (2) duplex receptacles at counters
- Receptacle for projector
- Receptacles for teacher workstation
- General duplex receptacle inside millwork for charging cabinet
- Single outlet for speech reinforcement amplifier

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (1 voice/2 data ports) for teacher workstation
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 9. LIFE SKILLS CLASSROOM

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (4) Paper towel dispensers (at each sink area)
- (2) Toilet paper dispenser
- (4) Soap dispensers (at each sink area)
- (2) Free standing waste receptacle(s)

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (1) Adjustable height table attachment for teacher desk
- (2) Wheeled chairs for aides
- (2) study carrels
- (12) Student chairs
- (1) Hoyer Lift
- (2) Group work tables with (2) chairs ea.
- (2) Mobile partitions

##### Equipment/Technology included in FF&E contract:

- Document Camera
- (1) Interactive short-throw projector

##### Mobile Technology:

- (12) Student chrome-books
- (1) Teacher laptop
- (1) Mobil Charging cart

##### Equipment Included in GC Contract:

- (1) Overhead speech reinforcement speaker

#### OTHER INFORMATION

#### NOTES:



**9. LIFE SKILLS CLASSROOM**

Review Comments:

Reviewed by:

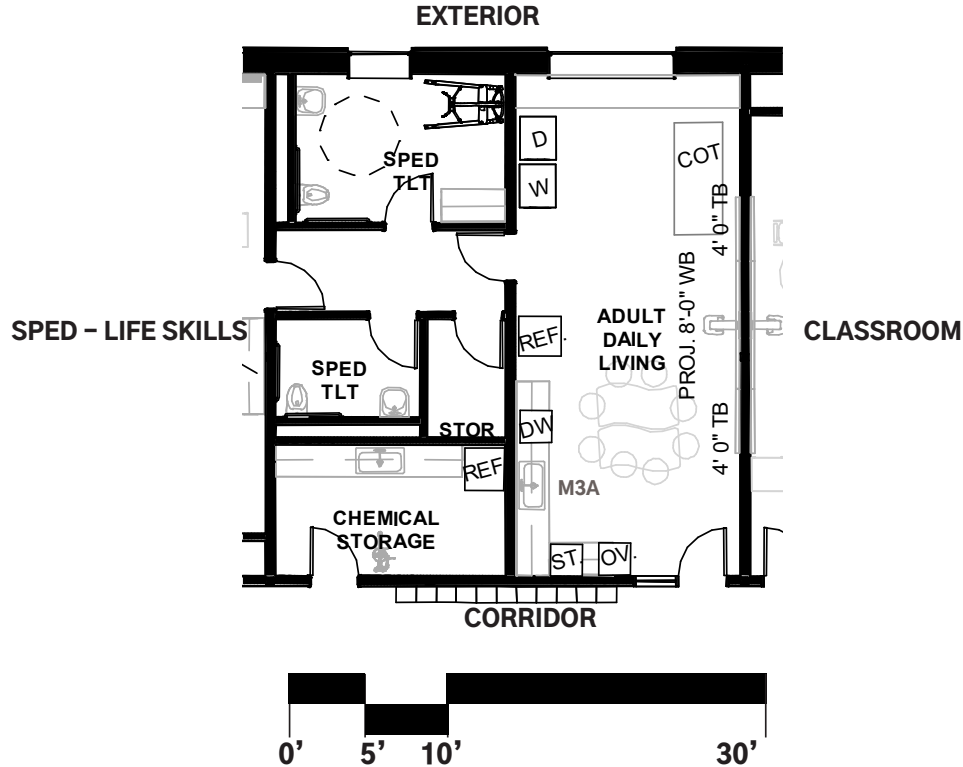
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**10. ADULT DAILY LIVING**



**GENERAL CRITERIA**

**Description:**

The Adult Daily Living (ADL) Classroom would provide an area to support students in the Life Skills class that would teach skills for day-to-day living. This area would need to provide model areas where students can learn such skills as using a washer/dryer, dishwasher, stovetop, oven, and other household appliances, as well as basic work skills. Ideally, the Special Education students would use the ADL to serve the MS teachers as “customers”. This would allow the life skills students to learn how to fill an order and operate a cash register and practice customer service and social interactions.

The ADL would provide workstations to teach skills needed for working with cash registers, and learning skills such as cooking, sorting, folding, labeling, and packing items to be sold in the Café. The ADL classroom would also be used to teach day-to-day life skills such as hygiene and nutrition to special education students not in the Life Skills program

Area: 450 SF  
Toilet room 120 SF, toilet room and 60 SF

Quantity: 4  
Users:  
    (8-12) Students  
    (1) Teacher  
    (1-2) Instructional assistants

Adjacencies:  
    ▪ Adjacency Life Skills and to dedicated toilet

**MILLWORK / CASEWORK**

- M4 – Under-window shelving
- M3 – Accessible base/wall cabinet unit w/ sink and stove top

**SPECIALTIES**

- Visual Display boards / accessories:
- (1) 8’-0” Interactive Display whiteboard
  - (2) 4’-0” Magnetic white boards
  - (1) 4’-0” Tack board

Window Treatments:  
Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 10. ADULT DAILY LIVING

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Security Lockset
  - ↳ Side lite
- Communicating door:
  - ↳ Passage set

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between Self Contained SPED and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (1) Accessible kitchen sink
- (1) Refrigerator with Ice Maker
- (1) Dishwasher
- (1) Washing machine (clothes)

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at counter sink area; (2) duplex receptacles at counters
- Receptacle for projector
- Receptacles for teacher workstation
- General duplex receptacle inside millwork for charging cabinet
- Single outlet for speech reinforcement amplifier
- Power receptacles for washer, dryer, oven, and microwave. The clothes dryer typically requires a special outlet.

##### Data/ Communication

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (2 data ports) for teacher workstation
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 10. ADULT DAILY LIVING

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (2) Paper towel dispensers (at each sink area)
- (2) Soap dispensers (at each sink area)
- (2) Free standing waste receptacle(s)

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (12) Student chairs
- (1) Cafe Traveling coffee cart
- (1) Cot
- (1) laundry folding table
- (2) Group work tables with (6) chairs each
- (1) Hoyer lift in larger restroom

##### Equipment/Technology included in FF&E contract:

- (1) Technology cart
- (1) Interactive Short – Throw Projector

##### Mobile Technology:

- (12) Student chrome-books
- (1) Teacher laptop

##### Equipment Included in GC Contract:

- Overhead speech reinforcement speaker
- Refrigerator with ice maker
- Dishwasher
- Microwave
- Accessible wall oven
- Accessible electric cook top
- Clothes dryer
- Clothes washer

#### OTHER INFORMATION

- Communicating doors to adjacent classrooms

#### NOTES:



**10. ADULT DAILY LIVING**

Review Comments:

Reviewed by:

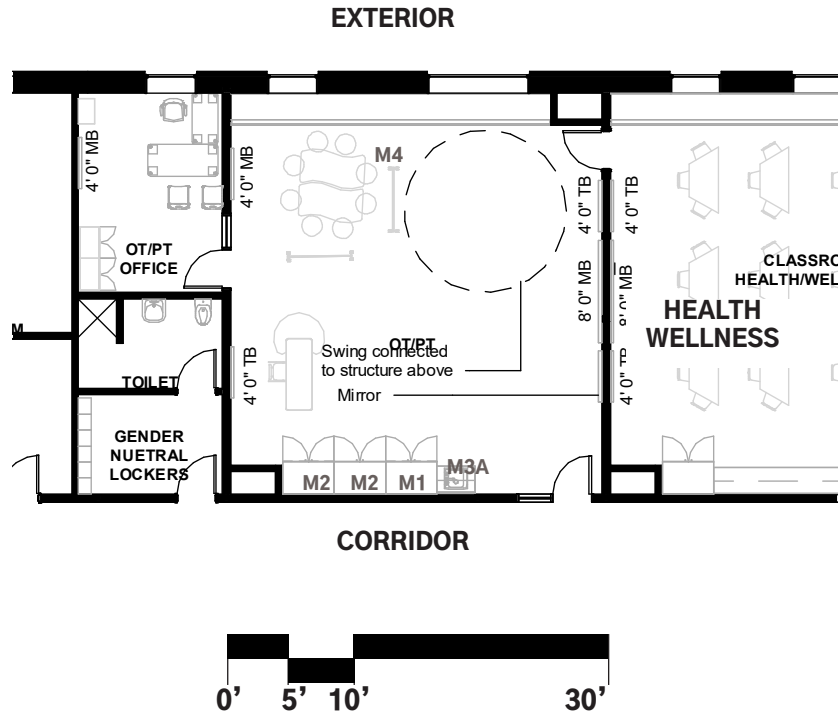
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**11. OT/PT**



**GENERAL CRITERIA**

Description:

Special Education space to teach students manual and physical dexterity. Students rotate into this space during the day. The primary OT/PT room closer to the gym may be larger than the other due to greater need to support co-treatment services, which may require additional staff and space.

Area: 900 SF

Quantity: 1

Users: (1-2) OT/PT staff  
(1-2) Students typical

Adjacencies:

- Close to Gym, Nurse
- Adjacent to OT/PT office

**MILLWORK / CASEWORK**

- M2-Storage Cabinets with adj. shelving
- M3A-Accessible sink cabinet
- M4 - (30" deep) Under-window/low open shelving

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8'-0" Magnetic white board
- (4) 4'-0" Magnetic white boards
- (1) 4'-0" Tack boards

Window Treatments:

Woven fabric translucent roller shades

Miscellaneous:

N/A

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 11. OT/PT

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom Security Lockset
  - ↳ Side lite
- Communicating door:
  - ↳ Passage lockset

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: Abuse resistant GWB (painted),  
Secure wall pads
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating  
between OT/PT and adjacent spaces: 50;  
between OT/PT and corridor: 45;

##### Plumbing:

- (1) Accessible sink with hot/cold water and  
integral drinking fountain at child height.

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. recessed dimmable controlled LED  
fixtures with (2) combination occupancy/  
daylight sensors
- ON/OFF controls at the door and multi-  
scene controls at the front of the  
classroom

##### Electrical:

- General duplex receptacles
- Quad receptacle for teacher workstation
- Duplex receptacle for projector

##### Data / Communication:

- Wall phone outlet (1 data port)
- Hardwired data outlet (2 data ports) for  
wireless access point
- Hardwired data outlet (2 data ports) for  
projector
- Overhead speaker speech reinforcement  
system
- Hardwired voice/data outlets (2 data ports)  
for teacher workstation
- Interactive Short-throw projector  
connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (2) Emergency Call Switches
- (1) PA speakers

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 11. OT/PT

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (1) Paper towel dispenser (at sink area)
- (1) Soap dispenser (at sink area)
- (1) Therapeutic swing hung from ceiling structure

##### Fixtures included in GC Contract:

- Wall mounted mirror

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (1) Adjustable height table attachment for teacher desk
- (1) Aide chair
- (1) Wall mounted Mirrors
- (2) Group tables w/ 4-6 chairs
- (2) Locking Files Cabinets
- (1) OT/PT desk
- (2) Guest Chairs
- (1) Bookshelf
- (1) Swing and swing equipment

##### Equipment/Technology included in FF&E contract:

- Manipulatives
- Floor mats
- (2) Scooters/bikes
- (1) Hoyer Lift

##### Mobile Technology:

- (2) Teacher laptops

##### Equipment Included in GC Contract:

#### OTHER INFORMATION

##### NOTES:

- Need full list of desired OT/PT equipment



**11. OT/PT**

Review Comments:

Reviewed by:

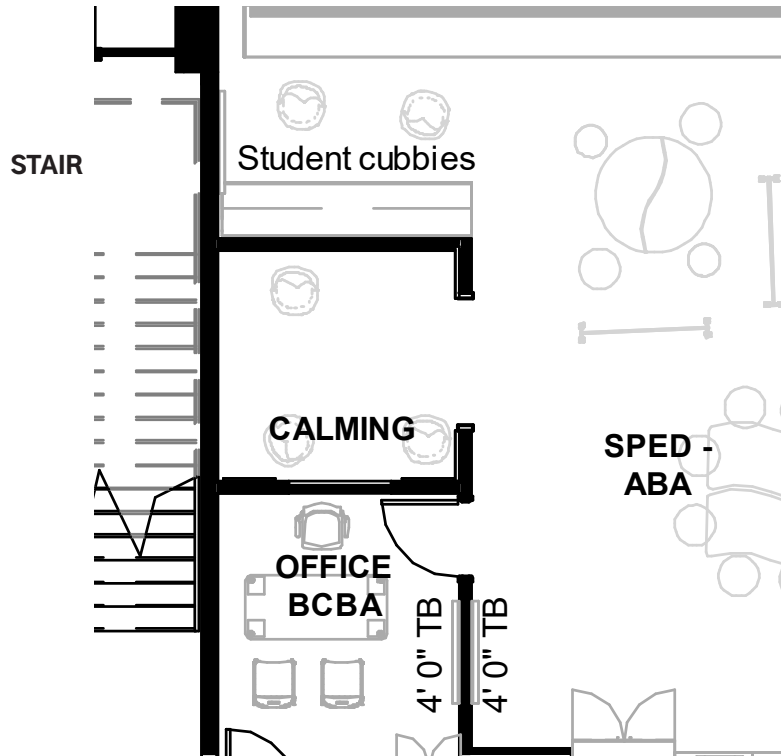
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**12. CALMING**



**GENERAL CRITERIA**

Description:

Special Education space to teach students manual and physical dexterity. Students rotate into this space during the day. The primary OT/PT room closer to the gym may be larger than the other due to greater need to support co-treatment services, which may require additional staff and space.

Area: 300 SF  
 (2) 100 SF 4-6th grade  
 (1) 100 SF 7-8th grade  
 Quantity: 3  
 Users: one student  
 Adjacencies:

- SPED TLC or ABA Classroom

**MILLWORK / CASEWORK**

- N/A

**SPECIALTIES**

N/A

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 12. CALMING

#### TECHNICAL CRITERIA

##### Finish Hardware:

N/A

##### Electrical:

- General duplex receptacles
- Quad receptacle for teacher workstation
- Quad receptacle for projector

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: Abuse resistant GWB (painted),  
Secure wall pads
- Ceiling: ACT

##### Data / Communication:

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating  
between OT/PT and adjacent spaces: 50;  
between OT/PT and corridor: 45;

##### Plumbing:

- N/A

##### Mechanical:

- Air conditioning

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) Talk back speaker

##### Lighting:

- 8 ft. recessed dimmable controlled LED  
fixtures with (2) combination occupancy/  
daylight sensors
- ON/OFF controls at the door and multi-  
scene controls at the front of the  
classroom

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 110cd speaker-strobe
- (1) 75 candela audiovisual device



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

---

### 12. CALMING

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- Wall pads

##### Equipment/Technology included in FF&E contract:

- Washable floor mats

##### Furniture included in FF&E contract:

- Bean bags

#### OTHER INFORMATION

- N/A

#### NOTES:



**12. CALMING**

Review Comments:

Reviewed by:

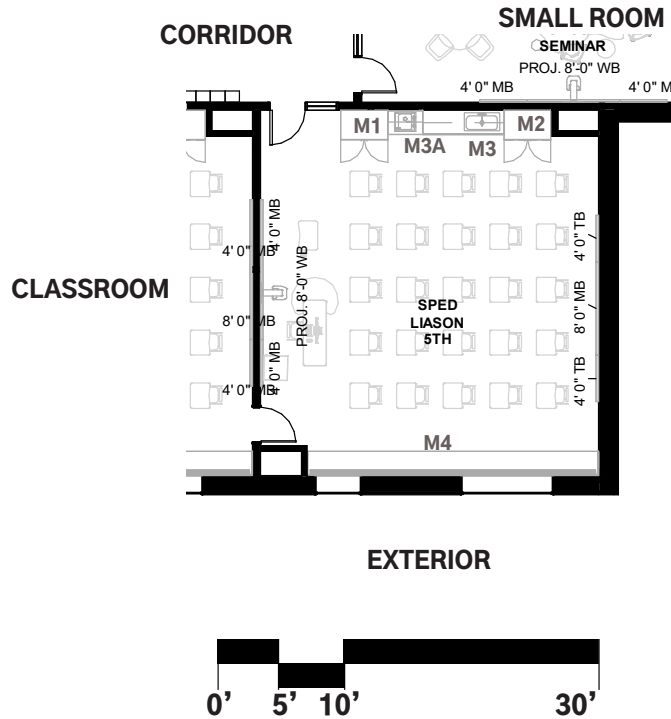
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**13. SPED LIAISON CLASSROOM**



**GENERAL CRITERIA**

Description:

Classroom space for pull out instruction for a grade level special education teacher / liaison.

**MILLWORK / CASEWORK**

- M1 – Teacher wardrobe
- M2 – Teacher storage
- M3A – Accessible sink base cabinet
- M3 – Base and upper cabinets

Area: 900 SF

Quantity: 5

Users:

- (12-20) Students
- (1) Teacher Staff
- (1-2) Instructional Assistants

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8'-0" Interactive Display Board
- (1) 8'-0" Magnetic white board
- (3) 4'-0" Magnetic white boards
- (1) 4'-0" Tack board

Adjacencies:

- Each grade level neighborhood
- Adjacency to general education classrooms

Window Treatments:

Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 13. SPED LIAISON CLASSROOM

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door
  - ↳ Classroom Security Lock set
  - ↳ Side lite
- Communicating door
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: Abuse resistant GWB (painted),  
Secure wall pads
- Ceiling: ACT w/ ability to hang swing in one section

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between OT/PT and adjacent spaces: 50;  
between OT/PT and corridor: 45;

##### Plumbing:

- (1) Accessible sink with hot/cold water and integral drinking fountain at child height.
- (1) Non-accessible sink with hot/cold water

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. recessed dimmable controlled LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- Quad receptacle for teacher workstation
- Duplex receptacle for projector

##### Data / Communication:

- Wall phone outlet (1 data port)
- Hardwired data outlet (2 data ports) for wireless access point
- Hardwired data outlet (2 data ports) for projector
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (2 data ports) for teacher workstation
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital clock and display screen
- (1) Emergency Call Switches
- (1) PA Speakers

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 13. SPED LIAISON CLASSROOM

#### FIXTURES, FURNITURE & EQUIPMENT

**Fixtures included in FF&E contract:**

N/A

**Equipment/Technology included in FF&E contract:**

- Document camera
- (1) Interactive Short – Throw Projector

**Equipment Included in GC Contract:**

- (1) Overhead speech reinforcement speaker
- (1) Mobile Charging cart

**Furniture included in FF&E contract:**

- (1) Teacher desk and chair
- (1) Adjustable height table attachment for teacher desk
- (1) Aide chair
- (20) Flat top student desks with storage
- (20) Student chairs

#### OTHER INFORMATION

#### NOTES:



**13. SPED LIAISON CLASSROOM**

Review Comments:

Reviewed by:

Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**14. SMALL GROUP/ RESOURCES / SPEECH/ ELL**



**GENERAL CRITERIA**

Description:

Classroom space for pull out instruction for all grade levels for resource, Speech, small group, and ELL these space are meant to be flexible base on need.

Area: 450SF

Quantity: 12

Users:

- (1) Speech Pathologist Teachers
- (6-8) Students
- Aides as required

Adjacencies:

- Adjacent with visibility to the common room for supervision where practical
- Dispersed among classrooms

**MILLWORK / CASEWORK**

- M1 – (1) Teacher wardrobes
- M4 – Lockable under-windows
- M5 – Low base/wall cabinet unit w/ sink
- M6 – 30” High counter base cabinets with a counter. (Desired, for more storage between wardrobes)

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’-0” Interactive Display Whiteboard
- (2) 4’-0” Magnetic white boards
- (1) 4’-0” Tack board

Window Treatments:

Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 14. SMALL GROUP/ RESOURCES / SPEECH/ ELL

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door
  - ↳ Classroom Security Lock set
  - ↳ Side lite
- Communicating door
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between self contained SPED and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (1) Accessible sink with hot/cold water and integral drinking fountain.

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (1) combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- Duplex receptacle for projector

##### Data / Communication:

- Hardwired data outlet (2 data ports) for wireless access point
- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for teacher work station
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital clock and display screen
- (1) Emergency Call Switches
- (1) Talk back speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75cd speaker-strobe



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 14. SMALL GROUP/ RESOURCES / SPEECH/ ELL

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

N/A

##### Equipment/Technology included in FF&E contract:

- (1) Interactive Short – Throw Projector
- Mobile Technology:
- (1) Mobile Charging cart

##### Equipment Included in GC Contract:

- (1) Overhead speech reinforcement speaker

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (1) Aide rolling chair
- (2) Group work tables – 1 (modular) with (8) chairs
- (1) Technology cart/table
- (4) student desks and chairs. Smaller desk, or small table for individual work

#### OTHER INFORMATION

- Individual work and group work, rolling tables desks that can join up for group work

#### NOTES:



---

**14. SMALL GROUP/ RESOURCES / SPEECH/ ELL**

Review Comments:

Reviewed by:

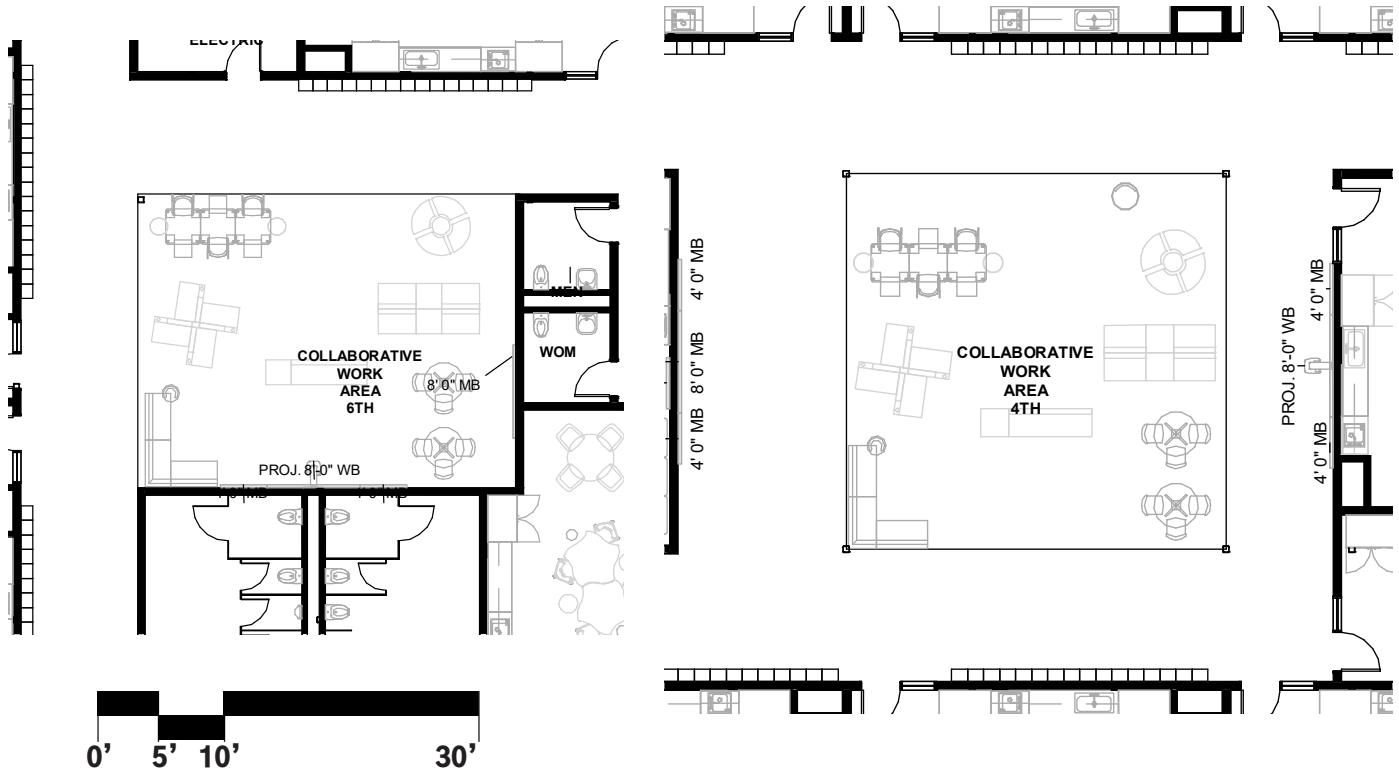
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**15. COLLABORATIVE WORK**



**GENERAL CRITERIA**

Description:

Flexible use space dedicated to each classroom cluster, for use in combining multiple classes, pullout instruction, and project-based learning.

Area: 750 SF each  
(6,315 SF of Common Space total)

Quantity: 3

Users:

- 1-2 Classrooms OR
- (20-48) Students
- (1-2) Teachers
- Aides as required

Adjacencies:

- Direct adjacency to classrooms in the associated classroom wing

**MILLWORK / CASEWORK**

- N/A

**SPECIALTIES**

Visual Display boards / accessories:

- (2) 8'-0" Magnetic white boards
- (2) 4'-0" Tack boards

Window Treatments:

Woven translucent window shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 15. COLLABORATIVE WORK

#### TECHNICAL CRITERIA

##### Finish Hardware:

N/A

##### Electrical:

- General duplex receptacles
- Receptacle for projector
- Receptacle for motorized projection screen

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: Ceramic tile (5' high); painted GWB above
- Ceiling: ACT /Painted Gypsum Board

##### Data / Communication:

- (1) Hardwired data outlet (2 data ports) for wireless access point
- (1) Interactive Short-throw projector connections (2 Data Ports)

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 45

##### Plumbing:

- N/A

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) Talk back speaker

##### Mechanical:

- Air conditioning

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 110cd speaker-strobe

##### Lighting:

- 4' Recessed linear LED fixtures with (3) combination occupancy/ daylight sensors
- ON/OFF controls and multi-scene controls





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

---

### 15. COLLABORATIVE WORK

#### FIXTURES, FURNITURE & EQUIPMENT

**Fixtures included in FF&E contract:**

- N/A

**Equipment/Technology included in FF&E contract:** (1) Interactive Short – Throw Projector

**Equipment included GC Contract:**

- (1) Overhead speech reinforcement speaker

**Furniture included in FF&E contract:**

- (7–8) Movable group tables or flip and nest tables TBD
- Movable furniture types TBD
- (20–24) Student chairs TBD

#### OTHER INFORMATION

- Keep space open

#### NOTES:



**15. COLLABORATIVE WORK**

Review Comments:

Reviewed by:

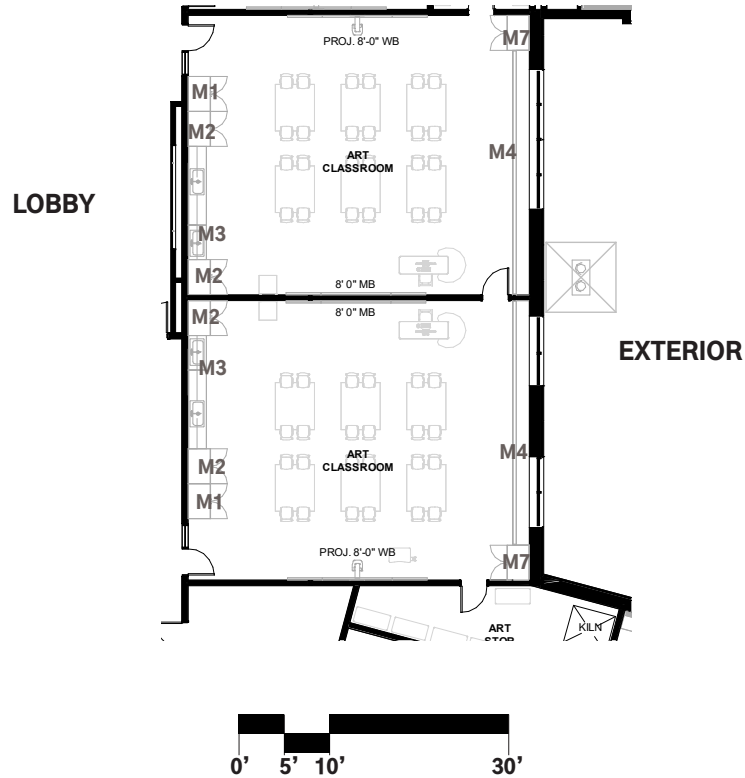
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**16. ART CLASSROOM**



**GENERAL CRITERIA**

Description:

The program does include air-dry clay as well as a variety of media throughout the year. The two art rooms are joined with a shared storage rooms and a kiln will be places in one storage room.

Area: 1,200 SF Art Room  
150 SF Art Storage / Kiln

Quantity: 2

Users:

- (1) Teacher
- (24) Students per classroom

Adjacencies:

- Art Rooms are part of central/core spaces
- Art Rooms to be adjacent to each other

**MILLWORK / CASEWORK**

- (1) M1 – Teacher Wardrobe (lockable)
- (1) M2 – Supply Cabinets (lockable)
- (1) M7 Art storage with 24” x 48” drawers
- M3 – Base/wall cabinet unit w/sink (deeper sink) M3A
- M4 – 30” deep Under-window shelving, combination open, slots, and doors

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’-0” Interactive Display whiteboard
- (1) 8’-0” Magnetic white board
- (2) 4’-0” Magnetic whiteboards
- (2) 4’-0” Tack boards

Window Treatments:

- Woven fabric roller shades
- Sun control devices for west facing windows

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 16. ART CLASSROOM

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door
  - ↳ Classroom Security Lock set
  - ↳ Side lite
- Communicating door
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT
  - Grid structure at ceiling with lights for project display

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between self contained SPED and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (1) Deep sink with solids interceptor and hot/cold water
- (1) Accessible art sink (student height) with hot/cold water, and solids interceptor

##### Mechanical:

- Individual climate control
- Air conditioning

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- ON/OFF controls at the door(s)

##### Electrical:

- Counter duplex GFCI receptacles
- General duplex receptacles
- Receptacles for teacher workstation
- Duplex receptacle for projector
- Power for kiln

##### Data / Communication:

- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlet (2 data ports) for teacher workstation
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (2) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 16. ART CLASSROOM

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- Paper towel dispensers
- Soap dispensers at all sinks

##### Equipment/Technology included in FF&E contract:

- (1) Interactive Short – Throw Projector
- Mobile Technology:
- (1) Teacher laptop
  - (24) Student chrome-books
  - (1) Mobile Technology cart

##### Equipment included GC Contract:

- (1) Overhead speech reinforcement speaker
- Kiln

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair per classroom
- (6) 4 Person Station Drawing Tables: 60” x 72” with locking casters (similar to science rooms) to move tables easily.
- (24) Student chairs
- (1) Drying cabinet in Art Storage (for air-dry clay)
- Maximize flexible shelving in both art storage rooms

#### OTHER INFORMATION

- Communicating doors between art rooms

#### NOTES:

- Top table systems to go up and down adjustable height. Or adjust height system? TBD



**16. ART CLASSROOM**

Review Comments:

Reviewed by:

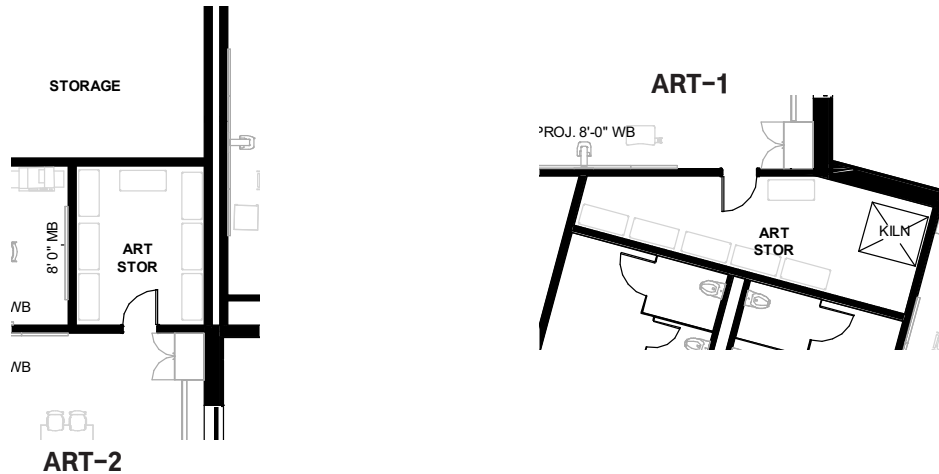
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**17. ART STORAGE**



**GENERAL CRITERIA**

Description:

Flexible and secure storages for Art Room supplies and student work. The storage areas will be shared between the two art classrooms and will include space for a kiln.

Area/Quantity: 1 @ 300 SF

Users:

- (1) Teacher
- (25) Students to have access

**SPECIALTIES**

N/A

Adjacencies:

- Direct connection to Art classrooms
- Close proximity to Media Center

Window Treatments:

N/A

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 17. ART STORAGE

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Storeroom Lockset
  - ↳ Door closer
  - ↳ Vision lite

##### Electrical:

- (4) General duplex receptacles

##### Architectural Finishes:

Floor: Linoleum  
Base: 4" resilient vinyl  
Walls: GWB; painted  
Ceiling: ACT

##### Data / Communication:

##### Acoustical Requirements:

Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50

##### Plumbing:

##### Public Address / Clock:

##### Mechanical:

- Air conditioning
- Exhaust for kiln
- Individual climate control

##### Fire Protection / Fire Alarm:

##### Lighting:

- (4) 2'x2' Recessed LED fixtures
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

- Light-Hazard Sprinkler Coverage
- Ordinary-Hazard Sprinkler Coverage in Art Storage
- (1) Smoke detector





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 17. ART STORAGE

#### FIXTURES, FURNITURE & EQUIPMENT

**Fixtures included in FF&E contract:**

N/A

**Equipment/Technology included in FF&E contract:**

Mobile Technology

N/A

**Equipment included in GC contract:**

**Furniture included in FF&E contract:**

- (1-2) Mobile drying racks
- Maximize adjustable shelving racks
- Kiln in the storage room (smaller room)
- Paper Cutter (measures 21" W x 27" D)
- Storage to hold 24" X 36" Paper
- (1) Drying cabinet/rack

#### OTHER INFORMATION

- See specifications for selected kiln model
- Shared storage with doors to each art room

#### NOTES:



**17. ART STORAGE**

Review Comments:

Reviewed by:

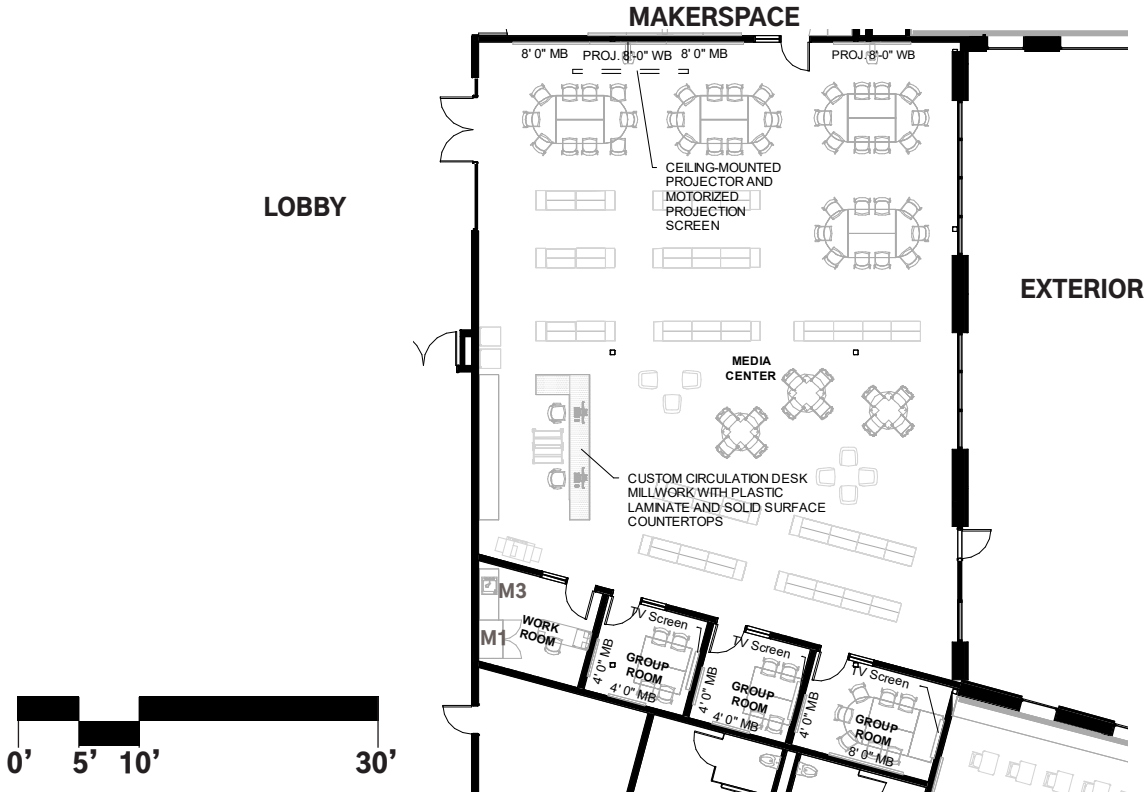
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**18. MEDIA CENTER**



**GENERAL CRITERIA**

Description:

As part of the “hub” of the school, the Media Center is the primary space for the STEM program and has an integral Maker Space. The Media Center will have print and digital collections and will support project-based learning experiences. The space will also accommodate large faculty meetings, community meetings, and gatherings.

Area: 2,965 SF

Quantity: 1

Users:

- (40 – 50/2 classes) Students at a time
- (50–75) Staff for meetings
- (1) Full-time Media Paraprofessional
- (1) Media Specialist (rotating)

Adjacencies:

- Direct access to at Maker Space
- Must be centrally located within school

**MILLWORK / CASEWORK**

- (1) M1 – Teacher Wardrobe in office
- M3A – Base/wall cabinets unit w/ accessible sink
- M10 – Custom circulation desk for 2 adult work stations and book drop off.

**SPECIALTIES**

Visual Display boards / accessories:

- (1) Motorized ceiling mounted projector screen
- (1) Ceiling-mounted projector
- (2) 8’-0” Magnetic white boards for short throw projectors
- (3) 8’-0” Magnetic white boards
- (5) 8’-0” Magnetic white boards

Window Treatments:

- Woven fabric translucent roller shades
- Sun control devices for west facing windows

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 18. MEDIA CENTER

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door
  - ↳ Classroom Security Lock set
  - ↳ Side lite
- Communicating doors
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Carpet tile
- Base: 4" resilient vinyl
- Walls: GWB, Metal panel
- Ceiling: Metal panel/Linear metal grille/  
Specialty ACT/GWB soffits

##### Acoustical Requirements:

Sound Transmission Coefficient (STC) rating at partitions between Media Center and adjacent spaces: 50

##### Plumbing:

- Sink in work room

##### Mechanical:

- Air Conditioned
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (6) combination occupancy/daylight sensors
- 8 ft. linear recessed LED fixtures
- ON/OFF multi-scene controls at the door

##### Electrical:

- General duplex receptacles
- Receptacles for projectors
- Receptacles office desk
- Receptacle for copier/printer
- Connections for circulation desk equipment
- Power for motorized projection screen

##### Data / Communication:

- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Hardwired data outlets (2 data ports each) for projector
- Dedicated outlets for charging carts
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlet (2 data ports) for teacher workstation
- Connections for speech reinforcement
- Interactive Short-throw projector connections (2 Data Ports)
- Connection for motorized projection screen

##### Public Address / Clock:

- (2) Digital Clock and display screen
- (5) Paging speakers

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (2) 110cd speaker-strobe



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 18. MEDIA CENTER

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- N/A

##### Furniture included in FF&E contract:

- 36"wx42"h movable single sided shelving units
- – 24"wx42"h single sided shelving units (to be confirmed)
- Book bin units w/ 8 bins each
- Desk in media office and desk chair
- File cabinet
- Flexible tables with Chairs
- Reception Desk/Office work stations
- Drop off book area
- Reading chairs
- Flat screen TVs in each meeting room
- Mobile Meeting tables in each small group

##### OTHER INFORMATION

- There will be an estimated (10,000) books
- The 3' and 2' wide shelving units
- Need adjacency to accessible drinking fountain and toilet rooms

##### Equipment/Technology included in FF&E contract:

###### Equipment:

- (2) Teaching stations
- (1) Printer/copier
- (2) Reception desk computer stations
- (1) Digital card catalog computer station
- (1) Book scanning system
- Destiny catalog software
- (2) Interactive Short – Throw Projector
- (1) Ceiling mounted Motorized projection screen

###### Mobile Technology:

- (1) Mobile Technology Cart
- (50) Student tablets in charging cart
- Destiny system for book catalog system
- Bar coded (no RFID)

###### Equipment in GC Contract:

- (1) Overhead speech reinforcement speaker/local sound system
- (1) Ceiling mounted projector

##### NOTES:

- Storage shelving/cabinets needed for craft/activity materials
- Soft Furniture (not to lounge in; librarian does want students to be too relaxed.)
- Study carrels



**18. MEDIA CENTER**

Review Comments:

Reviewed by:

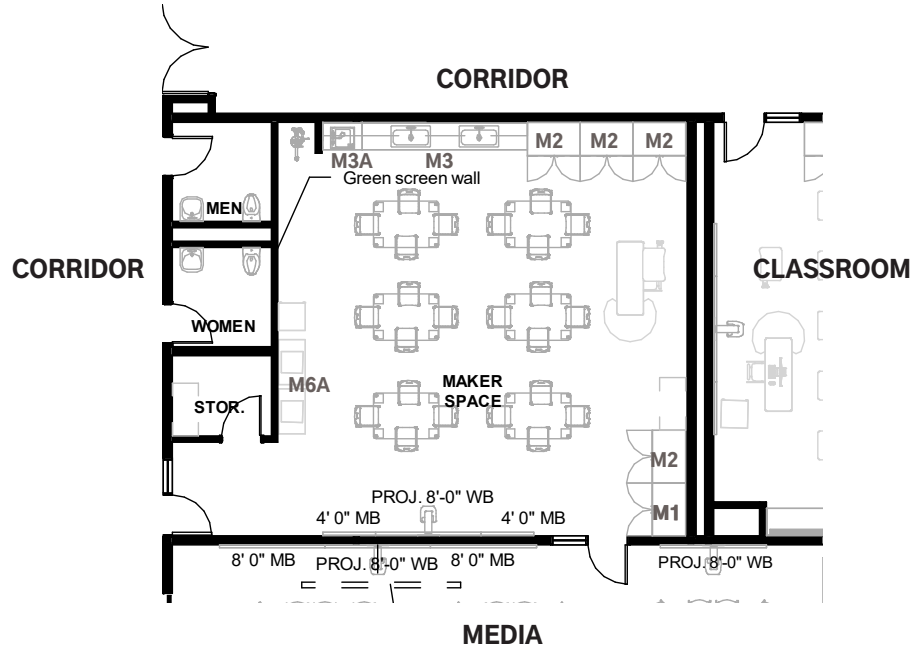
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**19. MAKER SPACE**



**GENERAL CRITERIA**

Description:

Makerspace is a STEM program that serves grade 4–6th and is an integral part of the Media Center.

Area: 1,440 SF

Quantity: 1

Users:

- (20–24) Students at a time
- (1) Teacher

Adjacencies:

- Direct access to Media Center
- Must be centrally located within school

**MILLWORK / CASEWORK**

- (1) M1 – Teacher Wardrobes
- (3) M2 – Storage cabinets
- M3 – base/wall cabinet unit w/ accessible sinks
- M3A – Low base/wall cabinet unit w/ accessible sink
- M6A – 30”d work counter (Maker Space)

**SPECIALTIES**

Visual Display boards / accessories:

- (4) 4’–0” Magnetic white board
- (1) 8’–0” Magnetic white boards

Window Treatments:

- Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 19. MAKER SPACE

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door
  - ↳ Classroom Security Lock set
  - ↳ Side lite
- Communicating doors
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Linoleum (Maker Space)
- Base: 4" resilient vinyl
- Walls: GWB
- Ceiling: Exposed structure / Specialty ACT/  
GWB soffits

##### Acoustical Requirements:

Sound Transmission Coefficient (STC) rating at partitions between Media Center and adjacent spaces: 50

##### Plumbing:

- Eye wash/shower
- (2) Art sinks with solids interceptors and mixing valves for hot/cold water
- (1) accessible hand-wash sink and mixing valves for hot/cold water

##### Mechanical:

- Air Conditioned
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (6) combination occupancy/daylight sensors
- ON/OFF multi-scene controls at the door

##### Electrical:

- General duplex receptacles
- Receptacles for projectors
- Receptacles for teacher workstation
- Receptacle for copier/printer
- Connections for circulation desk equipment
- General duplex receptacles for Maker Space area
- Single outlet for speech reinforcement

##### Data / Communication:

- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlets (1 data port) and (1) VoIP telephone handset
- Hardwired data outlets (2 data ports each) for projector
- Power for (25 lpad) charging cart
- Overhead speaker speech reinforcement system
- Over head power
- (3) Hardwired voice/data outlet (1 voice/2 data ports) for teacher workstation
- Connection for speech reinforcement
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (2) Digital Clock and display screen
- (2) Emergency Call Switches
- (1) Talk back speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (4) 110cd speaker-strobe
- Fire extinguisher with blanket





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 19. MAKER SPACE

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (1) Paper towel dispenser (at sink area)
- (1) Soap dispenser (at sink area)

##### Furniture included in FF&E contract:

- (1) Teacher desk and task chair
- (6) Mobile tables with (24) Chairs
- (2) Movable craft carts for Maker Space for media center
- Bins for recycling (size and number)
- Storage shelving/cabinets needed for craft/activity materials and Storage for materials

##### Equipment/Technology included in FF&E contract:

- (1) Interactive Short – Throw Projector
- (1) Green screen

##### Equipment:

- (2) 3D printer UltiMaker (TBD Types)

##### Mobile Technology:

- (1) Teacher laptop
- (24) Student tablets in charging cart (shared with art department)
- (1) Mobile Charging Cart
- 

##### Equipment in GC Contract:

- (1) Overhead speech reinforcement speaker/local sound system

#### OTHER INFORMATION

#### NOTES:



**19. MAKER SPACE**

Review Comments:

Reviewed by:

Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



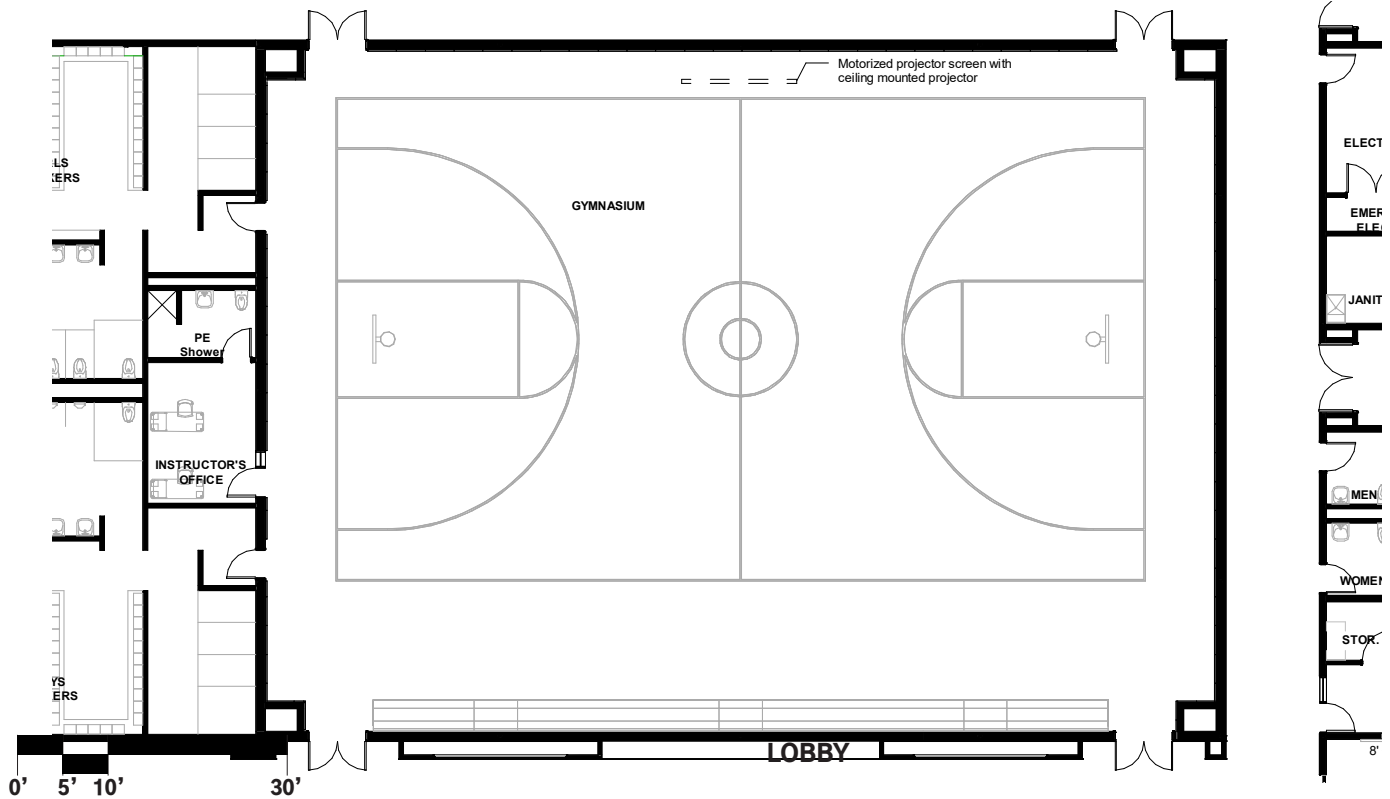
# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 20. GYMNASIUM



#### GENERAL CRITERIA

Description:

Multipurpose space for Physical Education program, adaptive physical education, and community use. It will include a Gym Storeroom and Health Instructor's Office.

Area:

- Gym storerooms @150 SF included
- (1) Gym office @ 250 SF included
- (1) GGym @7,000 SF

Users:

- (40-48) Students (60 max.) Per class Period
- (504) occupant capacity at bleachers
- (800) occupant load max in Gym
- (1-2) Instructors -Instructional assistants as required

Adjacencies:

- Exterior easily accessible
- One OT/PT room desired with direct connection
- Student toilet rooms & drinking fountain
- Nurse's suite

#### MILLWORK / CASEWORK

- N/A

#### SPECIALTIES

Visual Display boards / accessories:

- (1) 8'-0" Magnetic White Board
- (1) Motorized retractable projector screen
- Hooks in main gym storeroom

Window Treatments:

N/A



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 20. GYMNASIUM

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Exit devices
- Door closers
- Main Door
  - ↳ Classroom lock set
  - ↳ Side lite

##### Architectural Finishes:

Floor: Hardwood with resilient sub-floor

Base: Vented rubber

Walls: -Painted CMU masonry to 15' AFF; GWB above 15'

-4' h. Abuse resistant acoustic wall panels, secure wall pads, high-impact GWB above

Ceiling: Exposed structure, painted

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating at partitions between Gymnasium and adjacent spaces: 60

##### Electrical:

- General duplex receptacles
- General duplex receptacles for office
- Power for scoreboard, motorized projection screen, drop down batting cage, projector lift, basketball hoops, shot clocks, divider curtain, and bleachers.
- Floor outlets near scorer's table, proposed in front of bleachers

##### Data / Communication:

- Hardwired data outlets (2 data ports) for wireless access points
- Data outlets for scorer table at center of bleachers
- Wall phone outlet (1 data port)
- Wall Mounted-motorized projector

##### Plumbing:

##### Mechanical:

- Air conditioning
- Individual Climate Control
- Adequate ventilation for full school assembly (approx. 790 Students and 130 faculty)

##### Lighting:

- High-bay dimmable LED fixtures with combination occupancy/daylight sensors
- ON/OFF multi-scene controls at the doors

##### Public Address / Clock:

- (2) Analog Clock and display screen with wire guards
- (6) Local sound speakers w/ (2) microphone jacks at opposite sides of gym
- (6) PA speakers
- Microphone jacks at opposite sides of gym
- Exterior speakers at outdoor play areas for emergencies

##### Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (2) fire alarm pull stations
- (6) 110cd horn-strobe



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 20. GYMNASIUM

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- Flag

##### Furniture included in FF&E contract:

- Telescopic bleachers to seat 504
- Portable podium
- (2) Teacher desks for Gym Office
- (2) Desk chairs
- (1) File cabinet
- Metal shelving units in storage

##### Equipment/Technology included in FF&E contract:

- (1) projector on the cart

##### Mobile Technology

- (1-2) Teacher laptops

##### Equipment included in GC Contract:

- (1) Overhead speech reinforcement speaker
- (6) Motorized basketball hoops
  - ↳ Shot clocks attached to primary court hoops
  - ↳ Hoops should be adjustable
- (1) Motorized center roll divider curtain to divide the main court into (2) courts
- (1) Scoreboard and remote control panel
- (1) Wall Mounted-motorized projector screen
- (1) Drop-down batting cage; provide power
- (1) Poles, net and mounting for volleyball net
- Hockey, soccer, basketball, tennis, baseball, gymnastics and dance equipment

#### OTHER INFORMATION

- Court lines to support basketball, and volleyball.
- Include a rock wall, low priority
- Standby power to be provided for Gymnasium

#### NOTES:

- PE teacher to provide a detailed equipment list.



**20. GYMNASIUM**

Review Comments:

Reviewed by:

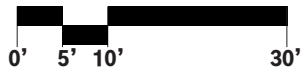
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**21. LOCKERS**



**GENERAL CRITERIA**

Description:

Locker Rooms is a space for the students to change before and after gym class.

**MILLWORK / CASEWORK**

- N/A

Area: 7,650 sf

Girls locker rooms @ 1,000 SF  
 Boys locker rooms @ 1,000 SF

**SPECIALTIES**

Visual Display boards / accessories:

- N/A

Users:

(40-48) Students (60 max.) Per class

Window Treatments:

N/A

Adjacencies:

- Gym

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 21. LOCKERS

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main Door
  - ↳ Classroom lock set
  - ↳ Side lite

##### Electrical:

- General duplex receptacles
- General duplex receptacles for office

##### Architectural Finishes:

- Floor: epoxy floor/base system
- Base: epoxy floor/base system
- Walls: Ceramic tile, high-impact GWB above
- Ceiling: ACT

##### Data / Communication:

- Hardwired data outlets (2 data ports) for wireless access points

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating at partitions between Gymnasium and adjacent spaces: 60

##### Plumbing:

- (2) accessible drinking fountains in the corridor (with bottle filler)
- (2) accessible drinking fountains inside the locker rooms (with bottle filler)
- (4) shower stalls
- (4) toilets
- (2) urinals
- (6) hand-washing sinks.

##### Public Address / Clock:

- (2) Digital Clock and display screen

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 2'x2' Recessed LED fixtures
- 1x2 Utility LED fixtures ON/OFF

##### Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (8) 15cd horn-strobe
- (2) smoke detectors





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 21. LOCKERS

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- NA

##### Fixtures included in GC Contract:

- 15; 1/2 height double tier double tier lockers for each gender (# lockers total)
- (8) Benches
- HDPE toilet and changing station Partitions
- Grab bars as required for accessibility
- Feminine Napkin Dispensers are disposables at girls locker room toilets
- soap and paper towels dispensers are all sinks
- Toilet paper dispensers

##### Furniture included in FF&E contract:

- Lockers for boy, girls, and GN

##### Equipment/Technology included in FF&E contract:

##### Equipment included in GC Contract:

- N/A
- Vape sensors

##### Mobile Technology

#### OTHER INFORMATION

#### NOTES:



**21. LOCKERS**

Review Comments:

Reviewed by:

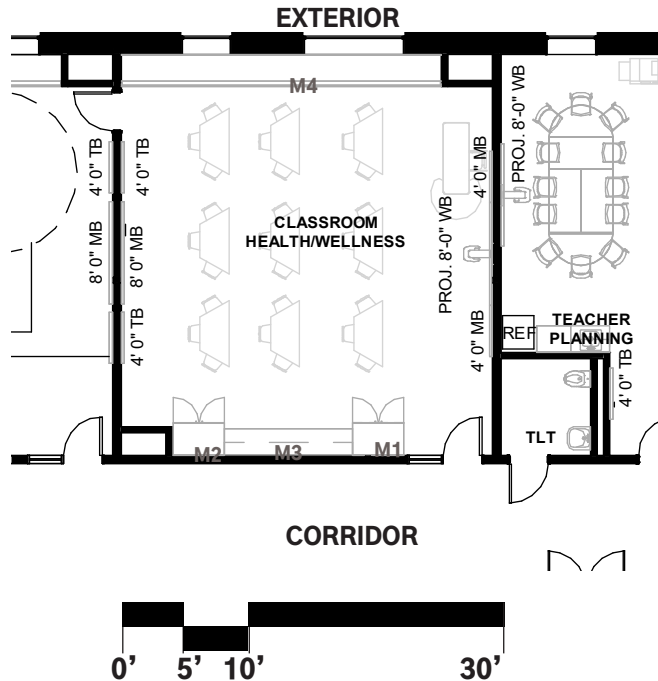
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**22. WELLNESS CLASSROOM**



**GENERAL CRITERIA**

Description:

Multipurpose space for Physical Education program, adaptive physical education, and community use. It will include a Gym Storeroom and Health Instructor's Office.

Area: 900 SF

Users:

(25 students) per class period

Adjacencies:

- Gym

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe 4'wide teacher's wardrobe closet;
- M2 – Wall storage cabinet at Corridor wall
- M3 – Continuous countertop with base/ upper cabinets
- M4 – Under-window shelving w/doors. 1/2 locked and 1/2 open shelves

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8'-0" Interactive Display Boards (mobile)
- (1) 8'-0" Magnetic White Board

Window Treatments:

N/A

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 22. WELLNESS CLASSROOM

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door
  - ↳ Classroom Security Lock set
  - ↳ Side lite
- Communicating door
  - ↳ Passage Lockset

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- N/A

##### Mechanical:

- Air conditioning
- Individual Climate Control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with combination occupancy/daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at sink area
- Receptacle for projector
- Receptacles for teacher workstation
- General duplex receptacle inside millwork for charging cabinet

##### Data / Communication:

- (1) Hardwired data outlet (2 data ports) for projector
- (1) Hardwired data outlet (2 data ports) for wireless access point
- (1) Wall phone outlet (1 data port)
- (1) Overhead speaker speech reinforcement system
- (2) Hardwired voice/data outlets (2 data ports) for teacher workstation
- (1) Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 22. WELLNESS CLASSROOM

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- N/A

##### Equipment/Technology included in FF&E contract:

- (1) Interactive Short – Throw Projector

##### Mobile Technology:

- (1) Teacher laptop
- (1) Mobile Technology cart

##### Equipment included GC Contract:

- (1) Overhead speech reinforcement speaker

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (1) Adjustable height table attachment for teacher desk
- (1) Aide chair
- (25) Flat top student desks with storage
- (25) Student chairs

#### OTHER INFORMATION

#### NOTES:



**22. WELLNESS CLASSROOM**

Review Comments:

Reviewed by:

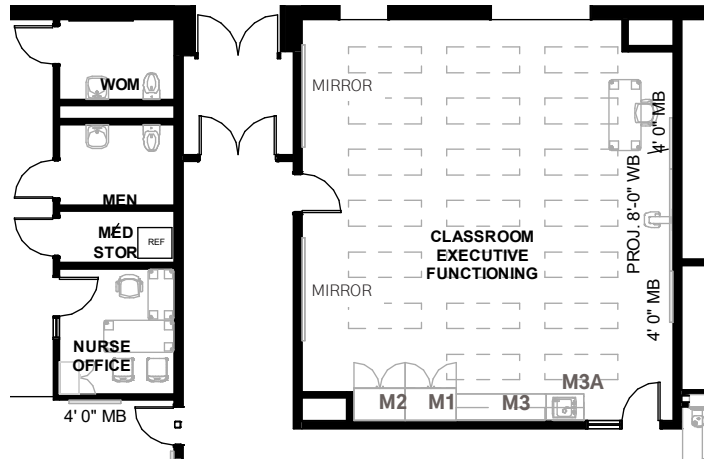
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**23. EXECUTIVE FUNCTIONING**



**GENERAL CRITERIA**

Description:

This room is used for yoga club, typical classes, meditation, and self-control.

Area: 900 SF

Users:

(20) Students

(1) Instructor

Aides as required

Adjacencies:

- Exterior easily accessible
- Gym
- Guidance Suit
- Health /Wellness classroom

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe 4’wide teacher’s wardrobe closet;
- M2 – Wall storage cabinet at Corridor wall
- Storage for yoga mats and block
- Continuous countertop with base/upper cabinets
- M3A – 34”h ADA compliant base unit with sink, plastic laminate counter top and backsplash. 18” h wall

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’-0” Magnetic White Board
- (2) 4’-0” Tack boards

Window Treatments:

Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 23. EXECUTIVE FUNCTIONING

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door
  - ↳ Classroom Security Lock set
  - ↳ Side lite

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB; painted and mirrored wall
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50; STC 45 for corridor wall

##### Plumbing:

- (1) Accessible sink with hot/cold water and integral drinking fountain at child height.

##### Mechanical:

- Air conditioning

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with
- Combination occupancy daylight sensors
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at sink area
- Receptacle for projector
- Receptacles for teacher workstation
- General duplex receptacle inside millwork for charging cabinet

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Overhead speaker speech reinforcement system
- Hardwired voice/data outlets (2 data ports) for teacher workstation
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

###### Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 23. EXECUTIVE FUNCTIONING

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- Paper towel dispenser (at sink)
- Soap dispenser (at sink)
- Yoga mat Sanitize station TBD

##### Equipment/Technology included in FF&E contract:

- (1) Interactive Short – Throw Projector

##### Mobile Technology

- (1-2) Teacher laptops
- 

##### Equipment included in GC Contract:

- (1) Overhead speech reinforcement speaker

##### Furniture included in FF&E contract:

- (1) Teacher desk and chair
- (1) Aide chair
- (10) tables –two students per table
- (20) Student chairs
- (20) Floor cushions
- (20) Yoga mats
- (40) Yoga blocks

#### OTHER INFORMATION

- Desire an integral sound system for music

#### NOTES:



**23. EXECUTIVE FUNCTIONING**

Review Comments:

Reviewed by:

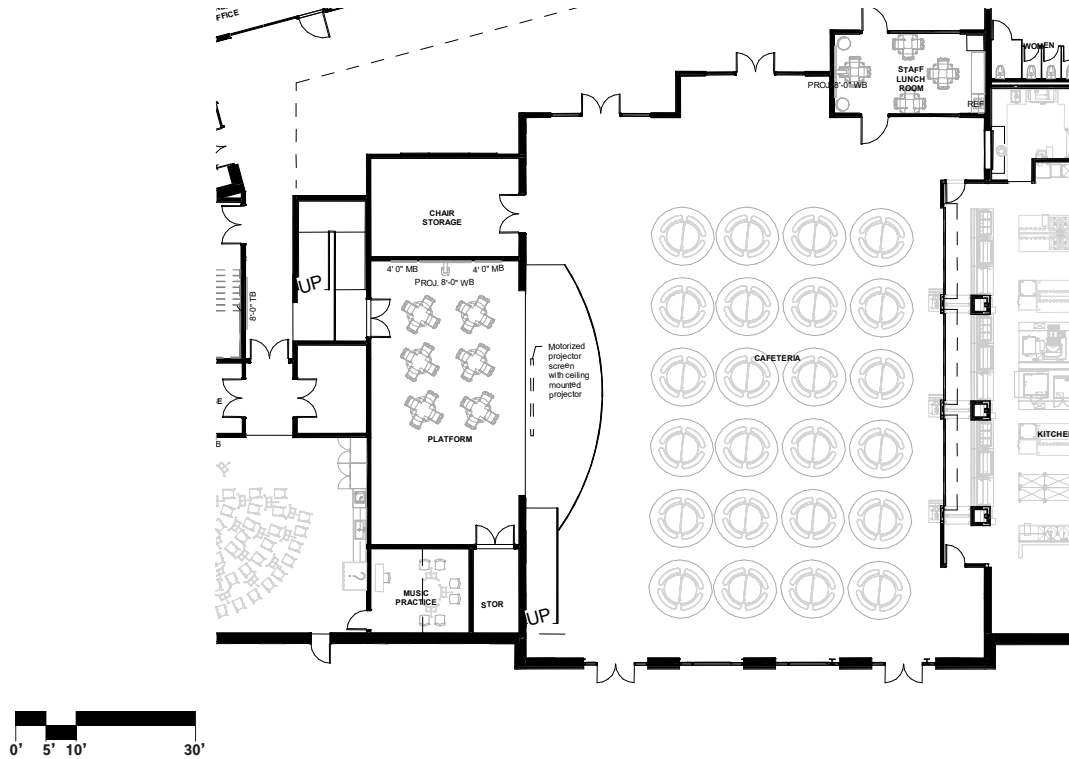
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**24. CAFETORIUM & TABLE STORAGE**



**GENERAL CRITERIA**

Description:  
Multipurpose space used for student dining with multiple lunch servings in rotating intervals of 15 minutes to be large enough to accommodate (4) lunch servings each day. It will also be used for extended day and summer programs. The Cafetorium will include a stage, with adjacency to the music rooms, to be used for performances and assemblies.

Area: **5,250 SF CAFETORIUM / Dining, 433 SF CAFE Storage**

Quantity: 1  
(1) Chair/Table Storage @ 433 SF included

Users:  
Rotating (4-7 classroom) clusters/lunch interval for a total of (230) Students at a time for lunch period

- Adjacencies:
- Close to Gymnasium, main Lobby, and Administration Suite
  - Direct adjacency to Stage and Faculty Dining
  - Direct access to exterior

**MILLWORK / CASEWORK**

- Specialty paneling and Stage opening surround
- Stage stair risers/treads
- Custom enclosure for trash and recycle receptacles
- Casework for condiments
- Ala cart
- Casework for Trash and Recycling receptacles.
- Sink with upper/ lower Cabinets in Staff rm

**SPECIALTIES**

- Visual Display boards / accessories:
- (1) Motorized projection screen
  - (1) Ceiling mounted projector
  - (30?) Coat hooks for extended day

Window Treatments:

- Room darkening window treatment/ Motorized window shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 24. CAFETORIUM & TABLE STORAGE

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Overhead coiling grills to Serving area
- Storeroom lockset at Table Storage doors
- Classroom lockset for doors to Main Lobby
- Panic egress hardware

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: Painted GWB with acoustic panels and plastic laminate panels
- Ceiling: Specialty ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between self contained SPED and adjacent spaces: 60

##### Plumbing:

- (1) Water fountain with bottle refill located outside of Cafeteria, off Main Lobby

##### Mechanical:

- Air conditioning

##### Lighting:

- 8' Diameter Round Pendant-mounted dimmable LED fixtures with (12) combination occupancy/daylight sensors & (8) 4' utility linear fixtures for chair storage
- ON/OFF controls at the door and multi-

##### Electrical:

- General duplex receptacles
- Power for motorized projection screen

##### Data / Communication:

- Hardwired data outlet (2 data ports) for wireless access point
- Overhead speaker speech reinforcement system
- (1) Motorized projector connections (2 Data Ports)

##### Public Address / Clock:

- (2) Digital clock and display screen
- Local sound speakers
- PA speakers
- Local sound system integrated w/ Platform sound system

##### Fire Protection / Fire Alarm:

- (4) Audiovisual fire alarm devices with a candela rating of 110cd



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 24. CAFETORIUM & TABLE STORAGE

#### FIXTURES, FURNITURE & EQUIPMENT

**Fixtures included in FF&E contract:**

N/A

**Equipment/Technology included in FF&E contract:**

**Equipment to be included in GC Contract:**

- (1) Motorized projector screen
- (1) Ceiling-mounted projector
- (1) Freezer for Ice Cream
- (2) Vending machines outside of cafeteria (size?)
- (1) Ala Cart

**Furniture included in FF&E contract:**

- Oval and round tables with attached seats to seat a minimum of 234 each 4 lunch periods.
- 250 stackable chairs for assembly
- Accessible seating must be integrated.
- (20) Chairs Stackable and Tables in Staff lunchroom (also used for baking club)

#### OTHER INFORMATION

- Standby power to be provided in Cafetorium
- 3 lunch lines, 3 registers, 3 servers
- Sound system upgrade
- Space may be used for cheerleading practice after school.

#### NOTES:



**24. CAFETORIUM & TABLE STORAGE**

Review Comments:

Reviewed by:

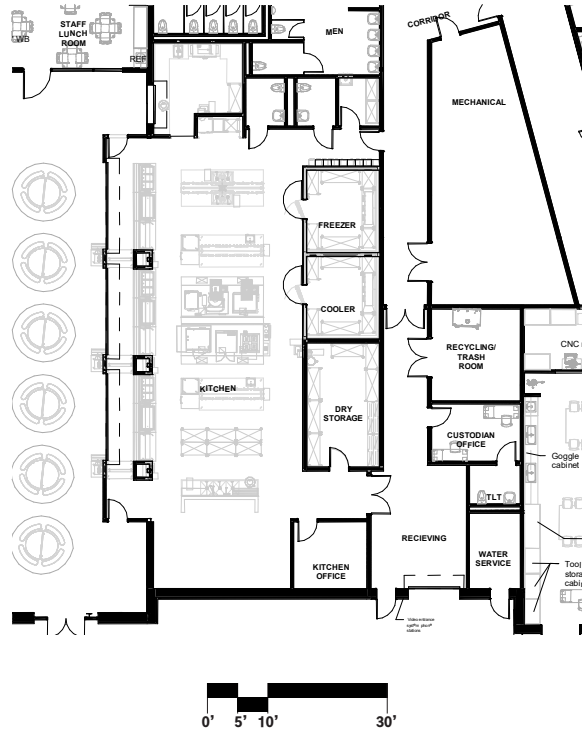
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**25. KITCHEN & STORAGE**



**GENERAL CRITERIA**

Description:

Full service kitchen that provides breakfast and lunch for students each day. The kitchen will be closed during the summer months.

Area/Quantity: 3,000 SF

Kitchen includes:

- (1) Servery
- (1) Kitchen
- (1) Office
- (2) Dry Storage
- (2) Toilets
- (1) Dish-washing room
- (1) Cooler
- (1) Freezer
- (1-3) Ala Cart for cold, hot, process foods

Users:

(3-5) Staff  
 1 dish, 3 registers, 3 servers,

Adjacencies:

- Direct adjacency to Cafetorium
- Close proximity to Receiving area

**MILLWORK / CASEWORK**

N/A

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 4' Magnetic markerboard in kitchen office
- (1) Tack board

Window Treatments:

N/A

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 25. KITCHEN & STORAGE

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Kitchen Door: Office lockset
- Storage Door: Storeroom lockset
- Exit devices
- Door closers

##### Architectural Finishes:

- Floor: Epoxy Slip proof at Kitchen and servery
- Base: Epoxy
- Walls: FRP w/ CT backsplash
- Ceiling: Vinyl/cleanable ACT w/ some gypsum board soffits

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between rooms and adjacent spaces: 60

##### Plumbing:

- Hand wash and pot sinks
- (2) Accessible staff toilet rooms (M/W)
- Grease interceptor(s)
- Washer/dryer connections
- Floor sink in Kitchen Janitorial closet
- Floor drains, accessible for clean out
  - ↳ (1) Floor drain outside of cooler door

##### Mechanical:

- Individual climate control
- Air conditioning

##### Lighting:

- 2'x2' recessed LED fixtures with combination occupancy/daylight sensors
- ON/OFF controls at the door

##### Electrical:

- Receptacles for each POS/cashier
- Electrical connections for all kitchen equipment
- General duplex outlets

##### Data / Communication:

- (3) Hardwired data outlet for each the point of sale station
- Hardwired data outlet in Kitchen Office
- Buzzer in Kitchen for receiving door at loading dock

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (6) PA speakers

##### Fire Protection / Fire Alarm:

- Ordinary-Hazard Sprinkler Coverage in Kitchen and Janitor closet
- Walk-in Cooler and Freezer to have concealed dry pendant sprinklers
- (3) Heat detectors
- (2) 75cd speaker-strobes
- Appropriate fire suppression included with Hood System for cooking equipment below.





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 25. KITCHEN & STORAGE

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (2) Electric hand dryers (one at each toilet room sink)
- (2) Toilet paper dispensers (one at each toilet)
- Soap dispensers at each sink area
- Paper towel dispensers at each sink area

##### Furniture included in FF&E contract:

- (2) Desk and chair in Kitchen office
- (1) Filing Cabinet in Kitchen office
- (1) Photo copier
- (2) Computer
- (8-10) Lockers for staff
- (8-10 units) Open wire shelving in storage
- (1) Washer and Dryer
- (2) Vending Machines

##### Equipment/Technology included in FF&E contract:

- Alarms on walk-in coolers and freezers. Receive text or email notification.
- (1) Digital Displays are desired
- (#) "Smart" Alarms in walk in Freezers
- (#) Digital display Boards (desired)
- (1) Washer and Dryer connection
- (1) Printer in Kitchen office
- (1) Scanner in Kitchen office
- (1) Interactive Short – Throw Projector

##### Equipment to be included in GC Contract:

- (3) Accessible point of sale station on casters
- (1) 50 gallon grease receptacle
- Refer to full equipment list on Food Service Drawings Equipment list to be provided

#### OTHER INFORMATION

- A dedicated dish-washing/dish drop area is included for future flexibility.
- Kitchen/Servery to be self-contained by using overhead coiling doors
- Potential information into ala cart.
- Standby power will be provided for Kitchen freezer/cooler walk-in(s)
- Lunch periods will be 4/5, 5/6, 7 and 8.
- Electric powered equipment



**25. KITCHEN & STORAGE**

Review Comments:

Reviewed by:

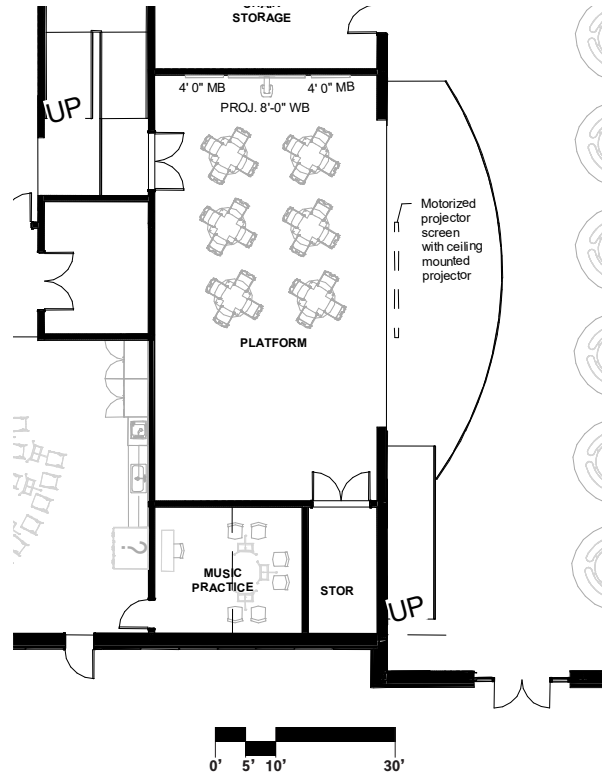
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**26. PLATFORM & PLATFORM EQUIPMENT**



**GENERAL CRITERIA**

Description:

Multi-use space for various performances and assemblies which doubles as an additional Music classroom/rehearsal space.

**MILLWORK / CASEWORK**

N/A

Area/Quantity:

(1) Stage @ 1,600SF

(1)Storage @ 280 SF

Users:

(1) Teacher

(30-50) Students for assembly/performance

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8'-0" Interactive Display Whiteboard
- (2) 4'-0" White board

- (1) An Acoustically-rated, electrically-operated partition between the Platform and cafeteria. This will be located at the proscenium opening (the backside of).

Adjacencies:

- Directly adjacent to Cafetorium
- Direct access to Music Rooms

Window Treatments:

N/A

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 26. PLATFORM & PLATFORM EQUIPMENT

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Storeroom lockset for platform Equipment
- Classroom lockset for doors between platform and Music Room

##### Architectural Finishes:

- Stage flooring; in front of the proscenium will be wood tongue and groove and in back of the proscenium will be linoleum
- Base: 4" vented rubber
- Walls: GWB; painted w/ acoustic panels and plastic laminate panels
- Ceiling: GWB or Specialty ACT with gyp board soffits and acoustic diffusers

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating at partitions between Platform and adjacent spaces: 60

##### Plumbing:

N/A

##### Mechanical:

- Air conditioning
- Individual climate control

##### Lighting:

- Recessed can dimmable LED fixtures with combination occupancy/daylight sensor
- ON/OFF and multi-scene controls at the door(s)

##### Electrical:

- General duplex receptacles
- Receptacle for projector
- Power for operable partition
- Outlet for speech reinforcement amplifier
- Power for motorized lighting track(s)
- Receptacle for projector
- An electrically-operated partition between the stage and cafetorium. This will be located at the proscenium opening (the backside of).

##### Data / Communication:

- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port) and (1) VoIP telephone handset
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and Display Screen
- (1) Connection to cafeteria sound system

##### Fire Protection / Fire Alarm:

- (2) Ceiling-mounted smoke hatches
- (2) Fire hose connections
- (2) 75cd speaker-strobe



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 26. PLATFORM & PLATFORM EQUIPMENT

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- N/A

##### Equipment/Technology included in FF&E contract:

- Document camera
- (1) Technology cart
- (1) Interactive Short – Throw Projector
- General music instruments (TBD)

##### Equipment included in GC contract:

- (1) Overhead speech reinforcement speaker
- Motorized lighting track(s)
- Microphones/sound system accessories

##### Furniture included in FF&E contract:

- (1) Conductor chair
- (1) Podium
- (30) Student stacking chairs with rolling cart
- (1) Upright piano
- (6) tables
- (24) Chairs
- Standing risers for (50) students

#### OTHER INFORMATION

- Confirm number of users for performances

#### NOTES:

- See music room furniture list for number of choral risers (to be shared with platform area)
- Possible IPad or chrome for flexible learning use might request a charging cart



---

**26. PLATFORM & PLATFORM EQUIPMENT**

Review Comments:

Reviewed by:

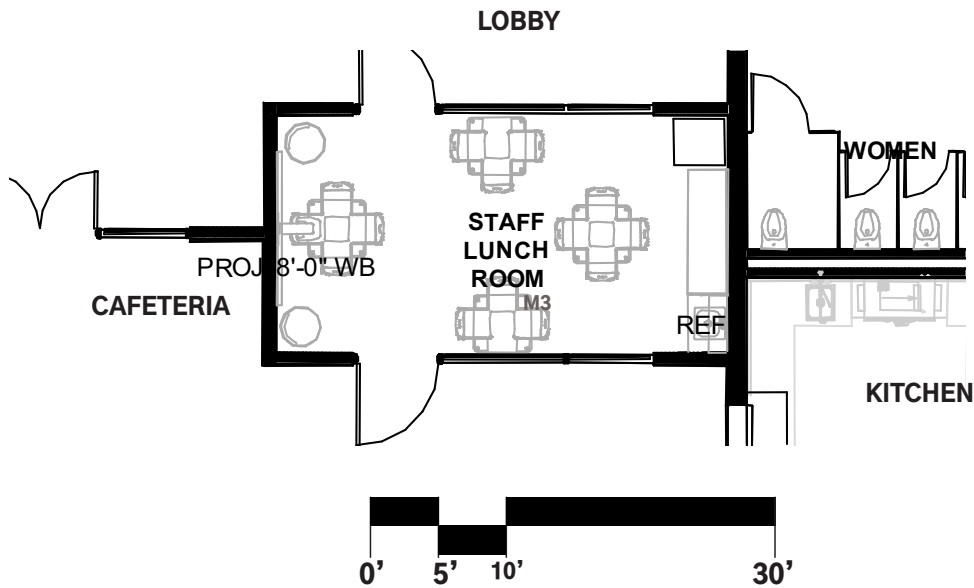
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**27. STAFF DINING**



**GENERAL CRITERIA**

Description:

Multi-purpose room used for Faculty Dining at lunchtime and for meetings.

Area: 275 SF

Quantity: 1

Users:

(15) Faculty/Staff

Adjacencies:

- Directly adjacent to Cafetorium

**MILLWORK / CASEWORK**

- M3 – Base and wall upper and lower cabinets with sink

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8'-0" Magnetic whiteboard
- (1) 4'-0" Tack board

Window Treatments:

Window frosting or roller window shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 27. STAFF DINING

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Door with vision panel or side lite
- Exit devices
- Door closers

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" Resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between Faculty Dining and adjacent spaces: 50; between dining and Platform: 60

##### Plumbing:

- (1) Accessible sink
- Water connection for refrigerator

##### Mechanical:

- Air conditioning

##### Lighting:

- 5' diameter round pendant with (1) combination occupancy/daylight sensor
- ON/OFF controls at the door

##### Electrical:

- General duplex receptacles
- GFCI receptacles at counter sink area
- Duplex receptacles for refrigerator and microwave

##### Data / Communication:

- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for wireless access point

##### Public Address / Clock:

- (1) Digital Clock and Display Screen
- (1) Emergency Call Switch
- (1) Talk back speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- 75 Candela visual device





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 27. STAFF DINING

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- Soap dispenser at sink
- Paper towel dispensers at sink

##### Furniture:

- (4) Round OR square group tables with (3-4) chairs each (for 12-16 people)
- (1-2) Lounge seats with acoustic isolation (such as KI Connect Zone Booth)

##### Equipment/Technology included in FF&E contract:

- (1) Microwave
- (1) Full height refrigerator with ice maker / water dispenser
- (1) Interactive Short - Throw Projector

##### Equipment included in GC contract:

- Residential refrigerator/freezer
- Microwave

#### OTHER INFORMATION

#### NOTES:



**27. STAFF DINING**

Review Comments:

Reviewed by:

Name, Title:

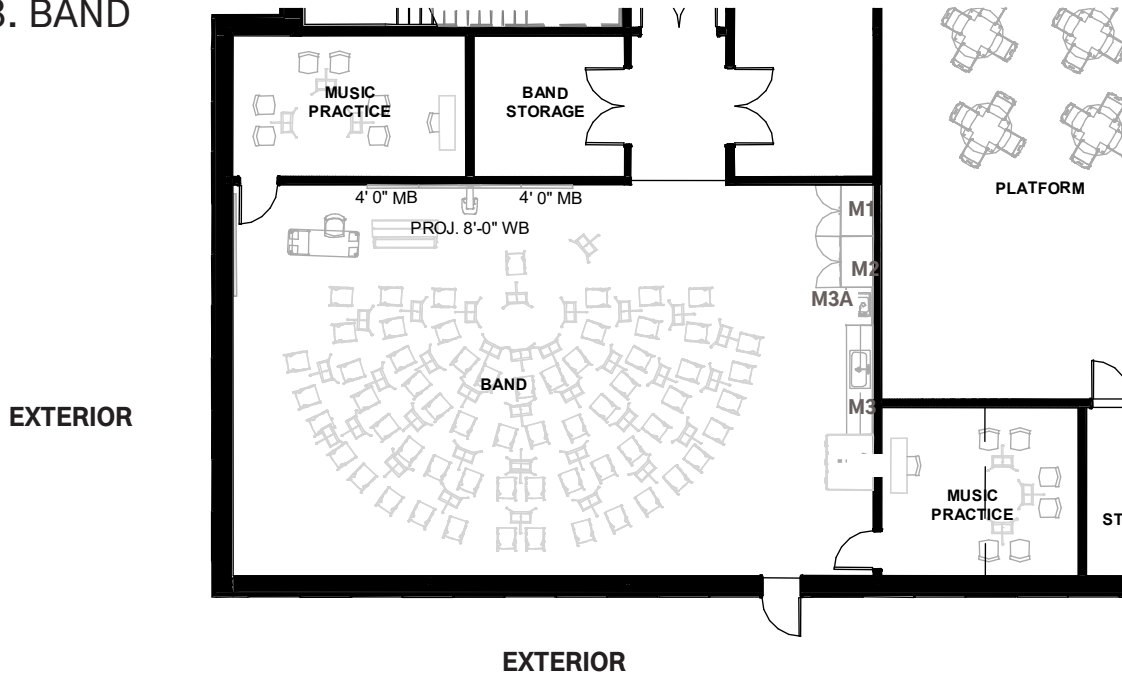
Date:

_____	_____
_____	_____
_____	_____
_____	_____



**SCHEMATIC DESIGN**

**28. BAND**



**GENERAL CRITERIA**

Description:

All students in the school attend general music, and all fourth grade students participate in Chorus. Curriculum includes small instruments, singing, dancing, etc.

Area/Quantity: 2,775 SF

- (1) Band Room @ 1,500 SF
- (1) Music Storage @ 250 SF
- (2) Practice / Ensemble @ 200 SF

Users:

- (1-2) Teachers
- (20-30) Students
- Teachers assistants as required

Adjacencies:

Platform in cafeteria

**MILLWORK / CASEWORK**

- M1 – Teacher Wardrobe
- M2 – Storage Unit
- M3 – Base/wall cabinet unit w/sink
- M3A – accessible base/wall cabinet unit w/ sink

**SPECIALTIES**

Visual Display boards/Accessories:

- (2) 4' Magnetic white boards w/ staff lines
- (1) 8' Magnetic white board for projector
- (2) 4' Magnetic white boards
- (1) 8' Tack board

Window Treatments:

- Woven fabric translucent shades



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 28. BAND

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom lockset
  - ↳ Door closer

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB Painted , Acoustic wall panels
- Ceiling: Specialty acoustic tiles with gypsum board soffits

##### Acoustical Requirements:

Sound Transmission Coefficient (STC) rating between Music and adjacent spaces: 50–60

STC (50–55) Between Music room and storage  
STC (60) between Music room and other rooms

##### Plumbing:

- (1) Accessible sink with hot/cold water and integral drinking fountain at child height.
- (1) Deep sink with mixing valves for cleaning instruments and mouthpieces

##### Mechanical:

- Air conditioning
- Individual climate control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- 2'x2' Recessed LED fixtures with (2) multi-sensors in storage room
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- GFCI receptacle at counter sink area;
- Receptacle for projector
- Receptacle for teacher workstation
- Floor outlets for Digital Keyboard
- Power for integral sound system

##### Data / Communications:

- (1) Hardwired data outlet (2 data ports) for wireless access point
- (2) Hardwired voice/data outlet (2 data ports) for teacher work station
- (1) Wall phone outlet (1 data port) (1) Hardwired data outlet (2 data ports) for projector
- (1) Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) Talk back speaker

##### Fire Protection / Fire Alarm:

- Ordinary-Hazard Sprinkler Coverage in music storage rooms
- (2) 75 candela audiovisual device
- (1) 15cd audiovisual device



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 28. BAND

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- Soap dispensers at each sinks
- Paper towel dispensers at each sink area

##### Equipment/Technology included in FF&E contract:

- (1) Interactive Short – Throw Projector

##### Equipment included in GC contract:

- (1) Overhead speech reinforcement speaker
- Integral sound system

##### Furniture included in FF&E contract:

- (1) Upright piano
- (55) stackable Wenger music chairs with storage carts
- (40) music stands
- (1) Teacher desk and chair
- Wenger music storage system or file cabinets for storage
- Conductor podium and chair

#### OTHER INFORMATION

#### NOTES:



**28. BAND**

Review Comments:

Reviewed by:

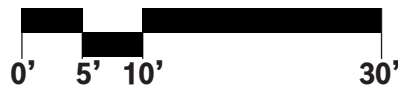
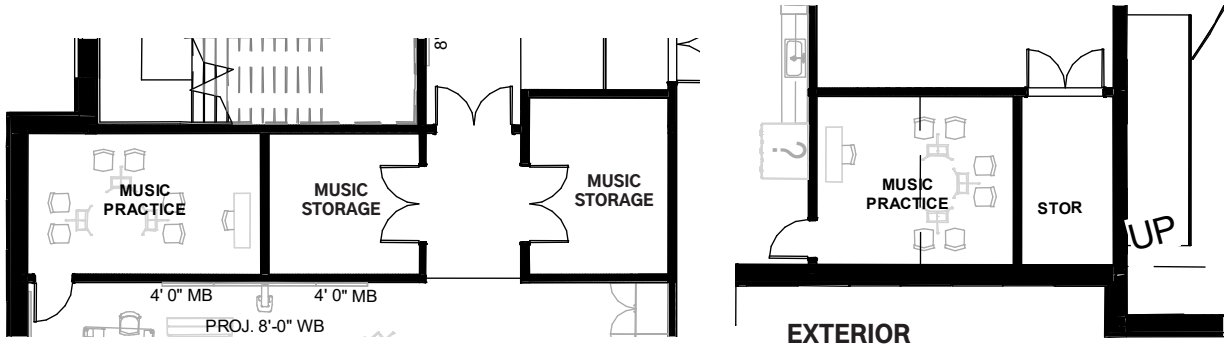
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**29. MUSIC PRACTICE & STORAGE**



**GENERAL CRITERIA**

Description:

Space for music practice and musical instrument storage

**MILLWORK / CASEWORK**

- Musical Instrument Storage casework

**Area/Quantity:**

- (2) Music Practice Room @ 150 SF
- (1) Music storage @130 SF
- (1) Music storage @150 SF

**SPECIALTIES**

Visual Display boards/Accessories:

- (2) 8' Magnetic white boards w/ staff lines
- (1) 6' Tack board

Users:

- (4-6) Music Students

Window Treatments:

Adjacencies:

Platform in cafeteria / Band Room

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 29. MUSIC PRACTICE & STORAGE

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main door:
  - ↳ Classroom lockset
  - ↳ Door closer
  - ↳ Side lites in doors

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" resilient vinyl
- Walls: GWB Painted, acoustic panels
- Ceiling: ACT

##### Acoustical Requirements:

Sound Transmission Coefficient (STC) rating  
Between Music and adjacent spaces: 50-60

STC (50-55) Between Practice room and  
storage

STC (60) between Music room and other  
rooms

##### Plumbing:

##### Mechanical:

- Air conditioning
- Individual climate control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (2) combination occupancy/daylight sensors
- 2'x2' Recessed LED fixtures with multi-sensors in storage room
- ON/OFF controls at the door and multi-scene controls at the front of the classroom

##### Electrical:

- General duplex receptacles
- Outlets for Digital Keyboard

##### Data / Communications:

- Hardwired data outlet (2 data ports) for wireless access point
- Hardwired voice/data outlet (1 voice/2 data ports) for teacher work station
- Wall phone outlet (1 data port) and (1) VoIP telephone handset
- Interactive Short-throw projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) PA speakers

##### Fire Protection / Fire Alarm:

- Ordinary-Hazard Sprinkler Coverage in music storage rooms
- (1) 15 candela audiovisual device





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 29. MUSIC PRACTICE & STORAGE

#### FIXTURES, FURNITURE & EQUIPMENT

Fixtures included in FF&E contract:

N/A

Equipment/Technology included in FF&E contract:

Equipment included in GC contract:

Furniture included in FF&E contract:

- (2) Portable digital pianos with stands
- (12) practice chairs
- (12) music stands

#### OTHER INFORMATION

**NOTES:**

Yamaha traditions keyboard.

Electrical piano



**29. MUSIC PRACTICE & STORAGE**

Review Comments:

Reviewed by:

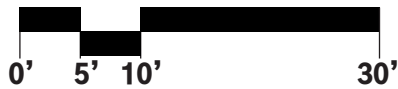
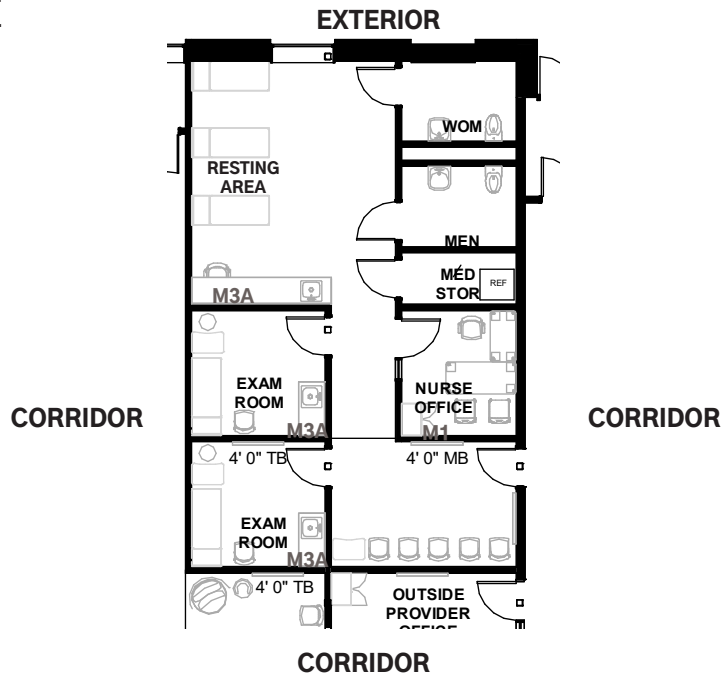
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**30. MEDICAL SUITE**



**GENERAL CRITERIA**

Description:

Centrally located Nurse suite to serve students and staff physical health. Duties include dispensation of daily medicine and administering to injuries and illness. Suite includes enclosed office for Nurse with visibility to waiting area, 2 Exam rooms, a toilet room, and (3) Rest areas. One exam room will double as a lactation room.

Area/Quantity: 660SF

- (1) Office/Waiting @ 250 SF
- (1) Med Supply @50 SF (located in exam rm)
- (1) Toilet @ 60 SF
- (2) Exam @ 100 SF
- (1) 50 NSF med supply room
- (1) Resting @ 100 SF

Users: (1-2) Nurses  
(8) Students maximum

Adjacencies:

- Administration Suite
- Gym

**MILLWORK / CASEWORK**

- M1 – Wardrobe unit
- M3A – Base and upper cabinets with accessible sink

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 4' Visual display board (magnetic markerboard)
- (2) 4' Tack board one in each exam room

Window Treatments:

- N/A

Miscellaneous:

- Ceiling-mounted cubicle curtain track at rest areas

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 30. MEDICAL SUITE

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Main Door: Office lockset
- Office/Exam Doors: Office lockset
- Toilet Door: Office lockset with vacancy indicator

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" Resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50

##### Plumbing

- (1) Accessible hand wash sink with mixing valve outside of Nurse's office
- (1) Non-accessible sink with mixing valve in Exam Room
- (1) Non-accessible sink with mixing valve in Exam Room/Lactation Room
- (1) Accessible sink in toilet

##### Mechanical:

- Air conditioning
- Individual climate control

##### Lighting:

- 2'x2' Recessed LED fixtures with (4) combination occupancy/daylight sensors
- 2'x2' Recessed LED light, (1) fixture with (1) multi-sensor (toilet rm.)
- ON/OFF controls at door

##### Electrical:

- General duplex receptacles
- GFCI receptacles at counter sink areas
- GFCI receptacle at bathroom area
- Quad receptacles for Nurse's office
- Duplex receptacles for each Exam room
- Receptacle for refrigerator

##### Data / Communication

- Hardwired voice/data outlet (2 data ports) per office
- Hardwired data outlet (2 data ports) for wireless access points
- Wall phone outlet (1 data port)
- Interactive Short-Throw Projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switch
- (4) PA speakers

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75 candela audiovisual device
- (2) 15 candela audiovisual devices
- (7) 15cd visual devices



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 30. MEDICAL SUITE

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (1) Electric hand dryer (at sink in toilet room)
- (2) Soap dispensers (one at each sink)
- (1) Toilet paper dispenser
- (2) Paper towel dispensers (one at each sink area)

##### Equipment/Technology included in FF&E contract:

- (1) refrigerator for medications no lock
- (1) Nurse laptop
- Privacy curtains between beds on ceiling track

##### Furniture included in FF&E contract:

- (6) Waiting room chairs
- (1) Nurse's desks 3'x6' and (2) chairs in office
- (5) Chairs in waiting area
- (2) Exam Room chairs, one per room
- (2) A mobile stools, one per exam Room
- (1) Wheeled table for mobile computer station
- (2) - 3-drawer filing cabinets
- (1) Smaller table: service/check-in
- (1) chair for counter top desk in resting area
- Shelving in storage closet

##### OTHER INFORMATION:

- Include supply closet with shelving

##### NOTES:

- Needs acoustical separation to be well insulated



**30. MEDICAL SUITE**

Review Comments:

Reviewed by:

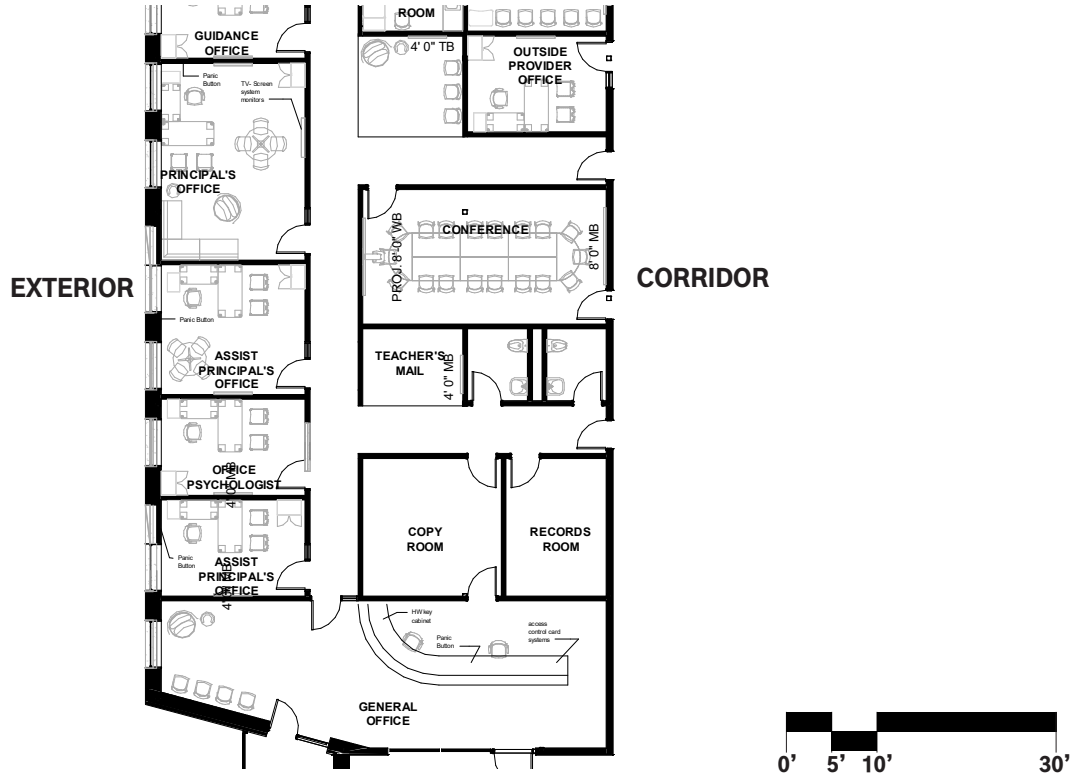
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**31. ADMINISTRATION SUITE**



**GENERAL CRITERIA**

**Description:**

The Administration Suite functions to support the centralized administration for the school. It is the control point for public access to the building. School-wide communications are centered here.

Total Area: 3,500 SF

(Not including SF for Guidance and SPED suite)

**Areas/Quantities:**

- (1) General Office/Waiting/Toilet @ 450SF
- (1) Teachers' Mail and Time Room @ 100 SF
- (1) Records Room @ 200 SF
- (1) Principal's Office @ 175 SF
- (1) Principal's Secretary/waiting @ 125 SF
- (1) Assistant Principal's Office 1 @ 150 SF
- (1) Assistant Principal's Office 2 @ 150 SF
- (1) Conference Room @ 350 SF
- (1) Supervisory / Spare Office (SRO) @ 150 SF

Users: (5-6) Staff: Principal, Assistant Principal, and two receptionists.

**MILLWORK / CASEWORK**

- M10 – Custom reception desk with (2) work stations
- M3A – Base and upper cabinets with sink
- M9 – Mail cubby units for (100 min) staff
- Upper/base cabinets and working surface where possible at reception desk
- Principal office lockable wardrobe closet/cabinet

**SPECIALTIES**

**Visual Display boards / accessories:**

- (1) Flat screen wall mounted monitor for digital signage in waiting area
- (4) 4'-0" Tack board in offices
- (1) Short throw projectors
- (2) Technology carts
- (1) 8'-0" Magnetic Markerboard in conference room
- (4) 4'-0" Magnetic Markerboards in offices

**Window Treatments:**

- Woven fabric translucent roller shades

**Adjacencies:**

- Main Entrance/Lobby
- Exterior drop off area



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 31. ADMINISTRATION SUITE

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Office lockset for offices
- Door from Vestibule: Video Entrance Station

##### Architectural Finishes:

- Floor: Carpet
- Base: 4" Resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 45–50; between offices: 50

##### Plumbing:

- (1) Non-accessible sink with mixing valve for staff use at break counter (not needed in conference room)
- (2) Accessible staff toilet rooms (single occupant M/W)

##### Mechanical:

- Individual climate control
- Air conditioning

##### Lighting:

- 2x2 recessed fixture with (1) combination occupancy/daylight sensor (per office)
- recessed can LED fixtures for reception and corridor
- 8ft. pendant mounted dimmable LED fixture with
- 2'x2' LED fixtures

##### Electrical:

- General duplex receptacles
- Receptacles for workstations
- Receptacle for copier/printer
- Receptacle for refrigerator
- Receptacles for projectors
- Power for flat panel digital display in Waiting area

##### Data / Communication:

- Hardwired data outlet (2 data ports) for wireless access point
- Hardwired voice/data outlets (1 voice/2 data ports) for work stations
- Connection at reception desk.
- Data connection at digital display in waiting area
- Video entrance system control at reception desk
- Hardwired data outlet (2 data ports ea.) for projectors
- Access control system
- Panic button located in Records room
- Interactive Short-Throw Projector connections (2 Data Ports)

##### Public Address / Clock:

- (8) Digital Clock and display screen
- (1) Emergency Call Switch per office; (2) at reception desk
- (5) PA Ceiling speakers
- Microphone jacks for PA system interface
- (4) Panic button at office reception desk, principal's office, and both assistant principal's offices

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- Ordinary-Hazard Sprinkler Coverage in Mail/Duplicating areas and Records room
- (1) 75 candela audiovisual device
- (4) 15 candela visual devices





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 31. ADMINISTRATION SUITE

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- Soap and paper towel dispenser at sink
- Safe drop payment box in the mailroom
- Secure vault in records room

##### Furniture included in FF&E contract:

- (1) Desk and chair at Principal's office
- (1) Round table with 4 chairs Principal's office
- (1) Desk and chair at Asst. Principal's office
- (1) 2-3 chairs at Asst. Principal's office and principles office
- (3-5) Chairs in waiting room
- (1) 30" dia. Coffee table in waiting area
- (1) 12'x5' Conference table
- (15) Conference room chairs
- (2) Chairs at reception desk (two work stations)
- (3) Shelving units
- (3) Lateral file units
- "Kitchenette" wall with fridge/micro in Teacher mail room
- 5 Filing Cabinets in Records room
- (1) TV screen and security system monitors -Principles office

##### Adjacencies desired:

- Mail room to be close to general office
- Records room to be a secure location in an emergency situation (aka: Alamo).

##### Equipment/Technology included in FF&E contract:

- (2) Monitors for the front desk
- (1) Copier/Printer
- (2) Mobile Technology carts
- (1) Flat screen wall mounted monitor for digital signage in waiting area
- (1) Interactive Short - Throw Projector

##### Equipment included in GC contract:

- (1) Overhead speech reinforcement speaker
- Microwave
- Under-counter refrigerator
- Buzzer at entry door

##### NOTES:



**31. ADMINISTRATION SUITE**

Review Comments:

Reviewed by:

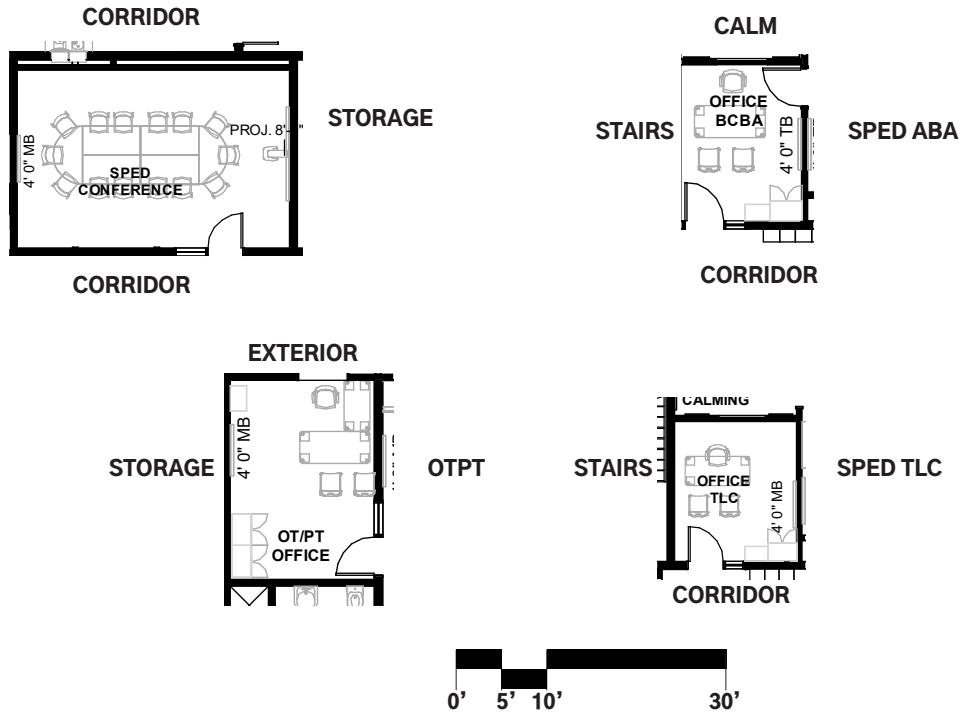
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**32. SPED ADMINISTRATION**



**GENERAL CRITERIA**

Description:

The SPED admin office, functions to provide a home base and meeting space for the Special Education Site Coordinator.

Areas:

- (1) Office – BCBA – ABA 150 SF
- (1) Office – Psychologist 150 SF
- (1) Office – OT/PT Office 150 SF Missing
- (2) Office – Adjustment Counselor – TLC 100 SF
- (1) SPED Conference Room @ 350 SF

Users: (1) Staff per office

Adjacencies:

**MILLWORK / CASEWORK**

- N/A

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8’-0” Interactive Display Whiteboard –Conference Room
- (2) 8’-0” Magnetic Markerboards
- (5) 4’-0” Tack Board
- (4) 4’-0” White Board

Window Treatments:

- Woven fabric translucent roller shades

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 32. SPED ADMINISTRATION

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Office lockset for office

##### Architectural Finishes:

- Floor: Carpet
- Base: 4" Resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50

##### Plumbing:

- N/A

##### Mechanical:

- Air conditioning
- Individual climate control

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixture for office
- 16 ft. pendant mounted dimmable LED fixture with (6) Recessed can LED fixtures for conference room
- Combination occupancy/daylight sensors

##### Electrical:

- General duplex receptacles
- Receptacles for workstation

##### Data / Communication:

- Hardwired data outlet (2 data ports) for office
- Hardwired data outlet (2 data ports) for conference room
- Hardwired data outlet (2 data ports) for wireless access points
- Wall phone outlet (1 data port) and (1) VoIP telephone handset per office
- Hardwired data outlet (2 data ports) for projector
- Overhead speaker speech reinforcement system
- Interactive Short-Throw Projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switch at office

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 32. SPED ADMINISTRATION

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- N/A

##### Equipment/Technology included in FF&E contract:

- (1) Interactive Short – Throw Projector

Included in GC Contract:

##### Furniture:

- (1) Office desk and (1) Office chair per SPED Office
- (2) Guest chairs in each office
- (1) 12'x5' Conference table
- (15) Conference room chairs
- (1) Shelving unit

#### OTHER INFORMATION

#### NOTES:



**32. SPED ADMINISTRATION**

Review Comments:

Reviewed by:

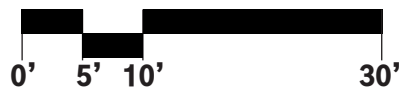
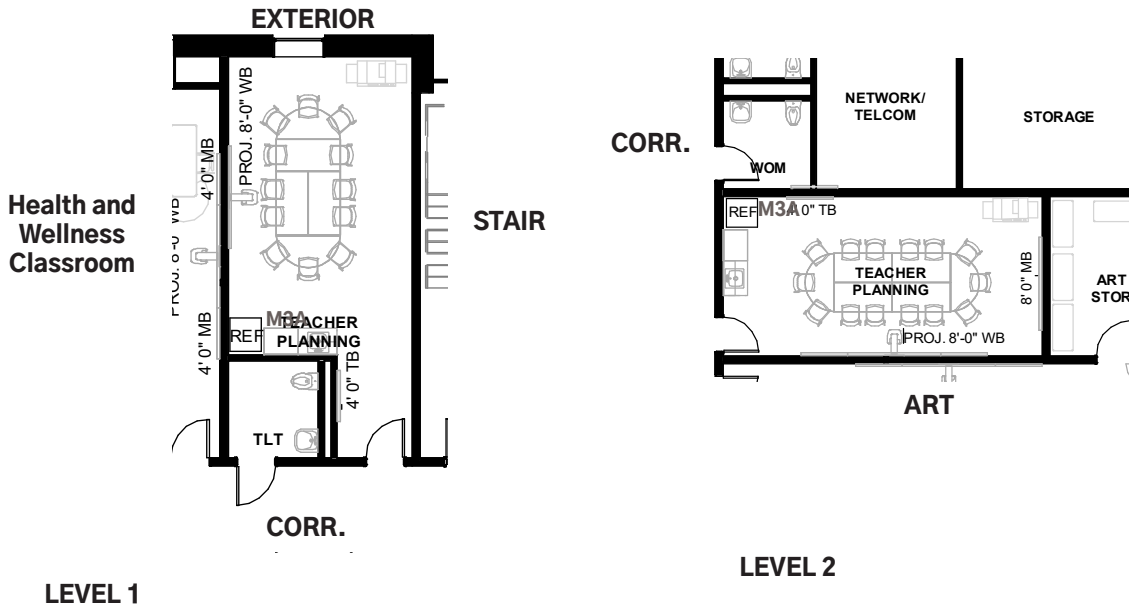
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**33. TEACHER PLANNING**



**GENERAL CRITERIA**

Description:

Area used by teachers to meet with colleagues, plan curriculum, and print and prepare teaching materials. The space can accommodate an active work area or a quiet break space.

Area/Quantity:

(2) Teacher Planning @450 SF

Users:

(12-15) Staff

Adjacencies:

- (1) on each floor

**MILLWORK / CASEWORK**

M3A – Base and upper cabinets with sink

**SPECIALTIES**

Visual Display boards / accessories:

- (1) 8'-0" Interactive Display Whiteboard
- (2) 4'-0" Tack board
- (2) 4'-0" White Board

Window Treatments:

Woven translucent window shade

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 33. TEACHER PLANNING

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Office lockset
- Side lite in door

##### Architectural Finishes:

- Floor: Linoleum
- Base: 4" Resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

##### Acoustical Requirements:

Sound Transmission Coefficient (STC) rating between offices and adjacent spaces: 50; between Teacher Planning and toilet room: 53

##### Plumbing:

- (1) Sink with hot/cold water
- Water connection for refrigerator

##### Mechanical:

- Air conditioning

##### Lighting:

- 8 ft. pendant mounted dimmable LED fixtures with (1) combination occupancy/daylight sensor
- ON/OFF controls at the door

##### Electrical:

- General duplex receptacles (charging for teacher devices distributed)
- GFCI receptacle at counter sink area
- Receptacle for refrigerator
- Receptacle for copier/printer
- Receptacle for projector

##### Data / Communication:

- Hardwired data outlet (2 data ports) for wireless access point
- Wall phone outlet (1 data port)
- Hardwired data outlet (2 data ports) for copier/printer
- Hardwired data outlet (2 data ports) for projector
- Hardwired data outlet (2 data ports) for workstations
- Copier/Printer
- Interactive Short-Throw Projector connections (2 Data Ports)

##### Public Address / Clock:

- (1) Digital Clock and display screen
- (1) Emergency Call Switches
- (1) Talk back speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75cd speaker-strobe





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 33. TEACHER PLANNING

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- Soap and paper towel dispenser at sink

##### Equipment/Technology included in FF&E contract:

- (1) Interactive Short throw projector

##### Included in GC Contract:

- (1) Refrigerator with ice maker
- (1) Microwave

##### Furniture included in FF&E contract:

- (1) 12'x4' Conference table
- (12-15) Conference room chairs
- OR (6) mobile tables that can be arranged to create a conference table

#### OTHER INFORMATION

##### NOTES:

Copy/printer to be leased by District; power and data to be provided under base contract.



**33. TEACHER PLANNING**

Review Comments:

Reviewed by:

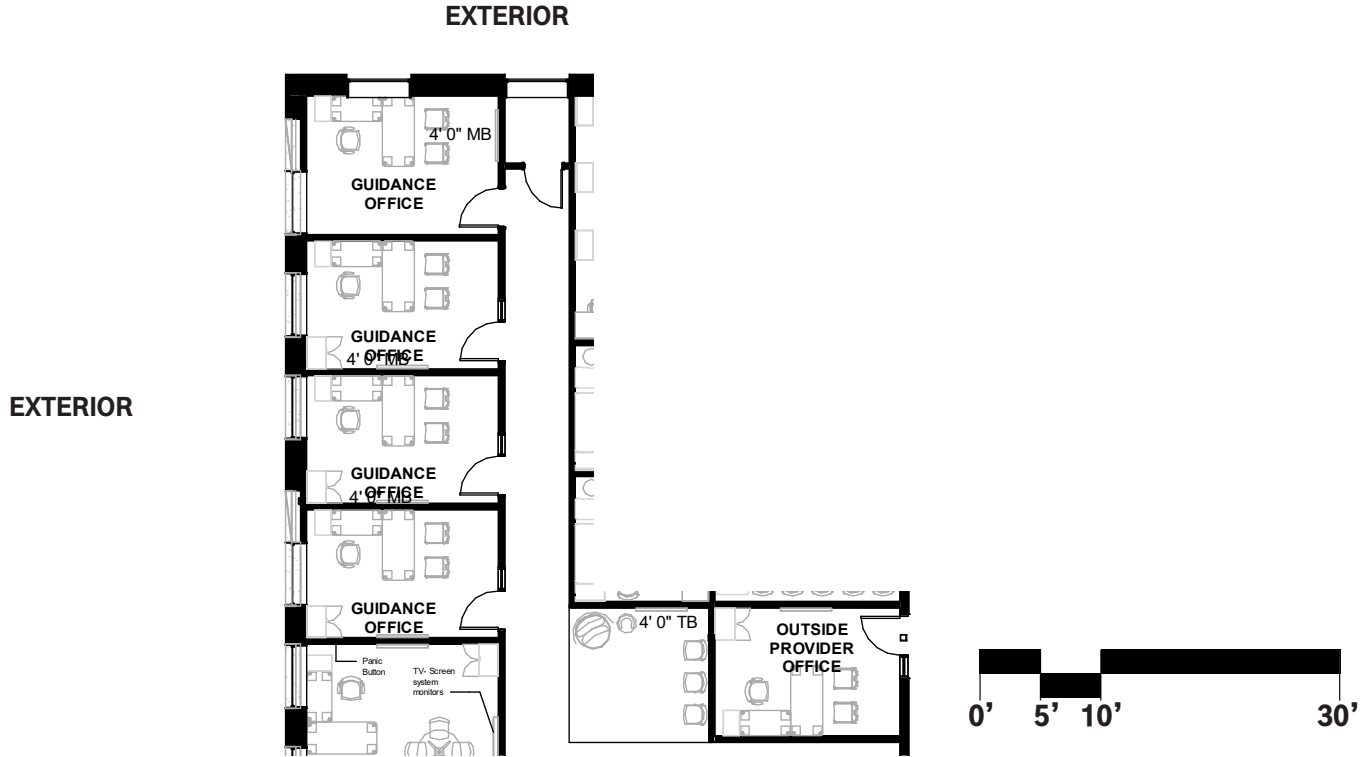
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**34. GUIDANCE SUITE**



**GENERAL CRITERIA**

Description:

Guidance counselor provide offices for the school psychologists, meetings with students, and an area to store materials. These offices are less visible to the main circulation areas for privacy.

Total Area: 850 SF

Areas/Quantities:

- (4) Guidance Offices @ 600 SF
- (1) Guidance Storeroom @ 50 SF
- (1) Guidance storageroom 150 SF
- (1) Waiting room @100 SF
- (1) Outside Provider Offices@125 SF

Users: (2-4) guidance counselors

**MILLWORK / CASEWORK**

- N/A

**SPECIALTIES**

Visual Display boards / accessories:

- (5) 4'-0" Magnetic Whiteboards
- (6) 4'-0" Bulletin Board

Window Treatments:

- Woven fabric translucent roller shades

Adjacencies:

- Administration suite

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 34. GUIDANCE SUITE

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Office lockset for offices

##### Electrical:

- General duplex receptacles
- Receptacles for workstations

##### Architectural Finishes:

- Floor: Carpet
- Base: 4" Resilient vinyl
- Walls: GWB; painted
- Ceiling: ACT

Data / Communication: Hardwired data outlet (2 data ports) per office

- Hardwired data outlet (2 data ports) for wireless access points

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between general classrooms and adjacent spaces: 50

##### Plumbing:

- N/A

##### Public Address / Clock:

- (1) Digital Clock and display screen per office.
- (1) Emergency Call Switch per office

##### Mechanical:

- Individual climate control
- Air conditioning

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage

##### Lighting:

- 2x2 fixture dimmable LED fixtures with combination occupancy/daylight sensor (per office)



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 34. GUIDANCE SUITE

#### FIXTURES, FURNITURE & EQUIPMENT

Fixtures included in FF&E contract:

- N/A

Equipment/Technology included in FF&E contract:

- N/A

Furniture:

- (5) Office desks. With lock
- (5) Desk chairs for Guidance office
- (8) Two Desk Chairs in each office for students/ guests
- (4) Chairs in waiting room
- (1) Table for waiting room, coffee table
- (5) one bulletin board in waiting room and one in each office.

#### OTHER INFORMATION

NOTES:



**34. GUIDANCE SUITE**

Review Comments:

Reviewed by:

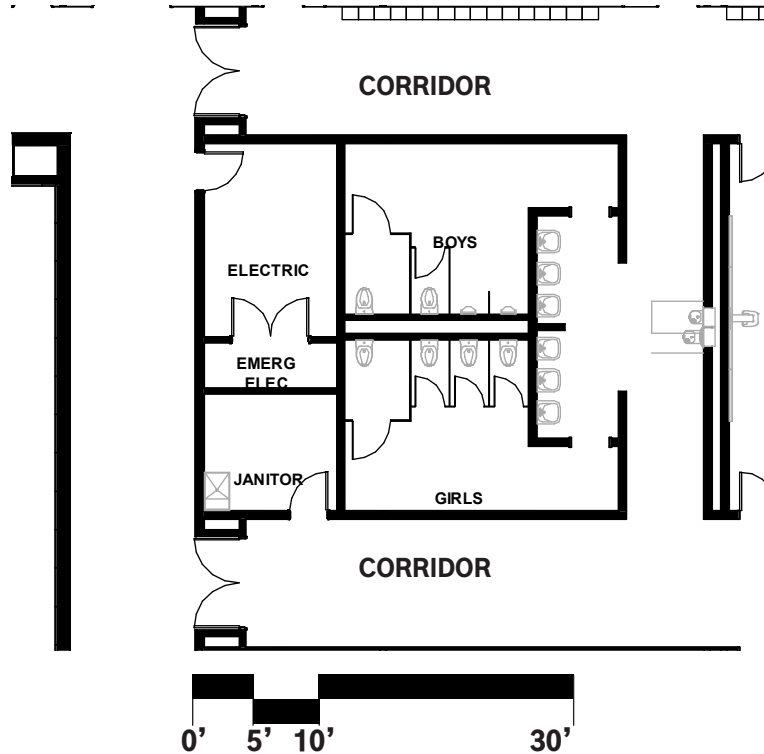
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**35. STUDENT TOILET ROOMS**



**GENERAL CRITERIA**

Description:

Student toilet rooms to be distributed throughout the school. Airport-style open bathrooms entrances are desirable, with visible hand-washing area

Quantity: 10 total (5 Boys & 5 Girls toilet rooms)

Area/Quantities:

- (4) Toilet rooms @ 230–270 SF
- (4) Toilet rooms @ 235–270 SF
- (7–8) Gender neutral bathrooms
- Potentially sim open hand washing area.

Users:

- 1–4 Students
- Monitors as required

Adjacencies:

- (1) Boys and (1) Girls, located at intersection of grade clusters on each floor

**MILLWORK / CASEWORK**

N/A

**SPECIALTIES**

Visual Display boards / accessories:  
 N/A

Window Treatments:  
 N/A

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 35. STUDENT TOILET ROOMS

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Office lockset with vacancy indicators at doors

##### Architectural Finishes:

- Floor/Base: Epoxy
- Walls: Ceramic tile (full height)
- Ceiling: ACT
- Sound Transmission Coefficient (STC) rating between Student Toilet Rooms and adjacent spaces: 53

##### Acoustical Requirements:

##### Plumbing:

- Accessible sinks with mixing valves
- Low-flush toilets with hardwired electric flushometers
- Low-flush urinals with hardwired electric flushometers
- Floor Drains
- Hose bib in lockable box with universal key

##### Mechanical:

- Exhaust ventilation as required
- Air conditioning

##### Lighting:

Recessed can LED fixtures (per toilet room)  
(per toilet room)  
Occupancy/Motion sensor (per toilet room)

##### Electrical:

- GFCI duplex receptacles
- Power for electrical hand dryers
- Touch less flushometers – hardwired
- Touch less Faucets–hardwired

##### Data / Communication:

N/A

##### Public Address / Clock:

- PA Speaker

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75cd strobe





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 35. STUDENT TOILET ROOMS

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (2) Soap dispensers (per toilet room)
- Toilet paper dispensers (one at each toilet)
- (1) Paper towel dispenser (per toilet room)
- Built-in or free-standing waste receptacles
- Other owner-supplied accessories

##### Fixtures included in GC contract:

- Grab bars as required for accessibility
- Toilet partitions
- (2) Electric hand dryers (per toilet room) Low decibel high velocity hand dryer in each public toilet room

##### Furniture included in FF&E contract:

N/A

##### Equipment/Technology included in FF&E contract:

##### Equipment included in GC Contract:

- BMS System: Open to recommendations
- Vape sensors

#### OTHER INFORMATION

##### NOTES:

Soap dispenser, paper towel dispenser, and toilet paper dispenser furnished by owner and installed by CM.



**35. STUDENT TOILET ROOMS**

Review Comments:

Reviewed by:

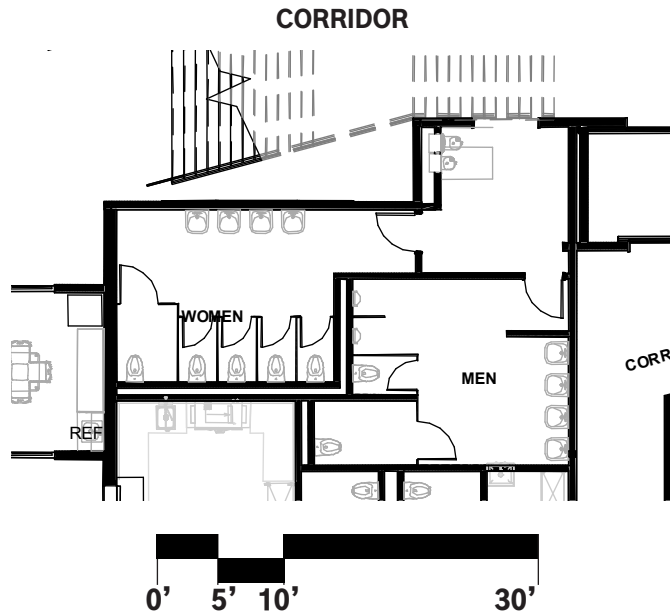
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**36. PUBLIC TOILET ROOMS**



**GENERAL CRITERIA**

Description:

Accessible toilet rooms for the public, located off of the main Lobby.

**MILLWORK / CASEWORK**

N/A

Area:

Womens @ 230 SF

Mens @ 200 SF

Quantity: (2)

**SPECIALTIES**

Users:

1-4 Students or Adults

Monitors as required

Visual Display boards / accessories:

N/A

Window Treatments:

N/A

Adjacencies:

- (2) One Womens and one Mens @ main lobby
- Also in main admin, 4th grade wing, 5th grade wing, and gender-neutral at 7th/8th grade wing

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 36. PUBLIC TOILET ROOMS

#### TECHNICAL CRITERIA

##### Finish Hardware:

Door Closers

##### Electrical:

- GFCI duplex receptacles
- Power for electrical hand dryers

##### Architectural Finishes:

- Floor/Base: Epoxy
- Walls: Ceramic tile (full height)
- Ceiling: ACT

##### Data / Communication:

N/A

##### Acoustical Requirements:

- Sound Transmission Coefficient (STC) rating between Public Toilet Rooms and adjacent spaces: 53

##### Plumbing:

- Accessible sinks with mixing valves
- Low-flush toilets with hardwired electric flushometers
- Low-flush urinals with hardwired electric flushometers
- Floor Drains
- Hose bib with lockable box and universal key

##### Public Address / Clock:

- PA Speaker

##### Mechanical:

- Exhaust ventilation as required
- Air conditioning

##### Fire Protection / Fire Alarm:

- Light-Hazard Sprinkler Coverage
- (1) 75cd strobe

##### Lighting:

Recessed can LED fixtures per toilet room  
Occupancy/Motion sensor per toilet room



# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 36. PUBLIC TOILET ROOMS

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (2) Soap dispensers (per toilet room)
- Toilet paper dispensers (one at each toilet)
- (1) Paper towel dispenser (per toilet room)
- Built-in or free-standing waste receptacles

##### Fixtures included in GC contract:

- Grab bars as required for accessibility
- Toilet partitions
- Mirrors
- (2) Electric hand dryers (per toilet room)
  - Low decibel high velocity hand dryer in each public toilet room

##### Equipment/Technology included in FF&E contract:

Equipment included in GC Contract

#### OTHER INFORMATION

##### NOTES:

Soap dispenser, paper towel dispenser, and toilet paper dispenser furnished by owner and installed by CM.



**36. PUBLIC TOILET ROOMS**

Review Comments:

Reviewed by:

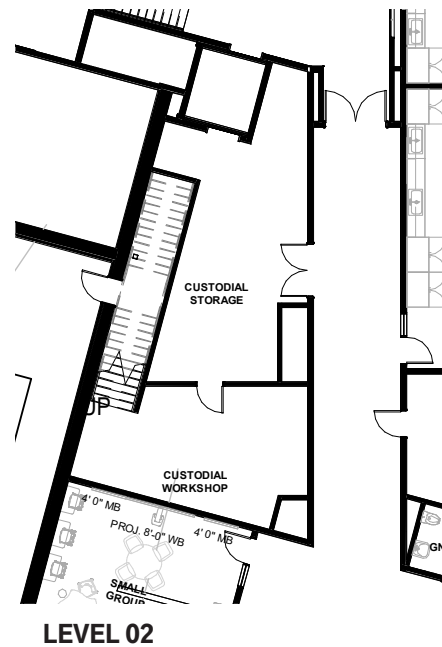
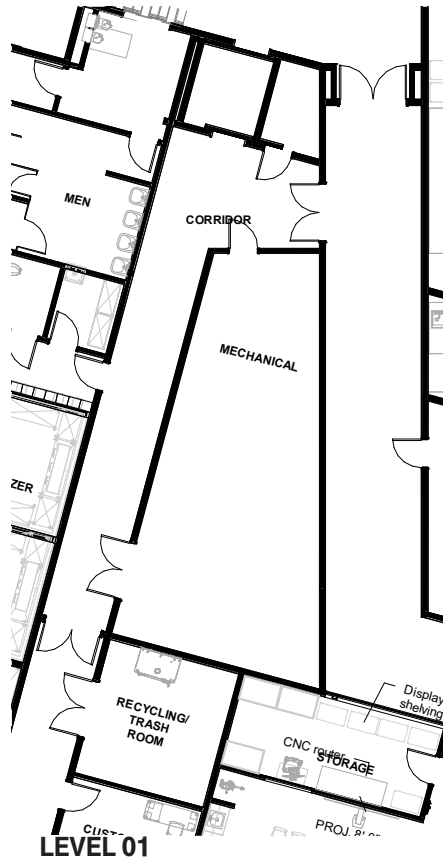
Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



**37. CUSTODIAL & MECHANICAL**



**GENERAL CRITERIA**

**Description:**

Building facilities maintenance area includes Custodian's spaces, a telecom room, receiving area and storage adjacent to mechanical and electrical spaces.

Area: 2,175 SF (Custodial & Maintenance)

- Custodian's Office @ 150 SF
- Custodian's Toilet Room
- Custodian's Workshop @ 250 SF
- Custodian's Storage @ 375 SF
- Receiving and General Supply @ 333 SF
- Storeroom @ 467 SF
- Network/Telecom Room @ 200 SF
- Mechanical Room as required
- Electric Rooms as required

**Users:**

(1-2) Custodians

**Adjacencies:**

- Exterior, Mechanical room, Receiving area

**Millwork/Casework:**

N/A

**Specialties:**

**Visual Display boards / accessories:**

- (1) 8'-0" Magnetic white board

**Window Treatments:**

N/A

**Miscellaneous:**

Overhead door to mechanical room

# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 37. CUSTODIAL & MECHANICAL

#### TECHNICAL CRITERIA

##### Finish Hardware:

- Door closers
- Exit devices
- Storeroom lockset at storage door
- Exterior hardware at exterior doors
- Office lockset at office
- Overhead doors

##### Architectural Finishes:

- Floor: Sealed concrete, Epoxy in toilet room, Carpet in office
- Base: 4" Resilient vinyl
- Walls: Painted GWB, CT in toilet room
- Ceiling: Exposed structure, painted
- Cleanable durable surfaces, such as ceramic tile walls

##### Acoustical Requirements:

Sound Transmission Coefficient (STC) rating at partitions for Mechanical Room & Custodian's Workshop: 60

##### Plumbing:

- (1) Accessible, unisex staff toilet room
- Floor sink in Storage rooms
- Hose bib for cleaning at storage rooms and loading dock.
- Floor drains in Mechanical room
- Water wall hydrant for cleaning

##### Mechanical:

Exhaust ventilation as required

##### Lighting:

- (21) 1x4 Utility LED fixtures
- (7) 2'x2' LED fixtures
- (8) Recessed can LED fixtures
- ON/OFF controls at the doors

##### Electrical:

- (8) General duplex receptacles
- (2) Quad receptacle for 2 workstations
- Exterior power receptacle near exterior door
- Charging ports and double door for ride on floor machines

##### Data / Communication:

- (2) Hardwired data ports at office
- Connections for access control at maintenance entrance

##### Public Address / Clock:

- (1) Digital Clock and Display Screen
- (1) PA ceiling speaker

##### Fire Protection / Fire Alarm:

- Audiovisual devices as appropriate (TBD)





# Clinton Middle School

100 W Boylston St, Clinton, MA 01510

## SCHEMATIC DESIGN

ROOM DATA SHEETS

### 37. CUSTODIAL & MECHANICAL

#### FIXTURES, FURNITURE & EQUIPMENT

##### Fixtures included in FF&E contract:

- (1) Electric hand dryer (in toilet room)
- (1) Soap dispenser (in toilet room)
- (1) Toilet paper dispensers
- (1) Paper towel dispenser
- (1) Coat hook (in toilet room)
- Free-standing waste receptacle

##### Furniture:

- (2) Office desks
- (2) Desk chairs
- (1-2) 42" Filing cabinet in office
- (1-2) 42" File cabinets (in custodian workshop)
- (1) Workbench (in custodian workshop)  
Drill press, Tool box, Shelving
- Tools & Benches will come over from existing school
- Adjustable shelving units as required
- Wire Shelving in storage room
- (4 )Lockers: 4 Lockers stacked, half height  
[locate in shop]
- 2 dumpsters (serviced by town) at loading dock

#### OTHER INFORMATION

##### Equipment/Technology included in FF&E contract:

- Computer equipment for systems control & alarm system in office. (BMS System)
- Access control system at exterior doors
- Control of Video Entrance System (IT department typically handles)
- Video/Card reader access at loading dock is desirable
- 1 floor scrubber on floor machines
- Generator  
At a minimum, the proposed generator should support basic heating/cooling, and functionality for the community use areas, corridors and bathrooms.
- Outdoor Equipment in Store room
  - Any large maintenance equipment is stored across street at athletic complex.
  - 3-4 Snowblowers
  - Potentially smaller mower/tractor
  - Plows & Mowers kept across the street
  - No large equipment
- Smaller equipment stored within the building.
  - List of equipment:
    - Small lawn mower, snow blower, weed trimmer
- Chemical Distribution system

#### NOTES:



**37. CUSTODIAL & MECHANICAL**

Review Comments:

Reviewed by:

Name, Title:

Date:

_____	_____
_____	_____
_____	_____
_____	_____



## 4.1.2 SCHEMATIC DESIGN BINDER

---

### M. Proposed Construction

#### Methodology

1. Construction  
Methodology Narrative
2. OIG Notice to Proceed
3. Phasing Plans

## **CONSTRUCTION METHODOLOGY**

The Owner has had the opportunity to review both construction delivery methods available for this project (Design, Bid, Build (DBB) – Ch. 149, and CM at Risk (CMR) – Ch. 149A) and selected the CM at Risk delivery method. The Owner's Project Manager (Dore & Whittier Management Partners) provided the Owner with an in-depth review of both delivery methods and their respective advantages and disadvantages in a School Building Committee meeting on August 22, 2023.

As part of the Owner's decision-making process the following advantages of CMR vs. DBB were cited:

- Knowing who you will get as your contractor (interview process)
- Opportunity for a more collaborative working relationship
- Having estimating input from the CM in advance of bidding
- Opportunity for design and value engineering input prior to bidding
- Opportunity for clash detection as part of an integrated BIM process
- Opportunity to reduce construction duration through early release packages
- Opportunity to maintain adequate safety protocols while working in a phased occupied construction project

It was also noted that DBB could be less expensive than CMR (initial bidding comparisons).

The Owner submitted an application to the Inspector General's office to pursue the CMR delivery method and received approval on November 16, 2023. A copy of the CMR application and Inspector General approval are provided below. Owner Meeting Minutes approving CMR as the preferred construction delivery method are also included in Appendix 4.1.2.19b.

The Schematic Design Estimates, proposed project schedule, estimated reimbursement rate and Total Project Budget Spreadsheet reflect the CMR delivery method.

November 16, 2023

*Via Electronic Mail*

Michael Ward, Town Administrator  
Town of Clinton  
242 Church Street  
Clinton, MA 02510  
MWard@clintonma.gov

**Re: Application to Use the Construction Management At-Risk Alternative Delivery Method for the Clinton Middle School Project**

Dear Mr. Ward:

On October 23, 2023, pursuant to Chapter 149A of the Massachusetts General Laws and 945 CMR 2.00, the town of Clinton (Clinton) submitted to the Office of the Inspector General (Office) an application to use the construction management at-risk (CM at-risk) alternative delivery method for the Clinton Middle School project.

Based on all the information provided, Clinton has met the statutory requirements for using the CM at-risk delivery method for the project. Accordingly, the Office is issuing this notice to proceed to use the CM at-risk delivery method as specified in M.G.L. c. 149A, §§ 1-13.

This approval is conditioned on Clinton using a CM at-risk firm that the Division of Capital Asset Management and Maintenance (DCAMM) has certified, as well as DCAMM-certified trade contractors. Therefore, Clinton must require each CM at-risk firm to supply both a certificate of eligibility and an update statement during both the prequalification phase and the technical proposal phase of the selection process. In addition, Clinton must require each trade contractor to supply a certificate of eligibility and an update statement during the prequalification phase and again at the bidding phase of the selection process. Clinton must reject as invalid all contractors' statements of qualifications, proposals and bids that do not provide such certificates of eligibility or update statements.

If, during the course of the project, Clinton changes its owner's project manager or designer, please submit information about the new project manager or designer to the Office. Also, if Clinton decides not to proceed with the CM at-risk delivery method, please notify the Office.

Additionally, as the project progresses, please provide the following information to the Office via [igo-chapter149A@mass.gov](mailto:igo-chapter149A@mass.gov):

- 1) Selected CM at-risk firm,
- 2) Date the initial cost-plus CM at-risk contract was signed,
- 3) Date physical on-site work started,

Michael Ward  
November 16, 2023  
Page 2 of 2

- 4) Date the guaranteed maximum price (GMP) was set,
- 5) Percent of design document completion when the GMP was set,
- 6) Date of substantial completion, and
- 7) Final total cost of the project.

Please feel free to contact Kerri-Anne Hollingshead, Senior Policy Analyst, at [Kerri-Anne.Hollingshead@mass.gov](mailto:Kerri-Anne.Hollingshead@mass.gov) or 617-722-8871 or me at [Jeffrey.S.Shapiro@mass.gov](mailto:Jeffrey.S.Shapiro@mass.gov) or 617-722-8806 if you have any questions or concerns regarding this building process approval.

Sincerely,



Jeffrey S. Shapiro  
Inspector General

cc (by email):

Trip Elmore, Project Director, Dore & Whittier  
Elias Grijalva, Assistant Project Manager, Dore & Whittier  
Kerri-Anne Hollingshead, Senior Policy Analyst, Office of the Inspector General  
Nataliya Urciuoli, Executive Assistant to the Inspector General

## Existing Conditions



## GENERAL NOTES

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

DRAWN BY  
Fontaine Bros.  
DESCRIPTION  
Site Logistics Plan

PROJECT  
Clinton Middle  
School

ISSUE  
December 10,  
2023

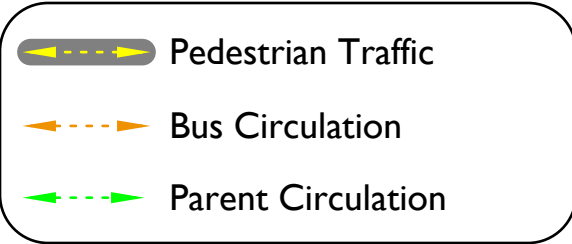
CLIENT  
MSBA

**FONTAINE BROS., INC.**  
CONSTRUCTION MANAGERS  
GENERAL CONTRACTORS

SL

01

1st Day of School 2025



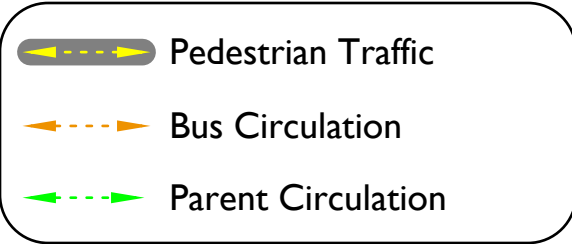
- ① 8' Site Fence w/ Privacy Screen
- ② Ring Road Paved w Binder
- ③ Contractor Parking (70 Car Capacity)
- ④ FBI & Dore + Whittier Field Office
- ⑤ Existing Bus Loop
- ⑥ Existing Student Drop Off Loop
- ⑦ Subcontractor Conex Boxes
- ⑧ Primary Site Access Gate
- ⑨ Emergency Site Access Gate
- ⑩ Temporary ADA Sidewalk

**GENERAL NOTES**

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.



Construction 2025



- |  |                                  |
|--|----------------------------------|
| ① 8' Site Fence w/ Privacy Screen      | ⑥ Existing Student Drop Off Loop |
| ② Ring Road Paved w Binder             | ⑦ Subcontractor Conex Boxes      |
| ③ Contractor Parking (70 Car Capacity) | ⑧ Primary Site Access Gate       |
| ④ FBI & Dore + Whittier Field Office   | ⑨ Emergency Site Access Gate     |
| ⑤ Existing Bus Loop                    | ⑩ Temporary ADA Sidewalk         |

**GENERAL NOTES**

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

Summer 2026

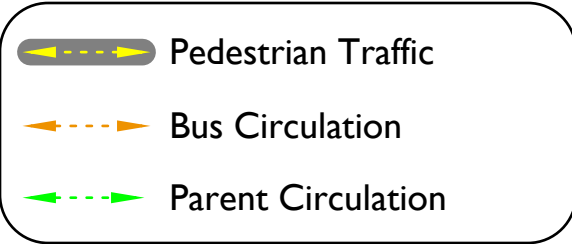


- |  |                              |
|--|------------------------------|
| ① 8' Site Fence w/ Privacy Screen      | ⑥ Plate Roadway as Required  |
| ② Ring Road Paved w Binder             | ⑦ Subcontractor Conex Boxes  |
| ③ Contractor Parking (70 Car Capacity) | ⑧ Primary Site Access Gate   |
| ④ FBI & Dore + Whittier Field Office   | ⑨ Emergency Site Access Gate |
| ⑤ Site Utility Installation            | ⑩ Dumpsters                  |

### GENERAL NOTES

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

1st Day of School 2026



- ① 8' Site Fence w/ Privacy Screen
- ② Ring Road Paved w Binder
- ③ Contractor Parking (70 Car Capacity)
- ④ FBI & Dore + Whittier Field Office
- ⑤ Existing Bus Loop
- ⑥ Existing Student Drop Off Loop
- ⑦ Patch Roadway as Required
- ⑧ Primary Site Access Gate
- ⑨ Emergency Site Access Gate
- ⑩ Temporary ADA Sidewalk

**GENERAL NOTES**

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

Summer 2027



- ① 8' Site Fence w/ Privacy Screen
- ② Permanent Ring Road
- ③ Contractor Parking
- ④ FBI & Dore + Whittier Field Office
- ⑤ Demolition Phase Site Access Gate
- ⑥ School Staff & FFE Parking
- ⑦ Basketball Court Complete
- ⑧ Primary Site Access Gate
- ⑨ Emergency Site Access Gate
- ⑩ Dumpsters

### GENERAL NOTES

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

1st Day of School 2027



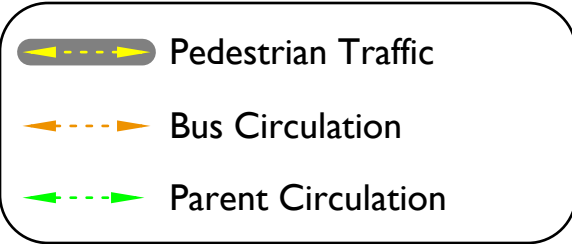
- Pedestrian Traffic
- Bus Circulation
- Parent Circulation

- ① 8' Site Fence w/ Privacy Screen
- ② Site Utilities & Prep for Final Paving
- ③ School Overflow Parking
- ④ New Middle School Staff Parking
- ⑤ New Bus Loop
- ⑥ New Student Drop Off Loop
- ⑦ FBI & Dore + Whittier Field Office
- ⑧ Primary Site Access Gate
- ⑨ Contractor Parking
- ⑩ Landscape & Hardscape Complete

**GENERAL NOTES**

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

Fall 2027



- ① 8' Site Fence w/ Privacy Screen
- ② Subcontractor Parking as Required
- ③ Finalize Site Utility Installation
- ④ New Middle School Staff Parking
- ⑤ New Bus Loop
- ⑥ New Student Drop Off Loop
- ⑦ Primary Site Access Gate
- ⑧ Finalize Soccer Field Installation
- ⑨ Landscape & Hardscape Complete

**GENERAL NOTES**

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

Final Completion



### GENERAL NOTES

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

DRAWN BY  
Fontaine Bros.  
DESCRIPTION  
Site Logistics Plan

PROJECT  
Clinton Middle  
School

ISSUE  
December 10,  
2023

CLIENT  
MSBA

**FONTAINE BROS., INC.**  
CONSTRUCTION MANAGERS  
GENERAL CONTRACTORS

SL

Proximity



### GENERAL NOTES

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

DRAWN BY  
Fontaine Bros.  
DESCRIPTION  
Site Logistics Plan

PROJECT  
Clinton Middle  
School

ISSUE  
December 10,  
2023

CLIENT  
MSBA

**FONTAINE BROS., INC.**  
CONSTRUCTION MANAGERS  
GENERAL CONTRACTORS

SL



Drop Off Loop (Looking East)



### GENERAL NOTES

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

Drop Off Loop (Looking Southwest)



### GENERAL NOTES

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

DRAWN BY  
Fontaine Bros.  
DESCRIPTION  
Site Logistics Plan

PROJECT  
Clinton Middle  
School

ISSUE  
December 10,  
2023

CLIENT  
MSBA

**FONTAINE BROS., INC.**  
CONSTRUCTION MANAGERS  
GENERAL CONTRACTORS

**SL**

Site Entrance



**GENERAL NOTES**

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

## Delivery Blackout Hours



### GENERAL NOTES

All construction logistics and activities to be coordinated with The Town of Clinton, the adjacent residences, and Dore + Whittier to ensure the safety of the students, staff, the public, and all construction personnel.

## 4.1.2 SCHEMATIC DESIGN BINDER

---

N. District's Anticipated  
Reimbursement Rate

**REIMBURSEMENT RATE**

The Clinton District’s anticipated reimbursement rate is calculated as follows:

<b>Category</b>	<b>Reimbursement Points</b>
Reimbursement Rate before Incentives	72.59%
Maintenance	1.65%
Major Reconstruction or Reno/Reuse type	0%
Energy Efficiency “Green Schools”	4.00%
<b>Anticipated MSBA Reimbursement Rate with Incentives</b>	<b>78.24%</b>

## 4.1.2 SCHEMATIC DESIGN BINDER

---

- O. Total Project Budget
  - 1. Total Project Budget Spreadsheet
  - 2. Summary of Cost Reconciliation between Designer and OPM Cost Estimates
  - 3. Proposed Schedule of Alternates Certification

Enter Budget Values for Ineligible Costs in light yellow highlighted cells.

NOTE that ineligible costs can not exceed Estimated Budget Cost for any individual line item, distribute across multiple lines if needed.

Date Revised: December 2023  
 incorporates revisions to MSBA's project funding limits policy, which was approved at October 25, 2023 MSBA Board of Directors Meeting.

Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(5)	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant <sup>1</sup>	Estimated Maximum Total Facilities Grant <sup>1</sup>
<b>Feasibility Study Agreement</b>				
OPM Feasibility Study	\$290,600	\$0	\$290,600	
A&E Feasibility Study	\$600,000	\$0	\$600,000	
Environmental & Site	\$70,000	\$0	\$70,000	
Other	\$39,400	\$0	\$39,400	
<b>Feasibility Study Agreement Subtotal</b>	<b>\$1,000,000</b>	<b>\$0</b>	<b>\$1,000,000</b>	<b>\$782,400</b>
<b>Administration</b>				
Legal Fees	\$30,000	\$30,000	\$0	\$0
<b>Owner's Project Manager</b>				
Design Development	\$392,000	\$0	\$392,000	Cell C13 - Scope Excluded OPM Fees (Cell I40)
Construction Contract Documents	\$562,000	\$43,457	\$518,543	
Bidding	\$181,000	\$0	\$181,000	Cell C15 - Costs beyond MSBA funding cap for OPM Basic Services (Cell K48)
Construction Contract Administration	\$2,400,000	\$1,289,143	\$1,110,857	
Closeout	\$125,000	\$0	\$125,000	
Extra Services	\$0	\$0	\$0	
Reimbursable & Other Services	\$0	\$0	\$0	
Cost Estimates	\$40,000	\$0	\$40,000	
Advertising	\$2,000	\$0	\$2,000	
Permitting	\$0	\$0	\$0	
Owner's Insurance	\$350,000	\$0	\$350,000	
Other Administrative Costs	\$50,000	\$50,000	\$0	
<b>Administration Subtotal</b>	<b>\$4,132,000</b>	<b>\$1,412,600</b>	<b>\$2,719,400</b>	<b>\$2,127,659</b>
<b>Architecture and Engineering</b>				
<b>Basic Services</b>				Cell C28 - Scope excluded Designer Fees (Cell I41)
Design Development	\$3,600,000	\$916,300	\$2,683,700	
Construction Contract Documents	\$3,975,000	\$128,700	\$3,846,300	
Bidding	\$200,000	\$0	\$200,000	Cell C30 - Costs beyond MSBA funding cap for Designer Basic Services (Cell K52)
Construction Contract Administration	\$3,175,000	\$3,175,000	\$0	
Closeout	\$150,000	\$0	\$150,000	
Other Basic Services	\$0	\$0	\$0	
<b>Basic Services Subtotal</b>	<b>\$11,100,000</b>	<b>\$4,220,000</b>	<b>\$6,880,000</b>	
<b>Reimbursable Services</b>				
Construction Testing - TEDI	\$200,000	\$0	\$200,000	
Printing (over minimum)	\$10,000	\$0	\$10,000	
Other Reimbursable Costs	\$5,000	\$0	\$5,000	
Hazardous Materials	\$300,000	\$0	\$300,000	
Geotechnical & Geo-Environmental	\$250,000	\$0	\$250,000	
Site Survey	\$80,000	\$0	\$80,000	
Wetlands	\$0	\$0	\$0	
Traffic Studies	\$60,000	\$0	\$60,000	
<b>Architectural / Engineering Subtotal</b>	<b>\$12,005,000</b>	<b>\$4,220,000</b>	<b>\$7,785,000</b>	<b>\$6,090,984</b>
<b>CM at Risk Pre-Construction Services</b>				
Pre-Construction Services	\$273,000	\$0	\$273,000	\$213,595
<b>Site Acquisition</b>				
Land / Building Purchase	\$0	\$0	\$0	
Appraisal Fees	\$0	\$0	\$0	
Recording fees	\$0	\$0	\$0	
<b>Site Acquisition Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Construction Costs</b>				
<b>SUBSTRUCTURE</b>				
Foundations	\$2,869,461			
Basement Construction	\$1,303,725			
<b>SHELL</b>				
Super Structure	\$7,609,135			
Exterior Closure	\$0			
Exterior Walls	\$6,345,675			
Exterior Windows	\$1,810,945			
Exterior Doors	\$206,850			
Roofing	\$3,898,551			
<b>INTERIORS</b>				
Interior Construction	\$7,052,681			
Staircases	\$361,000			
Interior Finishes	\$5,100,455			
<b>SERVICES</b>				
Conveying Systems	\$216,000			
Plumbing	\$4,151,009			
HVAC	\$11,875,640			
Fire Protection	\$1,108,276			
Electrical	\$8,253,469			
<b>EQUIPMENT &amp; FURNISHINGS</b>				
Equipment	\$1,089,150			
Furnishings	\$2,218,708			
<b>SPECIAL CONSTRUCTION &amp; DEMOLITION</b>				
Special Construction	\$0	\$0		
Existing Building Demolition	\$1,375,000	\$0		
In-Building Hazardous Material Abatement	\$1,515,000	\$0		
Asbestos Containing Floor Material / Ceiling Tile Abatement	\$420,000	\$420,000		
Other Hazardous Material Abatement	\$0	\$0		
<b>BUILDING SITE WORK</b>				

Category	Estimated Budget	Excluded Costs	Eligible Soft Costs
Administration:	\$4,462,000	\$1,412,600	\$3,049,400
A/E Services:	\$12,675,000	\$4,220,000	\$8,455,000
Site Acquisition: Ineligible, therefore not included in calculation			
Miscellaneous Project Costs:	\$850,000	\$250,000	\$600,000
FFE:	\$2,700,000	\$360,000	\$2,340,000
Owners Contingency: Not included in this calculation			
Total Eligible Soft Costs =			\$14,444,400

Category	Estimated Budget
CM Pre-Construction Services:	\$273,000
Construction Cost:	\$114,295,892
Construction Contingency: Not included in this calculation	
Total Construction Cost:	\$114,568,892
Soft Cost Allowance:	20%
Reimbursable Soft Cost:	\$22,913,778
Eligible minus Reimbursable =	\$8,469,378 If >0 enter into Cell C116
-If Eligible minus Reimbursable is negative; OK.	
-If Eligible minus Reimbursable is positive enter value into "Soft Costs that exceed 20% of Construction Cost" below in the Ineligible column.	

Category	Estimated Budget	Excluded (%)	Scope Excluded Costs
OPM Basic Services:	\$3,950,600	1.1000%	\$43,457
Designer Basic Services:	\$11,700,000	1.1000%	\$128,700

Category	Estimated Budget	Excluded (%)	Scope Excluded Costs
OPM Basic Services:	\$3,950,600	0.0000%	\$0
Designer Basic Services:	\$11,700,000	0.0000%	\$0
Total Scope Excluded OPM Fees (\$):			\$0 Enter in Cell C13
Total Scope Excluded Designer Fees (\$):			\$0 Enter in Cell C28

Category	Estimated Budget	Ineligible Costs	Eligible Costs	OPM Value @ 3.50%	Value > 3.5%
Basic Services:	\$3,950,600	\$1,332,600	\$2,618,000	\$2,618,000	\$0
Extra Services:	\$79,400	\$0	\$79,400		\$0
If >0 enter into Cell C15					
Designer Services Estimated Budget	\$11,700,000	\$4,220,000	\$7,480,000	\$7,480,000	\$0
Extra Services:	\$975,000	\$0	\$975,000		\$0
If >0 enter into Cell C30					

Ineligible Building Area	Ineligible NSF	Ineligible Aud/PE GSF	Other Ineligible GSF	Estimated District Cost
Core Academic:	500		750	\$630,308
Special Education:				\$0
Art & Music:	500		750	\$630,308
Vocations & Technology:				\$0
Chapter 74 CTE:				\$0
Health & Physical Education:	1,000	1,500		\$1,260,615
Media Center:				\$0
Auditorium / Drama:				\$0
Dining & Food Service:	1,000		1,500	\$1,260,615
Medical:				\$0
Administration & Guidance:				\$0
Custodial & Maintenance:				\$0
Other:				\$0
<b>Total:</b>		<b>1,500</b>	<b>3,000</b>	<b>\$3,781,846</b>
Grossing Factor:	1.50			

Category	Estimated Budget	Construction Budget	Mark Up Ratio
Construction Budget	\$114,295,892	\$114,295,892	
Construction Trades Subtotal	\$84,046,467	\$84,046,467	1.359913106 = Mark Up Ratio

Category	Estimated Budget	Eligible Costs
Total Demolition and Abatement Costs:	\$3,310,000	\$3,310,000
Ineligible Demolition and Abatement Costs:	-\$420,000	
Eligible Demolition and Abatement Costs:	\$2,890,000	\$2,890,000
<b>Marked Up Eligible Costs:</b>	<b>\$3,930,149</b>	



Site Preparation	\$3,332,708	\$0	
Site Improvements	\$7,480,351	\$0	
Site Civil / Mechanical Utilities	\$3,189,146	\$0	
Site Electrical Utilities	\$1,263,532	\$0	
Scope Excluded Site Work	\$0	\$0	
<b>Construction Trades Subtotal</b>	<b>\$84,046,467</b>	<b>\$420,000</b>	
Contingencies (Design and Pricing)	\$8,404,647	\$42,000	
Sub-Contractor Bonds	\$1,239,685	\$6,195	
D/B/B Insurance	\$0	\$0	
General Conditions	\$4,764,608	\$23,810	
D/B/B Overhead & Profit - GR's	\$4,425,600	\$22,116	
GMP Insurance - GL, BRI, PL, WC	\$2,405,250	\$12,020	
GMP Fee	\$2,285,918	\$11,423	
GMP Contingency	\$1,680,929	\$8,400	
Escalation to Mid-Point of Construction	\$5,042,788	\$25,200	
Construction Cost over Funding Cap		\$30,237,079	
<b>Construction Budget</b>	<b>\$114,295,892</b>	<b>\$30,808,243</b>	<b>\$83,487,649</b>
<b>Alternates</b>			
Ineligible Work Included in the Base Project	\$0	\$0	\$0
Alternates Included in the Total Project Budget	\$0	\$0	\$0
Alternates Excluded from the Total Project Budget	\$1,579,565		\$1,579,565
<b>Subtotal to be Included in Total Project Budget</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Miscellaneous Project Costs</b>			
Utility Company Fees	\$300,000	\$0	\$300,000
Testing Services	\$300,000	\$0	\$300,000
Swing Space / Modularity	\$0	\$0	\$0
Other Project Costs (Mailing & Moving)	\$250,000	\$250,000	\$0
<b>Miscellaneous Project Costs Subtotal</b>	<b>\$850,000</b>	<b>\$250,000</b>	<b>\$600,000</b>
Furnishings and Equipment			\$660,000
Furniture, Fixtures, and Equipment	\$1,500,000		\$840,000
Technology	\$1,200,000	\$360,000	\$840,000
<b>FF&amp;E Subtotal</b>	<b>\$2,700,000</b>	<b>\$360,000</b>	<b>\$2,340,000</b>
Soft Costs that exceed 20% of Construction Cost		\$0	\$0
<b>Project Budget</b>	<b>\$135,255,892</b>	<b>\$37,050,843</b>	<b>\$98,205,049</b>

<b>Eligible Site Work Cost</b>	
Total Direct Site Work Costs:	\$15,265,737
Ineligible Site Work Costs:	\$0
Potentially Eligible Direct Site Work Costs:	\$15,265,737
Potentially Eligible Marked Up Site Work Costs:	\$20,760,076
<b>Marked Up Eligible Site Work Costs:</b>	<b>\$7,232,500</b>
<b>Construction Costs and Funding Cap</b>	
Total Building Area (GSF):	136,000
Ineligible Excess Auditorium/PE Areas (GSF):	-1,500
Other Ineligible Building Areas (GSF):	-3,000
Eligible Building GSF:	131,500
<b>Building Cost Funding Limit (\$/sf):</b>	<b>\$550</b>
Eligible Building Costs:	\$72,325,000
Eligible Site Work Costs:	\$7,232,500
Eligible Demolition & Abatement Costs:	+\$3,930,149
<b>Basis of Construction Costs:</b>	<b>\$83,487,649</b>
Construction Budget:	\$114,295,892
Basis of Construction Costs:	-\$83,487,649
Ineligible Construction Costs:	\$30,808,243
Construction Cost over Funding Cap:	\$0
If > 0 enter value into Cell C98	

<b>FF&amp;E Reimbursement</b>	
Eligible Enrollment:	700
Funding Limit:	\$1,200/student
Estimated Budget:	\$840,000
Eligible Costs:	\$840,000
Ineligible Costs:	\$0
Furniture, Fixtures & Equipment: \$1,500,000	
Technology: \$1,200,000	
If > 0 enter in Cell C112	
If > 0 enter in Cell C113	

<b>Incentive Points</b>	
1.65	(0-2) Maintenance
0.00	(0-6) Newly Formed Regional School District
0.00	(0-5) Major Reconstruction or Reno/Reuse type in rounded to 2 decimal places
Cell C113 - Represents the amount exceeding the \$1,200 per student allowance for Technology (Cell J110)	
0 gsf	Renovated or Existing to Remain
0 gsf	Total at Conclusion of Project
If Cell G117 > 0 enter value into Cell F116	
0.00	(0-1) Overly Zoning 40R and 40S
0.00	(0-0.5) Overlay Zoning 100 units or 50% of units 1, 2, or 3 family structures
4.00	(0-4) Energy Efficiency - "Green Schools"
<b>5.65</b>	<b>Total Incentive Points</b>
Owner's Contingency Cap: 0.50%	
Construction Contingency Cap: 1.00%	

<b>Commissioning (Cx) Costs associated with Ineligible Building Area</b>	
Building GSF:	136,000
Cx Fee per GSF:	\$0.92
Ineligible GSF:	4,500
<b>Ineligible Cx Costs:</b>	<b>\$4,140</b> If > 0 enter in Cell B128
<b>Commissioning Fee Schedule</b>	

<b>Cost Recovery associated with Prior Projects</b>	
Prior Project ID Number:	
Prior Project Total Grant:	
Propose School Opens:	
Prior Project Substantial Completion:	
Beneficial use (years):	0.00
Unused Years:	20.00
Unused Years as % of 20:	100.00%
Prior Project Cost Recovery:	\$0
If > 0 enter in Cell B128	

Enter Date. Assume 15th of August if new school opens in September. For example if turnover is June, new school will not be used until September by students.

Enter Date. If only month is known, assume 15th of the month.

<b>Board Authorization</b>	
Design Enrollment	700
Total Building Gross Floor Area (GSF)	136,000
Total Project Budget (excluding Contingencies)	\$135,255,892
Scope Items Excluded or Otherwise Ineligible	-\$37,050,843
Third Party Funding (Ineligible)	-\$0
Estimated Basis of Maximum Total Facilities Grant <sup>1</sup>	\$98,205,049
Reimbursement Rate <sup>1</sup>	78.24%
Est. Max. Total Facilities Grant (before recovery) <sup>1</sup>	\$76,835,630
Cx Costs associated with Ineligible Building Area <sup>2</sup>	-\$4,140
Cost Recovery associated with Prior Projects <sup>2</sup>	-\$0
Estimated Maximum Total Facilities Grant <sup>1</sup>	\$76,831,490

Construction Contingency <sup>3</sup>	\$3,000,000
Ineligible Construction Contingency <sup>3</sup>	\$1,857,041
"Potentially Eligible" Construction Contingency <sup>3</sup>	\$1,142,959
Owner's Contingency <sup>3</sup>	\$1,000,000
Ineligible Owner's Contingency <sup>3</sup>	\$428,521
"Potentially Eligible" Owner's Contingency <sup>3</sup>	\$571,479
Total Potentially Eligible Contingency <sup>3</sup>	\$1,714,438
Reimbursement Rate	78.24%
Potential Additional Contingency Grant Funds <sup>3</sup>	\$1,341,376
Maximum Total Facilities Grant	\$78,172,866
Total Project Budget	\$139,255,892

72.59 Reimbursement Rate Before Incentive Points  
 5.65 Total Incentive Points  
 78.24% MSBA Reimbursement Rate

**NOTES**  
 This template was prepared by the MSBA as a tool to assist Districts and consultants in understanding MSBA policies and practices regarding potential impact on the MSBA's calculation of a potential Basis of Total Facilities Grant and potential Total Maximum Facilities Grant. This template does not contain a final, exhaustive list of all evaluations which the MSBA may use in determining whether items are eligible for reimbursement by the MSBA. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed school project that may or may not agree with the estimates generated by the District using this template.

1 - The Estimated Basis of Total Facilities Grant and Estimated Maximum Facilities Grant amounts do not include any potentially eligible contingency funds and are subject to review and audit by the MSBA.

2 - Costs associated with the commissioning of ineligible building area is estimated to result in the recovery of a portion of the overall commissioning cost. The OPM has estimated this recovery of funds to be \$ . The proposed demolition of the Clinton Middle School is expected to result in the MSBA recovering a portion of state funds previously paid to the District for the \_\_\_\_\_ project at the existing facilities completed in \_\_\_\_\_. The MSBA will perform an independent analysis based on a review of its records and information and estimates provided by the District for the proposed school project that may or may not agree with the estimated cost recovery generated by the District and its consultants using this template.

3 - Pursuant to Section 3.21 of the Project Funding Agreement and the applicable policies and guidelines of the Authority, any project costs associated with the reallocation or transfer of funds from either the Owner's contingency or the Construction contingency to other budget line items shall be subject to review by the Authority to determine whether any such costs are eligible for reimbursement by the Authority. All costs are subject to review and audit by the MSBA.

By signing this Total Project Budget, I hereby certify that I have read and understand the form and further certify, to the best of my knowledge and belief, that the information supplied by the District in the table above is true, accurate, and complete.

*Chris McGown*  
 By: Chris McGown  
 Title: Chair of School Building Committee  
 Date: 2/21/2024

By signing this Total Project Budget, I hereby certify that I have read and understand the form and further certify, to the best of my knowledge and belief, that the information supplied by the District in the table above is true, accurate, and complete.

*Michael Ward*  
 By: Michael Ward  
 Title: Chief Executive Officer  
 Date: 2/21/2024

By signing this Total Project Budget, I hereby certify that I have read and understand the form and further certify, to the best of my knowledge and belief, that the information supplied by the District in the table above is true, accurate, and complete.

*Steven Meyer*  
 By: Steven Meyer  
 Title: Superintendent of Schools  
 Date: 2/21/2024

By signing this Total Project Budget, I hereby certify that I have read and understand the form and further certify, to the best of my knowledge and belief, that the information supplied by the District in the table above is true, accurate, and complete.

*Brendan Bailey*  
 By: Brendan Bailey  
 Title: Chair of the School Committee  
 Date: 2/21/2024

## SUMMARY OF COST RECONCILIATION

Estimates for the project were compiled by A.M. Fogarty & Associates, Inc., collaborating as part of the Lamoureux Pagano Associates | Architects, and Fontaine Bros. Both estimating teams received comprehensive materials from the Designer and had full access to the building, site, scoping narratives, and committee minutes as necessary. On February 2nd, 2024, the entire project team convened to reconcile disparities between the two estimates. This reconciliation session led to a consensus on the overall project scope and projected cost.

The two independent estimates were reconciled to within a margin of less than 0.5% of each other: A.M. Fogarty & Associates at \$113,738,176 and Fontaine Bros. Construction at \$114,298,940, with a difference of \$560,764 between the two construction estimates. These cost estimates are detailed in section 4.1.2, labeled P and Q.

Initial reconciled estimates indicated that both estimators slightly exceeded the budget. Consequently, the team identified several Value Engineering options to stay within budget. Ultimately, a reduction in Landscaping Plantings was recommended as a Value Engineering measure. This proposal was presented to the SBC and was approved during the PBC/SBC Meeting on February 20th, 2024. The Total Project Budget is based on the reconciled estimates, incorporating the Value Engineering adjustment.

### Clinton Middle School - Schematic Design Estimate - Cost Comparison Sheet

CSI Division	Cost/SF	Total Amount	A.M. Fogarty	Variance
02-0000 EXISTING CONDITIONS & DEMO	136,000 sf	24.36 /sf \$ 3,312,500	\$ 3,105,000	\$ 207,500
03-0000 CONCRETE	136,000 sf	28.23 /sf \$ 3,839,756	\$ 3,351,159	\$ 488,597
04-0000 MASONRY	136,000 sf	20.30 /sf \$ 2,760,148	\$ 2,156,931	\$ 603,217
05-0000 METALS	136,000 sf	52.63 /sf \$ 7,157,300	\$ 7,267,076	\$ (109,776)
06-0000 ROUGH CARPENTRY	136,000 sf	3.44 /sf \$ 467,755	\$ 613,151	\$ (145,396)
06-2000 FINISH CARPENTRY	136,000 sf	2.82 /sf \$ 383,468	\$ 527,058	\$ (143,590)
07-0000 THERMAL & MOIST PROTECT	136,000 sf	17.86 /sf \$ 2,429,580	\$ 2,692,642	\$ (263,062)
07-5000 ROOFING	136,000 sf	19.26 /sf \$ 2,620,000	\$ 2,945,469	\$ (325,469)
07-8000 FIREPROOFING / CAULKING	136,000 sf	3.39 /sf \$ 460,800	\$ 1,109,634	\$ (648,834)
08-0000 DOORS & WINDOWS	136,000 sf	31.67 /sf \$ 4,307,740	\$ 3,876,471	\$ 431,269
09-0000 FINISHES	136,000 sf	73.32 /sf \$ 9,970,859	\$ 10,121,941	\$ (151,082)
10-0000 SPECIALTIES	136,000 sf	7.21 /sf \$ 980,010	\$ 1,098,340	\$ (118,330)
11-0000 EQUIPMENT	136,000 sf	8.15 /sf \$ 1,108,150	\$ 1,525,536	\$ (417,386)
12-0000 FURNISHINGS	136,000 sf	15.62 /sf \$ 2,123,980	\$ 1,880,655	\$ 243,325
14-0000 CONVEYING SYSTEMS	136,000 sf	1.58 /sf \$ 215,000	\$ 170,000	\$ 45,000
21-0000 FIRE SUPPRESSION	136,000 sf	8.15 /sf \$ 1,108,276	\$ 1,052,800	\$ 55,476
22-0000 PLUMBING	136,000 sf	27.98 /sf \$ 3,805,067	\$ 3,984,580	\$ (179,513)
23-0000 HVAC	136,000 sf	87.32 /sf \$ 11,875,640	\$ 12,310,034	\$ (434,394)
26-0000 ELECTRICAL	136,000 sf	60.58 /sf \$ 8,239,469	\$ 9,023,162	\$ (783,693)
27-0000 COMMUNICATIONS	136,000 sf	0.00 /sf Inc. Above	Inc. Above	
28-0000 ELECTRONIC SAFETY & SECURITY	136,000 sf	0.00 /sf Inc. Above	Inc. Above	
31-0000 EARTHWORK	136,000 sf	31.30 /sf \$ 4,257,390	\$ 3,835,102	\$ 422,288
32-0000 EXTERIOR IMPROVEMENTS	136,000 sf	59.17 /sf \$ 8,046,851	\$ 6,412,573	\$ 1,634,278
33-0000 UTILITIES	136,000 sf	32.74 /sf \$ 4,452,679	\$ 4,003,878	\$ 448,801
<b>Total Direct Cost \$ 84,048,967</b>			<b>\$ 83,063,190</b>	<b>\$ 985,777</b>
Design Contingency \$ 8,404,897			\$ 8,306,319	\$ 98,578
Escalation \$ 5,042,938			\$ 5,482,171	\$ (439,233)
Construction Contingency \$ 1,680,979			\$ 1,827,390	\$ (146,411)
Subcontractor Default Insurance \$ 1,239,722			\$ 1,233,488	\$ 6,234
Project Requirements \$ 4,425,600			\$ 4,425,600	\$ -
GC's & GR's \$ 7,169,858			\$ 7,169,858	\$ -
CM Fee \$ 2,285,979			\$ 2,230,160	\$ 55,819
<b>Project Total \$ 114,298,940</b>			<b>\$ 113,738,176</b>	<b>\$ 560,764</b>

ALTERNATES	FOGARTY
Add Alternate 1 - Add PV Canopy Structure \$ 917,900.00	
Add Alternate 2 - Turf Field ILO Sod \$ 1,016,119.00	739,657.00 276,462.00



# FONTAINE BROS., INC.

CLINTON MS - SCHEMATIC VALUE ENGINEERING LOG - 02.12.2024


Item #	Category	Item	Estimated Direct Cost Savings	Estimated Total Cost Savings (20% Markup)	Projected Values (Accepted)		Accepted	Alternates	Deferred /Rejected	Notes
					Tier 1	Tier 2				
1	Landscape	Landscape planting reductions (30%)	\$ 266,000	\$ 319,200	Accepted		In SD			
2	Thermal	Delete underslab rigid insulation except within 4 feet of foundation walls.	\$ 250,000	\$ 300,000						Carrying under entire slab (86,570 sf)
3	AV	Reduce Cafeteria Stage AV System to "basic" system (\$25k allowance)	\$ 50,000	\$ 60,000						\$75k allowance now
4	Equipment	Reduce Playground Equipment Allowance to \$300K	\$ 100,000	\$ 120,000						Carrying \$400K allowance
5	AV	Reduce qty. (from 10 to 5) of Digital Screens/Signage in the Building	\$ 50,000	\$ 60,000						Carrying 10 @ \$10k ea
<b>sub total</b>			\$ 716,000	\$ 859,200						
<b>Potential Additional VE Items</b>										
6	Site	Consider substituting 6" granite curb for 5" granite curb	\$ 43,500	\$ 52,200						
7	Electrical	If possible, consider deletion of Cell Amplification System	\$ 100,000	\$ 120,000						
8	Electrical	If possible, consider deletion of Environmental Sensors	\$ 68,000	\$ 81,600						
9	Mechanical	Review/reduce scope of lab waste system	TBD							
10	Roof	Consider substituting EPDM Roof in lieu of PVC	\$ 126,000	\$ 151,200						
11	Finishes	Consider restroom wall tile at wet walls only (~30% reduction)	\$ 30,000	\$ 36,000						
12	Finishes	Consider exposed ceilings at all storage and BOH spaces (3,000 sf)	\$ 20,250	\$ 24,300						
13	Finishes	Consider reduction of corridors wall tile from 7' tall to 4' wainscot	\$ 100,000	\$ 120,000						
<b>sub total</b>			\$ 487,750	\$ 585,300						
<b>Overall Total</b>			\$ 1,203,750	\$ 1,444,500						

Proposed Schedule of Alternates


DRAFT

Description of Item	Ineligible Work & Alternates to be included in District's Total Project Budget	Alternates Excluded From the Total Project Budget that are to be funded through Bid Savings	District Rationale	Eligibility for Reimbursement
Solar Panel Canopies		\$749,735	Would allow for a total of 500KW Solar on the site, an additional 100KW from the parking lot.	To Be Completed by MSBA
Artificial Turf Field		\$829,830	Long term community benefit to have a low maintenance, non-degrading playing surface on the campus.	To Be Completed by MSBA
				To Be Completed by MSBA
<b>Total</b>	<b>\$0</b>	<b>\$1,579,565</b>		<b>To Be Completed by MSBA</b>


By signing this Total Project Budget, I hereby certify that I have read and understand the form and further certify, to the best of my knowledge and belief, that the information supplied by the District in the table above is true, accurate, and complete

By:   
 Title: Chair of the School Building Committee  
 Date: 2-21-2024


By signing this Total Project Budget, I hereby certify that I have read and understand the form and further certify, to the best of my knowledge and belief, that the information supplied by the District in the table above is true, accurate, and complete

By:   
 Title: Chief Executive Officer  
 Date: 2-21-2024

By signing this Total Project Budget, I hereby certify that I have read and understand the form and further certify, to the best of my knowledge and belief, that the information supplied by the District in the table above is true, accurate, and complete

By:   
 Title: Superintendent of Schools  
 Date: 2-21-2024

By signing this Total Project Budget, I hereby certify that I have read and understand the form and further certify, to the best of my knowledge and belief, that the information supplied by the District in the table above is true, accurate, and complete

By:   
 Title: Chair of the School Committee  
 Date: 2-21-2024

## 4.1.2 SCHEMATIC DESIGN BINDER

---

P. Designer Construction  
Cost Estimate

**Schematic Design**  
**Clinton Middle School**  
**Clinton, MA**  
**MSBA Project #202002640010**  
**8-Feb-24**

**Drawings Dated 1/12/2024:**  
**Designer: Lamoureux Pagano Associates | Architects**

NEW BUILDING				\$66,155,221
SITework				\$13,802,969
BUILDING DEMOLITION	130,000	GSF	\$9.00	\$1,170,000
HAZARDOUS WASTE REMOVAL	2/7/2023 UEC Estimate			\$1,935,000
TOTAL DIRECT COST (escalated to the mid point of construction)				----- \$83,063,190
Design Bid Build, Ch. 149:				
DESIGN CONTINGENCY		10%		\$8,306,319
CM CONTINGENCY		2%		\$1,827,390
ESCALATION (spring 2025)		6%		\$5,482,171
SDI		1.25%		\$1,233,488
GENERAL CONDITIONS		FONTAINE		\$7,169,858
PROJECT REQUIREMENTS				\$4,425,600
BUILDING PERMIT		waived		
BOND AND GL INSURANCE		FONTAINE		INC.
PROFIT		2.00%		\$2,230,160
TOTAL CONSTRUCTION COST				----- \$113,738,177
COST PER S.F.				\$836.31

**ALTERNATES:**

ALTERNATE NO. 1 - IN LIEU OF NATURAL GRASS SUBSTITUTE ARTIFICIAL TURF				\$801,454
PV PANLES		TBD		

Project: Clinton Middle School  
 Location: Clinton, MA  
 Client: Lamoureux Pagano Associates|Architects  
 Date: 08-Feb-24

NO. OF SQ. FT.: 136,000  
 COST PER SQ. FT.: \$587.93

**CSI SUMMARY**

**NEW MIDDLE SCHOOL**

	DIVISION TOTAL	PERCENT OF PROJECT	COST PER SF
<b>DIVISION 02 - EXISTING CONDITIONS</b>			
024100 DEMOLITION	0	0%	0.00
024180 ASBESTOS ABATEMENT	0	0%	0.00
<b>DIVISION 03 - CONCRETE</b>			
033000 CAST IN PLACE CONCRETE	3,351,159	4%	24.64
<b>DIVISION 04 - MASONRY</b>			
040001 MASONRY*	2,156,931	3%	15.86
<b>DIVISION 05 - METALS</b>			
050001 MISCELLANEOUS & ORNAMENTAL IRON*	1,177,725	1%	8.66
051200 STRUCTURAL STEEL	5,184,798	6%	38.12
053100 STEEL DECKING	904,553	1%	6.65
054000 COLD FORMED METAL FRAMING	0	0%	0.00
<b>DIVISION 06 - WOOD, PLASTICS &amp; COMPOSITES</b>			
061000 ROUGH CARPENTRY	613,151	1%	4.51
062000 FINISH CARPENTRY	527,058	1%	3.88
064000 ARCHITECTURAL CASEWORK	1,770,576	2%	13.02
<b>DIVISION 07 - THERMAL &amp; MOISTURE PROTECTION</b>			
070001 DAMPPROOF., WATERPROOF. & CAULKING*	697,156	1%	5.13
070002 ROOFING AND FLASHING*	2,945,469	4%	21.66
071326 AIR & VAPOR BARRIERS	0	0%	0.00
072100 THERMAL INSULATION	858,922	1%	6.32
072600 VAPOR RETARDERS	0	0%	0.00
072713 MEMBRANE AIR BARRIERS	0	0%	0.00
074000 WALL PANELS & TRIM	0	0%	0.00
074243 COMPOSITE WALL PANELS	1,833,720	2%	13.48
075500 ROOF ACCESSORIES	0	0%	0.00
078100 APPLIED FIREPROOFING	412,478	1%	3.03
078123 INTUMESCENT FIREPROOFING	0	0%	0.00
079500 EXPANSION CONTROL	0	0%	0.00
<b>DIVISION 08 - OPENINGS</b>			
080001 METAL WINDOWS*	2,727,149	3%	20.05
080002 GLASS AND GLAZING*	288,156	0%	2.12
081113 HOLLOW METALWORK	241,866	0%	1.78
081416 FLUSH WOOD DOORS	220,700	0%	1.62
082500 DOOR OPENING ASSEMBLIES	9,200	0%	0.07
083100 ACCESS DOORS AND PANELS	0	0%	0.00
083300 SECTIONAL OVERHEAD DOORS	0	0%	0.00
083326 OVERHEAD COILING GRILLES	0	0%	0.00
083323 SPECIAL DOORS	66,500	0%	0.49
084110 ALUM FRAMED ENTRANCES & STOREFRONT	0	0%	0.00
084410 GLAZED ALUM CURTAIN WALLS	0	0%	0.00
086300 SKYLIGHTS	0	0%	0.00
087100 FINISH HARDWARE	322,900	0%	2.37

Clinton Middle School - Schematic Estimate	CSI SUMMARY	DIVISION TOTAL	PERCENT OF PROJECT	COST PER SF
089000 LOUVERS AND VENTS		0	0%	0.00
089200 LOUVERED EQUIPMENT ENCLOSURES		0	0%	0.00
<b>DIVISION 09 - FINISHES</b>				0.00
090002 TILE*		1,431,778	2%	10.53
090003 ACOUSTICAL TILE*		1,186,063	1%	8.72
090005 RESILIENT FLOORING*		814,279	1%	5.99
090007 PAINTING*		440,176	1%	3.24
090561 MOSITURE VAPOR EMISSION CONTROL		58,173	0%	0.43
092116 GYPSUM WALLBOARD		5,131,770	6%	37.73
094000 TERRAZZO FLOOR		298,763	0%	2.20
095000 WOOD ATHLETIC FLOOR		187,106	0%	1.38
096800 CARPET		45,162	0%	0.33
097700 FIBERGLASS REINF. WALL PANELS		0	0%	0.00
097500 RESINOUS FLOORING		281,681	0%	2.07
096813 TILE CARPETING		0	0%	0.00
098400 ACOUSTIC ROOM COMPONENTS		246,990	0%	1.82
<b>DIVISION 10 - SPECIALTIES</b>		0		0.00
101116 MARKERBOARDS		314,850	0%	2.32
101153 RECESSED DISPLAY ENCLOSURES		39,250	0%	0.29
101400 SIGNAGE		127,475	0%	0.94
101453 TRAFFIC SIGNAGE		15,000	0%	0.11
101463 ELECTRONIC MESSAGE SIGNAGE		35,000	0%	0.26
102114 HDPE FABRICATIONS		0	0%	0.00
102123 CUBICLE CURTAINS AND TRACK		89,495	0%	0.66
102213 WIRE MESH PARTITIONS		0	0%	0.00
102228 FOLDING PANEL PARTITIONS		63,360	0%	0.47
102813 TOILET ACCESSORIES		107,390	0%	0.79
104000 SAFETY SPECIALTIES		33,425	0%	0.25
105113 METAL LOCKERS		240,595	0%	1.77
107413 EXTERIOR CLOCKS		0	0%	0.00
107500 FLAGPOLES		0	0%	0.00
109000 MISCELLANEOUS SPECIALTIES		32,500	0%	0.24
<b>DIVISION 11 - EQUIPMENT</b>		0	0%	0.00
111300 LOADING DOCK EQUIPMENT		2,500	0%	0.02
111320 PROJECTION SCREENS		82,500	0%	0.61
113100 APPLIANCES		15,500	0%	0.11
114000 FOOD SERVICE EQUIPMENT		650,000	1%	4.78
115300 LABORATORY EQUIPMENT		35,600	0%	0.26
116143 STAGE CURTAINS		40,000	0%	0.29
116623 GYMNASIUM EQUIPMENT		131,500	0%	0.97
116624 BASKETBALL GYM EQUIPMENT		61,200	0%	0.45
116643 SCOREBOARDS		30,000	0%	0.22
116653 GYMNASIUM DIVIDERS		36,036	0%	0.26
116813 PLAYGROUND EQUIPMENT		400,000	1%	2.94
116833 ATHLETIC FIELD EQUIPMENT		36,700	0%	0.27
119513 KILNS		4,000	0%	0.03
119000 MISC. EQUIPMENT		0	0%	0.00
<b>DIVISION 12 - FURNISHINGS</b>		0		0.00
122413 WINDOW TREATMENTS		95,649	0%	0.70
123553 CASEWORK		0	0%	0.00
124813 MATS		14,430	0%	0.11
126100 FIXED AUDIENCE SEATING		0	0%	0.00
129000 MISC. FURNISHINGS		0	0%	0.00



		PERCENT OF PROJECT	COST PER SF
<b>DIVISION 13 - SPECIAL CONSTRUCTION</b>	0		0.00
139000 SPECIAL CONSTRUCTION	0	0%	0.00
			0.00
<b>DIVISION 14 - CONVEYING EQUIPMENT</b>	0		0.00
140001 ELEVATORS & LIFTS*	170,000	0%	1.25
			0.00
<b>DIVISION 21 - FIRE SUPPRESSION</b>	0		0.00
210001 FIRE SUPPRESSION*	1,052,800	1%	7.74
			0.00
Clinton Middle School - Schematic Estimate			
<b>DIVISION 22 - PLUMBING</b>	0		0.00
220001 PLUMBING*	3,984,580	5%	29.30
			0.00
<b>DIVISION 23 - HVAC</b>	0		0.00
230001 HVAC*	12,310,034	15%	90.51
			0.00
<b>DIVISION 26 - ELECTRICAL</b>	0		0.00
260001 ELECTRICAL*	9,023,162	11%	66.35
<b>DIVISION 31 - EARTHWORK</b>	0		
310000 EARTHWORK	3,249,604	4%	23.89
311000 SITE PREPARATION & CLEARING	585,498	1%	4.31
312500 EROSION CONTROL	0	0%	0.00
			0.00
<b>DIVISION 32 - EXTERIOR IMPROVEMENTS</b>	0		0.00
321000 PAVEMENT, CURBING & EDGING	2,681,689	3%	19.72
323100 SITE IMPROVEMENTS	1,484,946	2%	10.92
328000 IRRIGATION	306,113	0%	2.25
329000 LANDSCAPING	1,939,825	2%	14.26
			0.00
<b>DIVISION 33 - UTILITIES</b>	0		0.00
330000 UTILITIES	4,003,878	5%	29.44
SUB-TOTAL			
DIRECT COST	79,958,190	100%	587.93

\*DENOTES FILED SUB-BID

PROJECT: Clinton Middle School  
 LOCATION: Clinton, MA  
 CLIENT: Lamoureux Pagano Associates|Architects  
 DATE: 08-Feb-24

NO. OF SQ. FT.: 136,000  
 COST PER SQ. FT.: \$587.93  
 \*Noted GSF

**NEW MIDDLE SCHOOL**

No.: 23022

**SUMMARY**

	<u>TOTAL</u>	<u>PERCENT OF PROJECT</u>	<u>COST PER SF</u>
<b>A. SUBSTRUCTURE</b>			
<b>A10 - FOUNDATIONS</b>			
A1010 STANDARD FOUNDATIONS	2,973,237	4%	21.86
A1020 SPECIAL FOUNDATIONS	0	0%	0.00
A1030 SLAB ON GRADE	1,724,439	2%	12.68
<b>A20 - BASEMENT CONSTRUCTION</b>			
A2010 BASEMENT EXCAVATION	0	0%	0.00
A2020 BASEMENT WALLS	0	0%	0.00
<b>B. SHELL</b>			
<b>B10 - SUPERSTRUCTURE</b>			
B1010 FLOOR CONSTRUCTION	3,221,082	4%	23.68
B1020 ROOF CONSTRUCTION	3,865,200	5%	28.42
<b>B20 - EXTERIOR ENCLOSURE</b>			
B2010 EXTERIOR WALLS	6,066,390	8%	44.61
B2020 EXTERIOR WINDOWS	1,853,642	2%	13.63
B2030 EXTERIOR DOORS	171,079	0%	1.26
<b>B30 - ROOFING</b>			
B3010 ROOF COVERINGS	3,780,378	5%	27.80
B3020 ROOF OPENINGS	50,000	0%	0.37
<b>C. INTERIORS</b>			
<b>C10 - INTERIOR CONSTRUCTION</b>			
C1010 PARTITIONS	4,705,010	6%	34.60
C1020 INTERIOR DOORS	1,230,649	2%	9.05
C1030 FITTINGS	1,510,738	2%	11.11
<b>C20 - STAIRS</b>			
C2010 STAIR CONSTRUCTION	389,500	0%	2.86
C2020 STAIR FINISHES	83,548	0%	0.61
<b>C30 - INTERIOR FINISHES</b>			
C3010 WALL FINISHES	2,411,164	3%	17.73
C3020 FLOOR FINISHES	1,643,327	2%	12.08
C3030 CEILING FINISHES	1,549,393	2%	11.39
<b>D. SERVICES</b>			
<b>D10 - CONVEYING</b>			
D1010 ELEVATORS & LIFTS	179,000	0%	1.32
D1010 ESCALATORS & MOVING WALKS	0	0%	0.00
D1090 OTHER CONVEYING SYSTEMS	0	0%	0.00
<b>D20 - PLUMBING</b>			
D2010 PLUMBING	3,984,580	5%	29.30

Clinton Middle School - Schematic

	<u>TOTAL</u>	<u>PERCENT OF PROJECT</u>	<u>COST PER SF</u>
D30 - HVAC			
D3010 HVAC	12,310,034	15%	90.51
D40 - FIRE PROTECTION			
D4010 SPRINKLERS	1,052,800	1%	7.74
D4020 STANDPIPES	0	0%	0.00
D4030 FIRE PROTECTION SPECIALTIES	0	0%	0.00
D4090 OTHER FIRE PROTECTION SYSTEMS	0	0%	0.00
D50 - ELECTRICAL			
D5010 ELECTRICAL SERVICE & DISTRIBUTION	8,405,721	11%	61.81
D5020 LIGHTING & BRANCH WIRING	0	0%	0.00
D5030 COMMUNICATION & SECURITY	0	0%	0.00
D5090 OTHER ELECTRICAL SYSTEMS	0	0%	0.00
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT			
E1010 COMMERCIAL EQUIPMENT	650,000	1%	4.78
E1020 INSTITUTIONAL EQUIPMENT	0	0%	0.00
E1030 VEHICULAR EQUIPMENT	0	0%	0.00
E1090 OTHER EQUIPMENT	438,836	1%	3.23
E20 - FURNISHINGS			
E 2010 FIXED FURNISHINGS	1,905,475	2%	14.01
E2020 MOVABLE FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION			
F1010 SPECIAL STRUCTURES	0	0%	0.00
F1020 INTEGRATED CONSTRUCTION	0	0%	0.00
F1030 SPECIAL CONSTRUCTION SYSTEMS	0	0%	0.00
F1040 SPECIAL FACILITIES	0	0%	0.00
F1050 SPECIAL CONTROLS & INSTRUMENTATION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION			
F2010 BUILDING ELEMENTS DEMOLITION	0	0%	0.00
F2020 HAZARDOUS COMPONENTS ABATEMENT	0	0%	0.00
G. BUILDING SITEWORK			
G10 - SITE PREPARATION			
G1010 SITE CLEARING	585,498	1%	4.31
G1020 SITE DEMOLITION & RELOCATIONS	0	0%	0.00
G1030 SITE EARTHWORK	1,569,093	2%	11.54
G1040 HAZARDOUS WASTE REMEDIATION	0	0%	0.00
G20 - SITE IMPROVEMENTS			
G2010 ROADWAYS	1,929,145	2%	14.18
G2020 PARKING LOTS	0	0%	0.00
G2030 PEDESTRIAN PAVING	767,544	1%	5.64
G2040 SITE DEVELOPMENT	2,084,433	3%	15.33
G2050 LANDSCAPING	2,245,937	3%	16.51

Clinton Middle School - Schematic

	<u>TOTAL</u>	<u>PERCENT OF PROJECT</u>	<u>COST PER SF</u>
G30 - SITE MECHANICAL UTILITIES			
G3010 WATER SUPPLY	298,074	0%	2.19
G3020 SANITARY SEWER	173,320	0%	1.27
G3030 STORM SEWER	1,226,942	2%	9.02
G3040 HEATING DISTRIBUTION	0	0%	0.00
G3050 COOLING DISTRIBUTION	0	0%	0.00
G3060 FUEL DISTRIBUTION	1,941,500	2%	14.28
G3090 OTHER SITE MECHANICAL UTILITIES	0	0%	0.00
G40 - SITE ELECTRICAL UTILITIES			
G4010 ELECTRICAL DISTRIBUTION	662,956	1%	4.87
G4020 SITE LIGHTING	318,527	0%	2.34
G4030 SITE COMMUNICATIONS & SECURITY	0	0%	0.00
G4090 OTHER SITE ELECTRICAL UTILITIES	0	0%	0.00
G90 - OTHER SITE CONSTRUCTION			
G9010 SERVICE AND PEDESTRIAN TUNNELS	0	0%	0.00
G9090 OTHER SITE SYSTEMS	0	0%	0.00
TOTAL DIRECT COST	----- 79,958,190	----- 100%	----- 587.93

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<b>A. SUBSTRUCTURE</b>				
<b>A10 - FOUNDATIONS</b>				
<b>A1010 STANDARD FOUNDATIONS</b>				
<b>033000 CAST IN PLACE CONCRETE</b>				
Column Footing ( 242 ea):				
4,000 psi, NW, (incl. placement)	443	CY	328.00	145,304
Formwork	8,346	SFCA	16.00	133,536
Rebar	33,225	LBS	1.60	53,160
<i>*unit cost \$749.44</i>				
Perim Wall Footing ( 3' 2" x 1'-0" 1,248 lf 1/S4.1):				
4,000 psi, NW, (incl. placement)	146	CY	328.00	47,888
Formwork	2,496	SFCA	16.00	39,936
Rebar	10,950	LBS	1.60	17,520
<i>*unit cost \$721.53</i>				
Gym CMU Shear Wall Footing ( 2' x 1'-0" 247 lf):				
4,000 psi, NW, (incl. placement)	18.5	CY	328.00	6,068
Formwork	494	SFCA	16.00	7,904
Rebar	1,388	LBS	1.60	2,220
<i>*unit cost \$875.24</i>				
Tie Beam @ Int. Brace Frame - (2'-3" x 1' d - 902 lf):				
4,000 psi, NW, (incl. placement)	71	1804	350.00	24,850
Formwork	1,804	SFCA	24.00	43,296
Rebar	6,745	LBS	1.65	11,129
<i>*unit cost \$1,116.55</i>				
<i>*Includes platform Wall FTG</i>				
Perim Foundation Wall 18" x 4' deep (1,624 lf 1/S4.1):				
4,000 psi, NW, (incl. placement)	360	CY	350.00	126,000
Formwork	12,992	SFCA	25.00	324,800
Brick Shelf/stem wall	1,624	LF	24.00	38,976
Reinforcing steel	54,000	LBS	1.60	86,400
<i>*unit cost \$1,600.49</i>				
Platform FND Wall - (1'x 3'D - 228 lf):				
3000 psi, NW, (incl. placement)	25	CY	350.00	8,750
Formwork	1,368	SFCA	24.00	32,832
Rebar	2,375	LBS	1.65	3,919
<i>*unit cost \$1,820.03</i>				
Pilaster - ext wall	10	CY	1,100.00	11,000
Pier - int col ftg (2'x2'x2'H 169 ea )	50	CY	1,100.00	55,000
Anchor bolts and grouting	256	EA	235.00	60,160
Int Mechanical pads	1	LS	5,000.00	5,000
Int Acid Waste Pit	1	LS	5,000.00	5,000
18" Elevator mat	7	CY	750.00	5,250
Elev sump pit	1	EA	850.00	850
12" Elevator pit wall 5'H	7	CY	1,250.00	8,750
Loading dock wall		W/G2040		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Concrete Protection and Clean up and Mobilization	1	LS	125,000.00	125,000
Winter conditions	1	LS	100,000.00	100,000
<u>072100 THERMAL INSULATION</u>				
(A6.1):				
FND shelf insul.		W/ B2010		
2" Rigid ext. face fnd insul	6,400	SF	4.05	25,920
2" Rigid int. face fnd insul	6,400	SF	4.05	25,920
<u>070001 DAMPPROOF., WATERPROOF. &amp; CAULKING*</u>				
Ext Foundation dampproofing	6,400	SF	2.10	13,440
Foundation Waterproofing		N/A		
Elev. pit waterproofing	1	EA	8,250.00	8,250
<u>310000 EARTHWORK</u>				
Building Earthwork ( FFE @ 377' ):				
Building Cut ( top soil cut carried w/ G10 Sitework )	72	CY	10.00	720
Load and Haul spoil	72	CY	10.00	720
Soil Disposal - unlined local disposal	115	TONS	25.00	2,880
Structural Fill -	4,121	CY	48.00	197,808
Building excavation	6,500	CY	12.75	82,875
Building Backfill - existing	6,500	CY	12.75	82,875
Over excavate Unsuitable Soil - 6' avg depth:				
Excavate Unsuitable mat'l	21,417	CY	10.00	214,170
Stockpile for site	10,708	CY	6.00	64,248
Reprocess existitng material	10,708	SF	15.00	160,620
Structural Fill	10,708	CY	48.00	513,984
Proof roll	96,618	SF	0.50	48,309
Drainage System (A6.1 Not Shown):				
Under slab 4" Perf Drain		nic		
Perim fnd drain		nic		
SUB-TOTAL				2,973,237
A1030 SLAB ON GRADE				
<u>310000 EARTHWORK</u>				
12" Gravel base @ SOG	3,251	CY	62.00	201,562
Excavate plumbing trenches	87,792	GSF	1.25	109,740
<u>033000 CAST IN PLACE CONCRETE</u>				
5" SOG-per ( 4" per outline )				
4,000 psi, NW, (incl. placement)	1,327	CY	350.00	464,450
WWF 6x6 W2.9xW2.9	85,323	SF	2.65	226,106
Control Joint	5,688	LF	2.60	14,789
Depressed slab edge	450	LF	5.50	2,475
Trowel Finish	85,323	SF	2.38	203,069
*unit cost \$10.68				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Stegro vapor barrier (15 mil 0726000)	85,323	SF	1.04	88,736
Ramp slab premium	252	SF	20.00	5,040
Thicken slab -allow	30	CY	350.00	10,500
Expansion joint assembly ( 2 loc)	225	LF	75.00	16,875
Ext SOG:				
Entry stoop w/ reinf edge(9/S4.1 14 loc )	470	SF	45.00	21,150
Loading dock slab( per arch. plan)		W/G2040		
<u>072100 THERMAL INSULATION</u>				
2" Rigid Slab Insul - 100%	87,792	SF	4.10	359,947
SUB-TOTAL				----- 1,724,439
<b>TOTAL A10 FOUNDATIONS</b>				<b>4,697,676</b>

B. SHELL

## B10 - SUPERSTRUCTURE

## B1010 FLOOR CONSTRUCTION

051200 STRUCTURAL STEEL

Floor Structural Steel ( 15 lbs/sf @ 54,056 sf )	398.1	TONS	5,350.00	2,130,036
Miscellaneous:				
Shear stud (25/100 sf)	13,271	EA	5.65	74,981
Moment Conn - allow	50	EA	825.00	41,250
Expansion joint assembly (0795000 2 loc)	194	LF	225.00	43,650

033000 CAST IN PLACE CONCRETE

7 1/2" - NW Deck fill (6x6 w2.9xw2.9)	53,085	SF	9.85	522,887
Rebar premium - column and perim	50,385	SF	1.00	50,385

053100 STEEL DECKING

3" x 18 Ga. Comp Floor Deck	53,085	SF	5.80	307,893
-----------------------------	--------	----	------	---------

078100 APPLIED FIREPROOFING

Floor:				
Intumescent (078123)	1	LS	50,000.00	50,000

SUB-TOTAL				----- 3,221,082
-----------	--	--	--	--------------------

## B1020 ROOF CONSTRUCTION

033000 CAST IN PLACE CONCRETE

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Roof Top Equip - Allow(S3.5):				
6" NW Deck fill (6x6 w2.9xw2.9) @ RTU	2,993	SF	12.00	35,916
Conc. curb perim HVAC unit ( 8"Wx12"H)	731	LF	115.00	84,065
<u>051200 STRUCTURAL STEEL</u>				
Roof Frame Structural Steel -12 lbs/sf	427.5	TONS	5,350.00	2,287,286
Roof Frame Structural Steel Café -12 lbs/sf	38.7	TONS	5,350.00	206,852
Roof Frame Structural Steel Gym -12 lbs/sf	44.4	TONS	5,350.00	237,540
Shear stud (25/100 sf)	748	EA	5.75	4,301
Moment Conn - allow	50	EA	825.00	41,250
Parapet frame (10 lbs/ 3,551 sf S4.1)	17.8	TONS	5,450.00	96,765
Lobby skylight frame ( 50 lbs/ 78 LF )	2.0	TONS	5,450.00	10,628
Galv Stl Frame @ Roof Equip Screen(055000spec):				
Music Rm Roof Screen - 6' high @ 342 sf (3/A5.3)	1.71	SF	6,000.00	10,260
<u>053100 STEEL DECKING</u>				
1 1/2" x 20 ga Roof deck typ	68,262	SF	5.60	382,267
1 1/2" x 18 ga Comp. roof deck	2,993	SF	5.95	17,808
3" 20/20 Acoustical roof deck - Café	6,444	SF	14.20	91,505
3" 20/20 Acoustical roof deck - Gym	7,400	SF	14.20	105,080
3" 20/20 Acoustical roof deck - Café Platform		NIC		
061000 ROUGH CARPENTRY		N/A		
078100 APPLIED FIREPROOFING				
Roof:				
Fireproofing (078400)	68,262	SF	3.35	228,678
Intumescent (078123)	1	LS	25,000.00	25,000
SUB-TOTAL				3,865,200
<b>TOTAL B10 SUPERSTRUCTURE</b>				<b>7,086,282</b>

## B20 - EXTERIOR ENCLOSURE

## B2010 EXTERIOR WALLS

040001 MASONRY\*

Exterior Mock-up - all trades	1	LS	75,000.00	75,000
CMU Back-up		N/A		
Exterior Masonry Veneer :				
Concrete faced perim panel @ FND shelf 14" h (034500)	1,410	LF	125.00	176,250
Brick veneer	33,925	SF	46.25	1,569,031
Premium Detailing @ Roof Edge Brick		TBD		
Architectural Precast Concrete(034500)		N/A		
GFRC rainscreen panel( 034900)		W / 074243		



DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
5" Mineral wool S.S. Masonry flashing Staging	2,400	W/ DIV 7 LF inc. w/ unit	24.00	57,600
<u>050001 MISCELLANEOUS &amp; ORNAMENTAL IRON*</u>				
Galv. loose lintel Shelf & relieving angles ( spec) OH door frame Alum wall mtd roof access ladder ( EA)	755 1	LF inc. w/ steel weight EA W / B3020	48.00 750.00	36,240 750
<u>092116 GYPSUM WALLBOARD</u>				
Light Gauge Wall Framing(054000 A6.1-6.3): 8" x 16 Ga. stud @ typ wall 6" x 16 Ga. stud @ Skylight Curb/ Wall 6" x 16 Ga. stud @ parapet 4" x 16 Ga. stud @ main entry canopy fascia 43"H 4" x 16 Ga. stud @small canopy fascia 33"H 4" x 16 Ga. stud @ Canopy CLG	42,455 3,478 3,551 101 327 546	SF SF SF SF SF SF	20.00 25.00 16.00 16.00 16.00 16.00	849,100 86,950 56,816 1,616 5,232 8,736
5/8" Ext gyp sheathing @(0616000 A6.1-6.3): Typ wall Canopy fascia Parapet backside Canopy CLG	49,484 428 3,551 546	SF SF SF SF	4.15 5.00 5.00 5.00	205,359 2,140 17,755 2,730
Int. 5/8" FR Gyp Finish	45,933	SF	4.25	195,215
<u>070001 DAMPPROOF., WATERPROOF. &amp; CAULKING*</u>				
Misc Ext Wall Control joints(079201) Expansion joint assembly (0795000 2 loc)	1 60	LS LF	25,000.00 32.00	25,000 1,920
(A6.1) Vapor Permeable Liquid Applied Air Barrier @ : Ext gyp sheathing - wall /parapet face Skylight Curb/ Wall Parapet backside Water Resistive Barrier (Black)	42,455	SF W / Roofing assembly W / Roofing assembly W / 5" min. wool ?	9.00	382,095
<u>072100 THERMAL INSULATION</u>				
(A6.1-6.3)Exterior Wall: 6" R-15 XPS @ FND shelf 14"H 5" Mineral wool Mineral wool batt cavity wall R-22.5 @ 8" Stud Mineral wool batt cavity wall R-22.5 @ 6" Stud 6" Closed cell spray parapet / skylight base 3 1/2" Rigid - parapet cap roof edge Spray insul @ perim deck flute	1,410 49,484 42,455 3,132 3,897 1	LF SF SF SF SF W / Roof Assembly LS	24.00 4.80 2.85 2.85 5.35 25,000.00	33,840 237,523 120,997 8,926 20,849 25,000
<u>074243 COMPOSITE WALL PANELS</u>				
(A6.1)Exterior Wall: GFRC rainscreen panel-flush GFRC rainscreen panel-flare	10,874 1,046	SF SF	140.00 140.00	1,522,360 146,440

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
*Thermally isolated façade attachment sys		W / Unit Cost		
Wall cladding @ Skylight Curb/ Wall		W / B30		
High parapet backside		W / B30		
Canopies:				
GFRC rainscreen fascia panel-main entry 43"H	101	SF	140.00	14,140
GFRC rainscreen fascia panel-small canopy 33"H	327	SF	140.00	45,780
GFRC soffit sys	750	SF	140.00	105,000
<u>090007 PAINTING*</u>				
Misc. ext. painting	1	LS	10,000.00	10,000
<u>101400 SIGNAGE</u>				
Misc ext signage	1	LS	20,000.00	20,000
*includes entry signage ( 3 loc)				
SUB-TOTAL				----- 6,066,390
B2020 EXTERIOR WINDOWS				
<u>061000 ROUGH CARPENTRY</u>				
P.T. blocking 2x8- perim ext wind open.	4,475	LF	14.50	64,888
<u>070001 DAMPPROOF., WATERPROOF. &amp; CAULKING*</u>				
Exterior sealants - perim. ext wind open.	4,475	LF	15.50	69,363
Flex flashing - perim ext wind open.	4,475	LF	12.25	54,819
<u>080001 METAL WINDOWS*</u>				
Ext. Alum Frame, Glass & Glazing(Triple-Pane IGU):				
Curtain Wall 8"	3,556	SF	225.00	800,100
Cafe sun shade	600	SF	125.00	75,000
Premium @ Ext Alum CW:				
Bullet proof main entry	207	SF	75.00	15,525
Alum Window Punch Openings(A6.1 Triple-Pane IGU):				
W(4'x6'8" 46ea )	1,227	SF	168.00	206,136
W(5'x6' 4 ea )	120	SF	168.00	20,160
W(5'x6'8" 22 ea )	733	SF	168.00	123,144
W(8'x6'8" 43 ea )	2,293	SF	168.00	385,224
W(12'x2'6" 4 ea )	120	SF	168.00	20,160
W(22'x3'10" 1 ea )	84	SF	168.00	14,112
Premium @ Ext Alum Window:				
Bullet Proof (gen office only W 5'x6'8" 1ea )	33.5	SF	75.00	2,513
Fiberglass Sandwich Panel ( 084513)		N/A		
Roof Skylights ( 086300)		W / B30		
<u>074000 WALL PANELS &amp; TRIM</u>		N/A		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<u>109000 MISCELLANEOUS SPECIALTIES</u>				
Alum louvers -allow	20	SF	125.00	2,500
SUB-TOTAL				----- 1,853,642
<u>B2030 EXTERIOR DOORS</u>				
<u>061000 ROUGH CARPENTRY</u>				
P.T. - perim blocking HM open	192	LF	13.25	2,544
<u>070001 DAMPPROOF., WATERPROOF. &amp; CAULKING*</u>				
Exterior sealants - perim. HM/OH open	220	LF	15.50	3,410
Adhered membrane - perim. HM/OH open	220	LF	13.00	2,860
<u>080001 METAL WINDOWS*</u>				
Alum. Door, Frame, Glass, Glazing & Hardware:				
Entry - dbl ( 6' x 7')	4	EA	13,000.00	52,000
Entry - dbl ( 6' x 8' 6")	2	EA	15,000.00	30,000
Café - dbl ( 6' x7')	2	EA	13,000.00	26,000
Media Center - sgl ( 3' x7')	1	EA	6,800.00	6,800
Premium w/Safety Glazing (@ inside Face :				
Entry - dbl ( 6' x7')	2	EA	1,200.00	2,400
<u>081113 HOLLOW METALWORK</u>				
Ext. HM Frame:				
Single Door 7'H	6	EA	360.00	2,160
Double Door 7'H	3	EA	385.00	1,155
7'H Insulated HM Doors :				
Receiving - sgl	1	EA	725.00	725
Music Rm - sgl	1	EA	1,100.00	1,100
Science Class Rm - sgl	1	EA	1,100.00	1,100
MEP Rm - sgl	1	EA	650.00	650
Stair hall B - dbl	1	EA	1,650.00	1,650
Shop - dbl	1	EA	1,650.00	1,650
Storage - dbl	1	EA	1,300.00	1,300
Roof - sgl	2	EA	850.00	1,700
<u>082500 DOOR OPENING ASSEMBLIES</u>				
Receiving Overhead Door 8' x 10'	1	EA	9,200.00	9,200
<u>087100 FINISH HARDWARE</u>				
Entry auto opener	1	LOC	9,000.00	9,000
Exterior Hardware Set (@ HM Door:				
Receiving - sgl	1	EA	1,500.00	1,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Music Rm - sgl	1	EA	1,500.00	1,500
Science Class Rm - sgl	1	EA	1,500.00	1,500
MEP Rm - sgl	1	EA	775.00	775
Stair hall B - dbl	1	EA	1,500.00	1,500
Shop - dbl	1	EA	1,500.00	1,500
Storage - dbl	1	EA	1,000.00	1,000
Roof - sgl	2	EA	1,000.00	2,000
<u>090007 PAINTING*</u>				
Exterior Doors:				
Paint HM door & Frame - sgl	6	EA	200.00	1,200
Paint HM door & Frame - dbl	3	EA	400.00	1,200
SUB-TOTAL				----- 171,079
<b>TOTAL B20 - EXTERIOR ENCLOSURE</b>				<b>8,091,111</b>

## B30 - ROOFING

## B3010 ROOF COVERINGS

061000 ROUGH CARPENTRY

## Blocking &amp; Ply @:

Base flashing(A6.1-6.3)	870	LF	18.00	15,660
Parapet Cap/ roof Edge (A6.1-6.3)	2,413	LF	25.00	60,325
Canopy roof edge(A6.1-6.2)	147	LF	25.00	3,675
Canopy base flashing(A6.1-6.2)	167	LF	18.00	3,006
Skylight curb	769	LF	45.00	34,605
Mech equip curbs - allow	1	LS	20,000.00	20,000

070002 ROOFING AND FLASHING\*

## Typ Roof (A3.9) :

PVC Roofing	84,711	SF	12.50	1,058,888
5/8" Cover board	84,711	SF	2.60	220,249
Rigid insul(R-40) 100%	84,711	SF	9.25	783,577
Tapered cricket rigid insul 0%	1	LS	25,000.00	25,000
Cont. air & vapor barrier	84,711	SF	2.25	190,600
5/8" Substrate board	84,711	SF	2.60	220,249
Membrane Flashing	84,711	SF	1.00	84,711
Flash roof drain w/ OF	43	EA	125.00	5,375
Walkway pads-allow	5,000	SF	6.00	30,000

## Small Canopy (R-2A-T 5 LOC) :

PVC Roofing	388	SF	12.50	4,850
5/8" Cover board	388	SF	2.60	1,009
Taper rigid insul(min)	388	SF	2.00	776
Cont. air & vapor barrier	388	SF	2.25	873
5/8" Substrate board	388	SF	2.60	1,009
Flash roof drain	5	EA	125.00	625
Membrane Flashing	388	SF	1.00	388

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<b>Flashing(A6.1- A6.3):</b>				
Base flashing(A6.1-6.3)	870	LF	24.50	21,315
Alum. Parapet cap/ roof Edge (A6.1-6.3)	2,413	LF	45.00	108,585
Alum. Canopy roof edge(A6.1-6.2)	147	LF	24.00	3,528
Canopy base flashing(A6.1-6.2)	167	LF	24.50	4,092
Low parapet membrane(A6.1-6.3)	1,970	LF	10.00	19,700
3' High parapet wall membrane	576	SF	12.00	6,912
5' High parapet wall membrane	1,005	SF	12.00	12,060
Main Entry Sloped Curtain Wall Cap	25	LF	30.00	750
Stair Hall scupper through parapet	3	LOC	1,000.00	3,000
Expansion jt assemblies	300	LF	65.00	19,500
Misc. Flashing	1	LS	25,000.00	25,000
<b>Glazed Skylight Curb/ Wall :</b>				
Membrane wall system	3,478	SF	12.00	41,736
Cap flashing	769	LF	35.00	26,915
<b>Roof Accessories(077200):</b>				
Alum wall mtd roof access ladder ( 3 EA)	44	VLF	550.00	24,200
Roof crossover stairs & ramps( spec)		TBD		
Heat & smoke vent( spec)		TBD		
<b>080001 METAL WINDOWS*</b>				
<b>Glazed Skylight- Complete (084413):</b>				
Lobby ( 170' 4" x 13'W 1 LOC)	2,214	SF	175.00	387,450
Class Corridor(25' x 12' 8"W 2 LOC)	634	SF	175.00	110,863
Class Corridor(29' x 12' 8"W 2 LOC)	735	SF	175.00	128,625
Class Corridor(24' 6" x 16' 6"W 1 LOC)	404	SF	175.00	70,700
SUB-TOTAL				3,780,378
<b>B3020 ROOF OPENINGS</b>				
<b>050001 MISCELLANEOUS &amp; ORNAMENTAL IRON*</b>				
Alum wall mtd roof access ladder ( 3 EA)		W / 070002		
Fall protection guardrail		NIC		
Galv RTU platform grating & stair(spec)	1	LS	50,000.00	50,000
Down spout boot (spec)		N/A		
SUB-TOTAL				50,000
<b>TOTAL B30 ROOFING</b>				<b>3,830,378</b>

C. INTERIORS

C10 - INTERIOR CONSTRUCTION

C1010 PARTITIONS

040001 MASONRY\*

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
CMU Partition:				
M6A - 6" CMU		N/A		
M8A - 8" CMU Elev Shaft 30'	1,077	SF	42.00	45,234
M8A - 8" CMU Gym 15'h	382	SF	38.00	14,516
M12A - 12" CMU Gym 15'h	5,160	SF	42.50	219,300
*Excludes GF CMU				
<u>050001 MISCELLANEOUS &amp; ORNAMENTAL IRON*</u>				
CMU Partition:				
Angle brace frame - 4' 0C	105	EA	235.00	24,675
Loose lintels	52	LF	45.00	2,340
Support frame (@ Op 1 part	44	LF	200.00	8,800
<u>061000 ROUGH CARPENTRY</u>				
Interior blocking	136,000	GSF	0.65	88,400
Misc. rough carpentry	136,000	GSF	0.50	68,000
Carpentry laborer - clean up	1	LS	250,000.00	250,000
Allow Plywood Backer Bd Premium (@:				
Elec rms 8'H	128	SF	16.00	2,048
<u>070001 DAMPPROOF., WATERPROOF. &amp; CAULKING*</u>				
Int joint sealants	136,000	GSF	1.00	136,000
<u>078100 APPLIED FIREPROOFING</u>				
Firestopping	136,000	GSF	0.80	108,800
<u>081113 HOLLOW METALWORK</u>				
Int H.M. Sidelight and Transom Frame		W / C1020		
Vestibule Security Window w/ pass thru complete		N/A		
<u>080001 METAL WINDOWS*</u>				
Int Alum CW / Storefront Frame, Glass & Glazing-Allow:				
Vestibule - Lobby 9' 6"H	68	SF	125.00	8,500
Vestibule - Main office 9' 6"H	45	SF	125.00	5,625
Lobby - Main office 9' 6"H	121	SF	125.00	15,125
Staff dinning 7'H	81	SF	125.00	10,063
Staff dinning 9' 6"H	126	SF	125.00	15,750
Café 22' 3"H	617	SF	125.00	77,125
Media Center 9' 6"H	110	SF	125.00	13,750
Stair Hall Vestibule		NIC		
Stair Hall		NIC		
Premium (@ Int Alum SF:				
Bullet proof main entry vestibule	113	SF	350.00	39,550
<u>092116 GYPSUM WALLBOARD</u>				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Drywall Partitions (NIC cement & ply Backer Bd)-Allow:				
Music class	5,230	SF	23.15	121,075
Gym UL	5,162	SF	18.15	93,690
Gym UL chase(gyp 1 side)	382	SF	18.15	6,933
Corridor & Stair Hall	62,722	SF	20.65	1,295,209
Class / Admin Separation	31,819	SF	20.65	657,062
Mech / Elec rm	7,960	SF	23.15	184,274
Typical	24,731	SF	18.15	448,868
Exp Jt chase(gyp 1 side)	9,420	SF	15.90	149,778
Class HVAC chase(gyp 1 side)	7,660	SF	13.40	102,644
Plumb./struct chase(gyp 1 side)	10,086	SF	13.40	135,152
Furr/chase w/ gyp @ CMU	3715	SF	9.25	34,364
Shaft wall-allow	1,500	SF	26.00	39,000
Vestibule wall bullet resis prem.-allow	1	LS	25,000.00	25,000
Abuse Resistant premium	1	LS	25,000.00	25,000
Misc Drywall Assemblies	136,000	GSF	1.25	170,000
*Partitions include sound attenuation, tape & joint compound finish				

102228 FOLDING PANEL PARTITIONS

Café Platform:				
Motor Op acoustical part ( 44' x 12' )	528	SF	120.00	63,360
SUB-TOTAL				4,705,010

## C1020 INTERIOR DOORS

081113 HOLLOW METALWORK

Int. Hollow Metal Frames:				
Sgl door (3'x7')	198	EA	325.00	64,350
Dbl door (6'x7')	37	EA	340.00	12,580
Admin /Class Sidelight (7' h)	1,570	SF	42.00	65,940
Admin /Class Transom (2'h)	1,008	SF	42.00	42,336
Gym Transom (2' 6"h)	60	SF	42.00	2,520
Gym Window (12' Wx6 'H)	255	SF	42.00	10,710
Light Well C Window (6'W x6 'H)	72	SF	42.00	3,024
Calming Rm Window (4' W x 4'H)	48	SF	42.00	2,016
Cased open. - calming rm	3	EA	350.00	1,050
Cased open. - multi-user toilet rm	9	EA	350.00	3,150
Misc. H.M Window , Sidelight & Transom -allow	500	SF	42.00	21,000

Hollow Metal Doors - 7'H Typ W / 081416

081416 FLUSH WOOD DOORS

Int. 7' High HM / WD Door (Allow Flush Typ) :				
Class sgl	63	EA	875.00	55,125
Class Conn- sgl	35	EA	875.00	30,625
Admin Suite sgl	4	EA	875.00	3,500
Admin sgl	36	EA	875.00	31,500
Music practice rm -sgl	2	EA	875.00	1,750
Music Class rm - dbl	1	EA	1,650.00	1,650
GYM - dbl	4	EA	1,650.00	6,600

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Cafe platform - dbl	1	EA	875.00	875
TR sgl user	19	EA	700.00	13,300
Toilet / locker multi user	5	EA	700.00	3,500
Storage - sgl	21	EA	700.00	14,700
Storage - dbl	7	EA	1,400.00	9,800
MEP - sgl	10	EA	675.00	6,750
MEP - dbl	4	EA	1,350.00	5,400
Kitchen / Rec - dbl	3	EA	1,650.00	4,950
Kitchen / Rec - sgl	3	EA	875.00	2,625
Stair / Corridor - dbl	17	EA	1,650.00	28,050

087100 FINISH HARDWARE

## Interior HM / WD Door Hardware :

Class sgl	63	EA	1,200.00	75,600
Class Conn- sgl	35	EA	800.00	28,000
Admin Suite sgl	4	EA	1,200.00	4,800
Admin sgl	36	EA	1,200.00	43,200
Music practice rm -sgl	2	EA	2,000.00	4,000
Music Class rm - dbl	1	EA	3,000.00	3,000
GYM - dbl	4	EA	3,500.00	14,000
Cafe platform - dbl	1	EA	3,500.00	3,500
TR sgl user	19	EA	1,200.00	22,800
Toilet / locker multi user	5	EA	1,200.00	6,000
Storage - sgl	21	EA	575.00	12,075
Storage - dbl	7	EA	900.00	6,300
MEP - sgl	10	EA	575.00	5,750
MEP - dbl	4	EA	900.00	3,600
Kitchen / Rec - dbl	3	EA	2,000.00	6,000
Kitchen / Rec - sgl	3	EA	1,500.00	4,500
Stair / Corridor - dbl	17	EA	3,500.00	59,500

080001 METAL WINDOWS\*

## Int Alum CW / Storefront Frame, Glass &amp; Glazing-Allow W / C1010

## Int. Aluminum Door, Glass &amp; Glazing( inc hardware ):

Main Entry Vestibule - Office SGL	1	EA	6,200.00	6,200
Main Entry Vestibule - Lobby DBL	2	EA	13,000.00	26,000
Lobby - Main office SGL	1	EA	2,850.00	2,850
Staff dining SGL	2	EA	2,850.00	5,700
Café- DBL	2	EA	7,000.00	14,000
Media Center DBL	1	EA	7,000.00	7,000
Typ Vestibule		NIC		
Stair Hall		NIC		

## Security Glazing Premium (@ Int Alum Door:

Main Entry Vestibule - Office SGL	1	EA	600.00	600
Main Entry Vestibule - Lobby DBL	2	EA	1,200.00	2,400

## 083323 SPECIAL DOORS

Access panels	1	LS	15,000.00	15,000
Lobby security grille		NIC		
Overhead and Roll up doors:				
Kitchen Grill (13'6" x 10')	3	EA	15,000.00	45,000



DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Dish Wash Grill (6' x 4')	1	EA	6,500.00	6,500
<u>080002 GLASS AND GLAZING*</u>				
Glass & Glazing @ HM Sidelight & Transom Frame :				
Sidelight, transom & wind.	3,748	SF	75.00	281,100
One-way view glass	48	SF	110.00	5,280
FR Glass		N/A		
Interior HM/ WD Door Glass & Glazing		W / Unit Cost		
<u>090007 PAINTING*</u>				
Interior Painting:				
Paint HM Door Frame - sgl	198	EA	150.00	29,700
Paint HM Door Frame - dbl	37	EA	190.00	7,030
Paint HM Cased Open. Frame	12	EA	150.00	1,800
Paint H.M Windows, Sidelights and Transoms	3,748	SF	6.00	22,488
SUB-TOTAL				1,230,649
<u>C1030 FITTINGS</u>				
<u>050001 MISCELLANEOUS &amp; ORNAMENTAL IRON*</u>				
Int Café Platform Ramp (2 Loc):				
Wall mtd ss hand railing	58	LF	265.00	15,370
Painted stl rail w/ss handrail	30	LF	350.00	10,500
Café glass ramp guardrail w/ss handrail	18	LF	500.00	9,000
Second Floor Glazed Railing	182	LF	500.00	91,000
OT/PT swing equip support	1	RM	5,000.00	5,000
Gyp equip supports	1	LS	10,000.00	10,000
Café Platform equip. supports	1	LS	5,000.00	5,000
Misc. metals	136,000	GSF	3.00	408,000
<u>062000 FINISH CARPENTRY</u>				
Raised Café Platform & Ramps		W / A10		
Solid surface Punch window sill(A6.1)	729	LF	78.00	56,862
<u>080002 GLASS AND GLAZING*</u>				
OT/PT Class(1 EA) Allow:				
Wall mirror ( 4' x 6' )	24	SF	74.00	1,776
<u>102123 CUBICLE CURTAINS AND TRACK</u>				
HDPE Toilet Partitions:				
Urinal screen	7	EA	345.00	2,415
Std. partition	27	EA	1,390.00	37,530
HC partition	14	EA	1,675.00	23,450

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<b>HDPE Locker Rm Partition &amp; Benches:</b>				
Changing rm	6	EA	1,500.00	9,000
ADA Changing rm	2	EA	1,800.00	3,600
SHW partition	4	EA	1,800.00	7,200
<b>102813 TOILET ACCESSORIES</b>				
<b>Coordination @ Owner Furnish &amp; Management Install Class / Work Rm Accessories:</b>				
Paper towel dispenser	65	EA	75.00	4,875
Soap dispenser	65	EA	75.00	4,875
Glove dispenser		TBD		
<b>Furnish &amp; Install Toilet Rm Accessories:</b>				
SHW accessories	5	EA	350.00	1,750
M1 mirror @ lav 18x30	63	EA	285.00	17,955
M2 mirror @ locker rm	2	RM	750.00	1,500
Toilet grab bars	33	EA	115.00	3,795
Coat hook	60	EA	40.00	2,400
Hand Dryer	47	EA	985.00	46,295
San prod disposal	28	EA	65.00	1,820
Utility shelf 5"x15"	2	EA	250.00	500
<b>Allow:</b>				
Janitor shelf/mop holder	2	EA	250.00	500
Changing sta - fixed @ lobby TR	2	EA	675.00	1,350
Changing sta - power op @ SPED TR	1	EA	3,500.00	3,500
<b>Coordination @ Owner Furnish &amp; Management Install Toilet Rm Accessories:</b>				
Toilet tissue dispenser	60	EA	75.00	4,500
Soap dispenser	63	EA	75.00	4,725
Paper towel dispenser	47	EA	75.00	3,525
Free standing receptacle	47	EA	75.00	3,525
<b>101116 MARKERBOARDS</b>				
<b>Allow:</b>				
5'H Interactive display white bd	2,920	SF	26.50	77,380
5'H magnetic white bd	4,020	SF	26.50	106,530
5'H Tack Board	2,860	SF	19.00	54,340
Misc trim, marker tray magnets & accessories	1	LS	25,000.00	25,000
Flag holder	72	RM	300.00	21,600
Corridor Display case (4' x 5' x 1-2") - allow	6	EA	5,000.00	30,000
<b>105113 METAL LOCKERS</b>				
Type 1 -Corridor (15"w x12" D x 6'h - dbl tier)	436	EA	400.00	174,400
Type 2 - PE locker rm (15"w x12" D x 6'h )	108	EA	375.00	40,500
PE locker rm cont. bench (134 LF)	134	LF	85.00	11,390
Type 2 - ALT PE locker rm (15"w x12" D x 6'h )	6	EA	375.00	2,250
Type 3 -Kitchen staff (15"w x12" D x 6'h - dbl tier)	9	EA	295.00	2,655
Locker Base		W/Unit Cost		
<b>Locker Rm Bench-Allow(105113):</b>				
Typ 9 1/2" W x6'	4	EA	1,600.00	6,400
ADA Wall mtd 24"W	2	EA	1,500.00	3,000
*Benches also include with changing partitions				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<u>102123 CUBICLE CURTAINS AND TRACK</u>				
Health office privacy curtain	3	EA	2,100.00	6,300
<u>109000 MISCELLANEOUS SPECIALTIES</u>				
Misc wall & corner guards	1	LS	5,000.00	5,000
Wire mesh partitions & doors(102213)		TBD		
Sensory swing		NIC		
<u>104000 SAFETY SPECIALTIES</u>				
Typ Safety Specialties ( 104000):				
Fire extinguisher & cab	40	EA	510.00	20,400
Fire extinguisher & bracket	5	EA	385.00	1,925
Fire valve cab	2	EA	510.00	1,020
Safety Data sheet Storage Cab	1	EA	510.00	510
AED & cabinet	1	EA	1,200.00	1,200
Science & STEM Safety Specialties ( 104000):				
Fire extinguisher & cab	6	EA	510.00	3,060
Fire extinguisher & bracket	6	EA	385.00	2,310
Fire blanket & cabinet	6	EA	500.00	3,000
<u>101400 SIGNAGE</u>				
Interior Signage - Allow:				
Door Signage	235	EA	185.00	43,475
Code/way finding signage	136,000	SF	0.15	20,400
Dedication plaque	1	EA	3,600.00	3,600
Lobby -Custom Town of Clinton history panel signage	1	LS	10,000.00	10,000
Café -Custom Town of Clinton history panel signage	1	LS	10,000.00	10,000
Misc. int signage	1	LS	20,000.00	20,000
Signage - By Others(Spec.):				
<i>BLDG directory @ Main Lobby</i>				
<i>History wall @ Main Lobby</i>				
<i>Word Wall @ Main Lobby</i>				
<i>Wayfinding signage over directional signage</i>				
SUB-TOTAL				----- 1,510,738
<b>TOTAL C10 - INTERIOR CONSTRUCTION</b>				<b>7,446,397</b>

C20 - STAIRS

C2010 STAIR CONSTRUCTION

033000 CAST IN PLACE CONCRETE

Conc. Pan Fill @:				
Metal pan stair ( full flt )	6	FLTS	4,500.00	27,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<u>050001 MISCELLANEOUS &amp; ORNAMENTAL IRON*</u>				
Metal Pan Stair, Typ Mtl Rail & SS Handrail :				
Mon lobby grand stair(Glass rail sys)	1	FLT	70,000.00	70,000
Stair Hall A - switch back (6'wx15'H)	1	FLT	60,000.00	60,000
Stair Hall B - monumental (7'wx15'H)	1	FLT	70,000.00	70,000
Stair Hall C - switch back (6'wx15'H)	1	FLT	55,000.00	55,000
Stair Hall D - switch back (6'wx15'H)	1	FLT	55,000.00	55,000
Roof Stair Hall B - straight(5'wx15'H)	1	FLT	45,000.00	45,000
Cane rail - allow	5	LOC	1,500.00	7,500
SUB-TOTAL				389,500
C2020 STAIR FINISHES				
<u>062000 FINISH CARPENTRY</u>				
Stage Platform Stair		N/A		
<u>094000 TERRAZZO FLOOR</u>				
Mon. Lobby Stair (1 Flt):				
Terrazzo tread	228	LFR	145.00	33,060
Terrazzo landing	72	SF	75.00	5,400
<u>090005 RESILIENT FLOORING*</u>				
Stair -Full Flt( 4 FLT):				
Rubber treads and risers	650	LFR	21.00	13,650
Rubber tile mid landing	375	SF	18.50	6,938
<u>090007 PAINTING*</u>				
Conc. Pan Fill Sealant @:				
Roof Stair Hall B - straight	1	FLT	3,500.00	3,500
Paint metal pan stair & rails (NIC SS):				
Mon lobby grand stair	1	FLT	3,500.00	3,500
Stair Hall A - switch back	1	FLT	3,500.00	3,500
Stair Hall B - monumental	1	FLT	3,500.00	3,500
Stair Hall C - switch back	1	FLT	3,500.00	3,500
Stair Hall D - switch back	1	FLT	3,500.00	3,500
Roof Stair Hall B - straight	1	FLT	3,500.00	3,500
SUB-TOTAL				83,548
<b>TOTAL C20 - STAIRS</b>				<b>473,048</b>

## C30 - INTERIOR FINISHES

## C3010 WALL FINISHES

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<u>040001 MASONRY*</u>		W / C1010		
<u>062000 FINISH CARPENTRY</u>				
FRP Wall Panel -Allow:				
Sci. @ emerg shw ( 11 loc)	792	SF	14.00	11,088
Kitchen 10'	3,808	SF	14.00	53,312
Custodial rms 7'	1,974	SF	14.00	27,636
Receiving 7'	1,700	SF	14.00	23,800
P.Lam Wall Panel:				
Lobby (A8.4)	2,924	SF	45.00	131,580
Café (A8.4)	2,224	SF	45.00	100,080
Allow- Music class rm ( 1 ea)	500	SF	45.00	22,500
Allow- Cafe platform	500	SF	45.00	22,500
Allow- Media Ctr	500	SF	45.00	22,500
Wood Veneer Wall Panel		N/A		
Corridor locker surround trim		NIC		
<u>090002 TILE*</u>				
PT - Porcelain Wall Tile-Allow:				
PT Staff dining	50	SF	35.00	1,750
PT Servery	500	SF	35.00	17,500
PT Corridor & stair wall tile 7'(nic admin. suite)	23,819	SF	35.00	833,665
CT -Health suite allow	500	SF	36.00	18,000
Toilet Rm SGL User ( 19 LOC) :				
7' h PT Wet wall (172 LF)	1,204	SF	36.00	43,344
7' h PT Wainscot (368 LF)	2,576	SF	36.00	92,736
Toilet Rm Multi User ( 12 LOC)				
7' h PT Wet wall (267 LF)	1,869	SF	36.00	67,284
7' h PT Wainscot (732 LF)	5,124	SF	36.00	184,464
Locker /Toilet Rm Multi User ( 2 LOC):				
7' h CT Wet wall (90 LF)	630	SF	36.00	22,680
7' h CT Wainscot (271 LF)	1,897	SF	36.00	68,292
Tile backer bd premium	38,169	SF	2.15	82,063
<u>090007 PAINTING*</u>				
Interior painting- walls	136,000	GSF	2.15	292,400
<u>098400 ACOUSTIC ROOM COMPONENTS</u>				
Acoustical Wall Panel-Allow :				
Main gym	1,200	SF	22.00	26,400
Art Rm(2 loc)	220	SF	38.00	8,360
Music Class Rm	500	SF	38.00	19,000
Music Practice rm (2 loc)	150	SF	38.00	5,700
Media Ctr	250	SF	38.00	9,500
Lobby (A8.4)	1,100	SF	38.00	41,800

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Academic Corridor	1,500	SF	38.00	57,000
Cafe (A8.4)	1,835	SF	38.00	69,730
Cafe platform	250	SF	38.00	9,500
<u>109000 MISCELLANEOUS SPECIALTIES</u>				
Allow:				
Environmental graphics	1	LS	25,000.00	25,000
Custom Town History panel (101400)		W / C1030		
SUB-TOTAL				----- 2,411,164
C3020 FLOOR FINISHES				
<u>033000 CAST IN PLACE CONCRETE</u>				
Sealed Concrete Floor :				
Out door storage	335	SF	2.10	704
Mechanical rms	989	SF	2.10	2,077
Electric rms		W / LINOLEUM		
<u>090002 TILE*</u>				
		N/A		
<u>094000 TERRAZZO FLOOR</u>				
Lobby 1st Floor -Allow:				
Terrazzo epoxy flooring	5,337	SF	44.00	234,828
Terrazzo wall base - 4" precast	405	LF	35.00	14,175
Premium - 12' Dia logo Terrazzo	113	SF	100.00	11,300
<u>090005 RESILIENT FLOORING*</u>				
Allow:				
Linoleum	95,428	SF	7.25	691,853
Linoleum stair hall(nic mid landing)	2,607	SF	10.00	26,070
Rubber tile stair mid landing		w/C2020		
Café platform ramp flooring	252	SF	21.50	5,418
4" Resilient wall base (incl corridor @ tile)	21,000	LF	3.35	70,350
<u>090007 PAINTING*</u>				
Sealed Concrete Floor		W / DIV 3		
<u>090561 MOSITURE VAPOR EMISSION CONTROL</u>				
Moisture mitigation - Resinous Flooring only	12,247	SF	4.75	58,173
<u>095000 WOOD ATHLETIC FLOOR</u>				
WAF Gym wood sports flr sys -complete	7,038	SF	21.50	151,317
VRB Gym wall base - vented rubber	342	LF	7.80	2,668

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
ST -1 Stage polymer hardboard	1,472	SF	20.50	30,176
Stage nosing	50	LF	45.00	2,250
Stage wood wall base	103	LF	6.75	695
*Excludes ramps				
<u>096800 CARPET</u>				
Carpet Tile - Admin & Media	7,527	SF	6.00	45,162
<u>097500 RESINOUS FLOORING</u>				
Fluid Applied Epoxy Flooring w/ Int Wall Base:				
MEP Rm		NIC		
Receiving	1,190	SF	23.00	27,370
Custodial Rms	1,043	SF	23.00	23,989
Toilet Rms	4,731	SF	23.00	108,813
Locker Rms	1,948	SF	23.00	44,804
Kitchen	3,335	SF	23.00	76,705
*Includes cooler, freezer, office storage and toilet rm				
<u>124813 MATS</u>				
Interior-Allow:				
Main Entry Vestibule recessed walk-off mat	222	SF	65.00	14,430
Exterior-Allow :				
Foot grill		NIC		
SUB-TOTAL				----- 1,643,327
<u>C3030 CEILING FINISHES</u>				
<u>050001 MISCELLANEOUS &amp; ORNAMENTAL IRON*</u>				
Unistrut Ceiling Grid System:				
Café universal grid sys( spec)	1	LS	15,000.00	15,000
ART Class ( 2 EA):				
Clg stl frame ( 52 LF/RM)	104	LF	100.00	10,400
Science Class 7 & 8 Equipment ( 3 EA):				
Clg stl frame ( 52 LF/RM)	156	LF	100.00	15,600
Life Science Class ( 1 EA):				
Clg stl frame ( 52 LF/RM)	52	LF	100.00	5,200
<u>062000 FINISH CARPENTRY</u>				
Allow -Complete :				
Proscenium Panel @ Cafe platform ( 6'x32')	192	SF	100.00	19,200
Int roof @ Cafe servery( 8'x60')	480	SF	75.00	36,000
<u>092116 GYPSUM WALLBOARD</u>				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
2 HR Gyp Ceiling-Allow:		N/A		
Elev machine rm		Exp Struct.		
BDA & Emerg Elec Rm		Exp Struct.		
Gyp Ceiling:				
Underside of metal pan stair		TBD		
Gyp Soffit -Complete:				
Skylight perim soffit 769LF x 5'H	3,845	SF	24.00	92,280
Lobby skylight cross beam cladding( 6 loc)	1,092	SF	24.00	26,208
Floor opening soffit 4' 6"H	1,066	SF	24.00	25,584
Misc. Gyp Soffit	136,000	GSF	0.50	68,000
<u>090003 ACOUSTICAL TILE*</u>				
ACT 100%- Allow:				
Class & Admin	61,858	SF	7.50	463,935
Typ Corridor	19,062	SF	7.50	142,965
Stair hall	2,774	SF	7.50	20,805
Locker, Toilet & Custodian Rms	8,032	SF	8.25	66,264
Kitchen	2,798	SF	8.25	23,084
Combination CLG Systems- Allow:				
ES & GWB STEM Lab ( 3 EA)	3,980	SF	15.00	59,700
ACT,AD & GWB Music Class & Practice Rm	2,100	SF	25.00	52,500
ACT,AD & GWB Café Platform	1,068	SF	25.00	26,700
SC & GWB Café (acoustic deck)	6,306	SF	20.00	126,120
SC & GWB Servery	454	SF	20.00	9,080
ACT & GWB Media Ctr	2,984	SF	15.00	44,760
ES & GWB Maker Space	1,062	SF	15.00	15,930
ACT & GWB Collab. Space	2,372	SF	15.00	35,580
SC, ES & GWB Lobby	6,354	SF	15.00	95,310
ACT & GWB Main entry vestibule	222	SF	15.00	3,330
<u>090007 PAINTING*</u>				
Paint GWB CLG & soffits	1	LS	25,000.00	25,000
ES Paint Exposed Structure 100%:				
Elec, mech & storage	2,496	SF	1.50	3,744
Gym acoustical deck	7,038	SF	3.00	21,114
SUB-TOTAL				1,549,393
<b>TOTAL C30 - INTERIOR FINISHES</b>				<b>5,603,883</b>

D. SERVICES

## D10 - CONVEYING

## D1010 ELEVATORS &amp; LIFTS

140001 ELEVATORS & LIFTS\*



DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Passenger elevator ( 2 door)	2	STOP	85,000.00	170,000
<u>050001 MISCELLANEOUS &amp; ORNAMENTAL IRON*</u>				
Elevators:				
Elev. framing	1	EA	4,500.00	4,500
Elev. pit ladder	1	EA	2,200.00	2,200
Elev. sump grate	1	EA	2,300.00	2,300
SUB-TOTAL				----- 179,000
<b>TOTAL D10 - CONVEYING</b>				<b>179,000</b>

## D20 - PLUMBING

## D2010 PLUMBING

## 220001 PLUMBING\*

## Fixtures:

L-1 Science Sink (Faucet Only)	20	EA	1,100.00	22,000
L-2 Science Sink	6	EA	1,100.00	6,600
L-3 Science Sink	4	EA	1,100.00	4,400
L-4 Science Prep Sink	4	EA	1,100.00	4,400
P-1 WC	27	EA	2,100.00	56,700
P-2 WC	32	EA	2,100.00	67,200
P-3 UR	6	EA	1,850.00	11,100
P-4 UR	8	EA	1,850.00	14,800
P-5 LAV	30	EA	1,450.00	43,500
P-6 LAV ADA	33	EA	1,450.00	47,850
P-7 Bi-Level Water Cooler	6	EA	4,000.00	24,000
P-8 MS	2	EA	2,800.00	5,600
P-9 Ctr Sink	25	EA	1,350.00	33,750
P-10L Ctr Sink w Bubbler	20	EA	2,200.00	44,000
P-10R Ctr Sink	23	EA	1,500.00	34,500
P-11 Ctr Sink ADA	4	EA	1,500.00	6,000
P-12 Art Sink	13	EA	1,800.00	23,400
P-13 Exam Rm Sink	1	EA	1,500.00	1,500
P-14 Shower/ Valve & head	2	EA	1,950.00	3,900
P-15 Shower ADA/ Valve & Head	4	EA	1,950.00	7,800
P-16 Emergency Shower	13	EA	3,500.00	45,500
WH Wall Hydrant	4	EA	1,000.00	4,000
HB	15	EA	475.00	7,125
Fixture Connections	283	EA	350.00	99,050
Auto Sensor ( batt. ):				
Flush valve	73	EA	510.00	37,230
Lav Sensor	63	EA	485.00	30,555
Domestic Water Heater:				
HP Water Heater (12 Tons)	2	EA	30,000.00	60,000
EWB 150 Gal	1	EA	20,000.00	20,000
500 Gal. Storage Tanks	3	EA	45,000.00	135,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Misc. Valve and trim	1	LS	30,000.00	30,000
Master mixing valves	2	EA	2,200.00	4,400
Circulation Pump:				
RP-1	3	EA	1,800.00	5,400
Expansion Tank:				
ET/1	3	EA	2,800.00	8,400
Mech RM Piping Valves and Fittings	1	LS	150,000.00	150,000
Roof/Storm Drain System	136,000	SF	3.50	476,000
RD	36	EA	1,650.00	59,400
Sanitary System				
Underground D/W/V Pipe:				
4"-6"	2,425	LF	120.00	291,000
FCO	20	EA	455.00	9,100
Floor Drain	20	EA	625.00	12,500
Trap Primer	1	LS	7,500.00	7,500
Oil interceptor	1	EA	2,500.00	2,500
Elevator Sump Pump	1	EA	4,500.00	4,500
6000 Gal. GT Exterior (Connection)	1	LS	3,500.00	3,500
GI Interior grease trap	2	EA	6,800.00	13,600
Above Ground D/W/V Pipe:				
2"-4"	8,968	LF	42.00	376,656
CO	10	EA	450.00	4,500
Acid Waste:				
Underground D/W/V Pipe:				
4"-6" UG	913	LF	90.00	82,170
4"-6" AG	1,292	LF	90.00	116,280
FCO	12	EA	428.50	5,142
Acid Neutralization Tank	1	LS	75,000.00	75,000
Domestic Piping/ Insulation :				
Branch	7,700	LF	42.00	323,400
Main	7,700	LF	65.00	500,500
Pipe Valves and Fittings	1	LS	75,000.00	75,000
RPV @ Mech	1	LS	3,000.00	3,000
Water Hammer arrestors	1	LS	10,000.00	10,000
MV-1	1	EA	5,000.00	5,000
Water Sub Meter	1	LS	4,000.00	4,000
Gas:		N/A		
6" Perf PVC Under slab drainage		NIC		
Radon Mitigation	3,049	LF	28.00	85,372
Underground Water Service:				
4"	20	LF	90.00	1,800
Water service bfp and rough	1	LS	12,500.00	12,500
Test and Sanitize	1	LS	25,000.00	25,000
Kitchen Connection	1	LS	45,000.00	45,000
Core and Firesafing	1	LS	25,000.00	25,000
Seismic restraint	1	LS	30,000.00	30,000
Test , misc gc	1	LS	200,000.00	200,000

-----

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
SUB-TOTAL				3,984,580
<b>TOTAL D20 - PLUMBING</b>	<b>\$29.30</b>	<b>/SF</b>		<b>3,984,580</b>

## D30 - HVAC

## D3010 HVAC

230001 HVAC\*HYBRID GEOTHERMAL SYSTEM W/ ASHP & CUSTOM RTU

## Geothermal Mech Rm:

Incoming Groundwater Loop	1	LS	50,000.00	50,000
Geo manifold header	1	LS	30,000.00	30,000
Tie Geothermal loop into Mechanical Room Header	8	LOC	3,000.00	24,000
Ground Water Pumps	2	EA	22,000.00	44,000
Wells		W/Site		

## Cooling/Heating Generation

MultiStack	150	TONS	3,000.00	450,000
P-1-ABC	3	EA	12,500.00	37,500
P-2-ABC	3	EA	18,500.00	55,500
VFD	6	EA	3,000.00	18,000
GF-1-2	2	EA	5,000.00	10,000
ET 1-2	2	EA	2,800.00	5,600
AS 1-2	2	EA	8,500.00	17,000
Shot Feeder	2	EA	4,500.00	9,000
Glycol Chemical feed	1	LS	60,000.00	60,000
Buffer Tank	2	EA	6,500.00	13,000
HX	1	EA	30,000.00	30,000
HP piping trim and valve	1	LS	100,000.00	100,000
Electric Boiler (240 KW)	2	EA	35,000.00	70,000
Boiler Pump	2	EA	3,500.00	7,000
Mech RM Exhaust/Intake	1	LS	30,000.00	30,000

## Packaged RTU:

RTU-1	8,000	CFM	30.00	240,000
RTU-2	2,000	CFM	30.00	60,000
RTU-3	6,500	CFM	30.00	195,000
RTU-4	6,000	CFM	30.00	180,000
RTU-5	3,000	CFM	30.00	90,000
DOAS-1	1,200	CFM	30.00	36,000
DOAS-2	1,200	CFM	30.00	36,000
DOAS-5	3,200	CFM	30.00	96,000
MAU-1	5,500	CFM	30.00	165,000
Custom RTU:				
DOAS-3	5,300	CFM	36.00	190,800
DOAS-4	8,000	CFM	36.00	288,000
DOAS-5	3,200	CFM	36.00	115,200
DOAS-6	6,000	CFM	36.00	216,000
DOAS-7	9,000	CFM	36.00	324,000
Condenser	80	TONS	2,300.00	184,000
REF	1,000	LF	45.00	45,000
Curbs	14	EA	6,500.00	91,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Merv Filters	28	EA	2,500.00	70,000
ERV-1	200	CFM	24.00	4,800
Sound Attenuation box	136,200	CFM	0.72	98,064
VRF System				
Condenser	20	TONS	2,300.00	46,000
BC	1	EA	10,500.00	10,500
Indoor FCU	8	EA	3,200.00	25,600
Ref Line	1,280	EA	45.00	57,600
Isolation valve	16	EA	125.00	2,000
Condensate Pump	8	EA	300.00	2,400
Condensate Line	8	EA	350.00	2,800
HW Baseboard	1,210	LF	90.00	108,900
VAV/FVAV-4-Pipe	64	EA	1,350.00	86,400
Modulating Valve	310	EA	175.00	54,250
Isolation valve	620	EA	125.00	77,500
HVAC Pipe w/ Insulation:	136,000	GSF	14.00	1,904,000
Misc. Heating	136,000	EA	0.50	68,000
Air Distribution:				
Grilles and Dampers	673	EA	240.00	161,520
Displacement diffusers	148	EA	450.00	66,600
FSD	28	EA	1,400.00	39,200
Galvanized ductwork	150,000	LBS	19.00	2,850,000
1" Duct insul	130,000	SF	6.50	845,000
E-VAV Box	40	EA	950.00	38,000
CVR	10	EA	550.00	5,500
EPDM wrap	1,500	SF	12.00	18,000
Kitchen hood exhaust duct - welded	2,000	LBS	20.50	41,000
Fire wrap at duct	1,000	SF	9.00	9,000
PEV	1	EA	3,000.00	3,000
Exhaust Fan:				
Dish washer Exhaust	1	EA	2,500.00	2,500
KEF - 1	1	EA	6,500.00	6,500
Kiln Fan	1	EA	2,800.00	2,800
EF	3	EA	1,800.00	5,400
Split System (Includes Condenser/Indoor/Ref/Cond.)				
Split System FC	4	EA	22,000.00	88,000
Condensate Pump	4	EA	350.00	1,400
Temperature Control/CO2	136,000	SF	9.50	1,292,000
Seismic & vibrator control	1	LS	40,000.00	40,000
Rigging	1	LS	200,000.00	200,000
Test and balance	136,000	GSF	0.65	88,400
Commission coordination	340	HRS	110.00	37,400
Start-Up	340	HRS	110.00	37,400
Supervision/ Permit	1	LS	200,000.00	200,000

-----

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
SUB-TOTAL				12,310,034

<b>TOTAL D30 - HVAC</b>	<b>\$90.51 /sf</b>			<b>12,310,034</b>
-------------------------	--------------------	--	--	-------------------

D40 - FIRE PROTECTION

D4010 SPRINKLERS

210001 FIRE SUPPRESSION\*

8" BF Preventer Assembly	1	EA	15,000.00	15,000
Wet valve assembly	2	LS	3,500.00	7,000
Butterfly Valve	2	LS	2,000.00	4,000
Elec. bell	1	LS	1,500.00	1,500
Siamese fire dept connection	1	LS	1,350.00	1,350
Standpipe Ctrl Valve 4"	3	EA	1,650.00	4,950
Roof Hydrant	3	EA	1,500.00	4,500
Fire Dept. Connection:				
2 1/2" FDV	1	EA	1,850.00	1,850
FDC	1	EA	1,650.00	1,650
ZCVA - 4"	2	EA	2,450.00	4,900
Tamper sw	8	EA	225.00	1,800
Heads w/ Branch:	1,400	EA	425.00	595,000
Concealed head				incl. above
Upright head				incl. above
Sidewall Head				incl. above
Dry head				incl. above
Sch. 10:				
Drain 3"	180	LF	50.00	9,000
Main 4"-6"	3,764	LF	75.00	282,300
Coring and firesafing	1	LS	7,500.00	7,500
Misc. Valves and Gauges	1	LS	15,000.00	15,000
Hydraulic Cales	1	LS	5,500.00	5,500
Test, as built	1	LS	15,000.00	15,000
Supervision	1	LS	75,000.00	75,000
SUB-TOTAL				----- 1,052,800

<b>TOTAL D40 - FIRE PROTECTION</b>	<b>\$7.74 /sf</b>			<b>1,052,800</b>
------------------------------------	-------------------	--	--	------------------

D50 - ELECTRICAL

D5010 ELECTRICAL SERVICE & DISTRIBUTION

260001 ELECTRICAL\*

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<b>Lighting Fixtures:</b>				
Exit	62	EA	450.00	27,900
AD8	380	EA	850.00	323,000
B2	50	EA	280.00	14,000
B4	19	EA	380.00	7,220
C	88	EA	280.00	24,640
CP1	20	EA	1,800.00	36,000
D	539	EA	380.00	204,820
GE	30	EA	650.00	19,500
K2	62	EA	280.00	17,360
LP8	24	EA	950.00	22,800
RP1	2	EA	480.00	960
SW4	17	EA	300.00	5,100
U2	141	EA	280.00	39,480
ZW3	28	EA	650.00	18,200
BackBox	1,462	EA	48.00	70,176
MC-12/2 w /G	33,860	LF	3.30	111,738
EMT-3/4"C - 3#12	10,000	LF	9.00	90,000
Lighting Control	136,000	GSF	2.60	353,600
<b>Power Wiring Devices:</b>				
Gym equip group control sys installation & wiring	1	LS	6,170.00	6,170
Br. Ckt - EMT-3/4"C-3#10 & 1#12	2,200	LF	7.30	16,060
WP GFI	46	EA	81.00	3,726
GFI	220	EA	73.60	16,192
Duplex	310	EA	66.60	20,646
Duplex Switched	557	EA	115.00	64,055
Double duplex Switched	222	EA	145.00	32,190
Smart gym touch pnl	1	EA	1,500.00	1,500
Gym motorized BB	6	EA	415.00	2,490
J - shot clock power	2	EA	180.00	360
Smart gym relay pnl & processor	1	EA	320.00	320
60/40 kiln	1	EA	775.00	775
J-box w/conn	5	EA	157.00	785
FB	65	EA	1,150.00	74,750
Floor core	65	EA	375.00	24,375
Gymnasium Wireguards	1	LS	5,000.00	5,000
MC-12/2 w/g	90,000	LF	3.30	297,000
EMT-3/4"C-3#12	25,000	LF	9.00	225,000
Lighting Protection	136,000	SF	0.70	95,200
Mechanical Wiring	136,000	SF	3.00	408,000
<b>Misc. Electrical Requirements:</b>				
Kitchen power & conns	1	EA	25,000.00	25,000
Cell Phone Repeater System		N/A		
Rath Two Way communication System	1	LS	15,000.00	15,000
<b>Fire Alarm System &amp; BDA:</b>				
BDA system w/antenna - complete	1	EA	125,000.00	125,000
M-box conduit & cable	150	LF	7.60	1,140
2"C Standpipe for BDA	2	EA	245.00	490
EMT-2"C w/radial cable	110	LF	12.10	1,331

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Digital dialer (2 line)	1	EA	160.00	160
FACP main control pnl	1	EA	27,500.00	27,500
VEP voice evac pnl	1	EA	4,120.00	4,120
PEP power extender pnl	1	EA	1,230.00	1,230
Red beacon	1	EA	485.00	485
ANN remote annun w/voice control	4	EA	7,900.00	31,600
KB ext knox box	2	EA	660.00	1,320
FSD	24	EA	800.00	19,200
Heat Detector	1	EA	410.00	410
Horn/Strobe	362	EA	373.00	135,026
Pull Station	35	EA	405.00	14,175
Smoke	166	EA	325.00	53,950
Smoke Duct	24	EA	565.00	13,560
Strobe	24	EA	320.00	7,680
Remote Alarm Indicator	19	EA	280.00	5,320
Switches	17	EA	175.00	2,975
CM - control module	23	EA	730.00	16,790
FAA	4	EA	480.00	1,920
J 4" Sq w/ DR	822	EA	48.00	39,456
Programming & pretest	1	EA	7,500.00	7,500
CFD testing & cert	1	EA	2,500.00	2,500
Flow & air testing	1	EA	640.00	640
AFC #4901 MC 16/2 & 14/2	14,500	LF	4.20	60,900
MC-4/C #14 red jacket	8,000	LF	3.30	26,400
EMT-3/4"C - 4/C#14	2,500	LF	9.00	22,500
Switchgear Panels & Xfmrs:				
Electrical Service & Distribution:				
4,000 amp MSB - 1	1	LS	250,000.00	250,000
EMSB 1200A	1	EA	65,000.00	65,000
Metering	1	LS	7,500.00	7,500
Panels:				
60A	3	EA	2,400.00	7,200
100A	9	EA	4,100.00	36,900
125A	12	EA	4,200.00	50,400
150A	4	EA	4,500.00	18,000
225A	4	EA	4,800.00	19,200
250A	4	EA	5,400.00	21,600
400A	1	EA	6,100.00	6,100
800A	1	EA	7,500.00	7,500
Transformer				
30 KVA	6	EA	3,300.00	19,800
45KVA	1	EA	6,220.00	6,220
75 KVA	4	EA	8,500.00	34,000
225 KVA	1	EA	12,500.00	12,500
Panel Feeders	136,000	GSF	3.00	408,000
500 kw Diesel	1	EA	350,000.00	350,000
400A Nema MTS	1	EA	6,000.00	6,000
1200A Portable Gen Dock		w/ Gen		
ATS-400A		w/ Gen		
ATS-1200A		w/ Gen		
Receive rig set (boom)	1	EA	11,140.00	11,140
Block htr & bat charger	1	EA	320.00	320
Bldg mtd EPO	1	EA	820.00	820
EPO Push Button	1	EA	540.00	540
Gen Remote Annunciator	1	EA	480.00	480

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
PV Panels -Roof mtd PVC Rough-in	1	W/ Alt LS	50,000.00	50,000
Temp Power and Light	136,000	GSF	1.00	136,000
281000:				
Integrated security systems				
CAM - Interior	45	EA	1,850.00	83,250
CAM - Exterior	12	EA	2,250.00	27,000
Motion Detector	34	EA	320.00	10,880
Magnetic Door Contacts	66	EA	385.00	25,410
Video Intercom	4	EA	1,400.00	5,600
CR	31	EA	1,250.00	38,750
EL	54	EA	385.00	20,790
DO	7	EA	450.00	3,150
Door Switch	57	EA	280.00	15,960
TS	31	EA	400.00	12,400
REX	31	EA	650.00	20,150
Panic Button	5	EA	400.00	2,000
Door Release Button	1	EA	600.00	600
ECS	75	EA	2,500.00	187,500
Siren	16	EA	500.00	8,000
Key Pad	2	EA	880.00	1,760
IMS	1	EA	5,500.00	5,500
VMS	1	EA	1,800.00	1,800
Door Power Supply	57	EA	670.00	16,080
CCTV Racks w/head end equip	1	EA	50,000.00	50,000
Intrusion Alarm with Head End	1	EA	25,000.00	25,000
Camera license	57	EA	180.00	10,260
CAT 6A	14,880	LF	2.00	29,760
Belson Security cabling	10,500	LF	1.64	17,220
Programming, Setup and testing	1	LS	50,000.00	50,000
Active shooter duress system		NIC		
Vape detection		NIC		
POE Switch	4	EA	10,000.00	40,000
Video Server	2	EA	18,500.00	37,000
Sections 27100, 274000, 275000, 281000:				
27 10 00:				
Communications-Tel/Data & A-V Cabling				
WAP	127	EA	650.00	82,550
Data D2	63	EA	480.00	30,240
Data D4	10	EA	650.00	6,500
Voice /Data	132	EA	480.00	63,360
Wall phone	78	EA	400.00	31,200
TVC/TVE	79	EA	480.00	37,920
Video Outlet	1	EA	400.00	400
MDF	1	EA	12,000.00	12,000
IDF	3	EA	9,500.00	28,500
Structured Cabling	1	LS	250,000.00	250,000
Network switches	1	LS	400,000.00	400,000
AV and Local Sound:				
Band &Music	1	LS	75,000.00	75,000
Gym	1	LS	75,000.00	75,000
Classrooms		w/FFE		



DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Digital Signage Cafeteria	1	w/FFE LS	75,000.00	75,000
Theatrical Lighting and Diming - café	1	ALLOW	75,000.00	75,000
Speech Reinforcement	60	EA	3,150.00	189,000
PA and Clock System:				
Clock System				
Clock	115	EA	225.00	25,875
PA Speaker/TB	186	EA	550.00	102,300
PA Head end	1	LS	60,000.00	60,000
12% OH&P	1	LS	868,470.12	868,470
DJE	1	LS	300,000.00	300,000
SUB-TOTAL				8,405,721
<b>TOTAL D50 - ELECTRICAL</b>	<b>\$61.81 /sf</b>			<b>8,405,721</b>

E. EQUIPMENT & FURNISHINGS

E10 - EQUIPMENT

E1010 COMMERCIAL EQUIPMENT

114000 FOOD SERVICE EQUIPMENT

Kitchen equipment & casework	1	LS	650,000.00	650,000
SUB-TOTAL				650,000

E1090 OTHER EQUIPMENT

111300 LOADING DOCK EQUIPMENT

Loading dock bumper	1	LS	2,500.00	2,500
---------------------	---	----	----------	-------

113100 APPLIANCES

Staff Lunch Rm ( 1 EA): Refrigerator w/ icemaker	1	EA	1,500.00	1,500
Teacher Planning ( 2 EA): Refrigerator w/ icemaker	2	EA	1,500.00	3,000
Health Suite (1 LOC): Refrigerator w/ icemaker	1	EA	1,500.00	1,500
Adult Daily Living Rm (1 LOC): Refrigerator w/ icemaker	1	EA	1,500.00	1,500
Washer	1	EA	2,000.00	2,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Dryer Kitchen Appliance	1	EA TBD	2,000.00	2,000
Main Kitchen/Custodian -Allow:				
Washer	1	EA	2,000.00	2,000
Dryer	1	EA	2,000.00	2,000
Allow:				
ECT Electric cooktop		TBD		
ER Electric range		TBD		
WO Microwave oven combo wall oven		TBD		
MR Microwave over range		TBD		
M Microwave ctr top		TBD		
DW Dishwasher		TBD		
DW/ADA Access. Dishwasher		TBD		
F Freezer		TBD		
RH Range hood		TBD		
Science rm Appliance		W /119000		
<u>116623 GYMNASIUM EQUIPMENT</u>				
Main Gym:				
Wall padding (7'H )	800	SF	17.00	13,600
Volley ball net, std sleeves & equip	1	LS	1,800.00	1,800
Badminton net, std sleeves & equip	1	LS	1,800.00	1,800
Batting Cage 12x12x70 (116623)	1	LS	5,000.00	5,000
Bleacher (12 row 126613)	504	SEAT	200.00	100,800
Calming Rm ( 3 EA):				
Wall padding	500	SF	17.00	8,500
<u>116624 BASKETBALL GYM EQUIPMENT</u>				
Clg Mtd Basketball backstops - electric	6	EA	10,200.00	61,200
<u>116643 SCOREBOARDS</u>				
Scoreboard w/ shot clocks	1	LS	30,000.00	30,000
<u>116653 GYMNASIUM DIVIDERS</u>				
Motorized divider (66' X 28'h)	1,848	SF	19.50	36,036
<u>119513 KILNS</u>				
Art kiln	1	EA	4,000.00	4,000
<u>116143 STAGE CURTAINS</u>				
Café Platform - Allow:				
Stage curtains, tracks & rigging sys.	1	LS	40,000.00	40,000
<u>111320 PROJECTION SCREENS</u>				
Elec. Op Projection Screen:				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Cafe platform (16'w x 10' h)	1	EA	20,000.00	20,000
Main gym (20' w x 12'6" h)	1	EA	25,000.00	25,000
Media Center (12' w )	1	EA	15,000.00	15,000
Collaborative Commons 4-6TH (137" dia)	3	EA	7,500.00	22,500
<u>119000 MISC. EQUIPMENT</u>		TBD		
<u>115300 LABORATORY EQUIPMENT</u>				
Science Class 7 & 8 Equipment ( 3 EA):				
Glass drying peg bd	15	EA	750.00	11,250
Goggle cab	3	EA	1,000.00	3,000
Science Prep Rm 7 & 8 Equipment ( 3 EA):				
Refrigerator	3	EA	1,500.00	4,500
Dish washer	3	EA	1,200.00	3,600
Fume hood		NIC		
Corrosive storage cabinets	3	EA	1,000.00	3,000
Flammable material storage cab		NIC		
Science Chem Storage Rm ( 1 EA):				
Chem storage cabinets	1	RM	1,500.00	1,500
Flammable material storage cabinets	1	RM	1,000.00	1,000
Life Science Class ( 1 EA):				
Glass drying peg bd	5	EA	750.00	3,750
Goggle cab	1	EA	1,000.00	1,000
Shared Prep Rm Life Sci. /Ind. Arts ( 1 EA):				
Refrigerator	1	EA	1,500.00	1,500
Freezer	1	EA	1,500.00	1,500
Misc Equipment allow:				
Computer Science ( 1 EA)		NIC		
Industrial Arts Class ( 1 EA)		NIC		
Industrial Arts Prep rm ( 1 EA)		NIC		
Library equipment		NIC		
AV equipment		NIC		
OT/PT equipment		NIC		
SUB-TOTAL				----- 438,836
<b>TOTAL E10 - EQUIPMENT</b>				<b>1,088,836</b>

E20 - FURNISHINGS

E 2010 FIXED FURNISHINGS

122413 WINDOW TREATMENTS

Typ Ext Meco Shade - Manual:				
Punched wind.	4,577	SF	9.50	43,482
CW Allow - Motor Op Premium	1	LS	35,000.00	35,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Int Shades @ HM Borrowed Light:				
Class / Admin sidelight	1570	SF	7.75	12,168
Misc. int shades	1	LS	5,000.00	5,000
Skylight Shades		NIC		
<u>064000 ARCHITECTURAL CASEWORK</u>				
Allow:				
Solid Surf Gym Lobby Bench	54	LF	450.00	24,300
Main Office:				
M10 Reception desk	24	LF	750.00	18,000
Mail rm casework -allow	1	LS	10,000.00	10,000
M1 Tall storage unit(3084)	6	EA	2,200.00	13,200
Media Ctr:				
M10 Front desk	19	LF	850.00	16,150
Rear desk	15	LF	650.00	9,750
Bookcase		NIC		
Custom seat		NIC		
Media Work Rm( 1 EA):				
P Lam Counter	5	LF	142.00	710
Sink base (nic counter)	3	LF	230.00	690
Typ base cab (nic counter)	2	LF	275.00	550
Wall cabinet 18"H	3	LF	195.00	585
Wall cabinet 30"H	2	LF	235.00	470
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
Maker Space Class( 1 EA):				
M3 & 3A P Lam Counter	16	LF	142.00	2,272
M3A Sink base (nic counter)	3	LF	230.00	690
M3 Typ base cab (nic counter)	13	LF	275.00	3,575
M3A Wall cabinet 18"H	3	LF	195.00	585
M3 Wall cabinet 30"H	13	LF	235.00	3,055
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
M2 Tall storage unit(4884)	4	EA	2,450.00	9,800
4- 6th Grade Typ Class (A8.1 21 EA):				
M3 & 3A P Lam Counter	210	LF	142.00	29,820
M3A Sink base (nic counter)	63	LF	230.00	14,490
M3 Typ base cab (nic counter)	147	LF	275.00	40,425
M3A Wall cabinet 18"H	63	LF	195.00	12,285
M3 Wall cabinet 30"H	147	LF	235.00	34,545
M1 Tall storage unit(4884)	21	EA	2,050.00	43,050
M2 Tall storage unit(4884)	21	EA	2,450.00	51,450
Window wall PL counter( vented )	525	LF	180.00	94,500
Window wall base cab (nic counter)	126	LF	275.00	34,650
Window wall open base cab (nic counter)	399	LF	225.00	89,775
7 & 8th Grade Class ( A8.2 12 EA):				
M3 P Lam Counter	120	LF	142.00	17,040
M3 Wall cab(18"H ?)	120	LF	195.00	23,400
M1 Tall storage unit(4884)	12	EA	2,050.00	24,600
M2 Tall storage unit(4884)	12	EA	2,450.00	29,400
M4 Window wall p lam counter( vented )	300	LF	180.00	54,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Window wall base cab (nic counter)	72	LF	275.00	19,800
Window wall open base cab (nic counter)	228	LF	225.00	51,300
Class Exec. Functioning ( 1 EA):				
M3 & 3A P Lam Counter	10	LF	142.00	1,420
M3A Sink base (nic counter)	3	LF	230.00	690
M3 Typ base cab (nic counter)	7	LF	275.00	1,925
M3A Wall cabinet 18"H	3	LF	195.00	585
M3 Wall cabinet 30"H	7	LF	235.00	1,645
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
M2 Tall storage unit(4884)	1	EA	2,450.00	2,450
Class Health & Wellness (1 EA):				
M3 P Lam Counter	10	LF	142.00	1,420
M3 Typ base cab (nic counter)	10	LF	275.00	2,750
M3 Wall cabinet 30"H	10	LF	235.00	2,350
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
M2 Tall storage unit(4884)	1	EA	2,450.00	2,450
M4 Window wall p lam counter( vented )	25	LF	180.00	4,500
Window wall base cab (nic counter)	6	LF	275.00	1,650
Window wall open base cab (nic counter)	19	LF	225.00	4,275
SPED ABA & TLC Class ( 2 EA):				
M11 Coat storage w/ cubby & bench	20	LF	850.00	17,000
M3 & 3A P Lam Counter	20	LF	142.00	2,840
M3A Sink base (nic counter)	6	LF	230.00	1,380
M3 Typ base cab (nic counter)	14	LF	275.00	3,850
M3A Wall cabinet 18"H	12	LF	195.00	2,340
M3 Wall cabinet 30"H	8	LF	235.00	1,880
M1 Tall storage unit(4884)	2	EA	2,050.00	4,100
M2 Tall storage unit(4884)	2	EA	2,450.00	4,900
Window wall counter( vented )	60	LF	180.00	10,800
Window wall base cab (nic counter)	12	LF	275.00	3,300
Window wall open base cab (nic counter)	24	LF	225.00	5,400
SPED-Life Skills Class ( 1 EA):				
M3 & 3A P Lam Counter	16	LF	142.00	2,272
M3A Sink base (nic counter)	3	LF	230.00	690
M3 Typ base cab (nic counter)	13	LF	275.00	3,575
M3A Wall cabinet 18"H	3	LF	195.00	585
M3 Wall cabinet 30"H	13	LF	235.00	3,055
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
M2 Tall storage unit(4884)	1	EA	2,450.00	2,450
Window wall counter( vented )	25	LF	180.00	4,500
Window wall base cab (nic counter)	6	LF	275.00	1,650
Window wall open base cab (nic counter)	19	LF	225.00	4,275
Adult Daily Living Rm (1 LOC):				
M3 & 3A P Lam Counter	16	LF	142.00	2,272
M3A Sink base (nic counter)	3	LF	230.00	690
M3 Typ base cab (nic counter)	13	LF	275.00	3,575
M3A Wall cabinet 18"H	3	LF	195.00	585
M3 Wall cabinet 30"H	13	LF	235.00	3,055
Window wall PL counter( vented )	14	LF	180.00	2,520
Window wall open base cab (nic counter)	14	LF	225.00	3,150
Toilet Rm @ Adult Daily Living Rm (1 LOC):				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
M3 P Lam Counter	4	LF	142.00	568
M3 Typ base cab (nic counter)	4	LF	275.00	1,100
M3 Wall cabinet 30"H	4	LF	235.00	940
Resource Rm ( 5 EA):				
M3 & 3A P Lam Counter	45	LF	142.00	6,390
M3A Sink base (nic counter)	15	LF	230.00	3,450
M3 Typ base cab (nic counter)	30	LF	275.00	8,250
M3A Wall cabinet 18"H	15	LF	195.00	2,925
M3 Wall cabinet 30"H	30	LF	235.00	7,050
M1 Tall storage unit(4884)	5	EA	2,050.00	10,250
Small Group Rm ( 7 EA ):				
M3 & 3A P Lam Counter	63	LF	142.00	8,946
M3A Sink base (nic counter)	21	LF	230.00	4,830
M3 Typ base cab (nic counter)	42	LF	275.00	11,550
M3A Wall cabinet 18"H	21	LF	195.00	4,095
M3 Wall cabinet 30"H	42	LF	235.00	9,870
M1 Tall storage unit(4884)	7	EA	2,050.00	14,350
Science Class 7 & 8 (A8.3 3 EA):				
Epoxy counter	276	LF	305.00	84,180
Sink base (nic counter)	9	LF	250.00	2,250
Typ base cab (nic counter)	267	LF	300.00	80,100
Wall cabinet 18"H	9	LF	195.00	1,755
Wall cabinet 30"H	180	LF	235.00	42,300
Student table w/ epoxy top (2460)	36	EA	3,300.00	118,800
Demo table w/ epoxy top (2460)	3	EA	6,500.00	19,500
Science Prep Rm 7 & 8 ( A8.3 3EA):				
Epoxy counter	96	LF	305.00	29,280
Typ base cab (nic counter)	96	LF	275.00	26,400
Wall cabinet 18"H	9	LF	195.00	1,755
Wall cabinet 30"H	87	LF	235.00	20,445
M1 Tall storage unit(4884)	3	EA	2,050.00	6,150
Science Chem. Storage Rm ( 1 EA):				
Epoxy counter	12	LF	305.00	3,660
Typ base cab (nic counter)	12	LF	275.00	3,300
Wall cabinet 18"H	3	LF	195.00	585
Wall cabinet 30"H	9	LF	235.00	2,115
Life Science Class ( 1 EA):				
Epoxy counter	67	LF	305.00	20,435
Sink base (nic counter)	3	LF	230.00	690
Typ base cab (nic counter)	64	LF	275.00	17,600
Wall cabinet 18"H	3	LF	195.00	585
Wall cabinet 30"H	44	LF	235.00	10,340
Student table w/ epoxy top (2460)	8	EA	3,000.00	24,000
Demo table w/ epoxy top (2460)	1	EA	3,000.00	3,000
Computer Science ( 1 EA):				
M3 P Lam Counter	24	LF	142.00	3,408
Typ base cab (nic counter)	24	LF	275.00	6,600
Wall cabinet 30"H	11	LF	235.00	2,585
Student table		NIC		
Demo table w/ epoxy top (2460)		NIC		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Shared Prep Rm Life Sci. /Comp. Sci. ( 1 EA):				
Epoxy counter	28	LF	305.00	8,540
Typ base cab (nic counter)	28	LF	275.00	7,700
Wall cabinet 18"H	3	LF	195.00	585
Wall cabinet 30"H	25	LF	235.00	5,875
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
Industrial Arts Class ( 1 EA):				
Epoxy counter	17	LF	305.00	5,185
Sink base (nic counter)	3	LF	230.00	690
Typ base cab (nic counter)	14	LF	275.00	3,850
Wall cabinet 18"H	3	LF	195.00	585
Wall cabinet 30"H	14	LF	235.00	3,290
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
M2 Tall storage unit(4884)	4	EA	2,450.00	9,800
Student table w/ epoxy top		NIC		
Demo table w/ epoxy top (2460)	1	EA	3,000.00	3,000
Industrial Arts Prep RM ( 1 EA):				
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
M2 Tall storage unit(4884)	2	EA	2,450.00	4,900
ART Class ( 2 EA):				
M3 & 3A P Lam Counter	26	LF	142.00	3,692
M3A Sink base (nic counter)	8	LF	230.00	1,840
M3 Typ base cab (nic counter)	18	LF	275.00	4,950
M3A Wall cabinet 18"H	16	LF	195.00	3,120
M3 Wall cabinet 30"H	10	LF	235.00	2,350
M1 Tall storage unit(4884)	2	EA	2,050.00	4,100
M2 Tall storage unit(4884)	4	EA	2,450.00	9,800
M7 Tall storage unit(4884)	2	EA	2,450.00	4,900
M4 Window wall p lam counter( vented )	56	LF	180.00	10,080
Window wall base cab (nic counter)	12	LF	275.00	3,300
Window wall open base cab (nic counter)	44	LF	225.00	9,900
Art student table		NIC		
*Excludes art rm storage rm units				
Band Class Rm ( 1 LOC):				
M3 & 3A P Lam Counter	11.5	LF	142.00	1,633
M3A Sink base (nic counter)	3	LF	230.00	690
M3 Typ base cab (nic counter)	8.5	LF	275.00	2,338
M3A Wall cabinet 18"H	3	LF	195.00	585
M3 Wall cabinet 30"H	8.5	LF	235.00	1,998
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
M2 Tall storage unit(4884)	1	EA	2,450.00	2,450
Wenger Instrument music storage sys(123551)	1	LS	20,000.00	20,000
Music uniform storage sys(123551)	1	LS	10,000.00	10,000
OT / PT Rm( 1 LOC ):				
M3 & 3A P Lam Counter	3	LF	142.00	426
M3A Sink base (nic counter)	3	LF	230.00	690
M3A Wall cabinet 18"H	3	LF	195.00	585
M1 Tall storage unit(4884)	1	EA	2,050.00	2,050
M2 Tall storage unit(4884)	2	EA	2,450.00	4,900
M4 Window wall p lam counter( vented )	25	LF	180.00	4,500
Window wall base cab (nic counter)	6	LF	275.00	1,650

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Window wall open base cab (nic counter)	19	LF	225.00	4,275
Teacher Planning Rm ( 2 EA):				
M3 & 3A P Lam Counter	12	LF	142.00	1,704
M3A Sink base (nic counter)	6	LF	230.00	1,380
M3 Typ base cab (nic counter)	6	LF	275.00	1,650
M3A Wall cabinet 18"H	6	LF	195.00	1,170
M3 Wall cabinet 30"H	6	LF	235.00	1,410
Staff Lunch Rm ( 1 EA):				
M3 & 3A P Lam Counter	10	LF	142.00	1,420
M3A Sink base (nic counter)	3	LF	230.00	690
M3 Typ base cab (nic counter)	7	LF	275.00	1,925
M3A Wall cabinet 18"H	3	LF	195.00	585
M3 Wall cabinet 30"H	7	LF	235.00	1,645
Health Suite (1 LOC):				
M3 P Lam Counter	19	LF	142.00	2,698
M3 Typ base cab (nic counter)	14	LF	275.00	3,850
M3A Wall cabinet 18"H	9	LF	195.00	1,755
M3 Wall cabinet 30"H	10	LF	235.00	2,350
Misc Casework -Allow:				
PE Locker rm 12" ctr	18	LF	250.00	4,500
Collaborative work area		NIC		
Trash /recycle sta	1	LS	7,500.00	7,500
Typ Office		NIC		
Custodial Workshop		NIC		
Misc. utility & closet shelving-allow	1	LS	15,000.00	15,000
Misc Arch Casework allowance		NIC		
<u>101153 RECESSED DISPLAY ENCLOSURES</u>				
LCD/Plasma display enclosure	5	EA	750.00	3,750
Display Case Complete:				
Gym Lobby (14'x 6'6"H)	2	EA	12,500.00	25,000
Art Lobby (12'x 6'6"H)	1	EA	10,500.00	10,500
SUB-TOTAL				----- 1,905,475
E2020 MOVABLE FURNISHINGS		NIC		
				----- 0
<b>TOTAL E20 - FURNISHINGS</b>				<b>1,905,475</b>

F. SPECIAL CONSTRUCTION & DEMOLITION



DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
-------------	----------	------	-----------	-------

F10 - SPECIAL CONSTRUCTION

F1010 SPECIAL STRUCTURES

SS shade sail (@ café patio)(133123) W / G2040  
 Sound, vibration & seismic Control(134800) w/ trade cost

SUB-TOTAL				0
-----------	--	--	--	---

<b>TOTAL F10 - SPECIAL CONSTRUCTION</b>				<b>0</b>
---	--	--	--	----------

F20 - SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION

024100 DEMOLITION

BUILDING DEMOLITION See Grand Summary

SUB-TOTAL				0
-----------	--	--	--	---

F2020 HAZARDOUS COMPONENTS ABATEMENT See Grand Summary

SUB-TOTAL				0
-----------	--	--	--	---

<b>TOTAL F20 - SELECTIVE BUILDING DEMOLITION</b>				<b>0</b>
--	--	--	--	----------

G. BUILDING SITEWORK

G10 - SITE PREPARATION

G1010 SITE CLEARING

311000 SITE PREPARATION & CLEARING

Construction fence	4,100	LF	w/ gr	
Construction entrance pad (1,000 sf/loc)	2,000	SF	w/ gr	
Construction gate	2	EA	w/ gr	
Erosion control	4,100	LF	8.50	34,850
Inlet protection	25	EA	110.00	2,750
Erosion control maintenance	1	LS	7,500.00	7,500
General site prep	700,750	SF	0.15	105,113

New Entry Drive, Emerg Access & HS Conn Rd:				
Sawcut street	155	LF	10.50	1,628
Sawcut bit sidewalk	20	LF	20.00	400

W. Boylston St Improvements:

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Remove vehicular guardrail		NIC		
Remote Bit Town Sidewalk		NIC		
Remove Street Bit curb		NIC		
Site Removals:				
Bit Pavement - basketball court	17,548	SF	1.00	17,548
Bit Pavement parking/circulation	113,423	SF	1.00	113,423
Conc. Pavement - site walk	11,731	SF	2.00	23,462
Drainage structures & line	1	LS	30,000.00	30,000
Parking & traffic signage	1	LS	5,000.00	5,000
Chain link fence prop line 50%	2,000	SF	16.00	32,000
Bldg sanitary line & structures	1	LS	15,000.00	15,000
Bldg water lines	1	LS	15,000.00	15,000
Transformer & pad	1	LS	5,000.00	5,000
Generator & pad	1	LS	5,000.00	5,000
Utility pole		By Others		
Duct bank	550	LF	65.00	35,750
Site light pole & base	12	EA	500.00	6,000
Flag pole & base	1	EA	500.00	500
Bollards @ equip	15	EA	210.00	3,150
Misc. Utility removal	1	LS	25,000.00	25,000
Baseball/softball backstop & equip	3	LOC	3,500.00	10,500
Basketball hoop	6	EA	500.00	3,000
Basketball court fencing - allow	640	LF	15.00	9,600
Misc. site demolition	700,750	SF	0.10	70,075
Int. court yard demolition	1,650	GSF	5.00	8,250
Temporary Measures:				
Temp sediment basin		w/ gr		
Temporary parking and access		w/ gr		
Snow removal		w/ gr		
Pedestrian and traffic control		w/ gr		
Street sweep and dust control		w/ gr		
SUB-TOTAL				585,498
G1020 SITE DEMOLITION & RELOCATIONS		W / G1010		
SUB-TOTAL				0
G1030 SITE EARTHWORK				
<u>310000 EARTHWORK</u>				
Top Soil:				
Strip Top Soil - 12" avg.	17,312	CY	7.00	121,184
Stock pile for reuse - landscaping	6,300	CY	7.00	44,100
Stock pile for reuse - grading	5,506	CY	7.00	38,542
Load and Haul Top soil spoil	5,506	CY	10.00	55,060
Top soil disposal	8,810	TON	50.00	440,480
Site Grading:				
Site Cut	12,804	CY	10.00	128,040

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Respread cut	12,804	CY	10.00	128,040
Import fill	854	CY	20.50	17,507
Rough Grading	700,000	SF	0.37	259,000
Respread overexcavation	10,708	CY	10.00	107,080
Respread additional top soil	5,506	CY	10.00	55,060
Allow for over excavate local unsuitable	2,500	CY	70.00	175,000
Ledge Removal		tbd		
SUB-TOTAL				1,569,093
G1040 HAZARDOUS WASTE REMEDIATION		See Grand Summary		
SUB-TOTAL				0
<b>TOTAL G10 - SITE PREPARATION</b>				<b>2,154,591</b>

G20 - SITE IMPROVEMENTS

G2010 ROADWAYS

321000 PAVEMENT, CURBING & EDGING

Bit Pavement Site Drive & Parking(C4.4 ):

Std top course bit (1 1/2" Wear & 2 1/2" Base)	16,037	SY	44.00	705,628
18" Gravel base (@ bit drive	8,018	CY	65.00	521,170

Site Vehicular Concrete Paving - Loading Area:

7" Concrete Pavement w/ epoxy rebar & reinf edge	2,200	SF	17.50	38,500
12" Gravel base (@ conc drive	81.5	CY	68.00	5,542

Raised Concrete Crosswalk (C4.5 1 LOC):

Flush Granite Curbing	150	LF	50.00	7,500
9" Concrete Pavement w/ epoxy rebar	1,500	SF	19.00	28,500
12" Gravel base	56	CY	68.00	3,808

Raised UP Unit Paver- Crosswalk ( 1 LOC):

Flush Granite Curbing	179	LF	50.00	8,950
UP Unit Paver- Vehicular	1,575	SF	40.00	63,000
Concrete base slab	1,575	SF	12.00	18,900
12" Gravel base	58	CY	68.00	3,944

Site Granite Curbing:

Radial	1,808	LF	54.00	97,632
Straight	7,484	LF	50.25	376,071

Cut & Patch Street

Porous Pavement		W / Utilities N/A		
Misc. Pavement striping/markings	1	LS	35,000.00	35,000

101453 TRAFFIC SIGNAGE

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Parking/Traffic Signage(101453) Flashing School Warning Sign- Solar Power(101453)	1	LS NIC	15,000.00	15,000
SUB-TOTAL				1,929,145
G2020 PARKING LOTS				
*Included with G2010				
SUB-TOTAL				0
G2030 PEDESTRIAN PAVING				
<u>321000 PAVEMENT, CURBING &amp; EDGING</u>				
CP Concrete Pavement -Site Sidewalk (C4.5): 4" Typ Conc pavement w/ wwf 8" Gravel @ conc walk	31,552 782	SF CY	11.25 70.00	354,960 54,740
CP Concrete Pavement - Town Sidewalk:		NIC		
UP Unit Paver- Pedestrian: Unit Paver Sys Conc. base slab 8" Gravel @ unit pavers	6,758 6,758 168	SF SF CY	38.00 10.00 70.00	256,804 67,580 11,760
HC Cast Iron tactile paver (21 loc) Bit Walkway Pavement	140	LF N/A	155.00	21,700
SUB-TOTAL				767,544
G2040 SITE DEVELOPMENT				
<u>033000 CAST IN PLACE CONCRETE</u>				
Loading Dock( 1 loc): Wall Footing 2'x1' - 140 lf 12" Concrete Found - 4-8' - 140 lf Stair Foundations	10.5 32	CY CY NIC	575.00 1,200.00	6,038 38,400
Site Ramp Structure Stair Tread Structure		N/A N/A		
<u>040001 MASONRY*</u>				
Site Wall Masonry Cladding		N/A		
<u>050001 MISCELLANEOUS &amp; ORNAMENTAL IRON*</u>				
Metal Fabrications - Sitework(055001 ?FSB):				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Ext Guardrail @ loading	100	LF	350.00	35,000
Edge angle @ loading	50	LF	95.00	4,750
Bollard @ drop off		N/A		
Bollard @ utilities	8	EA	1,950.00	15,600
Bollard @ elec charge sta		tbd		
VG Vehicle Swing gate - dbl elec op	1	EA	28,000.00	28,000
<u>101463 ELECTRONIC MESSAGE SIGNAGE</u>				
SN Digital School Sign- Complete	1	EA	35,000.00	35,000
<u>116813 PLAYGROUND EQUIPMENT</u>				
Playground Equipment Allowance	1	LOC	400,000.00	400,000
<u>116833 ATHLETIC FIELD EQUIPMENT</u>				
BH Basketball hoop	6	EA	4,200.00	25,200
Soccer Goals	2	EA	5,500.00	11,000
International corner flags	1	LS	500.00	500
Alum Bleachers		N/A		
Player Bench		NIC		
<u>323100 SITE IMPROVEMENTS</u>				
RS Playground Safety Surface - Poured in Permeable Rubber ( 1 Loc ):				
Top surface & Base mat ( poured in place)	6,840	SF	40.00	273,600
8" Dense crushed stone	170	CY	70.00	11,900
Filter fabric -allow	6,840	SF	1.10	7,524
Flat drain - allow	6,840	SF	0.50	3,420
Perim flush conc. curb @ planting	250	LF	74.00	18,500
SA Stabilized Aggregate Stone Dust Paving:				
4" Stone dust	9,073	SF	6.50	58,975
8" Dense crushed stone	336	CY	70.00	23,520
Filter Fabric	9,073	SF	1.00	9,073
Metal edge	150	LF	25.00	3,750
BC Bit Basketball Court:				
Bit. pavement (1" wear & 2" base)	986	SY	42.50	41,905
12" Gravel	329	CY	68.00	22,372
Game striping ( only )	8,878	SF	2.00	17,756
F Fencing Complete w/ Conc. FTG(323113-323115):				
F Fence Playground - 4'	316	LF	100.00	31,600
G Gate Playground - dbl 6'W	1	EA	4,500.00	4,500
Fence Media Court Yard - 4'	115	LF	100.00	11,500
Gate Media Court Yard - dbl	1	EA	4,500.00	4,500
F2 Chain Link Fence @ Athletic Field	1162	LF	85.00	98,770
Fence Safety Cap @ F2 Chain Link (116833)	1162	LF	12.00	13,944
G3 Gate Athletic Field - dbl 6'W	2	EA	5,000.00	10,000
G2 Gate Athletic Field - dbl 12'W	2	EA	8,500.00	17,000
MS 8'H Mechanical Screen	145	LF	200.00	29,000
G Gate Mechanical Screen - dbl 8'Hx6'W	1	EA	7,500.00	7,500
Note 7/ L2.1 Replace 50% site perim chain link fence	2,000	LF	100.00	200,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Misc. Site Amenities:				
B Boardwalk 8' W @ Bio- basin	782	SF	200.00	156,400
BR Bike storage loop	22	EA	875.00	19,250
RP Raised Planter ( 8 loc -4'W)	155	LF	125.00	19,375
SS shade sail @ café patio(133123)	3	EA	15,000.00	45,000
SW Seat Wall main entry ( 4'x4')	3	EA	5,000.00	15,000
SW Seat Wall main entry ( 12"W 4 loc)	50	LF	650.00	32,500
Activity Table w/ (3-4 seats)	6	EA	5,000.00	30,000
CAFÉ Table w/ (5-6seats)	9	EA	7,500.00	67,500
FG Flag Pole main entry 30' h (107500)	2	EA	14,000.00	28,000
Misc. Site Furnishings -Allow:				
Segmental Retaining Wall ( 323223)		TBD		
Waste Receptacle (spec allow)	8	EA	3,500.00	28,000
2"W Building Drip Edge(A6.1 1,183)	2366	SF	32.00	75,712
Ornamental boulders		NIC		
Timber Guard Railing(061000)		NIC		
Bench Seating (spec allow)	6	EA	5,000.00	30,000
Dumpster enclosure		NIC		
Gravel Surface Sys @ mech equip enclosure	2,200	SF	8.00	17,600
SUB-TOTAL				2,084,433
G2050 LANDSCAPING				
<u>329000 LANDSCAPING</u>				
Planting Allowance	1	LS	528,000.00	528,000
Shade Tree (4" cal)	190	EA	inc. w/ allow	
Flowering Tree (3" cal)	8	EA	inc. w/ allow	
Coniferous Tree (8-10' ht)	20	EA	inc. w/ allow	
Allow - Plant Bed (22,000 SF):				
Shrub (3 gal)	11,000	SF	inc. w/ allow	
Perennial (1 gal)	11,000	SF	inc. w/ allow	
12" Loam	815	CY	75.00	61,125
2" Mulch @ plant bed	139	CY	68.00	9,452
Allow -Rain Garden (44,200 SF):				
Shrub (3 gal)	22,100		inc. w/ allow	
Perennial (1 gal)	22,100		inc. w/ allow	
Excavate	4,910	CY	11.00	54,010
Load and haul	4,910	CY	8.50	41,735
Soil disposal - verify classification ?	7,856	TON	28.00	219,968
18" Bio media - import	2,455	CY	85.00	208,675
18" Soil	2,455	CY	78.00	191,490
2" Mulch @ rain garden	278	CY	68.00	18,904
Athletic Field (72,575 sf):				
SOD Natural seed sports surf. (329020)	72,575	SF	1.15	83,461
6" Loam - top soil ammend	1,344	CY	40.00	53,759
12" Deep stone reserv. for stormwater ret	2,688	CY	45.00	120,960

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Typ Lawn , based upon landscape given areas (nic athletic field ):				
Hydro seeding - low mow rescue	190,300	SF	0.45	85,635
Hydro seeding - turf/sod	77,000	SF	0.45	34,650
6" Loam - top soil ammend	4,950	CY	40.00	198,000
Planting Maintenance	1	LS	30,000.00	30,000
328000 IRRIGATION				
Irrigation System - Allow:				
Drip sys @ plant bed	22,000	SF	1.75	38,500
Spray sys @ typ turf/sod	50,000	SF	1.25	62,500
Temp sys @ low mow fescue	77,000	SF	1.25	96,250
Spray sys @ SOD Natural seed sports surf.	72,575	SF	1.50	108,863
SUB-TOTAL				2,245,937
<b>TOTAL G20 - SITE IMPROVEMENTS</b>				<b>7,027,059</b>

G30 - SITE MECHANICAL UTILITIES

G3010 WATER SUPPLY

330000 UTILITIES

Street Connection	2	LOC	2,500.00	5,000
Site Connection	1	LOC	6,000.00	6,000
8" Main service	1,218	LF	145.00	176,610
4" Domestic service	84	LF	96.00	8,064
6" Fire service	84	LF	110.00	9,240
Domestic gate valve	1	EA	4,000.00	4,000
Fire gate valve	1	EA	4,000.00	4,000
Hydrant service	76	LF	110.00	8,360
Hydrant gate valve	4	EA	4,000.00	16,000
Hydrant	4	EA	5,200.00	20,800
Misc. main thrust block, gate valve, test & sanitize,	1	LS	25,000.00	25,000
Cut & Patch Street	2	LOC	7,500.00	15,000
SUB-TOTAL				298,074

G3020 SANITARY SEWER

330000 UTILITIES

Site connection ( exist man hole )	2	LOC	25,000.00	50,000
Sanitary manhole	4	EA	4,500.00	18,000
6,000 gal Grease trap - earthwork only	1	LS	15,000.00	15,000
Acid Waste Tank Vault - earthwork only	1	LS	5,000.00	5,000
Sanitary service	711	LF	120.00	85,320
SUB-TOTAL				173,320

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
-------------	----------	------	-----------	-------

G3030 STORM SEWER

330000 UTILITIES

Trench drain ( 1 loc)	30	LF	135.00	4,050
24" Area Drain	1	EA	3,200.00	3,200
Catch Basin	28	EA	4,800.00	134,400
Drain Manhole	31	EA	4,800.00	148,800
Water Quality Structure	2	EA	20,000.00	40,000
Outlet Control Structure		N/A		
Flared end w/ rip rap	3	EA	6,500.00	19,500
Perim FND drain connection	1	LS	20,000.00	20,000
Street connection		N/A		

New Piping and Trenching (assumes reuse backfill):

12-18" CPP(not sized)	4,665	LF	125.00	583,125
6" CPP athletic field underdrain	974	LF	68.00	66,232
* 12" D stone reserv. for stormwater ret		W/G20		

Bioretention Basin (C4.3 - Scaled 10,877 GSF - 3LOC):

Excavate & disposal		W/ G2020		
15" crushed stone	504	CY	85.00	42,840
4" perf pvc	300	LF	48.00	14,400
Clean out @ 4" perf pvc	3	LF	200.00	600
24" Area Drain @ Bio Basin	3	EA	6,500.00	19,500
4" pea stone	133	CY	100.00	13,300
12" sand	403	CY	85.00	34,255
24" plant soil	805	CY	78.00	62,790
4" Stone mulch	133	CY	150.00	19,950

SUB-TOTAL

-----  
1,226,942

G3040 HEATING DISTRIBUTION

330000 UTILITIES

Geothermal				
Geothermal Well -800'	26	EA	60,000.00	1,560,000
10 HDPE S&R	800	LF	245.00	196,000
Discharge Permit (EPA)	1	LS	2,500.00	2,500
Dewatering		inc.		
Testing of well	1	EA	40,000.00	40,000
Geothermal Vault	1	LS	65,000.00	65,000
Haul Well spoil	1	LS	50,000.00	50,000
Excavate S&R Trench	800	LF	35.00	28,000

SUB-TOTAL

-----  
1,941,500

G3090 OTHER SITE MECHANICAL UTILITIES

Gas service

N/A



DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
SUB-TOTAL				0
<b>TOTAL G30 - SITE MECHANICAL UTILITIES</b>				<b>3,639,836</b>

G40 - SITE ELECTRICAL UTILITIES

G4010 ELECTRICAL DISTRIBUTION

330000 UTILITIES

Transformer pad	1	EA	3,500.00	3,500
Generator Pad	1	EA	4,000.00	4,000
Blast wall	1	EA		0
Ext. Trench, Backfill and Concrete:				
Primary Duct Bank	815	LF	135.00	110,025
Secondary Duct bank	55	LF	135.00	7,425
Tel/Data Duct bank	890	LF	135.00	120,150
Elec car charge sta	1	LS	20,000.00	20,000

260001 ELECTRICAL\*

Site Electrical:

Demo and disconnect	1	LS	35,000.00	35,000
HH Handhole	4	EA	1,100.00	4,400
T xfmr pad grounding	1	EA	2,700.00	2,700
T xfmr pad sleeves & 90 deg	1	EA	650.00	650
MH Manhole F&I by E.C.	1	EA	11,250.00	11,250
MH Manhole grounding & racks	2	EA	1,800.00	3,600
Exist. utility pole dressing	1	EA	2,650.00	2,650
Primary- (2) 4" PVC-w/P.S.	1,630	LF	14.50	23,635
Secondary - (4) 4" PVC-w/P.S.	220	LF	14.50	3,190
T/D - (2) 4" PVC-w/P.S.	1,800	LF	14.50	26,100
EV Conduit & Rough-in	1	LS	25,000.00	25,000
EV Dual Pedestal	7	EA	15,000.00	105,000
Power Distribution:				
Secondary (4) #600 mcm	220	LF	275.00	60,500
Generator feed	1	LS	50,000.00	50,000
OH&P 12%	1	LS	29,181.00	29,181
DJE	1	LS	15,000.00	15,000

SUB-TOTAL				662,956
-----------	--	--	--	---------

G4020 SITE LIGHTING

330000 UTILITIES

New Site Lighting:				
Site light trenching	4,834	LF	13.00	62,842

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Concrete Pole Base: Roadway and Parking Pole Base Pedestrian Light Pole	38	EA N/A	950.00	36,100
260001 ELECTRICAL*				
Exterior Site/Elec/Lighting: 20' roadway pole	31	EA	2,740.00	84,940
20' roadway pole (Double)	7	EA	3,250.00	22,750
SL6 - upplight	3	EA	660.00	1,980
CCTV camera pole prep		N/A		
Flagpole grounding	3	EA	315.00	945
HH handhole 15"x22"x18"D	4	EA	940.00	3,760
Pole base grounding	38	EA	150.00	5,700
Pole base anchor bolt sys	38	EA	56.00	2,128
Pole base sleeves & 90 deg	38	EA	130.00	4,940
PVC-1 1/4"C-2#4 & 1#6	4,834	LF	10.50	50,757
CCTV		N/A		
OH&P 15%	1	LS	26,685.00	26,685
DJE	1	LS	15,000.00	15,000
SUB-TOTAL				----- 318,527
<b>TOTAL G40 - SITE ELECTRICAL UTILITIES</b>				<b>981,483</b>

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
ALTERNATE NO. 1 - IN LIEU OF NATURAL GRASS SUBSTITUTE ARTIFICIAL TURF				
Deduct:				
SOD Natural seed sports surf. (329020)	-72,575	SF	1.10	-79,833
6" Loam - top soil	-1,344	CY	40.00	-53,760
Irrigation spray sys @ SOD Natural seed sports sur:	-72,575	SF	1.50	-108,863
12" Deep stone reserve. for stormwater ret		IN BASE		
6" CPP athletic field underdrain		IN BASE		
Add (L2.3A):				
Synthetic turf field	72,575	SF	9.00	653,175
Perim. conc anchor curb (14" x 24") w/ gravel base	1,124	LF	78.00	87,672
6" Drainage Layer	1,344	CY	68.00	91,392
Filter fabric	72,575	SF	1.00	72,575
SUBTOTAL				662,359
MARKUPS				139,095
TOTAL				801,454

## 4.1.2 SCHEMATIC DESIGN BINDER

---

Q. OPM-CM Construction  
Cost Estimate



**SCHEMATIC DESIGN | RECONCILED ESTIMATE**

**CLINTON MIDDLE SCHOOL PROJECT**

**FEBRUARY 8, 2024**

CLINTON, MA 01510  
PROJECT #2602

**FONTAINE BROS., INC. | T: 413.781.2020 | 12 E WORCESTER STREET WORCESTER, MA 01604 | 510 COTTAGE STREET SPRINGFIELD, MA 01104**

**FONTAINE**

**Clinton Middle School**

***Town of Clinton  
Clinton Middle School  
OPM - Dore + Whittier***

<b>Project name</b>	Clinton Middle School 100 W Boylston St. Clinton MA 01510
<b>Architect</b>	Lamoureux Pagano Associates
<b>Document</b>	SD
<b>Estimator</b>	Fontaine Bros.
<b>Job size</b>	136000 sf

CSI Division		Cost/SF	Total Amount
02-0000	EXISTING CONDITIONS & DEMO	136,000 sf 24.36 /sf \$	3,312,500
03-0000	CONCRETE	136,000 sf 28.23 /sf \$	3,839,756
04-0000	MASONRY	136,000 sf 20.30 /sf \$	2,760,148
05-0000	METALS	136,000 sf 52.63 /sf \$	7,157,300
06-0000	ROUGH CARPENTRY	136,000 sf 3.44 /sf \$	467,755
06-2000	FINISH CARPENTRY	136,000 sf 2.82 /sf \$	383,468
07-0000	THERMAL & MOIST PROTECT	136,000 sf 17.86 /sf \$	2,429,580
07-5000	ROOFING	136,000 sf 19.26 /sf \$	2,620,000
07-7000	ROOF & WALL ACCESSORIES	136,000 sf 0.93 /sf \$	126,551
07-8000	FIREPROOFING / CAULKING	136,000 sf 3.39 /sf \$	460,800
08-0000	DOORS & WINDOWS	136,000 sf 31.67 /sf \$	4,307,740
09-0000	FINISHES	136,000 sf 73.32 /sf \$	9,970,859
10-0000	SPECIALTIES	136,000 sf 7.21 /sf \$	980,010
11-0000	EQUIPMENT	136,000 sf 8.15 /sf \$	1,108,150
12-0000	FURNISHINGS	136,000 sf 15.62 /sf \$	2,123,980
14-0000	CONVEYING SYSTEMS	136,000 sf 1.58 /sf \$	215,000
21-0000	FIRE SUPRESSION	136,000 sf 8.15 /sf \$	1,108,276
22-0000	PLUMBING	136,000 sf 27.98 /sf \$	3,805,067
23-0000	HVAC	136,000 sf 87.32 /sf \$	11,875,640
26-0000	ELECTRICAL	136,000 sf 38.29 /sf \$	5,206,787
27-0000	COMMUNICATIONS	136,000 sf 12.24 /sf \$	1,665,037
28-0000	ELECTRONIC SAFETY & SECURITY	136,000 sf 10.06 /sf \$	1,367,645
31-0000	EARTHWORK	136,000 sf 46.01 /sf \$	6,257,390
32-0000	EXTERIOR IMPROVEMENTS	136,000 sf 59.17 /sf \$	8,046,851
33-0000	UTILITIES	136,000 sf 18.03 /sf \$	2,452,679
<b>Total Direct Cost</b>			<b>\$ 84,048,967</b>
Design Contingency			\$ 8,404,897
Escalation			\$ 5,042,938
Construction Contingency			\$ 1,680,979
Subcontractor Default Insurance			\$ 1,239,722
Project Requirements			\$ 4,425,600
GC's & GR's			\$ 7,169,858
CM Fee			\$ 2,285,979
<b>Project Total</b>			<b>\$ 114,298,940</b>

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b><u>01-0000.000</u>                      <u>PROJECT REQUIREMENTS</u></b>				
<b>01-1130.310</b>	<b>General Requirements</b>			
10	Ceremonial Costs (Groundbreaking, Topping Off, Ribbon Cutting, etc) - GMP Allowance value to be negotiated at time of GMP			
10	Debris Control, Removal and Dumpsters			
10	Winter Conditions (General)			
10	Temporary Electric Consumption			
10	Staging and Hoisting			
10	Safety Materials (guardrails, railing, etc.)			
10	Final Cleaning for Site and Building			
10	Project and Site Traffic Signage			
10	Temporary Enclosures			
10	Multi Vista / Open Space			
10	Field Engineering/Building Layout			
10	Temporary Walkways (Parking)			
10	Interim Cleaning for Site and Building			
10	Safety Labor and Protection General			
10	Maintenance/Protection			
10	Temporary Toilets			
10	Temporary Water and Sewer			
10	Police Detail Allowance			
10	Site Enclosure Fences and Gates			
10	Temporary Stairs			
<b>PROJECT REQUIREMENTS</b>				<b>0</b>
<b>136,000.00 sf</b>				

<b><u>02-0000.000</u>                      <u>EXISTING CONDITIONS &amp; DEMO</u></b>				
<b>02-2820.112</b>	<b>Asbestos Abatement</b>			
01	Hazardous Material Abatement	125,000.00 sf	15.50 /sf	1,937,500
	<b>Asbestos Abatement</b>		<b>14.246/sf</b>	<b>1,937,500</b>
	<b>136,000.00 sf</b>			
<b>02-4116.100</b>	<b>Building Demolition</b>			
110	Demolition of Existing High School	125,000.00 sf	11.00 /sf	1,375,000
	<b>Building Demolition</b>		<b>10.110/sf</b>	<b>1,375,000</b>
	<b>136,000.00 sf</b>			



## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
				<b>Total</b>
				<b>3,312,500</b>
<b>EXISTING CONDITIONS &amp; DEMO</b>				<b>24.357/sf</b>
				<b>136,000.00 sf</b>
<b><u>03-0000.000</u></b>		<b><u>CONCRETE</u></b>		
<hr/>				
<b>03-0010.160</b>	<b>Stairs and Landings</b>			
105	Stairs and Landings	4.00	Flt	4,500.00 /Flt
105	Stairs and Landings, Main Stair	1.00	Flt	4,500.00 /Flt
105	Stage Ramp	1.00	ls	25,000.00 /ls
	<b>Stairs and Landings</b>			<b>0.349/sf</b>
				<b>47,500</b>
				<b>136,000.00 sf</b>
<b>03-0010.165</b>	<b>Concrete Foundations</b>			
125	Concrete Material - Footings, Piers & FND Walls	1,272.00	cy	110.00 /cy
125	Concrete Form Work	33,527.00	sf	32.00 /sf
125	General Concrete - Winter Conditions - Allowance	1.00	ls	100,000.000 /ls
	<b>Concrete Foundations</b>			<b>9.653/sf</b>
				<b>1,312,784</b>
				<b>136,000.00 sf</b>
<b>03-0022.140</b>	<b>Concrete - Place &amp; Finish SOD</b>			
100	Place & Finish - SOD, RTU Pads	2,940.00	sf	40.00 /sf
100	Place & Finish - SODs	52,530.00	sf	9.50 /sf
100	SOD Concrete	1,120.00	cy	120.00 /cy
100	Place & Finish - SODs - House Keeping Pads, Allow	1,300.00	sf	30.00 /sf
	<b>Concrete - Place &amp; Finish SOD</b>			<b>5.809/sf</b>
				<b>790,035</b>
				<b>136,000.00 sf</b>
<b>03-1113.630</b>	<b>Vapor Barrier</b>			
12	15 mil Vapor Barrier	86,570.00	sf	1.00 /sf
	<b>Vapor Barrier</b>			<b>0.637/sf</b>
				<b>86,570</b>
				<b>136,000.00 sf</b>
<b>03-1113.635</b>	<b>Rigid Insulation</b>			
20	Rigid Foundation Insulation - Vertical	18,050.00	sf	4.25 /sf
120	Rigid Insulation Under Slab, Full Coverage	86,570.00	sf	3.85 /sf
				<b>76,713</b>
				<b>333,295</b>

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<b>Rigid Insulation</b>		<b>3.015/sf</b>	<b>410,007</b>
	136,000.00 sf			
<b>03-1113.710</b>	<b>Concrete Re-Bar</b>			
14	Re-Bar, Footings, Piers, Walls	70.00 tons	3,500.00 /tons	245,000
14	Re-Bar, SOG	5.00 tons	3,500.00 /tons	17,500
14	Re-Bar, SOD	14.00 tons	3,500.00 /tons	49,000
14	Re-Bar, SOD RTU	4.00 tons	3,500.00 /tons	14,000
	<b>Concrete Re-Bar</b>		<b>2.393/sf</b>	<b>325,500</b>
	136,000.00 sf			
	8,883.540 Labor hours			
<b>03-3500.110</b>	<b>S.O.G. Concrete</b>			
10	Place & Finish SOG - Included Saw Cuts for CJs and Sealant	86,570.00 sf	8.00 /sf	692,560
10	SOG Concrete	1,580.00 cy	110.00 /cy	173,800
	<b>S.O.G. Concrete</b>		<b>6.370/sf</b>	<b>866,360</b>
	136,000.00 sf			
<b>03-6110.100</b>	<b>Hand Grout Equip</b>			
500	Grout Elevator Sill Angles	2.00 ea	500.00 /ea	1,000
	<b>Hand Grout Equip</b>		<b>0.007/sf</b>	<b>1,000</b>
	136,000.00 sf			
<b>CONCRETE</b>			<b>28.234/sf</b>	<b>3,839,756</b>
	136,000.00 sf			
	8,883.540 Labor hours			

### 04-0000.000

### MASONRY

<b>04-2113.120</b>	<b>Brick &amp; Block</b>			
110	Exterior Mock up - Masonry Allowance	1.00 ls	25,000.00 /ls	25,000
110	Brick Veneer, Interstate, Norman Brick - MTN Red	30,330.00 sf	65.00 /sf	1,971,450
110	Brick Veneer, Ties & Anchoring	30,330.00 sf	5.00 /sf	151,650
110	Brick Veneer, Clean New	30,330.00 sf	4.00 /sf	121,320
110	Pre-Cast Concrete Base Panels	1,600.00 lf	125.00 /lf	200,000
110	Subcontractor Markups	1.00 ls	350,000.00 /ls	350,000
110	Recon Adjustment	-1.00 ls	600,000.00 /ls	(600,000)

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<b>Brick &amp; Block</b>		<b>16.319/sf</b>	<b>2,219,420</b>
	<b>136,000.00 sf</b>			
<b>04-2200.080</b>	<b>CMU Block</b>			
102	Interior CMU walls - Gymnasium	5,200.00 sf	40.00 /sf	208,000
102	Interior CMU walls - Elevator Shaft	1,476.00 sf	40.00 /sf	59,040
102	Interior CMU walls - Locker Rooms	0.00 sf		
	<b>CMU Block</b>		<b>1.964/sf</b>	<b>267,040</b>
	<b>136,000.00 sf</b>			
<b>04-9590.110</b>	<b>Staging</b>			
5	Masonry Staging - Exterior	31,000.00 sf	6.25 /sf	193,750
5	Masonry Staging - Interior	12,790.00 sf	6.25 /sf	79,938
	<b>Staging</b>		<b>2.012/sf</b>	<b>273,688</b>
	<b>136,000.00 sf</b>			
<b>MASONRY</b>			<b>20.295/sf</b>	<b>2,760,148</b>
	<b>136,000.00 sf</b>			
<b><u>05-0000.000</u>                      <u>METALS</u></b>				
<b>05-1200.110</b>	<b>Structural Steel</b>			
a 01	Structural Steel - Screen Wall, Allow	10.00 tn	5,250.00 /tn	52,500
a 01	Structural Steel - Columns, Assumed Qty (6x6x3/8)	112.00 tn	5,250.00 /tn	588,000
a 01	Structural Steel - Floors, Sized Members	178.00 tn	5,250.00 /tn	934,500
a 01	Structural Steel - Floors, Unsized Allow	62.00 tn	5,250.00 /tn	325,500
a 01	Structural Steel - Floors, Connections	38.00 tn	5,250.00 /tn	199,500
a 01	Structural Steel - Roof, Sized Members	283.00 tn	5,250.00 /tn	1,485,750
a 01	Structural Steel - Roof, Unsized Allow	135.00 tn	5,250.00 /tn	708,750
a 01	Structural Steel - Roof, Skylights, 800lf, W12x40	16.00 tn	5,250.00 /tn	84,000
a 01	Structural Steel - Roof, Connections	40.00 tn	5,250.00 /tn	210,000
	<b>Structural Steel</b>		<b>33.739/sf</b>	<b>4,588,500</b>
	<b>136,000.00 sf</b>			
<b>05-3100.110</b>	<b>Steel Roof Decking</b>			
320	Metal Roof Decking	77,200.00 sf	7.00 /sf	540,400
320	Metal Roof Decking - Acoustic, Gymnasium, Cafeteria	6,800.00 sf	8.00 /sf	54,400

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<b>Steel Roof Decking</b>		<b>4.374/sf</b>	<b>594,800</b>
	136,000.00 sf			
<b>05-3100.114</b>	<b>Steel Floor Decking</b>			
618	Metal Floor Deck	52,000.00 sf	7.00 /sf	364,000
	<b>Steel Floor Decking</b>		<b>2.676/sf</b>	<b>364,000</b>
	136,000.00 sf			
<b>05-5113.100</b>	<b>Stairs &amp; Ladders</b>			
10	Stairs and Rails - Feature Stair	1.00 Flt	75,000.00 /Flt	75,000
10	Stairs and Rails - Egress	4.00 Flt	35,000.00 /Flt	140,000
10	Stairs and Rails - Roof	1.00 Flt	35,000.00 /Flt	35,000
	<b>Stairs &amp; Ladders</b>		<b>1.838/sf</b>	<b>250,000</b>
	136,000.00 sf			
<b>05-5820.120</b>	<b>Misc Steel</b>			
140	Misc Metals - Roof	136,000.00 sf	1.50 /sf	204,000
140	Misc Metals - Floor Construction	136,000.00 sf	5.00 /sf	680,000
140	Misc Metals - Exterior Walls	136,000.00 sf	0.50 /sf	68,000
140	Misc Metals - General	136,000.00 sf	3.00 /sf	408,000
140	Misc Metals - General Stairs			
	<b>Misc Steel</b>		<b>10.00 /sf</b>	<b>1,360,000</b>
	136,000.00 sf			
<b>METALS</b>			<b>52.627/sf</b>	<b>7,157,300</b>
	136,000.00 sf			

### 06-0000.000      ROUGH CARPENTRY

<b>06-0000.010</b>	<b>Carpentry</b>			
2	Misc. Blocking	136,000.00 sf	0.50 /sf	68,000
2	General Roof Blocking	136,000.00 sf	2.00 /sf	272,000
2	Roof Blocking Perimeter	2,000.00 lf	20.00 /lf	40,000
2	Window Blocking	4,300.00 lf	20.408 /lf	87,755
	<b>Carpentry</b>		<b>3.439/sf</b>	<b>467,755</b>
	136,000.00 sf			

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>ROUGH CARPENTRY</b>			<b>3.439/sf</b>	<b>467,755</b>
	<b>136,000.00 sf</b>			
<hr/>				
<b><u>06-2000.000</u>      <u>FINISH CARPENTRY</u></b>				
<b>06-2000.010</b>	<b>Finish Carpentry</b>			
	2 General Office, Custom Desk	1.00	ls	23,000.00 /ls
	2 Lobby/Cafeteria PLAM Wall Panels	4,560.00	sf	39.00 /sf
	2 Stage Front / Proscenium, Allowance	1.00	ls	20,000.00 /ls
	2 Custom Display Cases	1.00	ls	20,000.00 /ls
	2 Solid Surface Benches	50.00	lf	300.00 /lf
	2 Solid Surface Counters	36.00	lf	298.00 /lf
	2 Solid Surface Sills	730.00	lf	80.00 /lf
	2 PLAM Wall Panels, Allowance - Music, Cafe, Media	1,500.00	sf	39.00 /sf
	<b>Finish Carpentry</b>			<b>2.820/sf</b>
	<b>136,000.00 sf</b>			<b>383,468</b>
<b>FINISH CARPENTRY</b>			<b>2.820/sf</b>	<b>383,468</b>
	<b>136,000.00 sf</b>			
<hr/>				
<b><u>07-0000.000</u>      <u>THERMAL &amp; MOIST PROTECT</u></b>				
<b>07-1100.100</b>	<b>Damproofing and Waterproofing</b>			
	2 Elevator Pit Waterproofing	1.00	ea	8,500.00 /ea
	2 Foundation Damproofing	9,025.00	sf	9.00 /sf
	<b>Damproofing and Waterproofing</b>			<b>0.660/sf</b>
	<b>136,000.00 sf</b>			<b>89,725</b>
<b>07-2113.230</b>	<b>Insulation</b>			
	2 5" Rigid Cavity Wall Insulation (Masonry)	30,330.00	sf	5.50 /sf
	2 5" Rigid Cavity Wall Insulation (Panels)	11,200.00	sf	5.50 /sf
	2 3" Rigid Cavity Wall Insulation (Soffits)	2,700.00	sf	5.50 /sf
	2 Closed Cell Insulation - Ext Wall Roof Edges	3,300.00	sf	10.00 /sf
	2 Closed Cell Insulation - Air Sealing Edges	1.00	ls	25,000.00 /ls

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<b>Insulation</b>		<b>2.215/sf</b>	<b>301,265</b>
	136,000.00 sf			
<b>07-2700.100</b>	<b>Air Barriers</b>			
	10 Air Vapor Barrier, Self Adhered	45,230.00 sf	8.00 /sf	361,840
	<b>Air Barriers</b>		<b>2.661/sf</b>	<b>361,840</b>
	136,000.00 sf			
<b>07-4616.100</b>	<b>Composite Wall Panel</b>			
	2 GFRC Panel System	11,200.00 sf	140.00 /sf	1,568,000
	2 Composite Soffits	750.00 sf	145.00 /sf	108,750
	2 Roof Screen	0.00 NIC		
	<b>Composite Wall Panel</b>		<b>12.329/sf</b>	<b>1,676,750</b>
	136,000.00 sf			
	<b>THERMAL &amp; MOIST PROTECT</b>		<b>17.865/sf</b>	<b>2,429,580</b>
	136,000.00 sf			
<b><u>07-5000.000</u></b>	<b><u>ROOFING</u></b>			
<b>07-5300.100</b>	<b>Roofing</b>			
	2 PVC Roofing (Insulation, Vapor Barrier, Cover Board, Flashings)	84,000.00 sf	30.00 /sf	2,520,000
	2 Roof Edge Flashing	2,000.00 lf	50.00 /lf	100,000
	<b>Roofing</b>		<b>19.265/sf</b>	<b>2,620,000</b>
	136,000.00 sf			
	<b>ROOFING</b>		<b>19.265/sf</b>	<b>2,620,000</b>
	136,000.00 sf			

**07-7000.000**      **ROOF & WALL ACCESSORIES**

<b>07-7200.100</b>	<b>Roof Accessories</b>			
	10 Elevator Vents	1.00 ea	3,500.00 /ea	3,500
	10 Roof Ladders	3.00 ea	7,960.83 /ea	23,882

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>07-7200.100</b>	<b>Roof Accessories</b>			
	10 Roof Drains	34.00 ea	710.83 /ea	24,168
	10 Roof Dunnage, Allow	1.00 ls	50,000.00 /ls	50,000
	20 Roof Walkway pads	1,000.00 sf	25.00 /sf	25,000
	20 Roof Hatch - Standard Door to roof			
	<b>Roof Accessories</b>		<b>0.931/sf</b>	<b>126,551</b>
	<b>136,000.00 sf</b>			
	4.875 Labor hours			
<b>ROOF &amp; WALL ACCESSORIES</b>			<b>0.931/sf</b>	<b>126,551</b>
	<b>136,000.00 sf</b>			
	4.875 Labor hours			
<hr/>				
<b><u>07-8000.000</u></b>	<b><u>FIREPROOFING / CAULKING</u></b>			
<b>07-8100.001</b>	<b>Fire Safing</b>			
	002 Misc. Fire Stopping w/ Trades	136,000.00 sf		
<b>07-8100.100</b>	<b>Fireproofing</b>			
	2 Fireproofing, Allowance (Mech. Elec.)	1.00 ls	50,000.00 /ls	50,000
	2 Fireproofing, Intumescent Paint Allowance	1.00 ls	35,000.00 /ls	35,000
	2 Patch Days	4.00 cds	2,700.00 /cds	10,800
	2 Fireproofing, Roof Decking	1.00 ls	229,000.00 /ls	229,000
	<b>Fireproofing</b>		<b>2.388/sf</b>	<b>324,800</b>
	<b>136,000.00 sf</b>			
<b>07-9200.100</b>	<b>Interior Caulking</b>			
	40 Misc. Interior Caulking	136,000.00 sf	0.50 /sf	68,000
	<b>Interior Caulking</b>		<b>0.50 /sf</b>	<b>68,000</b>
	<b>136,000.00 sf</b>			
<b>07-9200.200</b>	<b>Exterior Caulking</b>			
	2 Exterior Joint/Control & Caulking	136,000.00 sf	0.50 /sf	68,000
	<b>Exterior Caulking</b>		<b>0.50 /sf</b>	<b>68,000</b>
	<b>136,000.00 sf</b>			

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>FIREPROOFING / CAULKING</b>			<b>3.388/sf</b>	<b>460,800</b>
	<b>136,000.00 sf</b>			
<b><u>08-0000.000</u>                      <u>DOORS &amp; WINDOWS</u></b>				
<b>08-1100.300</b>	<b>Doors</b>			
10	Typical Interior Doors	276.00 lfs	1,000.00 /lfs	276,000
10	Interior Ballistic Door and Sidelite, Lvl 3	1.00 lfs	25,000.00 /lfs	25,000
220	Exterior Doors	9.00 lfs	3,500.00 /lfs	31,500
	<b>Doors</b>		<b>2.445/sf</b>	<b>332,500</b>
	<b>136,000.00 sf</b>			
<b>08-1100.500</b>	<b>Door Frames</b>			
100	Interior Frames	262.00 ea	350.00 /ea	91,700
100	Frame Install - Installed w/ GWB	0.00 ea		
	<b>Door Frames</b>		<b>0.674/sf</b>	<b>91,700</b>
	<b>136,000.00 sf</b>			
<b>08-3500.100</b>	<b>Overhead Coiling</b>			
50	Overhead Door at Receiving	1.00 ea	15,000.00 /ea	15,000
50	Overhead Coiling Doors, Cafe, Allowance	3.00 ea	12,000.00 /ea	36,000
	<b>Overhead Coiling</b>		<b>0.375/sf</b>	<b>51,000</b>
	<b>136,000.00 sf</b>			
<b>08-4100.100</b>	<b>Glass &amp; Glazing</b>			
10	Interior Storefront	1,168.00 sf	125.00 /sf	146,000
10	Borrowed Lites	300.00 sf	85.00 /sf	25,500
10	Glass Guardrail - Cafeteria	18.00 lf	350.00 /lf	6,300
10	Glass Guardrail - Main Stair & Second Floor Corridor	239.00 lf	350.00 /lf	83,650
10	Interior Storefront - Ballistic	192.00 sf	400.00 /sf	76,800
10	Interior Storefront - Ballistic Doors	4.00 lfs	15,000.00 /lfs	60,000
10	Calming room One way Windows (4'x4')	60.00 sf	85.00 /sf	5,100
10	PT Mirrors, Allow	25.00 sf	80.00 /sf	2,000
	<b>Glass &amp; Glazing</b>		<b>2.981/sf</b>	<b>405,350</b>
	<b>136,000.00 sf</b>			
<b>08-4400.110</b>	<b>Curtainwall</b>			



**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>08-4400.110</b>	<b>Curtainwall</b>			
1000	Exterior Aluminum Curtainwall	3,550.00 sf	225.00 /sf	798,750
1000	Alum Doors, Frames & Hardware, Exterior	17.00 lfs	8,000.00 /lfs	136,000
1000	Window Films - Security Film	1,500.00 sf	40.00 /sf	60,000
1000	Alum Doors, Frames & Hardware, Interior	9.00 lfs	10,000.00 /lfs	90,000
1000	Skylight Systems	4,000.00 sf	210.00 /sf	840,000
1000	Exterior Aluminum Curtainwall / Storefront - Ballistic	1.00 ls	20,000.00 /ls	20,000
1000	Exterior Aluminum Storefront / windows	4,580.00 sf	168.00 /sf	769,440
1000	Exterior Aluminum Curtainwall - Sunshades, Allow	1.00 allow	75,000.00 /allow	75,000
	<b>Curtainwall</b>		<b>20.509/sf</b>	<b>2,789,190</b>
	<b>136,000.00 sf</b>			
<b>08-7100.090</b>	<b>Finish Hardware</b>			
10	Card Readers	4.00 ea	3,500.00 /ea	14,000
10	Door and Hardware Install	251.00 ea	650.00 /ea	163,150
10	Finish Hardware - Allowance	251.00 lfs	1,750.00 /lfs	439,250
10	Door and Hardware Install - Exterior	9.00 ea	650.00 /ea	5,850
10	Finish Hardware - Allowance	9.00 lfs	1,750.00 /lfs	15,750
	<b>Finish Hardware</b>		<b>4.691/sf</b>	<b>638,000</b>
	<b>136,000.00 sf</b>			
<b>DOORS &amp; WINDOWS</b>			<b>31.675/sf</b>	<b>4,307,740</b>
	<b>136,000.00 sf</b>			
<b><u>09-0000.000</u></b>	<b><u>FINISHES</u></b>			
<b>09-2000.010</b>	<b>Drywall Partitions</b>			
100	Exterior Wall Back Up, 8" LGMF, GWB interior Face, Insul	50,800.00 sf	21.00 /sf	1,066,800
100	Typical interior Partitions, Double Sided	130,504.00 sf	20.00 /sf	2,610,080
100	Typical interior Partitions, Single Sided	25,302.00 sf	17.00 /sf	430,134
100	Exterior Wall - Densglass Sheathing	55,600.00 sf	6.00 /sf	333,600
100	Skylight Surrounds	4,764.00 sf	30.00 /sf	142,920
100	General Carp / Labor	136,000.00 sf	2.00 /sf	272,000
100	Lifts & Staging	1.00 ls	45,000.00 /ls	45,000
100	FRP - 8' Height, Kitchen, JC	265.00 lf	110.00 /lf	29,150
100	Exterior Soffit Framing	750.00 sf	75.00 /sf	56,250
100	Mock ups	1.00 ls	20,000.00 /ls	20,000
100	FRP - 8' Height, Eyewash Showers	198.00 lf	110.00 /lf	21,780
	<b>Drywall Partitions</b>		<b>36.968/sf</b>	<b>5,027,714</b>
	<b>136,000.00 sf</b>			

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<b>Drywall Partitions</b>		<b>36.968/sf</b>	<b>5,027,714</b>
	<b>136,000.00 sf</b>			
<b>09-2000.014</b>	<b>Drywall Ceilings</b>			
	2499 GWB Ceilings / Soffiting	136,000.00 sf	1.90 /sf	258,400
	<b>Drywall Ceilings</b>		<b>1.90 /sf</b>	<b>258,400</b>
	<b>136,000.00 sf</b>			
<b>09-3100.100</b>	<b>Wall Tile</b>			
	50 Porcelain Wall Tile - Corridors, 7' AFF	14,840.00 sf	33.00 /sf	489,720
	50 Porcelain Wall Tile - Restrooms, 7' AFF	9,700.00 sf	33.00 /sf	320,100
	50 Porcelain Wall Tile - Cafeteria, 8' AFF	850.00 sf	33.00 /sf	28,050
	50 Ceramic Wall Tile - Stairs, 7' AFF	3,080.00 sf	33.00 /sf	101,640
	50 Ceramic Wall Tile - Locker Room, 7' AFF	2,388.00 sf	33.00 /sf	78,804
	50 Porcelain Wall Tile - Lobby, 7' AFF	4,200.00 sf	33.00 /sf	138,600
	<b>Wall Tile</b>		<b>8.507/sf</b>	<b>1,156,914</b>
	<b>136,000.00 sf</b>			
<b>09-3116.100</b>	<b>Terrazzo Tile</b>			
	2 Terrazzo Tile	5,000.00 sf	40.00 /sf	200,000
	2 Terrazzo Treads	220.00 lf	150.00 /lf	33,000
	<b>Terrazzo Tile</b>		<b>1.713/sf</b>	<b>233,000</b>
	<b>136,000.00 sf</b>			
<b>09-5000.110</b>	<b>Ceilings - ACT</b>			
	2 ACT-1: 2x2- Classrooms, Corridors, Offices	85,350.00 sf	6.75 /sf	576,113
	2 ACT-2: 2x2 - Kitchen	2,450.00 sf	7.50 /sf	18,375
	2 ACT-3: 2x2 - 50% Music/Band	1,000.00 sf	10.00 /sf	10,000
	2 ACT-4: 2x2 - Toilet Rooms/Locker Rooms/Custodial	6,210.00 sf	10.50 /sf	65,205
	2 ACT-5: 2x2 - Health/Wellness/OT/PT/Exec. Funct.	2,750.00 sf	18.00 /sf	49,500
	2 ACT-6: 2x2 - 50% Music/Band - Geometric Diffusers	1,000.00 sf	40.00 /sf	40,000
	2 ACT-7: Clouds - Cafeteria	4,200.00 sf	75.00 /sf	315,000
	2 ACT-8: TBD - Platform Allowance	1,060.00 sf	20.00 /sf	21,200
	<b>Ceilings - ACT</b>		<b>8.054/sf</b>	<b>1,095,393</b>
	<b>136,000.00 sf</b>			
<b>09-6000.100</b>	<b>Flooring - General</b>			
	2 Floors Moisture Mitigation Testing	5.00 loc	400.00 /loc	2,000
	2 Floors Moisture Mitigation	17,000.00 sf	1.00 /sf	17,000

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>09-6000.100</b>	<b>Flooring - General</b>			
2	Flooring Protection	108,750.00 sf	1.25 /sf	135,938
	<b>Flooring - General</b>		<b>1.139/sf</b>	<b>154,938</b>
	<b>136,000.00 sf</b>			
<b>09-6200.100</b>	<b>Resinious Flooring</b>			
40	Epoxy Flooring	16,059.00 sf	27.50 /sf	441,623
	<b>Resinious Flooring</b>		<b>3.247/sf</b>	<b>441,623</b>
	<b>136,000.00 sf</b>			
<b>09-6400.100</b>	<b>Flooring- Wood</b>			
145	Sports Surfaces, 2-1/8" Flooring System - Gymnasium	7,010.00 sf	28.00 /sf	196,280
145	Wood Flooring, Maple (Stage)	1,450.00 sf	27.00 /sf	39,150
	<b>Flooring- Wood</b>		<b>1.731/sf</b>	<b>235,430</b>
	<b>136,000.00 sf</b>			
<b>09-6500.100</b>	<b>Flooring- Resilient</b>			
2	Linoleum Flooring	45,220.00 sf	7.00 /sf	316,540
2	Resilient Base	16,879.00 lf	5.00 /lf	84,395
	<b>Flooring- Resilient</b>		<b>2.948/sf</b>	<b>400,935</b>
	<b>136,000.00 sf</b>			
<b>09-6500.200</b>	<b>Flooring- Resilient Stair</b>			
2	Rubber Tile Landings & Treads	4.00 ft	4,500.00 /ft	18,000
	<b>Flooring- Resilient Stair</b>		<b>0.132/sf</b>	<b>18,000</b>
	<b>136,000.00 sf</b>			
<b>09-6800.100</b>	<b>Flooring - Carpet</b>			
f 10	Carpet Tile	726.00 sy	60.00 /sy	43,560
	<b>Flooring - Carpet</b>		<b>0.320/sf</b>	<b>43,560</b>
	<b>136,000.00 sf</b>			
<b>09-6900.100</b>	<b>Walk Off Mats and Framing</b>			
20	Metal Grating Frames, Vestibule	300.00 sf	28.302 /sf	8,491
20	Walk Off Mats	300.00 sf	5.975 /sf	1,792

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<b>Walk Off Mats and Framing</b>		0.076/sf	10,283
	136,000.00 sf			
	60.00 Labor hours			
<b>09-7216.110</b>	<b>Wall Coverings &amp; Wall Protection</b>			
	2 Wall Protection - FRP at Kitchen, See Drywall			
	2 Custom Graphic Wall Allowance	1,000.00 sf	15.00 /sf	15,000
	<b>Wall Coverings &amp; Wall Protection</b>		0.110/sf	15,000
	136,000.00 sf			
<b>09-8400.100</b>	<b>Acoustical Panels</b>			
	2 Acoustical Wall Panels	2,900.00 sf	42.00 /sf	121,800
	2 Acoustical Wall Panels, Allowance, Media, Band, Gym, Etc.	1.00 ls	100,000.000 /ls	100,000
	2 Acoustical Wall Panels - Snap on Aluminum Extrusions	1.00 Allow	15,000.00 /Allow	15,000
	<b>Acoustical Panels</b>		1.741/sf	236,800
	136,000.00 sf			
<b>09-9113.100</b>	<b>Painting- Exterior</b>			
	30 Paint Exterior HM Door Frames	4.00 ea	250.00 /ea	1,000
	30 Paint Exterior HM Doors	5.00 lfs	350.00 /lfs	1,750
	<b>Painting- Exterior</b>		0.020/sf	2,750
	136,000.00 sf			
<b>09-9123.200</b>	<b>Painting- Interior</b>			
	10 Paint Walls - GYP	335,000.00 sf	1.45 /sf	485,750
	10 Paint Walls - CMU	6,700.00 sf	1.50 /sf	10,050
	10 Paint Touch up Allowance	1.00 ls	20,000.00 /ls	20,000
	10 Sealed Concrete	1,935.00 sf	8.00 /sf	15,480
	20 Paint Exposed Ceilings	9,323.00 sf	3.50 /sf	32,631
	30 Paint pan stairs & Rails	5.00 Flt	2,500.00 /Flt	12,500
	40 Paint Doors And Frames	277.00 ea	230.00 /ea	63,710
	<b>Painting- Interior</b>		4.707/sf	640,121
	136,000.00 sf			
<b>FINISHES</b>			<b>73.315/sf</b>	<b>9,970,859</b>
	136,000.00 sf			

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
			<b>Total</b>	
<b>FINISHES</b>			<b>73.315/sf</b>	<b>9,970,859</b>
		<b>136,000.00</b>	<b>sf</b>	
		60.00	Labor hours	
<b>10-0000.000</b>		<b>SPECIALTIES</b>		
<b>10-1113.100</b>	<b>Visual Display Systems</b>			
	2 Magnetic White Boards	110.00	ea 750.00 /ea	82,500
	2 Interactive White Boards	55.00	ea 2,000.00 /ea	110,000
	2 Tackboards	55.00	ea 950.00 /ea	52,250
			<b>1.800/sf</b>	<b>244,750</b>
		<b>136,000.00</b>	<b>sf</b>	
<b>10-1400.120</b>	<b>Signage</b>			
	110 8x8 ADA Classroom / Office / Typ Doors	262.00	ea 130.00 /ea	34,060
	110 8x6 ADA Restroom	10.00	ea 90.00 /ea	900
	110 10x8 ADA Elevator	2.00	ea 110.00 /ea	220
	110 12x12 Wayfinding	5.00	ea 190.00 /ea	950
	110 14x10 Stair Signage	6.00	ea 190.00 /ea	1,140
	110 Emergency Map Holder	10.00	ea 75.00 /ea	750
	110 Aluminum Letters - Allowance - 'Clinton Middle School'	1.00	ea 17,500.00 /ea	17,500
	110 24x24 Dedication Plaque	1.00	ea 5,000.00 /ea	5,000
	110 Misc. Signage	136,000.00	sf 0.50 /sf	68,000
	110 Aluminum Letters - Cafeteria	30.00	ea 225.00 /ea	6,750
			<b>0.995/sf</b>	<b>135,270</b>
		<b>136,000.00</b>	<b>sf</b>	
<b>10-2113.110</b>	<b>Toilet Partitions</b>			
	2 Plastic Toilet Partitions	41.00	ea 1,750.00 /ea	71,750
	2 Urinal Screen	7.00	ea 500.00 /ea	3,500
	2 Toilet Partition Installation	1.00	ls 30,000.00 /ls	30,000
			<b>0.774/sf</b>	<b>105,250</b>
		<b>136,000.00</b>	<b>sf</b>	
<b>10-2123.200</b>	<b>Curtains &amp; Track</b>			
	20 Curtains & Track - Resting Area	3.00	ea 2,000.00 /ea	6,000

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total
				Amount
	<b>Curtains &amp; Track</b>			<b>6,000</b>
	3.00 Labor hours			
<b>10-2226.100</b>	<b>Partitions Folding</b>			
	2 Operable Partition - 45'	1.00 ea	70,000.00 /ea	70,000
	<b>Partitions Folding</b>		<b>0.515/sf</b>	<b>70,000</b>
	<b>136,000.00 sf</b>			
<b>10-2813.100</b>	<b>Toilet Accessories</b>			
	2 18" Grab Bars	28.00 ea	100.00 /ea	2,800
	2 42" Grab Bars	28.00 ea	150.00 /ea	4,200
	2 TP Dispensers	58.00 ea	65.00 /ea	3,770
	2 PT Dispenser w/Trash	28.00 ea	225.00 /ea	6,300
	2 Paper Towel Dispensers	2.00 ea	100.00 /ea	200
	2 Sanitary Napkin Disposal	35.00 ea	100.00 /ea	3,500
	2 18 x 36 Framed Mirrors	36.00 ea	500.00 /ea	18,000
	2 Janitor Mop Racks	5.00 ea	250.00 /ea	1,250
	2 Changing Table, Allow	2.00 ea	3,500.00 /ea	7,000
	2 Toilet Accessories - Installation	1.00 ls	45,000.00 /ls	45,000
	<b>Toilet Accessories</b>		<b>0.677/sf</b>	<b>92,020</b>
	<b>136,000.00 sf</b>			
<b>10-4413.100</b>	<b>Fire Cabinets</b>			
	30 MP-20 Extinguisher	20.00 ea	347.757 /ea	6,955
	30 Extinguisher Cabinets, Allow	20.00 ea	391.227 /ea	7,825
	30 Fire Extinguisher Cabinet Install	20.00 ea	285.00 /ea	5,700
	30 AED Cabinet, Allow	1.00 ea	2,500.00 /ea	2,500
	<b>Fire Cabinets</b>		<b>0.169/sf</b>	<b>22,980</b>
	<b>136,000.00 sf</b>			
<b>10-5100.100</b>	<b>Lockers Metal</b>			
	10 Lockers, 15x12 Corridors, Double Tier Metal	590.00 ea	335.00 /ea	197,650
	10 Lockers, Kitchen / Staff	8.00 ea	335.00 /ea	2,680
	10 Locker Room Lockers, 15x12 Double Tier, Metal	108.00 ea	350.00 /ea	37,800
	10 Locker Room Bench, Under Lockers (Locker Room)	120.00 lf	500.00 /lf	60,000
	10 Lockers, Gender Neutral Lockers	6.00 ea	335.00 /ea	2,010
	10 Extra Locker Doors - 5%	36.00 ea	100.00 /ea	3,600
	<b>Lockers Metal</b>		<b>2.233/sf</b>	<b>303,740</b>
	<b>136,000.00 sf</b>			

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
			<b>Total</b>	
<b>SPECIALTIES</b>			<b>7.206/sf</b>	<b>980,010</b>
<b>136,000.00 sf</b>				
	3.00 Labor hours			
<b><u>11-0000.000</u></b>		<b><u>EQUIPMENT</u></b>		
<b>11-3000.110</b>	<b>Residential Equipment</b>			
80	Nurses Office Refrigerator	1.00	ea 1,500.00 /ea	1,500
80	Staff Room Refrigerator	3.00	ea 2,000.00 /ea	6,000
80	Science Prep Room Refrigerator	3.00	ea 1,500.00 /ea	4,500
80	Adult Living Refrigerator	1.00	ea 1,500.00 /ea	1,500
80	Life Science Fridge/Freezer	1.00	ea 1,500.00 /ea	1,500
100	Microwaves	3.00	ea 500.00 /ea	1,500
100	Dishwasher	1.00	ea 1,500.00 /ea	1,500
100	Front Load Washer	1.00	ea 2,000.00 /ea	2,000
100	Front Load Dryer	1.00	ea 2,000.00 /ea	2,000
	<b>Residential Equipment</b>		<b>0.162/sf</b>	<b>22,000</b>
<b>136,000.00 sf</b>				
<b>11-4000.110</b>	<b>Food Service</b>			
2	Food Service Equipment - Allowance	1.00	ls 650,000.00 /ls	650,000
	<b>Food Service</b>		<b>4.779/sf</b>	<b>650,000</b>
<b>136,000.00 sf</b>				
<b>11-5213.001</b>	<b>Projection Equipment</b>			
001	Projection Screen 10' x 16'	1.00	ea 7,000.00 /ea	7,000
001	Projection Screen 20' x 12'	1.00	ea 12,000.00 /ea	12,000
	<b>Projection Equipment</b>		<b>0.140/sf</b>	<b>19,000</b>
<b>136,000.00 sf</b>				
<b>11-5300.110</b>	<b>Miscellaneous Equipment</b>			
2	Kiln (Furnish & Install)	1.00	ea 16,500.00 /ea	16,500
	<b>Miscellaneous Equipment</b>		<b>0.121/sf</b>	<b>16,500</b>
<b>136,000.00 sf</b>				
<b>11-6050.000</b>	<b>Theatrical Equipment</b>			
010	Rigging and Curtain System	1.00	allow 185,000.00 /allow	185,000

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<b>Theatrical Equipment</b>		<b>1.360/sf</b>	<b>185,000</b>
	<b>136,000.00 sf</b>			
<b>11-6833.110</b>	<b>Athletic Equipment</b>			
10	Motorized Basketball Hoops, Winch, Connectors.	6.00 ea	12,500.00 /ea	75,000
10	Motorized Divider Curtain in Gym	1.00 ea	20,000.00 /ea	20,000
10	Volley Ball Equipment - Net	1.00 ls	10,000.00 /ls	10,000
10	Volley Ball Equipment - Sleeves & Poles	1.00 ls	5,000.00 /ls	5,000
38	Wall Pads - 6' tall x 2' wide, Fire Rated - Gym, Allowance	1,700.00 sf	38.50 /sf	65,450
38	Interior Scoreboard w/Shot Clock	1.00 ea	15,000.00 /ea	15,000
38	Wall Pads - Calming room Allowance (35lf/ea)	630.00 ea	40.00 /ea	25,200
	<b>Athletic Equipment</b>		<b>1.586/sf</b>	<b>215,650</b>
	<b>136,000.00 sf</b>			
	<b>EQUIPMENT</b>		<b>8.148/sf</b>	<b>1,108,150</b>
	<b>136,000.00 sf</b>			
<b>12-0000.000</b>	<b>FURNISHINGS</b>			
<b>12-2113.100</b>	<b>Shades - Blinds</b>			
2	Window Shades	136,000.00 sf	0.70 /sf	95,200
	<b>Shades - Blinds</b>		<b>0.70 /sf</b>	<b>95,200</b>
	<b>136,000.00 sf</b>			
<b>12-3000.130</b>	<b>Manufactured Casework</b>			
10	PLAM Countertops w/Backsplash	1,733.00 lf	115.00 /lf	199,295
10	PLAM Base Cabinets	755.00 ea	860.00 /ea	649,300
10	PLAM Cubbies	20.00 ea	1,180.00 /ea	23,600
10	PLAM Tall / Teacher Cabinets	123.00 ea	1,725.00 /ea	212,175
10	PLAM Wall Cabinets	368.00 ea	700.00 /ea	257,600
10	Epoxy Peg Boards	20.00 ea	950.00 /ea	19,000
10	Epoxy Tops w/Backsplash	512.00 lf	340.00 /lf	174,080
10	Epoxy Sills / Backsplashes	252.00 lf	240.00 /lf	60,480
10	Mobile Workstations w/Epoxy Tops	49.00 ea	2,550.00 /ea	124,950
10	Metal Grilles at Sills / Backsplash's (4" x 30")	322.00 ea	150.00 /ea	48,300
	<b>Manufactured Casework</b>		<b>13.006/sf</b>	<b>1,768,780</b>
	<b>136,000.00 sf</b>			



**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>12-3553.150</b>	<b>Music Education Casework</b>			
001	Band / Music Storage Cabinets, Allowance	1.00 ls	85,000.00 /ls	85,000
	<b>Music Education Casework</b>		<b>0.625/sf</b>	<b>85,000</b>
	<b>136,000.00 sf</b>			
<b>12-6600.100</b>	<b>Stands &amp; Bleachers</b>			
10	Telescopic Bleachers - Gymnasium	1.00 ls	175,000.00 /ls	175,000
10	Band Room, Movable Bleachers - NIC			
	<b>Stands &amp; Bleachers</b>		<b>1.287/sf</b>	<b>175,000</b>
	<b>136,000.00 sf</b>			
<b>FURNISHINGS</b>			<b>15.618/sf</b>	<b>2,123,980</b>
	<b>136,000.00 sf</b>			

**14-0000.000      CONVEYING SYSTEMS**

<b>14-2000.100</b>	<b>Elevators &amp; Conveying</b>			
2	Elevator Usage - Operator	10.00 cd	2,500.00 /cd	25,000
2	Elevator, Holeless Hydraulic	2.00 stop	95,000.00 /stop	190,000
	<b>Elevators &amp; Conveying</b>		<b>1.581/sf</b>	<b>215,000</b>
	<b>136,000.00 sf</b>			
<b>CONVEYING SYSTEMS</b>			<b>1.581/sf</b>	<b>215,000</b>
	<b>136,000.00 sf</b>			

**21-0000.000      FIRE SUPPRESSION**

<b>21-0010.001</b>	<b>Fire Protection</b>			
1	Fire Protection Standpipe			
1	8" Fire Service	1.00 ls	12,000.00 /ls	12,000
1	4" Sprinkler Main w/ Fittings & Hangers	2,330.00 lf	52.50 /lf	122,325
1	3" Sprinkler Main w/ Fittings & Hangers	455.00 lf	43.25 /lf	19,679
1	2-1/2" Sprinkler Main w/ Fittings & Hangers	820.00 lf	41.10 /lf	33,702
1	Fire Department Connection	1.00 ea	3,200.00 /ea	3,200
1	Alarm valve	3.00 ea	4,800.00 /ea	14,400
1	Valves and accessories	1.00 ls	25,000.00 /ls	25,000

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>21-0010.001</b>	<b>Fire Protection</b>			
1	Fire Protection General Conditions			
1	Hydraulic Calculations	1.00 ls	3,000.00 /ls	3,000
1	Fire Protection Sprinkler System			
1	Zone Control Valve	2.00 ea	2,200.00 /ea	4,400
1	Sprinkler Head - Dry	10.00 ea	275.00 /ea	2,750
1	Sprinkler Head - Pendant/Upright	1,236.00 sf	120.00 /sf	148,320
1	Distribution & Branch Piping	17,500.00 lf	35.00 /lf	612,500
1	Testing & Inspection	1.00 ls	8,000.00 /ls	8,000
1	Drain & Fill System	1.00 ls	2,000.00 /ls	2,000
1	Coordination and Management	1.00 ls	40,000.00 /ls	40,000
1	Permits and Fees	1.00 ls	12,000.00 /ls	12,000
1	Coordination Drawings / BIM	1.00 ls	25,000.00 /ls	25,000
1	Seismic Restraints / Bracing - includes design	1.00 ls	7,000.00 /ls	7,000
1	Coring & Patching / Firestopping	1.00 ls	8,000.00 /ls	8,000
1	Hoisting & Rigging / Floor Loading	1.00 ls	5,000.00 /ls	5,000
	<b>Fire Protection</b>		<b>8.149/sf</b>	<b>1,108,276</b>
	<b>136,000.00 sf</b>			
<b>FIRE SUPPRESSION</b>			<b>8.149/sf</b>	<b>1,108,276</b>
	<b>136,000.00 sf</b>			

**22-0000.000      PLUMBING**

<b>22-0010.001</b>	<b>Plumbing</b>			
1	Plumbing Fixtures			
1	P-1 Water Closet, wall/sensor	27.00 ea	2,400.00 /ea	64,800
1	P-2 Water Closet, wall/sensor	32.00 ea	2,450.00 /ea	78,400
1	P-3 Urinal, wall/sensor	7.00 ea	2,200.00 /ea	15,400
1	P-4 Urinal, wall/sensor	7.00 ea	2,200.00 /ea	15,400
1	Domestic Water Distribution			
1	4" Domestic Water Pipe (Type "L" Cu.)	430.00 lf	140.00 /lf	60,200
1	3" Domestic Water Pipe (Type "L" Cu.)	80.00 lf	85.00 /lf	6,800
1	Sanitary Waste & Vent Piping (Under Ground)			
1	Storm Piping (Under Ground)			
1	RD-1 - (Comb RD/OD)	34.00 ea	1,600.00 /ea	54,400
1	Downspout Nozzle	16.00 ea	1,200.00 /ea	19,200
1	Kitchen Plumbing Connections			
1	Kitchen Equipment and Fixture Connections	1.00 ls	15,000.00 /ls	15,000
1	Radon Mitigation System			
1	4" PVC (Sched 40) - Risers	800.00 lf	53.00 /lf	42,400
1	P-5 Lavatory, wall/sensor	30.00 ea	2,300.00 /ea	69,000
1	P-6 Lavatory, wall/sensor	33.00 ea	2,300.00 /ea	75,900
1	P-7 Water Cooler	7.00 ea	4,500.00 /ea	31,500
1	P-8 Mop Receptor	3.00 ea	2,200.00 /ea	6,600
1	P-9 Sink	25.00 ea	1,900.00 /ea	47,500

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>22-0010.001</b>	<b>Plumbing</b>			
1	P-10L/10R Sink	42.00 ea	1,900.00 /ea	79,800
1	P-11 Sink	4.00 ea	1,900.00 /ea	7,600
1	P-12 Art Sink, 2 faucets and interceptor	8.00 ea	2,850.00 /ea	22,800
1	P-13 Exam Sink	2.00 ea	1,800.00 /ea	3,600
1	P-14 Shower Base, Valve & Drain	2.00 ea	2,400.00 /ea	4,800
1	P-15 Shower Valve & Drain	2.00 ea	2,000.00 /ea	4,000
1	P-16 Emergency Shower/Eyewash	12.00 ea	3,500.00 /ea	42,000
1	P-17 Water Closet, floor/sensor	2.00 ea	2,000.00 /ea	4,000
1	P-18 Washer Valve & Drain	2.00 ea	1,250.00 /ea	2,500
1	L-1 Faucet & Trim	20.00 ea	1,250.00 /ea	25,000
1	L-2 Faucet & Trim	8.00 ea	1,250.00 /ea	10,000
1	L-3 Faucet & Trim	4.00 ea	1,250.00 /ea	5,000
1	L-4 Faucet & Trim	5.00 ea	1,250.00 /ea	6,250
1	2-1/2" Domestic Water Pipe (Type "L" Cu.)	620.00 lf	64.00 /lf	39,680
1	2" Domestic Water Pipe (Type "L" Cu.)	1,385.00 lf	45.00 /lf	62,325
1	1-1/2" Domestic Water Pipe Type "L" Cu.)	380.00 lf	35.00 /lf	13,300
1	1-1/4" Domestic Water Pipe (Type "L" Cu.)	585.00 lf	32.00 /lf	18,720
1	1" Domestic Water Pipe (Type "L" Cu.)	565.00 lf	26.00 /lf	14,690
1	3/4" Domestic Water Pipe (Type "L" Cu.)	1,665.00 lf	21.00 /lf	34,965
1	1/2" Domestic Water Pipe (Type "L" Cu.)	3,375.00 lf	19.00 /lf	64,125
1	Fixture Rough In Piping	5,000.00 lf	28.00 /lf	140,000
1	Misc. Valves, Tags & Fittings	1.00 ls	68,221.00 /ls	68,221
1	Pipe Insulation - (1/2" - 1-1/4")	11,190.00 lf	11.00 /lf	123,090
1	Pipe Insulation - (1-1/2" - 5")	2,895.00 lf	16.00 /lf	46,320
1	Tempered Water Piping			
1	2" TWS&R - Tempered Water Pipe - Main (Type "L" Cu.)	475.00 lf	45.00 /lf	21,375
1	1-1/4" TWS&R - Tempered Water Pipe - Main (Type "L" Cu.)	125.00 lf	32.00 /lf	4,000
1	Misc. Valves, Tags & Fittings	1.00 ls	3,806.00 /ls	3,806
1	Pipe Insulation - (1/2" - 1-1/4")	600.00 lf	11.00 /lf	6,600
1	Domestic Water Equipment			
1	Backflow Preventer, 4"	2.00 ea	7,950.00 /ea	15,900
1	Backflow Preventer, 2"	2.00 ls	990.00 /ls	1,980
1	Backflow Preventer, 1"	1.00 ea	990.00 /ea	990
1	PRV Station	1.00 ea	5,000.00 /ea	5,000
1	Circulating Pump	2.00 ea	2,200.00 /ea	4,400
1	Heat Pump Water Heaters	2.00 ea	65,000.00 /ea	130,000
1	Hot Water Storage Tank	3.00 ea	20,000.00 /ea	60,000
1	Expansion Tank	2.00 ea	2,400.00 /ea	4,800
1	Water Meter, 4"	1.00 ea	5,500.00 /ea	5,500
1	MV-1 - MV-2 - Mixing Valve	2.00 ea	2,800.00 /ea	5,600
1	HB - Hose Bibb	14.00 ea	250.00 /ea	3,500
1	Wall Hydrant	10.00 ea	700.00 /ea	7,000
1	6" Sanitary Waste & Vent Pipe (U)	75.00 lf	74.00 /lf	5,550
1	4" Sanitary Waste & Vent Pipe (U)	1,640.00 lf	62.00 /lf	101,680
1	3" Sanitary Waste & Vent Pipe (U)	475.00 lf	55.00 /lf	26,125
1	2" Sanitary Waste & Vent Pipe (U)	850.00 lf	45.00 /lf	38,250
1	Cleanout	42.00 ea	450.00 /ea	18,900
1	Sanitary Waste & Vent Piping (Above Ground)			
1	4" Sanitary Waste & Vent Pipe (A)	1,560.00 lf	68.00 /lf	106,080
1	3" Sanitary Waste & Vent Pipe (A)	200.00 lf	59.00 /lf	11,800

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>22-0010.001</b>	<b>Plumbing</b>			
1	2" Sanitary Waste & Vent Pipe (A)	2,090.00 lf	48.00 /lf	100,320
1	1-1/2" Kitchen Waste & Vent Pipe (A)	180.00 lf	42.00 /lf	7,560
1	Fixture Rough In Piping	3,750.00 lf	55.00 /lf	206,250
1	Sanitary and Vent Equipment			
1	Grease Interceptor - Interior	1.00 ea	10,000.00 /ea	10,000
1	FD-1 - Floor Drain	35.00 ea	1,000.00 /ea	35,000
1	FD-2 - Floor Drain	2.00 ea	1,200.00 /ea	2,400
1	FD-3 - Floor Sink	9.00 ea	1,600.00 /ea	14,400
1	FD-4 - Floor Drain	1.00 ea	1,200.00 /ea	1,200
1	Electronic Trap Primer	20.00 ea	1,100.00 /ea	22,000
1	SP-1 - Elevator Sump Pump w/Oil Separator	1.00 ea	12,000.00 /ea	12,000
1	Lab Waste & Vent Piping (Under Ground)			
1	4" Lab Waste & Vent Pipe (U)	315.00 lf	85.00 /lf	26,775
1	3" Lab Waste & Vent Pipe (U)	390.00 lf	70.00 /lf	27,300
1	Cleanout	16.00 ea	600.00 /ea	9,600
1	Lab Waste & Vent Piping (Above Ground)			
1	2" Lab Waste & Vent Pipe (A)	605.00 lf	85.00 /lf	51,425
1	Fixture Rough In Piping	555.00 lf	75.00 /lf	41,625
1	Lab Waste Neutralization System	1.00 ls	45,000.00 /ls	45,000
1	15" Storm Pipe (U)	175.00 lf	310.00 /lf	54,250
1	12" Storm Pipe (U)	370.00 lf	225.00 /lf	83,250
1	10" Storm Pipe (U)	210.00 lf	160.00 /lf	33,600
1	8" Storm Pipe (U)	330.00 lf	120.00 /lf	39,600
1	6" Storm Pipe (U)	405.00 lf	75.00 /lf	30,375
1	Storm Piping (Above Ground)			
1	8" Storm Pipe (A)	525.00 lf	175.00 /lf	91,875
1	6" Storm Pipe (A)	2,415.00 lf	90.00 /lf	217,350
1	4" Storm Pipe (A)	840.00 lf	68.00 /lf	57,120
1	Drain Pipe Insulation	2,915.00 lf	18.00 /lf	52,470
1	4" PVC (Sched 40) - Underground	3,150.00 lf	48.00 /lf	151,200
1	Plumbing General Conditions			
1	Testing & Disinfection	1.00 ls	12,000.00 /ls	12,000
1	Coordination & Management	1.00 ls	120,000.00 /ls	120,000
1	Permits and Fees	1.00 ls	45,000.00 /ls	45,000
1	Coordination Drawings / BIM	1.00 ls	60,000.00 /ls	60,000
1	Seismic Restraints / Bracing	1.00 ls	40,000.00 /ls	40,000
1	Coring & Patching / Firestopping	1.00 ls	25,000.00 /ls	25,000
1	Hoisting & Rigging / Floor Loading	1.00 ls	20,000.00 /ls	20,000
1	Equipment start up and inspection	1.00 ls	15,000.00 /ls	15,000
1	Access Panels - Furnish Only	1.00 ls	10,000.00 /ls	10,000
	<b>Plumbing</b>		<b>27.978/sf</b>	<b>3,805,067</b>
	<b>136,000.00 sf</b>			
<b>PLUMBING</b>			<b>27.978/sf</b>	<b>3,805,067</b>
	<b>136,000.00 sf</b>			

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b><u>23-0000.000</u></b>				
	<b><u>HVAC</u></b>			
<b>23-0010.001</b>	<b>HVAC</b>			
1	Heating Equipment			
1	Heat Exchanger HX, 1/2, 230 GPM	2.00 ea	65,000.00 /ea	130,000
1	P-1A/1B/1C, 200 GPM w/VFD	3.00 ea	20,000.00 /ea	60,000
1	BP-1A/1B, 110 GPM	2.00 ea	11,000.00 /ea	22,000
1	Electric Boiler EWB-1/2, 240 KW	2.00 ea	65,000.00 /ea	130,000
1	Cooling Equipment			
1	ASHP Condensing Units - DOAS	208.00 ton	2,500.00 /ton	520,000
1	ASHP Condensing Units - RTUs	105.00 ton	2,500.00 /ton	262,500
1	ASHP Condensing Units - VRF	20.00 ton	2,500.00 /ton	50,000
1	Chiller/Heater CH-1	150.00 ton	3,000.00 /ton	450,000
1	P-2A/2B/2C, 300 GPM w/VFD	3.00 ea	23,000.00 /ea	69,000
1	Air Separator	1.00 ea	5,500.00 /ea	5,500
1	Automatic Temperature Controls for HVAC			
1	Building Management System	136,000.00 sf	9.50 /sf	1,292,000
1	Testing & Balancing			
1	Testing & balancing	136,000.00 sf	1.20 /sf	163,200
1	HVAC General Requirements			
1	Commissioning Support	1.00 ls	25,000.00 /ls	25,000
1	Coordination & management	1.00 ls	250,000.00 /ls	250,000
1	Air Separator	1.00 ea	5,500.00 /ea	5,500
1	Expansion Tank	1.00 ea	4,800.00 /ea	4,800
1	Expansion Tank	1.00 ea	4,800.00 /ea	4,800
1	Buffer Tank	1.00 ea	7,000.00 /ea	7,000
1	HVAC Air Distribution			
1	Ductwork Galvanized	136,000.00 lbs	18.50 /lbs	2,516,000
1	Kitchen Grease Duct	1.00 ls	65,000.00 /ls	65,000
1	RGD's	313.00 ea	230.00 /ea	71,990
1	Gym Return Grill	4.00 ea	850.00 /ea	3,400
1	Displacement Diffuser	82.00 ea	475.00 /ea	38,950
1	Linear Diffuser	336.00 lf	125.00 /lf	42,000
1	Misc. Ductwork Accessories - Volume Dampers, Fire Dampers, Volume Dampers etc.	136,000.00 sf	0.60 /sf	81,600
1	Hydronic Piping (Includes Hangers & Supports)			
1	Mechanical Room Piping	1.00 ls	100,000.00 /ls	100,000
1	Hydronic Distribution Piping - Mains	10,000.00 lf	90.00 /lf	900,000
1	Hydronic Distribution Piping - Branch	6,750.00 lf	50.00 /lf	337,500
1	Valves and Accessories	1.00 ls	80,000.00 /ls	80,000
1	Refrigerant Piping (Includes Hangers & Supports)			
1	Refrigerant Piping - Branch (Branch Controller to Fan Coil Unit)	1,450.00 lf	43.00 /lf	62,350
1	Refrigerant Piping - Mains (Branch Selectors to Condenser Unit)	400.00 lf	55.00 /lf	22,000
1	Refrigerant Piping - Rooftop Equipment	600.00 lf	80.00 /lf	48,000
1	Condensate Piping			
1	Condensate Drain Pipe (Type "L" Cu.)	550.00 lf	38.00 /lf	20,900
1	Insulation			
1	Duct wrap insulation	95,000.00 sf	6.85 /sf	650,750
1	Pipe Insulation	19,200.00 lf	15.00 /lf	288,000

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>23-0010.001</b>	<b>HVAC</b>			
1	Exhaust Fans			
1	EF-1, 4,000 CFM (lab exhaust)	0.00	NIC	
1	EF-2, 2,250 CFM	1.00	ea	5,500.00 /ea
1	EF-3, 980 CFM	1.00	ea	3,500.00 /ea
1	KEF-1, 8,700 CFM	1.00	ea	12,000.00 /ea
1	ASF-1 - Destratification Fan	8.00	ea	5,500.00 /ea
1	Kitchen Hood w/Ansul System	1.00	ea	20,000.00 /ea
1	Central Air Handling Equipment			
1	DOAS-1 - Dedicated Outside Air Unit	1,200.00	cfm	28.00 /cfm
1	DOAS-2 - Dedicated Outside Air Unit	1,200.00	cfm	28.00 /cfm
1	DOAS-3 - Dedicated Outside Air Unit	5,300.00	cfm	28.00 /cfm
1	DOAS-4 - Dedicated Outside Air Unit	8,000.00	cfm	28.00 /cfm
1	DOAS-5 - Dedicated Outside Air Unit	3,200.00	cfm	28.00 /cfm
1	DOAS-6 - Dedicated Outside Air Unit	6,000.00	cfm	28.00 /cfm
1	DOAS-7 - Dedicated Outside Air Unit	9,000.00	cfm	28.00 /cfm
1	RTU-1 - Rooftop HVAC Unit	8,000.00	cfm	24.00 /cfm
1	RTU-2 - Rooftop HVAC Unit	2,000.00	cfm	24.00 /cfm
1	RTU-3 - Rooftop HVAC Unit	6,500.00	cfm	24.00 /cfm
1	RTU-4 - Rooftop HVAC Unit	6,000.00	cfm	24.00 /cfm
1	RTU-5 - Rooftop HVAC Unit	3,000.00	cfm	24.00 /cfm
1	MAU-1 - Kitchen Make-up Air Unit	5,500.00	cfm	24.00 /cfm
1	ERV-1 - Energy Recovery Ventilator, 200 CFM	1.00	ea	5,000.00 /ea
1	Roof Curb	12.00	ea	6,000.00 /ea
1	Sound Attenuation	1.00	ls	60,000.00 /ls
1	Heating & Cooling Terminal Equipment			
1	Ductless Split System	1.00	ea	10,000.00 /ea
1	VRF Indoor Unit	9.00	ea	3,500.00 /ea
1	VRF Branch Controller	2.00	ea	7,650.00 /ea
1	Fin Tube Radiation	1,025.00	lf	140.00 /lf
1	VAV Terminal Unit	7.00	ea	1,200.00 /ea
1	VAV Terminal Unit, Fan-Powered	68.00	ea	2,000.00 /ea
1	Misc. Terminal Heating & Cooling Equipment	136,000.00	sf	3.00 /sf
1	Permits and fees	1.00	ls	138,000.00 /ls
1	Coordination / BIM	1.00	ls	80,000.00 /ls
1	Seismic restraints / bracing	1.00	ls	35,000.00 /ls
1	Coring & patching / firestopping	1.00	ls	40,000.00 /ls
1	Hoisting & rigging / floor loading	1.00	ls	100,000.00 /ls
1	Equipment start up and inspection	1.00	ls	25,000.00 /ls
1	Access panels - furnish only	1.00	ls	10,000.00 /ls
1	Premium for Geothermal System (Piping and Equipment)			
	<b>HVAC</b>			<b>87.321/sf</b>
	<b>136,000.00 sf</b>			<b>11,875,640</b>
<hr/>				
	<b>HVAC</b>			<b>87.321/sf</b>
	<b>136,000.00 sf</b>			<b>11,875,640</b>

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b><u>26-0000.000</u>                      <u>ELECTRICAL</u></b>				
<b>26-0000.100</b>	<b>Electrical</b>			
2	Normal Power and Distribution			
2	Meter provisions/metering	12.00 ea	1,500.00 /ea	18,000
2	Power Monitoring	1.00 ea	25,000.00 /ea	25,000
2	4000A 480/277V main distribution panel with SPD	1.00 ea	265,000.00 /ea	265,000
2	1200A 480/277V distribution panelboard	1.00 ea	40,000.00 /ea	40,000
2	250A 480/277V distribution panelboard	3.00 ea	25,000.00 /ea	75,000
2	150A 480/277V panelboard (MLO)	1.00 ea	2,500.00 /ea	2,500
2	125A 480/277V panelboard (MLO)	1.00 ea	2,200.00 /ea	2,200
2	Lighting and Controls			
2	Type AD8	381.00 ea	960.00 /ea	365,760
2	Type B2	47.00 ea	250.00 /ea	11,750
2	Type B4	22.00 ea	250.00 /ea	5,500
2	Type C (Strip)	92.00 ea	165.00 /ea	15,180
2	60A 480/277V panelboard (MLO)	3.00 ea	1,000.00 /ea	3,000
2	225KVA transformer K-13	1.00 ea	36,730.00 /ea	36,730
2	75KVA transformer K-13	1.00 ea	11,675.00 /ea	11,675
2	45KVA transformer K-13	3.00 ea	8,690.00 /ea	26,070
2	30KVA transformer K-13	4.00 ea	7,470.00 /ea	29,880
2	30KVA transformer	2.00 ea	4,940.00 /ea	9,880
2	800A 208/120V distribution panelboard (MCB)	1.00 ea	25,000.00 /ea	25,000
2	225A 120/208V double tub panelboard	3.00 ea	7,500.00 /ea	22,500
2	225A 120/208V panelboard (Shunt trip)	1.00 ea	6,500.00 /ea	6,500
2	150A 120/208V panelboard (MLO)	2.00 ea	2,500.00 /ea	5,000
2	125A 120/208V panelboard (MCB)	6.00 ea	3,000.00 /ea	18,000
2	125A 120/208V panelboard (MLO)	3.00 ea	2,200.00 /ea	6,600
2	100A 120/208V panelboard	3.00 ea	2,500.00 /ea	7,500
2	150A 3P enclosed circuit breaker	7.00 ea	2,070.00 /ea	14,490
2	Feeders			
2	1200A feed (alum)	55.00 lf	516.00 /lf	28,380
2	800A feed (alum)	30.00 lf	340.00 /lf	10,200
2	400A feed (alum)	80.00 lf	170.00 /lf	13,600
2	250A feed (alum)	820.00 lf	88.00 /lf	72,160
2	225A feed (alum)	295.00 lf	74.00 /lf	21,830
2	150A feed (alum)	160.00 lf	47.50 /lf	7,600
2	125A feed (alum)	285.00 lf	38.00 /lf	10,830
2	100A feed (alum)	45.00 lf	33.50 /lf	1,508
2	70A feed	200.00 lf	36.00 /lf	7,200
2	60A feed	985.00 lf	28.00 /lf	27,580
2	Emergency Power and Distribution			
2	600KW diesel fueled generator set in weatherproof enclosure (Quote)	1.00 ls	320,000.00 /ls	320,000
2	600KW diesel fueled generator set in weatherproof enclosure (Labor)	1.00 ea	12,250.00 /ea	12,250
2	400A automatic transfer switch (Labor)	1.00 ea	1,100.00 /ea	1,100
2	Annunciator (Labor)	1.00 ea	850.00 /ea	850
2	1200A automatic transfer switch	1.00 ea	25,100.00 /ea	25,100
2	1200A docking station (Labor)	1.00 ea	2,530.00 /ea	2,530
2	1200A 480/277V distribution panelboard EMSB	1.00 ea	65,000.00 /ea	65,000

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total	
				Unit Cost	Amount
<b>26-0000.100</b>	<b>Electrical</b>				
2	400A 480/277V distribution panelboard (MLO)	1.00 ea	12,000.00 /ea		12,000
2	100A 480/277V panelboard (MLO)	3.00 ea	1,750.00 /ea		5,250
2	75KVA transformer	1.00 ea	7,900.00 /ea		7,900
2	250A 208/120V distribution panelboard	1.00 ea	25,000.00 /ea		25,000
2	100A 208/120V panelboard (MLO)	1.00 ea	1,750.00 /ea		1,750
2	Feeders				
2	1200A feed (alum)	40.00 lf	516.00 /lf		20,640
2	400A feed (alum)	55.00 lf	170.00 /lf		9,350
2	250A feed (alum)	15.00 lf	88.00 /lf		1,320
2	125A feed (alum)	30.00 lf	38.00 /lf		1,140
2	100A feed (alum)	35.00 lf	33.50 /lf		1,173
2	100A feed (MI cable)	800.00 lf	99.00 /lf		79,200
2	MI cable connections	32.00 ea	250.00 /ea		8,000
2	Machine and Equipment Power				
2	Misc Equipment wiring	136,000.00 sf	1.00 /sf		136,000
2	Elevator feed and connection	1.00 ea	6,000.00 /ea		6,000
2	Chiller/Heater unit feed and connection	1.00 ea	12,000.00 /ea		12,000
2	ASHP feed and connection	3.00 ea	5,000.00 /ea		15,000
2	Boiler connection	2.00 ea	2,500.00 /ea		5,000
2	Boiler feed and connection (Electric, 300A, 480V, 70LF ea.)	140.00 lf	142.00 /lf		19,880
2	Split unit feed and connection	1.00 ea	2,500.00 /ea		2,500
2	VRF/Indoor feed and connection	9.00 ea	650.00 /ea		5,850
2	VRF/BC feed and connection	2.00 ea	650.00 /ea		1,300
2	ERV feed and connection	1.00 ea	5,000.00 /ea		5,000
2	MAU feed and connection	1.00 ea	5,500.00 /ea		5,500
2	Pump feed and connection	7.00 ea	1,200.00 /ea		8,400
2	DOAS feed and connection	7.00 ea	5,000.00 /ea		35,000
2	RTU feed and connection	5.00 ea	5,000.00 /ea		25,000
2	MAU feed and connection	1.00 ea	3,500.00 /ea		3,500
2	ERU feed and connection	1.00 ea	5,000.00 /ea		5,000
2	EF feed and connection	3.00 ea	1,000.00 /ea		3,000
2	WH feed and connection	2.00 ea	1,200.00 /ea		2,400
2	Destratification fan feed and connection	8.00 ea	1,200.00 /ea		9,600
2	Cord reel with feed and connection	10.00 ea	1,500.00 /ea		15,000
2	Motorized door feed and connection (allow)	8.00 ea	1,500.00 /ea		12,000
2	Kitchen/Servery Equipment feed and connections	1.00 ls	30,000.00 /ls		30,000
2	KEF feed and connection	1.00 ea	1,500.00 /ea		1,500
2	Hood feed and connection	1.00 ea	1,500.00 /ea		1,500
2	Scoreboard/ shot clocks with feed and connection	2.00 loc	15,000.00 /loc		30,000
2	Misc. gym equipment feed and connections	1.00 ls	15,000.00 /ls		15,000
2	Type CP1 (Decorative)	20.00 ea	1,500.00 /ea		30,000
2	Type D	561.00 ea	400.00 /ea		224,400
2	Type G (Gym)	30.00 ea	550.00 /ea		16,500
2	Type K2	63.00 ea	250.00 /ea		15,750
2	Type LP8	24.00 ea	800.00 /ea		19,200
2	Type RP1	2.00 ea	1,200.00 /ea		2,400
2	Type SW4	17.00 ea	400.00 /ea		6,800
2	Type U2	141.00 ea	250.00 /ea		35,250
2	Type ZW (walpak)	29.00 ea	450.00 /ea		13,050
2	Exit sign (not depicted at this scope level)	136,000.00 ea	1.00 /ea		136,000
2	Lighting not depicted at this scope level	136,000.00 ea	3.00 /ea		408,000



## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
				<b>Total</b>
<b>26-0000.100</b>	<b>Electrical</b>			
2	Lighting Controls (Wireless)			
2	Network lighting controls	136,000.00	sf 2.00 /sf	272,000
2	Occupancy sensor	388.00	ea 220.00 /ea	85,360
2	S - Single pole switch	234.00	ea 36.00 /ea	8,424
2	WAC	9.00	ea 350.00 /ea	3,150
2	Lighting Circuitry			
2	Device box	2,100.00	ea 32.00 /ea	67,200
2	3/4" EMT	5,000.00	ea 11.50 /ea	57,500
2	#12 THHN	25,000.00	ea 1.10 /ea	27,500
2	12/2 MC	40,000.00	ea 6.25 /ea	250,000
2	LV cable	7,000.00	ea 2.20 /ea	15,400
2	Branch Circuitry			
2	Device plate	1,225.00	ea 6.00 /ea	7,350
2	WP device plate	3.00	ea 22.00 /ea	66
2	Floor box	93.00	ea 550.00 /ea	51,150
2	Device box	1,270.00	ea 32.00 /ea	40,640
2	3/4" EMT	7,000.00	lf 11.50 /lf	80,500
2	#12 THHN	35,000.00	lf 1.10 /lf	38,500
2	12/2 MC	30,000.00	lf 6.25 /lf	187,500
2	Lightning and Power Specialties			
2	Building & service grounding	1.00	ls 20,000.00 /ls	20,000
2	Lightning protection System (not depicted in specs or plans)	1.00	ls 80,000.00 /ls	80,000
2	Miscellaneous Systems			
2	Coring	1.00	ls 10,000.00 /ls	10,000
2	Temporary power and lights	1.00	ls 125,000.00 /ls	125,000
2	Seismic restraints	1.00	ls 5,000.00 /ls	5,000
2	Fireproofing	1.00	ls 2,500.00 /ls	2,500
2	Subcontractor supervision & general conditions	1.00	ls 150,000.00 /ls	150,000
2	BIM & Coordination	1.00	ls 150,000.00 /ls	150,000
2	Seismic restraints	1.00	ls 5,000.00 /ls	5,000
2	Fees & permits	1.00	ls 120,000.00 /ls	120,000
2	Testing and Commissioning			
2	Testing and commissioning/Coordination study	1.00	ls 25,000.00 /ls	25,000
2	General Power			
2	Duplex receptacle	750.00	ea 36.00 /ea	27,000
2	Duplex receptacle in floor box	93.00	ea 36.00 /ea	3,348
2	Duplex receptacle (USB)	37.00	ea 46.00 /ea	1,702
2	Duplex receptacle (Hosp)	10.00	ea 46.00 /ea	460
2	Double duplex receptacle	97.00	ea 72.00 /ea	6,984
2	GFI duplex receptacle	317.00	ea 51.00 /ea	16,167
2	GFI duplex receptacle (Hosp)	3.00	ea 57.00 /ea	171
2	Special purpose outlet	12.00	ea 65.00 /ea	780
2	Devices not depicted at this scope level	136,000.00	sf 0.50 /sf	68,000
2	PV Conduit and Pulls for future	1.00	ls 30,000.00 /ls	30,000
	<b>Electrical</b>		<b>38.285/sf</b>	<b>5,206,787</b>
	<b>136,000.00 sf</b>			

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
				<b>Total</b>
<b>ELECTRICAL</b>				<b>38.285/sf</b>
<b>136,000.00 sf</b>				<b>5,206,787</b>
<b><u>27-0000.000</u></b>		<b><u>COMMUNICATIONS</u></b>		
<b>27-2000.001</b>	<b>Data Communications System</b>			
001	PA Clock System			
001	Head end	1.00	1s	30,000.00 /1s
001	ECS	82.00	ea	350.00 /ea
001	Clock	92.00	ea	250.00 /ea
001	Speaker (Talk back)	69.00	ea	300.00 /ea
001	Speaker	68.00	ea	250.00 /ea
001	Speaker backbox	137.00	ea	55.00 /ea
001	Device box with conduit stub to ceiling	174.00	ea	165.00 /ea
001	Cabling	30,000.00	lf	2.20 /lf
001	Speech Amplification			
001	Speech Amplification (per classroom)	52.00	loc	3,800.00 /loc
001	Area of refuge			
001	Area of refuge	1.00	1s	25,000.00 /1s
001	Av System			
001	Projectors and AV equipment (provided by others, with FFE)			
001	AV backbox and conduit stub to ceiling (PH/PL/TVHL)	101.00	ea	165.00 /ea
001	Cafeteria Stage Sound system	1.00	1s	75,000.00 /1s
001	Cafeteria stage sound system (Rough-in)	1.00	1s	25,000.00 /1s
001	Cafeteria Stage/Platform			
001	Stage/Platform lighting and dimming system	1.00	1s	75,000.00 /1s
001	Stage/Platform lighting and dimming system (Rough-in)	1.00	1s	25,000.00 /1s
001	Sound System			
001	Gymnasium & Cafeteria	1.00	1s	30,000.00 /1s
001	Media Center	1.00	1s	30,000.00 /1s
001	Band Room (spec)	1.00	1s	15,000.00 /1s
001	Digital signage			
001	Rough-In for Digital signage	136,000.00	sf	0.50 /sf
001	Telephone and Communications Systems			
001	Telcomm MDF closet, modify and connections	1.00	1s	15,000.00 /1s
001	Telcomm IDF closet, modify and connections	1.00	1s	10,000.00 /1s
001	1-port device (W)	58.00	ea	26.00 /ea
001	1-port device	7.00	ea	26.00 /ea
001	2-port device	103.00	ea	52.00 /ea
001	2-port device (floor)	12.00	ea	52.00 /ea
001	4-port device (floor)	5.00	ea	120.00 /ea
001	WS (2-port device)	35.00	ea	52.00 /ea
001	PH (2-port device)	49.00	ea	52.00 /ea
001	PL (2-port device)	49.00	ea	52.00 /ea
001	TVHL (2-port device)	3.00	ea	52.00 /ea

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>27-2000.001</b>	<b>Data Communications System</b>			
001	WAP device	78.00 ea	750.00 /ea	58,500
001	Wire guard	4.00 ea	125.00 /ea	500
001	Cat. 6A cable	132,000.00 lf	2.30 /lf	303,600
001	Backbone cabling	300.00 lf	25.00 /lf	7,500
001	Device box with conduit stub to ceiling	219.00 ea	165.00 /ea	36,135
001	Cable tray	65.00 lf	70.00 /lf	4,550
001	4" sleeves	8.00 ea	250.00 /ea	2,000
001	Network Switching & VOIP	136,000.00 sf	3.00 /sf	408,000
	<b>Data Communications System</b>		<b>12.243/sf</b>	<b>1,665,037</b>
	<b>136,000.00 sf</b>			
<b>COMMUNICATIONS</b>			<b>12.243/sf</b>	<b>1,665,037</b>
	<b>136,000.00 sf</b>			

**28-0000.000      ELECTRONIC SAFETY & SECURITY**

<b>28-3000.000</b>	<b>Electronic Detection &amp; Alarm</b>			
10	Security Access Control & CCTV			
10	Security control panel/monitoring	1.00 ls	25,000.00 /ls	25,000
10	CCTV camera (180)	4.00 ea	3,000.00 /ea	12,000
10	CCTV camera (180) WP	11.00 ea	3,500.00 /ea	38,500
10	CCTV camera (PTZ)	4.00 ea	2,500.00 /ea	10,000
10	CCTV camera	39.00 ea	2,000.00 /ea	78,000
10	Card reader	18.00 ea	600.00 /ea	10,800
10	Duress button	5.00 ea	250.00 /ea	1,250
10	Door contact	39.00 ea	300.00 /ea	11,700
10	Motion sensor	8.00 ea	300.00 /ea	2,400
10	REX	18.00 ea	350.00 /ea	6,300
10	Electric lock (provided by DHC, connection only)	38.00 ea	150.00 /ea	5,700
10	Electric power transfer	22.00 ea	350.00 /ea	7,700
10	VMS (Intercom)	2.00 ea	2,500.00 /ea	5,000
10	VMS (Intercom)	2.00 ea	1,200.00 /ea	2,400
10	Security wall box 1" sleeve	50.00 ea	200.00 /ea	10,000
10	Door J-Box	22.00 ea	40.00 /ea	880
10	Device box	210.00 ea	40.00 /ea	8,400
10	3/4" EMT	10,000.00 lf	11.50 /lf	115,000
10	Cabling	20,000.00 lf	2.20 /lf	44,000
10	Security devices and cabling not depicted at this scope level	136,000.00 sf	1.50 /sf	204,000
10	Fire Alarm System			
10	Control panel	1.00 ea	30,000.00 /ea	30,000
10	Smoke control panel	1.00 ea	5,000.00 /ea	5,000
10	NAC	1.00 ea	1,500.00 /ea	1,500
10	Annunciator	2.00 ea	2,000.00 /ea	4,000
10	Beacon	1.00 ea	225.00 /ea	225

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>28-3000.000</b>	<b>Electronic Detection &amp; Alarm</b>			
10	Bell	1.00 ea	225.00 /ea	225
10	Knox Box	4.00 ea	350.00 /ea	1,400
10	Graphic map	1.00 ea	1,000.00 /ea	1,000
10	Radio master box	1.00 ea	9,500.00 /ea	9,500
10	Initiating device	75.00 ea	165.00 /ea	12,375
10	Duct smoke detector with remote test switch	6.00 ea	550.00 /ea	3,300
10	Audio/visual device	130.00 ea	145.00 /ea	18,850
10	Visual device	65.00 ea	125.00 /ea	8,125
10	Remote alarm indicator	9.00 ea	115.00 /ea	1,035
10	Modules	30.00 ea	165.00 /ea	4,950
10	Device box	310.00 ea	38.00 /ea	11,780
10	3/4" EMT	12,500.00 lf	11.50 /lf	143,750
10	FA cabling	18,000.00 lf	2.20 /lf	39,600
10	FA devices and cabling not depicted at this scope level	136,000.00 sf	1.50 /sf	204,000
10	BDA/DAS System			
10	BDA/DAS system	1.00 ls	100,000.000 /ls	100,000
10	In-Building Cellular Amplification System			
10	In-Building Cellular Amplification System	1.00 ls	100,000.000 /ls	100,000
10	Air Quality Sensors			
10	Environmental Sensors - Air Quality (spec)	136,000.00 sf	0.50 /sf	68,000
	<b>Electronic Detection &amp; Alarm</b>		<b>10.056/sf</b>	<b>1,367,645</b>
	<b>136,000.00 sf</b>			
<b>ELECTRONIC SAFETY &amp; SECURITY</b>			<b>10.056/sf</b>	<b>1,367,645</b>
	<b>136,000.00 sf</b>			

**31-0000.000      EARTHWORK**

<b>31-1100.100</b>	<b>Site Preparation</b>			
10	Site Demolition	1.00 ls	257,980.21 /ls	257,980
10	GENERAL CONDITIONS			
10	Supervision	240.00 hrs	130.707 /hrs	31,370
10	Mobilization	15.00 mvvs	1,596.004 /mvvs	23,940
10	Construction Stakeout	1.00 ls	30,705.18 /ls	30,705
10	Saw Cutting	500.00 lf	6.535 /lf	3,268
10	Subcontractor OH&P	1.00 ls	498,063.18 /ls	498,063
10	EROSION CONTROL			
10	SWPPP Plan & Monitoring	1.00 ls	13,896.25 /ls	13,896
10	Stone Construction Entrance	120.00 sy	62.052 /sy	7,446
10	Silt Fence - Install	4,400.00 lf	4.499 /lf	19,796
10	Erosion Controls - Maintain	12.00 mnth	423.876 /mnth	5,087
10	Erosion Controls - Remove	4,400.00 lf	2.064 /lf	9,081
10	12" Straw Wattle	4,400.00 lf	8.943 /lf	39,350
10	Inlet Protection	35.00 ea	164.416 /ea	5,755

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>31-1100.100</b>	<b>Site Preparation</b>			
10	BioRetention Ponds	558.00 cy	64.666 /cy	36,083
10	Temporary Seeding	85,685.00 sf	0.179 /sf	15,326
	<b>Site Preparation</b>		<b>7.332/sf</b>	<b>997,145</b>
	<b>136,000.00 sf</b>			
<b>31-2100.000</b>	<b>Radon Mitigation</b>			
001	Radon Mitigation System	1.00 ls	345,941.81 /ls	345,942
	<b>Radon Mitigation</b>		<b>2.544/sf</b>	<b>345,942</b>
	<b>136,000.00 sf</b>			
<b>31-2323.260</b>	<b>Excavation</b>			
10	Cut to Fill	36,000.00 cy	8.654 /cy	311,551
10	Fill from Cut	36,000.00 cy	3.247 /cy	116,893
10	Compaction - Cut & Level On Site	36,000.00 cy	1.885 /cy	67,858
10	Fine Grade / Shape Ponds	10,100.00 sf	1.390 /sf	14,035
10	Fine Grade Athletic Field	8,110.00 sy	1.789 /sy	14,506
10	Fine Grade - Swales	500.00 sf	0.908 /sf	454
10	Gravel Base Below Paving	17,956.00 sy	23.197 /sy	416,527
10	Gravel Base Below Basketball Court	657.00 sy	23.197 /sy	15,240
10	Gravel Base Below Sidewalk	18,097.00 sf	3.426 /sf	61,999
10	E&B Foundation/Footings	2,700.00 lf	44.399 /lf	119,878
10	E&B Under Slab Plumbing	2,000.00 lf	36.089 /lf	72,178
10	12" Crushed Gravel Under Slab	87,500.00 sf	2.174 /sf	190,213
10	Grade Building	87,500.00 sf	0.605 /sf	52,971
10	Phasing - Allowance	1.00 ls	750,000.00 /ls	750,000
10	Premium for Geothermal System (Wells and Sitework Support)	1.00 ls	2,000,000.000 /ls	2,000,000
10	Fill from Cut	10,000.00 cy	45.00 /cy	450,000
10	Soil Handling	6,500.00 cy	40.00 /cy	260,000
	<b>Excavation</b>		<b>36.135/sf</b>	<b>4,914,303</b>
	<b>136,000.00 sf</b>			
<b>EARTHWORK</b>			<b>46.010/sf</b>	<b>6,257,390</b>
	<b>136,000.00 sf</b>			

**32-0000.000                      EXTERIOR IMPROVEMENTS**

<b>32-1216.120</b>	<b>Asphalt Paving - SY</b>			
25	Fine Grading - Driveway/Parking	17,956.00 sy	1.651 /sy	29,646
25	Grade Basketball Court	657.00 sy	9.177 /sy	6,029
25	Grade Sidewalk	18,097.00 sy	1.321 /sy	23,903

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>32-1216.120</b>	<b>Asphalt Paving - SY</b>			
25	Asphalt Subcontractor	18,613.00 sy	40.217 /sy	748,550
	<b>Asphalt Paving - SY</b>		<b>5.942/sf</b>	<b>808,129</b>
	<b>136,000.00 sf</b>			
<b>32-1313.100</b>	<b>Site Concrete</b>			
6	Site Concrete, Flatwork - Ramps & Sidewalks	43,025.00 sf	15.00 /sf	645,375
6	Site Concrete, Walls & Footings, Forming	5,097.00 sfca	32.00 /sfca	163,104
6	Site Concrete, Walls & Footings	136.00 cy	110.00 /cy	14,960
6	Site Concrete, Flatwork	927.00 cy	110.00 /cy	101,970
6	Site Concrete, Re-Bar	15.00 ton	3,500.00 /ton	52,500
	<b>Site Concrete</b>		<b>7.191/sf</b>	<b>977,909</b>
	<b>136,000.00 sf</b>			
<b>32-1400.100</b>	<b>Site Pavers</b>			
30	Unit Pavers	8,325.00 sf	30.00 /sf	249,750
30	Unit Paver Prep	8,325.00 sf	20.00 /sf	166,500
	<b>Site Pavers</b>		<b>3.061/sf</b>	<b>416,250</b>
	<b>136,000.00 sf</b>			
<b>32-1640.120</b>	<b>Curbs- Granite</b>			
2	Vertical Granite Curb	8,755.00 lf	78.218 /lf	684,798
2	Landscape curbing allowance	1.00 ls	48,155.27 /ls	48,155
	<b>Curbs- Granite</b>		<b>5.389/sf</b>	<b>732,953</b>
	<b>136,000.00 sf</b>			
<b>32-1723.100</b>	<b>Pavement Marking</b>			
6	Line Painting	1.00 ls	27,517.31 /ls	27,517
	<b>Pavement Marking</b>		<b>0.202/sf</b>	<b>27,517</b>
	<b>136,000.00 sf</b>			
<b>32-1800.000</b>	<b>Exterior Athletic Equipment</b>			
001	Exterior Score Board Allowance - Multi Field	1.00 ls	50,000.00 /ls	50,000
	<b>Exterior Athletic Equipment</b>		<b>0.368/sf</b>	<b>50,000</b>
	<b>136,000.00 sf</b>			
<b>32-1823.110</b>	<b>Athletic Surfacing / Turf Field</b>			
20	Turf Field - NIC See Alternate			
20	Rubber Play Surfacing @ Playground	1.00 ls	227,000.00 /ls	227,000

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<b>Athletic Surfacing / Turf Field</b>		<b>1.669/sf</b>	<b>227,000</b>
	<b>136,000.00 sf</b>			
<b>32-3100.001</b>	<b>Site Furnishings</b>			
001	Traffic Signs	40.00 ea	225.00 /ea	9,000
001	Entry Signs, Allow	2.00 ea	15,000.00 /ea	30,000
001	Basket Ball Hoops	6.00 ea	8,500.00 /ea	51,000
001	Bollards - utility	15.00 ea	2,063.797 /ea	30,957
001	Bollards - stainless steel	6.00 ea	4,127.597 /ea	24,766
001	Trash receptacles	5.00 ea	3,500.00 /ea	17,500
001	Flagpole - 40' Ht.	1.00 ea	15,000.00 /ea	15,000
001	Bike racks	25.00 ea	350.00 /ea	8,750
001	Shade Structure Allowance	3.00 ea	10,000.00 /ea	30,000
001	Bioretention Boardwalk, Allowance	1.00 ea	150,000.00 /ea	150,000
001	Play Ground Equipment - Allowance	1.00 ls	400,000.000 /ls	400,000
	<b>Site Furnishings</b>		<b>5.640/sf</b>	<b>766,973</b>
	<b>136,000.00 sf</b>			
<b>32-3113.060</b>	<b>Fencing</b>			
20	4' Ht - Chain link fence at playground	400.00 lf	75.00 /lf	30,000
20	4' Ht - Chain link fence at field perimeter	1,200.00 lf	60.00 /lf	72,000
20	4' Ht - Chain link fence at outdoor classroom	320.00 lf	75.00 /lf	24,000
20	8' Ht - Mechanical screen at generator	155.00 lf	125.00 /lf	19,375
20	20' W - Vehicular Gate at Back Exit	1.00 ls	6,000.00 /ls	6,000
20	Pedestrian Guardrail @ Loading Dock, 2 Line Railing	1.00 ls	21,000.00 /ls	21,000
20	Replace Existing Fence - 50% Allowance	1.00 ls	120,000.00 /ls	120,000
	<b>Fencing</b>		<b>2.150/sf</b>	<b>292,375</b>
	<b>136,000.00 sf</b>			
<b>32-3200.110</b>	<b>Site Landscaped Walls</b>			
30	Landscaping Misc. Seat Walls & Raised Planters	1.00 ls	275,000.00 /ls	275,000
	<b>Site Landscaped Walls</b>		<b>2.022/sf</b>	<b>275,000</b>
	<b>136,000.00 sf</b>			
<b>32-8000.100</b>	<b>Irrigation Systems</b>			
2	Irrigation Systems - Field	1.00 ls	125,000.00 /ls	125,000
2	Irrigation Systems - Temp irrigation, Planting Beds / Lawns	77,000.00 sf	1.30 /sf	100,100
2	Irrigation Systems - Drip Strips at Plantings	1.00 ls	50,000.00 /ls	50,000

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<b>Irrigation Systems</b>		<b>2.023/sf</b>	<b>275,100</b>
	<b>136,000.00 sf</b>			
<b>32-9113.110</b>	<b>Mulching</b>			
	25 Mulching	66,200.00 sf	1.25 /sf	82,750
	<b>Mulching</b>		<b>0.608/sf</b>	<b>82,750</b>
	<b>136,000.00 sf</b>			
<b>32-9113.120</b>	<b>Topsoil / Soil Prep</b>			
	10 Strip & Stockpile Topsoil	20,000.00 cy	11.005 /cy	220,091
	10 Screen Topsoil	18,500.00 cy	17.894 /cy	331,031
	10 Export Tailings	4,000.00 cy	11.929 /cy	47,716
	10 Ammend and Place Topsoil	12,000.00 cy	25.00 /cy	300,000
	10 Bioretention Soils / Rain Garden	10,000.00 sf	11.929 /sf	119,290
	10 Truck Surplus Soils (Assumed Clean)	5,500.00 cy	25.00 /cy	137,500
	10 Truck Surplus Soils, Premium for Arsenic, RCS2	8,250.00 tons	52.00 /tons	429,000
	10 Import Topsoil	2,377.00 cy	60.19 /cy	143,072
	10 Replace Topsoil - On Site	2,377.00 cy	13.73 /cy	32,636
	10 Disposal of Top Soil RCS2	6,000.00 cy	60.00 /cy	360,000
	<b>Topsoil / Soil Prep</b>		<b>15.591/sf</b>	<b>2,120,335</b>
	<b>136,000.00 sf</b>			
<b>32-9219.110</b>	<b>Lawns &amp; Grasses</b>			
	5 Lawn and Planting Maintenance	1.00 ls	15,000.00 /ls	15,000
	5 High use lawn seed / SOD at Field	190,300.00 sf	1.20 /sf	228,360
	5 Gravel Maintenance Edging (Including Steel Edge)	3,200.00 sf	25.00 /sf	80,000
	5 Finegrade & Sod - Fields	77,000.00 sf	1.85 /sf	142,450
	<b>Lawns &amp; Grasses</b>		<b>3.425/sf</b>	<b>465,810</b>
	<b>136,000.00 sf</b>			
<b>32-9343.110</b>	<b>Trees and Plantings</b>			
	120 Shade Trees	190.00 ea	2,000.00 /ea	380,000
	120 Flowering Trees	8.00 ea	900.00 /ea	7,200
	120 Coniferous Trees	20.00 ea	1,000.00 /ea	20,000
	120 Shrubs	1,225.00 ea	78.00 /ea	95,550
	120 Perennials	14,000.00 ea	18.00 /ea	252,000
	120 Landscaping VE Goal	-1.00 ls	226,000.00 /ls	(226,000)
	<b>Trees and Plantings</b>		<b>3.888/sf</b>	<b>528,750</b>
	<b>136,000.00 sf</b>			



## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
			<b>Total</b>	
<b>EXTERIOR IMPROVEMENTS</b>			<b>59.168/sf</b>	<b>8,046,851</b>
<b>136,000.00 sf</b>				
<b><u>33-0000.000</u></b>		<b><u>UTILITIES</u></b>		
<b>33-1002.101</b>	<b>Water Supply System</b>			
c 4	4" DIP Water	90.00	If 110.826 /lf	9,974
c 4	6" DIP Water	160.00	If 99.681 /lf	15,949
c 4	8" DIP Water	2,415.00	If 53.948 /lf	130,284
c 4	4" Valves & Fittings	1.00	Is 1,675.12 /ls	1,675
c 4	6" Valves & Fittings	1.00	Is 31,471.54 /ls	31,472
c 4	8" Valves & Fittings	1.00	Is 19,167.170 /ls	19,167
c 4	Water Main Testing - Air	2,656.00	If 2.298 /lf	6,103
c 4	Water Main Flushing	2,656.00	If 2.064 /lf	5,481
c 4	Water Main Chlorination	2,656.00	If 2.064 /lf	5,481
<b>Water Supply System</b>			<b>1.659/sf</b>	<b>225,586</b>
<b>136,000.00 sf</b>				
<b>33-1004.901</b>	<b>Sewer Pipe and Trenching</b>			
8	6" SDR-35 Sewer	52.00	If 65.354 /lf	3,398
8	8" SDR-35	638.00	If 91.591 /lf	58,435
8	Connect to Existing Sewer Manhole	2.00	ea 9,021.550 /ea	18,043
8	Sewer Manhole	3.00	ea 3,204.39 /ea	9,613
8	Grease Trap	1.00	ea 10,347.89 /ea	10,348
8	Set Frame & Cover	6.00	ea 1,622.145 /ea	9,733
8	Concrete Invert	3.00	ea 890.183 /ea	2,671
8	Sewer Main Testing - Air	640.00	If 5.847 /lf	3,742
8	Sewer Main Testing - Mandrel	640.00	If 3.894 /lf	2,492
8	Manhole Testing - Air	3.00	ea 316.447 /ea	949
<b>Sewer Pipe and Trenching</b>			<b>0.878/sf</b>	<b>119,425</b>
<b>136,000.00 sf</b>				
<b>33-4102.202</b>	<b>Drainage Piping and Trenching</b>			
12	12" HDPE	2,215.00	If 71.820 /lf	159,082
12	18" HDPE	1,107.00	If 59.781 /lf	66,178
12	24" HDPE Storm Sewer	1,107.00	If 96.407 /lf	106,722
12	Field Underdrain	960.00	If 34.974 /lf	33,576
12	Recharge System Chambers	0.00	ea	
12	4' Diameter Catch Basin	33.00	ea 4,113.837 /ea	135,757
12	Drain Basin - Nyoplast	2.00	ea 4,877.17 /ea	9,754
12	4' Diameter Drain Manholes	28.00	ea 3,769.870 /ea	105,556
12	Water Quality Unit	3.00	ea 30,358.463 /ea	91,075
12	Set Frame & Grate / Cover	61.00	ea 1,688.187 /ea	102,979

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b>33-4102.202</b>	<b>Drainage Piping and Trenching</b>			
12	Brick Invert	28.00 ea	756.726 /ea	21,188
12	Rip-Rap / Stone Swale	200.00 sy	61.336 /sy	12,267
	<b>Drainage Piping and Trenching</b>		<b>6.207/sf</b>	<b>844,135</b>
	<b>136,000.00 sf</b>			
<b>33-7000.000</b>	<b>Site Electrical</b>			
001	Electrical Site Distribution - Electrical Contractor			
001	Utility mounted transformer meter	1.00 ea	850.00 /ea	850
001	Connections at manhole (electrical)	1.00 ea	10,000.00 /ea	10,000
001	Manhole	2.00 ea	12,500.00 /ea	25,000
001	Primary service duct bank 2-4" conduits (concrete encased)	840.00 lf	135.00 /lf	113,400
001	Secondary service duct bank 4000A feed (concrete encased)	130.00 lf	2,435.00 /lf	316,550
001	Generator service duct bank 1200A & 100A feed and control wiring (concrete encased)	130.00 lf	695.00 /lf	90,350
001	Telecommunications service duct bank 4-4" conduits (concrete encased)	880.00 lf	185.00 /lf	162,800
001	TC handhole	6.00 ea	1,500.00 /ea	9,000
001	Transformer pad and grounding	1.00 ls	3,500.00 /ls	3,500
001	Generator pad	1.00 ls	3,000.00 /ls	3,000
001	Site Lighting			
001	Type ZSL2	28.00 ea	2,500.00 /ea	70,000
001	Type ZSL4	2.00 ls	3,200.00 /ls	6,400
001	Type ZSL4FT	10.00 ls	3,200.00 /ls	32,000
001	Circuitry	4,800.00 ea	18.00 /ea	86,400
001	Pole base and grounding	40.00 ea	650.00 /ea	26,000
001	EV Stations			
001	EV Stations and circuitry	7.00 loc	15,000.00 /loc	105,000
001	Site Demolition			
001	Site Demolition and make safe	1.00 ls	10,000.00 /ls	10,000
001	Electrical Site Lighting - Excavation - Site Contractor Scope Below:			
001	UG Electric Duct Bank 2-2.5"	730.00 lf	71.339 /lf	52,077
001	Site Lighting	3,000.00 lf	28.797 /lf	86,391
001	Light Pole Bases	30.00 ea	1,827.149 /ea	54,814
	<b>Site Electrical</b>		<b>9.291/sf</b>	<b>1,263,532</b>
	<b>136,000.00 sf</b>			
<b>UTILITIES</b>			<b>18.034/sf</b>	<b>2,452,679</b>
	<b>136,000.00 sf</b>			



**Clinton Middle School**

---

**Estimate Totals**

Description	Amount	Totals	Rate
<b>Direct Cost</b>	<b>84,048,967</b>	<b>84,048,967</b>	
Design Contingency	8,404,897		10.000 %
Escalation	5,042,938		6.000 %
Construction Contingency	1,680,979		2.000 %
<b>Subtotal</b>	<b>15,128,814</b>	<b>99,177,781</b>	
Sub Default Insurance	1,239,722		1.250 %
Project Requirements	4,425,600		
GCs & GRs (Price Proposal)	7,169,858		
Preconstruction Fee (Price Proposal)	12,835,180	112,012,961	
		<b>112,012,961</b>	
General Building Permit - Waived			
<b>Subtotal</b>		<b>112,012,961</b>	
CM Fee	2,285,979		2.000 %
<b>Subtotal</b>	<b>2,285,979</b>	<b>114,298,940</b>	
Project GSF 136000			
<b>Total</b>		<b>114,298,940</b>	

**Clinton Middle School**

*Town of Clinton  
Clinton Middle School  
OPM - Dore + Whittier*

<b>Project name</b>	Clinton Middle School 100 W Boylston St. Clinton MA 01510
<b>Architect</b>	Lamoureux Pagano Associates
<b>Document</b>	SD
<b>Estimator</b>	Fontaine Bros.
<b>Job size</b>	136000 sf



**Clinton Middle School**

Description	Quantity	Total	
		Unit Cost	Amount

**A** **SUBSTRUCTURE**

<b>A10</b>	<b>FOUNDATIONS</b>			
A1010 Standard Foundations	136,000.00 sf	21.099/sf	2,869,461	
A1030 Slab on Grade	136,000.00 sf	9.586/sf	1,303,725	
<b>A10 FOUNDATIONS</b>		<b>30.685/sf</b>	<b>4,173,186</b>	
<b>136,000.00 sf</b>				
7,164.145 Labor hours				

<b>A SUBSTRUCTURE</b>		<b>30.685/sf</b>	<b>4,173,186</b>	
-----------------------	--	------------------	------------------	--

**136,000.00 sf**

7,164.145 Labor hours

**B** **SHELL**

<b>B10</b>	<b>SUPERSTRUCTURE</b>			
B1010 Floor Construction	136,000.00 sf	28.741/sf	3,908,735	
B1020 Roof Construction	136,000.00 sf	27.209/sf	3,700,400	
<b>B10 SUPERSTRUCTURE</b>		<b>55.950/sf</b>	<b>7,609,135</b>	
<b>136,000.00 sf</b>				
1,719.395 Labor hours				

<b>B20</b>	<b>EXTERIOR VERTICAL ENCLOSURES</b>			
B2010 Exterior Walls	136,000.00 sf	46.659/sf	6,345,675	
B2020 Exterior Windows	136,000.00 sf	13.316/sf	1,810,945	
B2030 Exterior Doors	136,000.00 sf	1.521/sf	206,850	
<b>B20 EXTERIOR VERTICAL ENCLOSURES</b>		<b>61.496/sf</b>	<b>8,363,470</b>	
<b>136,000.00 sf</b>				

<b>B30</b>	<b>EXTERIOR HORIZONTAL ENCLOSURES</b>			
B3010 Roof Coverings	136,000.00 sf	28.666/sf	3,898,551	
<b>B30 EXTERIOR HORIZONTAL ENCLOSURES</b>		<b>28.666/sf</b>	<b>3,898,551</b>	
<b>136,000.00 sf</b>				
4.875 Labor hours				

<b>B SHELL</b>		<b>146.111/sf</b>	<b>19,871,156</b>	
----------------	--	-------------------	-------------------	--

**136,000.00 sf**

1,724.270 Labor hours

**C** **INTERIORS**

<b>C10</b>	<b>INTERIOR CONSTRUCTION</b>			
C1010 Interior Partitions	136,000.00 sf	31.588/sf	4,295,912	
C1020 Interior Doors	136,000.00 sf	10.054/sf	1,367,360	
C1030 Fittings	136,000.00 sf	10.216/sf	1,389,410	
<b>C10 INTERIOR CONSTRUCTION</b>		<b>51.858/sf</b>	<b>7,052,681</b>	
<b>136,000.00 sf</b>				

<b>C20</b>	<b>STAIRS</b>			
C2010 Stair Construction	136,000.00 sf	2.188/sf	297,500	
C2020 Stair Finishes	136,000.00 sf	0.467/sf	63,500	
<b>C20 STAIRS</b>		<b>2.654/sf</b>	<b>361,000</b>	
<b>136,000.00 sf</b>				

<b>C30</b>	<b>INTERIOR FINISHES</b>			
C3010 Wall Finishes	136,000.00 sf	16.263/sf	2,211,784	
C3020 Floor Finishes	136,000.00 sf	11.046/sf	1,502,248	

**Clinton Middle School**

Description	Quantity	Total	
		Unit Cost	Amount
C3030 Ceiling Finishes	136,000.00 sf	10.194/sf	1,386,423
<b>C30 INTERIOR FINISHES</b>		<b>37.503/sf</b>	<b>5,100,455</b>
<b>136,000.00 sf</b>			
60.00 Labor hours			
<b>C INTERIORS</b>		<b>92.016/sf</b>	<b>12,514,136</b>
<b>136,000.00 sf</b>			
60.00 Labor hours			
<b><u>D</u></b>		<b><u>SERVICES</u></b>	
<b>D10</b>	<b>CONVEYING</b>		
D1010 Vertical Conveying Systems	136,000.00 sf	1.588/sf	216,000
<b>D10 CONVEYING</b>		<b>1.588/sf</b>	<b>216,000</b>
<b>136,000.00 sf</b>			
<b>D20</b>	<b>PLUMBING</b>		
D2010 Plumbing Fixtures	136,000.00 sf	4.572/sf	621,850
D2020 Domestic Water Distribution	136,000.00 sf	7.154/sf	972,887
D2030 Sanitary Waste	136,000.00 sf	6.774/sf	921,240
D2040 Rain Water Drainage	136,000.00 sf	5.393/sf	733,490
D2090 Other Plumbing Systems	136,000.00 sf	6.629/sf	901,542
<b>D20 PLUMBING</b>		<b>30.522/sf</b>	<b>4,151,009</b>
<b>136,000.00 sf</b>			
<b>D30</b>	<b>HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)</b>		
D3020 Heat Generating Systems	136,000.00 sf	2.590/sf	352,300
D3030 Cooling Generating Systems	136,000.00 sf	10.065/sf	1,368,800
D3040 Distribution Systems	136,000.00 sf	53.262/sf	7,243,640
D3050 Terminal And Package Units	136,000.00 sf	5.535/sf	752,700
D3060 Controls And Instrumentation	136,000.00 sf	9.50 /sf	1,292,000
D3070 Systems Testing And Balancing	136,000.00 sf	1.20 /sf	163,200
D3090 Other HVAC Systems And Equipment	136,000.00 sf	5.169/sf	703,000
<b>D30 HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)</b>		<b>87.321/sf</b>	<b>11,875,640</b>
<b>136,000.00 sf</b>			
<b>D40</b>	<b>FIRE PROTECTION</b>		
D4030 Standpipe Systems	136,000.00 sf	1.693/sf	230,306
D4040 Sprinklers	136,000.00 sf	5.647/sf	767,970
D4090 Other Fire Protection Systems	136,000.00 sf	0.809/sf	110,000
<b>D40 FIRE PROTECTION</b>		<b>8.149/sf</b>	<b>1,108,276</b>
<b>136,000.00 sf</b>			
<b>D50</b>	<b>ELECTRICAL</b>		
D5010 Electrical Service And Distribution	136,000.00 sf	13.690/sf	1,861,895
D5020 Lighting & Branch Wiring	136,000.00 sf	24.595/sf	3,344,892
D5030 Communications & Security	136,000.00 sf	22.402/sf	3,046,682
G4010 Site Electrical Utilities	136,000.00 sf	7.869/sf	1,070,250
<b>D50 ELECTRICAL</b>		<b>68.557/sf</b>	<b>9,323,719</b>
<b>136,000.00 sf</b>			
<b>D SERVICES</b>		<b>196.137/sf</b>	<b>26,674,644</b>
<b>136,000.00 sf</b>			

**E** **EQUIPMENT AND FURNISHINGS**

<b>E10</b>		<b>EQUIPMENT</b>	
E1010 Commercial Equipment	136,000.00 sf	4.779/sf	650,000
E1060 Residential Equipment	136,000.00 sf	0.162/sf	22,000



**Clinton Middle School**

Description	Quantity	Total	
		Unit Cost	Amount
E1090 Other Equipment	136,000.00 sf	3.067/sf	417,150
<b>E10 EQUIPMENT</b>		<b>8.008/sf</b>	<b>1,089,150</b>
136,000.00 sf			
<b>E20 FURNISHINGS</b>			
E2010 Fixed Furnishings	136,000.00 sf	16.314/sf	2,218,708
<b>E20 FURNISHINGS</b>		<b>16.314/sf</b>	<b>2,218,708</b>
136,000.00 sf			
3.00 Labor hours			
<b>E EQUIPMENT AND FURNISHINGS</b>		<b>24.322/sf</b>	<b>3,307,858</b>
136,000.00 sf			
3.00 Labor hours			
<b><u>F SPECIAL CONSTRUCTION AND DEMOLITION</u></b>			
<b>F20 SELECTIVE BUILDING DEMOLITION</b>			
F2010 Building Demolition	136,000.00 sf	24.357/sf	3,312,500
<b>F20 SELECTIVE BUILDING DEMOLITION</b>		<b>24.357/sf</b>	<b>3,312,500</b>
136,000.00 sf			
<b>F SPECIAL CONSTRUCTION AND DEMOLITION</b>		<b>24.357/sf</b>	<b>3,312,500</b>
136,000.00 sf			
<b><u>G SITEWORK</u></b>			
<b>G10 SITE PREPARATION</b>			
G1010 Site Preparation	136,000.00 sf	5.435/sf	739,165
G1020 Site Demolition & Relocations	136,000.00 sf	1.897/sf	257,980
G1030 Site Earthwork	136,000.00 sf	31.879/sf	4,335,563
<b>G10 SITE PREPARATION</b>		<b>39.211/sf</b>	<b>5,332,708</b>
136,000.00 sf			
<b>G20 SITE IMPROVEMENTS</b>			
G2020 Parking Lots	136,000.00 sf	11.534/sf	1,568,599
G2030 Pedestrian Paving	136,000.00 sf	3.061/sf	416,250
G2040 Site Development	136,000.00 sf	19.039/sf	2,589,257
G2050 Landscaping	136,000.00 sf	21.369/sf	2,906,245
<b>G20 SITE IMPROVEMENTS</b>		<b>55.003/sf</b>	<b>7,480,351</b>
136,000.00 sf			
<b>G30 SITE MECHANICAL UTILITIES</b>			
G3010 Water Supply	136,000.00 sf	1.659/sf	225,586
G3020 Sanitary Sewer	136,000.00 sf	0.878/sf	119,425
G3030 Storm Drainage System	136,000.00 sf	6.207/sf	844,135
<b>G30 SITE MECHANICAL UTILITIES</b>		<b>8.744/sf</b>	<b>1,189,146</b>
136,000.00 sf			
<b>G40 SITE ELECTRICAL UTILITIES</b>			
G4020 Site Lighting	136,000.00 sf	1.421/sf	193,282
<b>G40 SITE ELECTRICAL UTILITIES</b>		<b>1.421/sf</b>	<b>193,282</b>
136,000.00 sf			
<b>G SITEWORK</b>		<b>104.379/sf</b>	<b>14,195,488</b>
136,000.00 sf			



**Clinton Middle School**

---

Description	Quantity	Total	
		Unit Cost	Amount
<b>G SITEWORK</b>		<b>104.379/sf</b>	<b>14,195,488</b>
136,000.00 sf			
<b>Z GENERAL</b>			
Z10	<b>GENERAL REQUIREMENTS</b>		
Z1050 Temporary Facilities and Controls	136,000.00 sf		
<b>Z GENERAL</b>			<b>0</b>
136,000.00 sf			



Clinton Middle School

**Estimate Totals**

Description	Amount	Totals	Rate
<b>Direct Cost</b>	<b>84,048,967</b>	<b>84,048,967</b>	
Design Contingency	8,404,897		10.000 %
Escalation	5,042,938		6.000 %
Construction Contingency	<u>1,680,979</u>		2.000 %
<b>Subtotal</b>	<b>15,128,814</b>	<b>99,177,781</b>	
Sub Default Insurance	1,239,722		1.250 %
Project Requirements	4,425,600		
GCs & GRs (Price Proposal)	7,169,858		
Preconstruction Fee (Price Proposal)	<u>12,835,180</u>	<b>112,012,961</b>	
		<b>112,012,961</b>	
General Building Permit - Waived			
<b>Subtotal</b>		<b>112,012,961</b>	
CM Fee	<u>2,285,979</u>		2.000 %
<b>Subtotal</b>	<b>2,285,979</b>	<b>114,298,940</b>	
Project GSF 136000			
<b>Total</b>		<b>114,298,940</b>	



**Clinton Middle School**

***Town of Clinton  
Clinton Middle School  
OPM - Dore + Whittier***

<b>Project name</b>	Clinton Middle School 100 W Boylston St. Clinton MA 01510
<b>Architect</b>	Lamoureux Pagano Associates
<b>Document</b>	SD
<b>Estimator</b>	Fontaine Bros.
<b>Job size</b>	136000 sf

## Clinton Middle School

				<b>Total</b>
Item	Description	Takeoff Qty	Unit Cost	Amount
<b>A</b>				
<hr/>				
<b>A10</b>	<b>FOUNDATIONS</b>			
<hr/>				
<i>A1010</i>	<i>Standard Foundations</i>			
<hr/>				
<i>03-0000.000</i>	<i>CONCRETE</i>			
125	Concrete Material - Footings, Piers & FND Walls	1,272.00	cy	110.00 /cy
125	Concrete Form Work	33,527.00	sf	32.00 /sf
125	General Concrete - Winter Conditions - Allowance	1.00	ls	100,000.000 /ls
20	Rigid Foundation Insulation - Vertical	18,050.00	sf	4.25 /sf
14	Re-Bar, Footings, Piers, Walls	70.00	tons	3,500.00 /tons
	<i>CONCRETE</i>			<i>12.018/sf</i>
	<i>136,000.00</i>		<i>sf</i>	<i>1,634,497</i>
	6,686.535		Labor hours	
<i>07-0000.000</i>	<i>THERMAL &amp; MOIST PROTECT</i>			
2	Elevator Pit Waterproofing	1.00	ea	8,500.00 /ea
2	Foundation Damproofing	9,025.00	sf	9.00 /sf
	<i>THERMAL &amp; MOIST PROTECT</i>			<i>0.660/sf</i>
	<i>136,000.00</i>		<i>sf</i>	<i>89,725</i>
<i>31-0000.000</i>	<i>EARTHWORK</i>			
10	E&B Fountation/Footings	2,700.00	lf	44.399 /lf
10	E&B Under Slab Plumbing	2,000.00	lf	36.089 /lf
10	12" Crushed Gravel Under Slab	87,500.00	sf	2.174 /sf
10	Grade Building	87,500.00	sf	0.605 /sf
10	Fill from Cut	10,000.00	cy	45.00 /cy
10	Soil Handling	6,500.00	cy	40.00 /cy
	<i>EARTHWORK</i>			<i>8.421/sf</i>
	<i>136,000.00</i>		<i>sf</i>	<i>1,145,240</i>
<hr/>				
	<i>A1010 Standard Foundations</i>			<i>21.099/sf</i>
	<i>136,000.00</i>		<i>sf</i>	<i>2,869,461</i>
	6,686.535		Labor hours	
<i>A1030</i>	<i>Slab on Grade</i>			
<hr/>				
<i>03-0000.000</i>	<i>CONCRETE</i>			
12	15 mil Vapor Barrier	86,570.00	sf	1.00 /sf
120	Rigid Insulation Under Slab, Full Coverage	86,570.00	sf	3.85 /sf

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total Amount
03-0000.000	<b>CONCRETE</b>			
14	Re-Bar, SOG	5.00 tons	3,500.00 /tons	17,500
10	Place & Finish SOG - Included Saw Cuts for CJs and Sealant	86,570.00 sf	8.00 /sf	692,560
10	SOG Concrete	1,580.00 cy	110.00 /cy	173,800
	<b>CONCRETE</b>		<b>9.586/sf</b>	<b>1,303,725</b>
	136,000.00 sf			
	477.610 Labor hours			
<hr/>				
	<i>A1030 Slab on Grade</i>		<i>9.586/sf</i>	<i>1,303,725</i>
	136,000.00 sf			
	477.610 Labor hours			
<hr/>				
	<b>A10 FOUNDATIONS</b>		<b>30.685/sf</b>	<b>4,173,186</b>
	136,000.00 sf			
	7,164.145 Labor hours			
<hr/>				
	<b>A SUBSTRUCTURE</b>		<b>30.685/sf</b>	<b>4,173,186</b>
	136,000.00 sf			
	7,164.145 Labor hours			

**B**

**B10 SUPERSTRUCTURE**

*B1010 Floor Construction*

03-0000.000	<b>CONCRETE</b>			
100	Place & Finish - SODs	52,530.00 sf	9.50 /sf	499,035
100	SOD Concrete	1,120.00 cy	120.00 /cy	134,400
100	Place & Finish - SODs - House Keeping Pads, Allow	1,300.00 sf	30.00 /sf	39,000
14	Re-Bar, SOD	14.00 tons	3,500.00 /tons	49,000
	<b>CONCRETE</b>		<b>5.305/sf</b>	<b>721,435</b>
	136,000.00 sf			
	1,337.307 Labor hours			

05-0000.000 METALS

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
<b>Total</b>				
05-0000.000	<b>METALS</b>			
a 01	Structural Steel - Columns, Assumed Qty (6x6x3/8)	112.00 tn	5,250.00 /tn	588,000
a 01	Structural Steel - Floors, Sized Members	178.00 tn	5,250.00 /tn	934,500
a 01	Structural Steel - Floors, Unsized Allow	62.00 tn	5,250.00 /tn	325,500
a 01	Structural Steel - Floors, Connections	38.00 tn	5,250.00 /tn	199,500
618	Metal Floor Deck	52,000.00 sf	7.00 /sf	364,000
140	Misc Metals - Floor Construction	136,000.00 sf	5.00 /sf	680,000
	<b>METALS</b>		<u>22.732/sf</u>	<u>3,091,500</u>
	136,000.00 sf			
07-8000.000	<b>FIREPROOFING / CAULKING</b>			
2	Fireproofing, Allowance (Mech. Elec.)	1.00 ls	50,000.00 /ls	50,000
2	Fireproofing, Intumescent Paint Allowance	1.00 ls	35,000.00 /ls	35,000
2	Patch Days	4.00 cds	2,700.00 /cds	10,800
	<b>FIREPROOFING / CAULKING</b>		<u>0.704/sf</u>	<u>95,800</u>
	136,000.00 sf			
<b>B1010 Floor Construction</b>			28.741/sf	3,908,735
	136,000.00 sf			
	1,337.307 Labor hours			
<b>B1020</b>	<b>Roof Construction</b>			
03-0000.000	<b>CONCRETE</b>			
100	Place & Finish - SOD, RTU Pads	2,940.00 sf	40.00 /sf	117,600
14	Re-Bar, SOD RTU	4.00 tons	3,500.00 /tons	14,000
	<b>CONCRETE</b>		<u>0.968/sf</u>	<u>131,600</u>
	136,000.00 sf			
	382.088 Labor hours			
05-0000.000	<b>METALS</b>			
a 01	Structural Steel - Screen Wall, Allow	10.00 tn	5,250.00 /tn	52,500
a 01	Structural Steel - Roof, Sized Members	283.00 tn	5,250.00 /tn	1,485,750
a 01	Structural Steel - Roof, Unsized Allow	135.00 tn	5,250.00 /tn	708,750
a 01	Structural Steel - Roof, Skylights, 800lf, W12x40	16.00 tn	5,250.00 /tn	84,000
a 01	Structural Steel - Roof, Connections	40.00 tn	5,250.00 /tn	210,000
320	Metal Roof Decking	77,200.00 sf	7.00 /sf	540,400
320	Metal Roof Decking - Acoustic, Gymnasium, Cafeteria	6,800.00 sf	8.00 /sf	54,400
140	Misc Metals - Roof	136,000.00 sf	1.50 /sf	204,000

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<i>METALS</i>		<u>24.557/sf</u>	<u>3,339,800</u>
	136,000.00 sf			
07-8000.000	<i>FIREPROOFING / CAULKING</i>			
	2 Fireproofing, Roof Decking	1.00 ls	<u>229,000.00 /ls</u>	<u>229,000</u>
	<i>FIREPROOFING / CAULKING</i>		<u>1.684/sf</u>	<u>229,000</u>
	136,000.00 sf			
	<i>B1020 Roof Construction</i>		<u>27.209/sf</u>	<u>3,700,400</u>
	136,000.00 sf			
	382.088 Labor hours			
	<b>B10 SUPERSTRUCTURE</b>		<b>55.950/sf</b>	<b>7,609,135</b>
	<b>136,000.00 sf</b>			
	1,719.395 Labor hours			
<b>B20</b>	<b>EXTERIOR VERTICAL ENCLOSURES</b>			
<i>B2010</i>	<i>Exterior Walls</i>			
04-0000.000	<i>MASONRY</i>			
	110 Exterior Mock up - Masonry Allowance	1.00 ls	25,000.00 /ls	25,000
	110 Brick Veneer, Interstate, Norman Brick - MTN Red	30,330.00 sf	65.00 /sf	1,971,450
	110 Brick Veneer, Ties & Anchoring	30,330.00 sf	5.00 /sf	151,650
	110 Brick Veneer, Clean New	30,330.00 sf	4.00 /sf	121,320
	110 Pre-Cast Concrete Base Panels	1,600.00 lf	125.00 /lf	200,000
	110 Subcontractor Markups	1.00 ls	350,000.00 /ls	350,000
	110 Recon Adjustment	-1.00 ls	600,000.00 /ls	(600,000)
	5 Masonry Staging - Exterior	31,000.00 sf	<u>6.25 /sf</u>	<u>193,750</u>
	<i>MASONRY</i>		<u>17.744/sf</u>	<u>2,413,170</u>
	136,000.00 sf			
05-0000.000	<i>METALS</i>			
	140 Misc Metals - Exterior Walls	136,000.00 sf	<u>0.50 /sf</u>	<u>68,000</u>
	<i>METALS</i>		<u>0.50 /sf</u>	<u>68,000</u>
	136,000.00 sf			
07-0000.000	<i>THERMAL &amp; MOIST PROTECT</i>			
	2 5" Rigid Cavity Wall Insulation (Masonry)	30,330.00 sf	5.50 /sf	166,815

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
07-0000.000	<i>THERMAL &amp; MOIST PROTECT</i>			
	2 5" Rigid Cavity Wall Insulation (Panels)	11,200.00 sf	5.50 /sf	61,600
	2 3" Rigid Cavity Wall Insulation (Soffits)	2,700.00 sf	5.50 /sf	14,850
	2 Closed Cell Insulation - Ext Wall Roof Edges	3,300.00 sf	10.00 /sf	33,000
	2 Closed Cell Insulation - Air Sealing Edges	1.00 ls	25,000.00 /ls	25,000
	10 Air Vapor Barrier, Self Adhered	45,230.00 sf	8.00 /sf	361,840
	2 GFRC Panel System	11,200.00 sf	140.00 /sf	1,568,000
	2 Composite Soffits	750.00 sf	145.00 /sf	108,750
	2 Roof Screen	0.00 NIC		
	<i>THERMAL &amp; MOIST PROTECT</i>		<u>17.205/sf</u>	<u>2,339,855</u>
	136,000.00 sf			
07-8000.000	<i>FIREPROOFING / CAULKING</i>			
	2 Exterior Joint/Control & Caulking	136,000.00 sf	0.50 /sf	68,000
	<i>FIREPROOFING / CAULKING</i>		<u>0.50 /sf</u>	<u>68,000</u>
	136,000.00 sf			
09-0000.000	<i>FINISHES</i>			
	100 Exterior Wall Back Up, 8" LGMF, GWB interior Face, Insul	50,800.00 sf	21.00 /sf	1,066,800
	100 Exterior Wall - Densglass Sheathing	55,600.00 sf	6.00 /sf	333,600
	100 Exterior Soffit Framing	750.00 sf	75.00 /sf	56,250
	<i>FINISHES</i>		<u>10.711/sf</u>	<u>1,456,650</u>
	136,000.00 sf			
	<i>B2010 Exterior Walls</i>		<u>46.659/sf</u>	<u>6,345,675</u>
	136,000.00 sf			
<i>B2020</i>	<i>Exterior Windows</i>			
06-0000.000	<i>ROUGH CARPENTRY</i>			
	2 Window Blocking	4,300.00 lf	20.408 /lf	87,755
	<i>ROUGH CARPENTRY</i>		<u>0.645/sf</u>	<u>87,755</u>
	136,000.00 sf			
08-0000.000	<i>DOORS &amp; WINDOWS</i>			
	1000 Exterior Aluminum Curtainwall	3,550.00 sf	225.00 /sf	798,750
	1000 Window Films - Security Film	1,500.00 sf	40.00 /sf	60,000
	1000 Exterior Aluminum Curtainwall / Storefront - Ballistic	1.00 ls	20,000.00 /ls	20,000
	1000 Exterior Aluminum Storefront / windows	4,580.00 sf	168.00 /sf	769,440



## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total
Item	Description	Takeoff Qty	Unit Cost	Amount
08-0000.000	<b>DOORS &amp; WINDOWS</b>			
1000	Exterior Aluminum Curtainwall - Sunshades, Allow	1.00 allow	75,000.00 /allow	75,000
	<b>DOORS &amp; WINDOWS</b>		12.671/sf	1,723,190
	136,000.00 sf			
	<b>B2020 Exterior Windows</b>		13.316/sf	1,810,945
	136,000.00 sf			
<b>B2030</b>	<b>Exterior Doors</b>			
08-0000.000	<b>DOORS &amp; WINDOWS</b>			
220	Exterior Doors	9.00 lfs	3,500.00 /lfs	31,500
50	Overhead Door at Receiving	1.00 ea	15,000.00 /ea	15,000
1000	Alum Doors, Frames & Hardware, Exterior	17.00 lfs	8,000.00 /lfs	136,000
10	Door and Hardware Install - Exterior	9.00 ea	650.00 /ea	5,850
10	Finish Hardware - Allowance	9.00 lfs	1,750.00 /lfs	15,750
	<b>DOORS &amp; WINDOWS</b>		1.501/sf	204,100
	136,000.00 sf			
09-0000.000	<b>FINISHES</b>			
30	Paint Exterior HM Door Frames	4.00 ea	250.00 /ea	1,000
30	Paint Exterior HM Doors	5.00 lfs	350.00 /lfs	1,750
	<b>FINISHES</b>		0.020/sf	2,750
	136,000.00 sf			
	<b>B2030 Exterior Doors</b>		1.521/sf	206,850
	136,000.00 sf			
	<b>B20 EXTERIOR VERTICAL ENCLOSURES</b>		61.496/sf	8,363,470
	136,000.00 sf			
<b>B30</b>	<b>EXTERIOR HORIZONTAL ENCLOSURES</b>			
<b>B3010</b>	<b>Roof Coverings</b>			
06-0000.000	<b>ROUGH CARPENTRY</b>			
2	General Roof Blocking	136,000.00 sf	2.00 /sf	272,000
2	Roof Blocking Perimeter	2,000.00 lf	20.00 /lf	40,000



## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<i>ROUGH CARPENTRY</i>		<i>2.294/sf</i>	<i>312,000</i>
	<i>136,000.00 sf</i>			
<i>07-5000.000</i>	<i>ROOFING</i>			
	2 PVC Roofing (Insulation, Vapor Barrier, Cover Board, Flashings)	84,000.00 sf	30.00 /sf	2,520,000
	2 Roof Edge Flashing	2,000.00 lf	50.00 /lf	100,000
	<i>ROOFING</i>		<i>19.265/sf</i>	<i>2,620,000</i>
	<i>136,000.00 sf</i>			
<i>07-7000.000</i>	<i>ROOF &amp; WALL ACCESSORIES</i>			
	10 Elevator Vents	1.00 ea	3,500.00 /ea	3,500
	10 Roof Ladders	3.00 ea	7,960.83 /ea	23,882
	10 Roof Drains	34.00 ea	710.83 /ea	24,168
	10 Roof Dunnage, Allow	1.00 ls	50,000.00 /ls	50,000
	20 Roof Walkway pads	1,000.00 sf	25.00 /sf	25,000
	20 Roof Hatch - Standard Door to roof			
	<i>ROOF &amp; WALL ACCESSORIES</i>		<i>0.931/sf</i>	<i>126,551</i>
	<i>136,000.00 sf</i>			
	4.875 Labor hours			
<i>08-0000.000</i>	<i>DOORS &amp; WINDOWS</i>			
	1000 Skylight Systems	4,000.00 sf	210.00 /sf	840,000
	<i>DOORS &amp; WINDOWS</i>		<i>6.176/sf</i>	<i>840,000</i>
	<i>136,000.00 sf</i>			
	<i>B3010 Roof Coverings</i>		<i>28.666/sf</i>	<i>3,898,551</i>
	<i>136,000.00 sf</i>			
	4.875 Labor hours			
	<b>B30 EXTERIOR HORIZONTAL ENCLOSURES</b>		<b>28.666/sf</b>	<b>3,898,551</b>
	<b>136,000.00 sf</b>			
	4.875 Labor hours			
	<b>B SHELL</b>		<b>146.111/sf</b>	<b>19,871,156</b>
	<b>136,000.00 sf</b>			

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total <span style="border: 1px solid black; padding: 2px;">Total</span>	Amount
<b>B SHELL</b>				<b>146.111/sf</b>	<b>19,871,156</b>
	<b>136,000.00</b>	<b>sf</b>			
	1,724.270	Labor hours			
 <b>C</b>					
<b>C10</b>	<b>INTERIOR CONSTRUCTION</b>				
<b>C1010</b>	<i>Interior Partitions</i>				
<b>04-0000.000</b>	<b>MASONRY</b>				
102	Interior CMU walls - Gymnasium	5,200.00	sf	40.00 /sf	208,000
102	Interior CMU walls - Elevator Shaft	1,476.00	sf	40.00 /sf	59,040
102	Interior CMU walls - Locker Rooms	0.00	sf		
5	Masonry Staging - Interior	12,790.00	sf	6.25 /sf	79,938
	<b>MASONRY</b>			<u>2.551/sf</u>	<u>346,978</u>
	<b>136,000.00</b>	<b>sf</b>			
<b>06-0000.000</b>	<b>ROUGH CARPENTRY</b>				
2	Misc. Blocking	136,000.00	sf	0.50 /sf	68,000
	<b>ROUGH CARPENTRY</b>			<u>0.50 /sf</u>	<u>68,000</u>
	<b>136,000.00</b>	<b>sf</b>			
<b>07-8000.000</b>	<b>FIREPROOFING / CAULKING</b>				
002	Misc. Fire Stopping w/ Trades	136,000.00	sf		
40	Misc. Interior Caulking	136,000.00	sf	0.50 /sf	68,000
	<b>FIREPROOFING / CAULKING</b>			<u>0.50 /sf</u>	<u>68,000</u>
	<b>136,000.00</b>	<b>sf</b>			
<b>08-0000.000</b>	<b>DOORS &amp; WINDOWS</b>				
10	Interior Storefront	1,168.00	sf	125.00 /sf	146,000
10	Interior Storefront - Ballistic	192.00	sf	400.00 /sf	76,800
	<b>DOORS &amp; WINDOWS</b>			<u>1.638/sf</u>	<u>222,800</u>
	<b>136,000.00</b>	<b>sf</b>			
<b>09-0000.000</b>	<b>FINISHES</b>				
100	Typical interior Partitions, Double Sided	130,504.00	sf	20.00 /sf	2,610,080

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
<b>Total</b>				
09-0000.000	<i>FINISHES</i>			
100	Typical interior Partitions, Single Sided	25,302.00	17.00 /sf	430,134
100	Skylight Surrounds	4,764.00	30.00 /sf	142,920
100	General Carp / Labor	136,000.00	2.00 /sf	272,000
100	Lifts & Staging	1.00	45,000.00 /ls	45,000
100	Mock ups	1.00	20,000.00 /ls	20,000
	<i>FINISHES</i>		<u>25.883/sf</u>	<u>3,520,134</u>
	136,000.00	sf		
10-0000.000	<i>SPECIALTIES</i>			
2	Operable Partition - 45'	1.00	70,000.00 /ea	70,000
	<i>SPECIALTIES</i>		<u>0.515/sf</u>	<u>70,000</u>
	136,000.00	sf		
	<i>C1010 Interior Partitions</i>		31.588/sf	4,295,912
	136,000.00	sf		
<i>C1020</i>	<i>Interior Doors</i>			
08-0000.000	<i>DOORS &amp; WINDOWS</i>			
10	Typical Interior Doors	276.00	1,000.00 /lfs	276,000
10	Interior Ballistic Door and Sidelite, Lvl 3	1.00	25,000.00 /lfs	25,000
100	Interior Frames	262.00	350.00 /ea	91,700
100	Frame Install - Installed w/ GWB	0.00		
50	Overhead Coiling Doors, Cafe, Allowance	3.00	12,000.00 /ea	36,000
10	Borrowed Lites	300.00	85.00 /sf	25,500
10	Glass Guardrail - Cafeteria	18.00	350.00 /lf	6,300
10	Glass Guardrail - Main Stair & Second Floor Corridor	239.00	350.00 /lf	83,650
10	Interior Storefront - Ballistic Doors	4.00	15,000.00 /lfs	60,000
10	Calming room One way Windows (4'x4')	60.00	85.00 /sf	5,100
10	PT Mirrors, Allow	25.00	80.00 /sf	2,000
1000	Alum Doors, Frames & Hardware, Interior	9.00	10,000.00 /lfs	90,000
10	Door and Hardware Install	251.00	650.00 /ea	163,150
10	Finish Hardware - Allowance	251.00	1,750.00 /lfs	439,250
	<i>DOORS &amp; WINDOWS</i>		<u>9.586/sf</u>	<u>1,303,650</u>
	136,000.00	sf		
09-0000.000	<i>FINISHES</i>			
40	Paint Doors And Frames	277.00	230.00 /ea	63,710

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<i>FINISHES</i>		<u>0.468/sf</u>	<u>63,710</u>
	136,000.00 sf			
	<i>C1020 Interior Doors</i>		<u>10.054/sf</u>	<u>1,367,360</u>
	136,000.00 sf			
<i>C1030</i>	<i>Fittings</i>			
<i>05-0000.000</i>	<i>METALS</i>			
140	Misc Metals - General	136,000.00 sf	3.00 /sf	408,000
140	Misc Metals - General Stairs			
	<i>METALS</i>		<u>3.00 /sf</u>	<u>408,000</u>
	136,000.00 sf			
<i>06-2000.000</i>	<i>FINISH CARPENTRY</i>			
2	Solid Surface Sills	730.00 lf	80.00 /lf	58,400
	<i>FINISH CARPENTRY</i>		<u>0.429/sf</u>	<u>58,400</u>
	136,000.00 sf			
<i>10-0000.000</i>	<i>SPECIALTIES</i>			
2	Magnetic White Boards	110.00 ea	750.00 /ea	82,500
2	Interactive White Boards	55.00 ea	2,000.00 /ea	110,000
2	Tackboards	55.00 ea	950.00 /ea	52,250
110	8x8 ADA Classroom / Office / Typ Doors	262.00 ea	130.00 /ea	34,060
110	8x6 ADA Restroom	10.00 ea	90.00 /ea	900
110	10x8 ADA Elevator	2.00 ea	110.00 /ea	220
110	12x12 Wayfinding	5.00 ea	190.00 /ea	950
110	14x10 Stair Signage	6.00 ea	190.00 /ea	1,140
110	Emergency Map Holder	10.00 ea	75.00 /ea	750
110	Aluminum Letters - Allowance - 'Clinton Middle School'	1.00 ea	17,500.00 /ea	17,500
110	24x24 Dedication Plaque	1.00 ea	5,000.00 /ea	5,000
110	Misc. Signage	136,000.00 sf	0.50 /sf	68,000
110	Aluminum Letters - Cafeteria	30.00 ea	225.00 /ea	6,750
2	Plastic Toilet Partitions	41.00 ea	1,750.00 /ea	71,750
2	Urinal Screen	7.00 ea	500.00 /ea	3,500
2	Toilet Partition Installation	1.00 ls	30,000.00 /ls	30,000
2	18" Grab Bars	28.00 ea	100.00 /ea	2,800
2	42" Grab Bars	28.00 ea	150.00 /ea	4,200
2	TP Dispensers	58.00 ea	65.00 /ea	3,770
2	PT Dispenser w/Trash	28.00 ea	225.00 /ea	6,300
2	Paper Towel Dispensers	2.00 ea	100.00 /ea	200
2	Sanitary Napkin Disposal	35.00 ea	100.00 /ea	3,500

## Clinton Middle School

					<b>Total</b>
Item	Description	Takeoff Qty	Unit Cost	Amount	
10-0000.000	<i>SPECIALTIES</i>				
	2 18 x 36 Framed Mirrors	36.00 ea	500.00 /ea	18,000	
	2 Janitor Mop Racks	5.00 ea	250.00 /ea	1,250	
	2 Changing Table, Allow	2.00 ea	3,500.00 /ea	7,000	
	2 Toilet Accessories - Installation	1.00 ls	45,000.00 /ls	45,000	
	30 MP-20 Extinguisher	20.00 ea	347.757 /ea	6,955	
	30 Extinguisher Cabinets, Allow	20.00 ea	391.227 /ea	7,825	
	30 Fire Extinguisher Cabinet Install	20.00 ea	285.00 /ea	5,700	
	30 AED Cabinet, Allow	1.00 ea	2,500.00 /ea	2,500	
	10 Lockers, 15x12 Corridors, Double Tier Metal	590.00 ea	335.00 /ea	197,650	
	10 Lockers, Kitchen / Staff	8.00 ea	335.00 /ea	2,680	
	10 Locker Room Lockers, 15x12 Double Tier, Metal	108.00 ea	350.00 /ea	37,800	
	10 Locker Room Bench, Under Lockers (Locker Room)	120.00 lf	500.00 /lf	60,000	
	10 Lockers, Gender Neutral Lockers	6.00 ea	335.00 /ea	2,010	
	10 Extra Locker Doors - 5%	36.00 ea	100.00 /ea	3,600	
	<i>SPECIALTIES</i>		6.647/sf	904,010	
	136,000.00 sf				
11-0000.000	<i>EQUIPMENT</i>				
	001 Projection Screen 10' x 16'	1.00 ea	7,000.00 /ea	7,000	
	001 Projection Screen 20' x 12'	1.00 ea	12,000.00 /ea	12,000	
	<i>EQUIPMENT</i>		0.140/sf	19,000	
	136,000.00 sf				
	<i>C1030 Fittings</i>		10.216/sf	1,389,410	
	136,000.00 sf				
	<b>C10 INTERIOR CONSTRUCTION</b>		<b>51.858/sf</b>	<b>7,052,681</b>	
	<b>136,000.00 sf</b>				
<b>C20</b>	<b>STAIRS</b>				
<i>C2010</i>	<i>Stair Construction</i>				
03-0000.000	<i>CONCRETE</i>				
	105 Stairs and Landings	4.00 Flt	4,500.00 /Flt	18,000	
	105 Stairs and Landings, Main Stair	1.00 Flt	4,500.00 /Flt	4,500	
	105 Stage Ramp	1.00 ls	25,000.00 /ls	25,000	
	<i>CONCRETE</i>		0.349/sf	47,500	
	136,000.00 sf				

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<i>CONCRETE</i>		<i>0.349/sf</i>	<i>47,500</i>
	<i>136,000.00 sf</i>			
<i>05-0000.000</i>	<i>METALS</i>			
	10 Stairs and Rails - Feature Stair	1.00 Flt	75,000.00 /Flt	75,000
	10 Stairs and Rails - Egress	4.00 Flt	35,000.00 /Flt	140,000
	10 Stairs and Rails - Roof	1.00 Flt	35,000.00 /Flt	35,000
	<i>METALS</i>		<i>1.838/sf</i>	<i>250,000</i>
	<i>136,000.00 sf</i>			
	<i>C2010 Stair Construction</i>		<i>2.188/sf</i>	<i>297,500</i>
	<i>136,000.00 sf</i>			
<i>C2020</i>	<i>Stair Finishes</i>			
<i>09-0000.000</i>	<i>FINISHES</i>			
	2 Terrazzo Treads	220.00 lf	150.00 /lf	33,000
	2 Rubber Tile Landings & Treads	4.00 flt	4,500.00 /flt	18,000
	30 Paint pan stairs & Rails	5.00 Flt	2,500.00 /Flt	12,500
	<i>FINISHES</i>		<i>0.467/sf</i>	<i>63,500</i>
	<i>136,000.00 sf</i>			
	<i>C2020 Stair Finishes</i>		<i>0.467/sf</i>	<i>63,500</i>
	<i>136,000.00 sf</i>			
	<b>C20 STAIRS</b>		<b>2.654/sf</b>	<b>361,000</b>
	<b>136,000.00 sf</b>			
<b>C30</b>	<b>INTERIOR FINISHES</b>			
<i>C3010</i>	<i>Wall Finishes</i>			
<i>06-2000.000</i>	<i>FINISH CARPENTRY</i>			
	2 Lobby/Cafeteria PLAM Wall Panels	4,560.00 sf	39.00 /sf	177,840
	2 PLAM Wall Panels, Allowance - Music, Cafe, Media	1,500.00 sf	39.00 /sf	58,500

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<i>FINISH CARPENTRY</i>		<u>1.738/sf</u>	<u>236,340</u>
	136,000.00 sf			
09-0000.000	<i>FINISHES</i>			
100	FRP - 8' Height, Kitchen, JC	265.00	110.00 /lf	29,150
100	FRP - 8' Height, Eyewash Showers	198.00	110.00 /lf	21,780
50	Porcelain Wall Tile - Corridors, 7' AFF	14,840.00	33.00 /sf	489,720
50	Porcelain Wall Tile - Restrooms, 7' AFF	9,700.00	33.00 /sf	320,100
50	Porcelain Wall Tile - Cafeteria, 8' AFF	850.00	33.00 /sf	28,050
50	Ceramic Wall Tile - Stairs, 7' AFF	3,080.00	33.00 /sf	101,640
50	Ceramic Wall Tile - Locker Room, 7' AFF	2,388.00	33.00 /sf	78,804
50	Porcelain Wall Tile - Lobby, 7' AFF	4,200.00	33.00 /sf	138,600
2	Wall Protection - FRP at Kitchen, See Drywall			
2	Custom Graphic Wall Allowance	1,000.00	15.00 /sf	15,000
2	Acoustical Wall Panels	2,900.00	42.00 /sf	121,800
2	Acoustical Wall Panels, Allowance, Media, Band, Gym, Etc.	1.00	100,000.000 /ls	100,000
2	Acoustical Wall Panels - Snap on Aluminum Extrusions	1.00	15,000.00 /Allow	15,000
10	Paint Walls - GYP	335,000.00	1.45 /sf	485,750
10	Paint Walls - CMU	6,700.00	1.50 /sf	10,050
10	Paint Touch up Allowance	1.00	20,000.00 /ls	20,000
	<i>FINISHES</i>		<u>14.525/sf</u>	<u>1,975,444</u>
	136,000.00 sf			
	<i>C3010 Wall Finishes</i>		<u>16.263/sf</u>	<u>2,211,784</u>
	136,000.00 sf			
C3020	<i>Floor Finishes</i>			
09-0000.000	<i>FINISHES</i>			
2	Terrazzo Tile	5,000.00	40.00 /sf	200,000
2	Floors Moisture Mitigation Testing	5.00	400.00 /loc	2,000
2	Floors Moisture Mitigation	17,000.00	1.00 /sf	17,000
2	Flooring Protection	108,750.00	1.25 /sf	135,938
40	Epoxy Flooring	16,059.00	27.50 /sf	441,623
145	Sports Surfaces, 2-1/8" Flooring System - Gymnasium	7,010.00	28.00 /sf	196,280
145	Wood Flooring, Maple (Stage)	1,450.00	27.00 /sf	39,150
2	Linoleum Flooring	45,220.00	7.00 /sf	316,540
2	Resilient Base	16,879.00	5.00 /lf	84,395
f 10	Carpet Tile	726.00	60.00 /sy	43,560
20	Metal Grating Frames, Vestibule	300.00	28.302 /sf	8,491
20	Walk Off Mats	300.00	5.975 /sf	1,792
10	Sealed Concrete	1,935.00	8.00 /sf	15,480

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
			<b>Total</b>	
	<i>FINISHES</i>		<u>11.046/sf</u>	<u>1,502,248</u>
	136,000.00 sf			
	60.00 Labor hours			
<hr/>				
	<i>C3020 Floor Finishes</i>		<u>11.046/sf</u>	<u>1,502,248</u>
	136,000.00 sf			
	60.00 Labor hours			
<i>C3030</i>	<i>Ceiling Finishes</i>			
<i>09-0000.000</i>	<i>FINISHES</i>			
2499	GWB Ceilings / Soffiting	136,000.00 sf	1.90 /sf	258,400
2	ACT-1: 2x2- Classrooms, Corridors, Offices	85,350.00 sf	6.75 /sf	576,113
2	ACT-2: 2x2 - Kitchen	2,450.00 sf	7.50 /sf	18,375
2	ACT-3: 2x2 - 50% Music/Band	1,000.00 sf	10.00 /sf	10,000
2	ACT-4: 2x2 - Toilet Rooms/Locker Rooms/Custodial	6,210.00 sf	10.50 /sf	65,205
2	ACT-5: 2x2 - Health/Wellness/OT/PT/Exec. Funct.	2,750.00 sf	18.00 /sf	49,500
2	ACT-6: 2x2 - 50% Music/Band - Geometric Diffusers	1,000.00 sf	40.00 /sf	40,000
2	ACT-7: Clouds - Cafeteria	4,200.00 sf	75.00 /sf	315,000
2	ACT-8: TBD - Platform Allowance	1,060.00 sf	20.00 /sf	21,200
20	Paint Exposed Ceilings	9,323.00 sf	3.50 /sf	32,631
	<i>FINISHES</i>		<u>10.194/sf</u>	<u>1,386,423</u>
	136,000.00 sf			
<hr/>				
	<i>C3030 Ceiling Finishes</i>		<u>10.194/sf</u>	<u>1,386,423</u>
	136,000.00 sf			
<hr/>				
	<b>C30 INTERIOR FINISHES</b>		<b>37.503/sf</b>	<b>5,100,455</b>
	136,000.00 sf			
	60.00 Labor hours			
<hr/>				
	<b>C INTERIORS</b>		<b>92.016/sf</b>	<b>12,514,136</b>
	136,000.00 sf			
	60.00 Labor hours			



## Clinton Middle School

					<b>Total</b>
Item	Description	Takeoff Qty	Unit Cost	Unit Cost	Amount
<b><u>D</u></b>					
<b>D10 CONVEYING</b>					
<i>D1010 Vertical Conveying Systems</i>					
03-0000.000	CONCRETE				
500	Grout Elevator Sill Angles	2.00 ea	500.00 /ea		1,000
	CONCRETE		0.007/sf		1,000
	136,000.00 sf				
14-0000.000	CONVEYING SYSTEMS				
2	Elevator Usage - Operator	10.00 cd	2,500.00 /cd		25,000
2	Elevator, Holeless Hydraulic	2.00 stop	95,000.00 /stop		190,000
	CONVEYING SYSTEMS		1.581/sf		215,000
	136,000.00 sf				
<i>D1010 Vertical Conveying Systems</i>				1.588/sf	216,000
	136,000.00 sf				
<b>D10 CONVEYING</b>				<b>1.588/sf</b>	<b>216,000</b>
	136,000.00 sf				
<b>D20 PLUMBING</b>					
<i>D2010 Plumbing Fixtures</i>					
22-0000.000	PLUMBING				
1	Plumbing Fixtures				
1	P-1 Water Closet, wall/sensor	27.00 ea	2,400.00 /ea		64,800
1	P-2 Water Closet, wall/sensor	32.00 ea	2,450.00 /ea		78,400
1	P-3 Urinal, wall/sensor	7.00 ea	2,200.00 /ea		15,400
1	P-4 Urinal, wall/sensor	7.00 ea	2,200.00 /ea		15,400
1	P-5 Lavatory, wall/sensor	30.00 ea	2,300.00 /ea		69,000
1	P-6 Lavatory, wall/sensor	33.00 ea	2,300.00 /ea		75,900
1	P-7 Water Cooler	7.00 ea	4,500.00 /ea		31,500
1	P-8 Mop Receptor	3.00 ea	2,200.00 /ea		6,600
1	P-9 Sink	25.00 ea	1,900.00 /ea		47,500
1	P-10L/10R Sink	42.00 ea	1,900.00 /ea		79,800
1	P-11 Sink	4.00 ea	1,900.00 /ea		7,600

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
22-0000.000	<b>PLUMBING</b>			
1	P-12 Art Sink, 2 faucets and interceptor	8.00 ea	2,850.00 /ea	22,800
1	P-13 Exam Sink	2.00 ea	1,800.00 /ea	3,600
1	P-14 Shower Base, Valve & Drain	2.00 ea	2,400.00 /ea	4,800
1	P-15 Shower Valve & Drain	2.00 ea	2,000.00 /ea	4,000
1	P-16 Emergency Shower/Eyewash	12.00 ea	3,500.00 /ea	42,000
1	P-17 Water Closet, floor/sensor	2.00 ea	2,000.00 /ea	4,000
1	P-18 Washer Valve & Drain	2.00 ea	1,250.00 /ea	2,500
1	L-1 Faucet & Trim	20.00 ea	1,250.00 /ea	25,000
1	L-2 Faucet & Trim	8.00 ea	1,250.00 /ea	10,000
1	L-3 Faucet & Trim	4.00 ea	1,250.00 /ea	5,000
1	L-4 Faucet & Trim	5.00 ea	1,250.00 /ea	6,250
	<b>PLUMBING</b>		4.572/sf	621,850
	136,000.00 sf			
	<b>D2010 Plumbing Fixtures</b>		4.572/sf	621,850
	136,000.00 sf			
<b>D2020</b>	<b>Domestic Water Distribution</b>			
22-0000.000	<b>PLUMBING</b>			
1	Domestic Water Distribution			
1	4" Domestic Water Pipe (Type "L" Cu.)	430.00 lf	140.00 /lf	60,200
1	3" Domestic Water Pipe (Type "L" Cu.)	80.00 lf	85.00 /lf	6,800
1	2-1/2" Domestic Water Pipe (Type "L" Cu.)	620.00 lf	64.00 /lf	39,680
1	2" Domestic Water Pipe (Type "L" Cu.)	1,385.00 lf	45.00 /lf	62,325
1	1-1/2" Domestic Water Pipe Type "L" Cu.)	380.00 lf	35.00 /lf	13,300
1	1-1/4" Domestic Water Pipe (Type "L" Cu.)	585.00 lf	32.00 /lf	18,720
1	1" Domestic Water Pipe (Type "L" Cu.)	565.00 lf	26.00 /lf	14,690
1	3/4" Domestic Water Pipe (Type "L" Cu.)	1,665.00 lf	21.00 /lf	34,965
1	1/2" Domestic Water Pipe (Type "L" Cu.)	3,375.00 lf	19.00 /lf	64,125
1	Fixture Rough In Piping	5,000.00 lf	28.00 /lf	140,000
1	Misc. Valves, Tags & Fittings	1.00 ls	68,221.00 /ls	68,221
1	Pipe Insulation - (1/2" - 1-1/4")	11,190.00 lf	11.00 /lf	123,090
1	Pipe Insulation - (1-1/2" - 5")	2,895.00 lf	16.00 /lf	46,320
1	Tempered Water Piping			
1	2" TWS&R - Tempered Water Pipe - Main (Type "L" Cu.)	475.00 lf	45.00 /lf	21,375
1	1-1/4" TWS&R - Tempered Water Pipe - Main (Type "L" Cu.)	125.00 lf	32.00 /lf	4,000
1	Misc. Valves, Tags & Fittings	1.00 ls	3,806.00 /ls	3,806
1	Pipe Insulation - (1/2" - 1-1/4")	600.00 lf	11.00 /lf	6,600
1	Domestic Water Equipment			
1	Backflow Preventer, 4"	2.00 ea	7,950.00 /ea	15,900
1	Backflow Preventer, 2"	2.00 ls	990.00 /ls	1,980
1	Backflow Preventer, 1"	1.00 ea	990.00 /ea	990
1	PRV Station	1.00 ea	5,000.00 /ea	5,000
1	Circulating Pump	2.00 ea	2,200.00 /ea	4,400

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
22-0000.000	<b>PLUMBING</b>			
1	Heat Pump Water Heaters	2.00 ea	65,000.00 /ea	130,000
1	Hot Water Storage Tank	3.00 ea	20,000.00 /ea	60,000
1	Expansion Tank	2.00 ea	2,400.00 /ea	4,800
1	Water Meter, 4"	1.00 ea	5,500.00 /ea	5,500
1	MV-1 - MV-2 - Mixing Valve	2.00 ea	2,800.00 /ea	5,600
1	HB - Hose Bibb	14.00 ea	250.00 /ea	3,500
1	Wall Hydrant	10.00 ea	700.00 /ea	7,000
	<b>PLUMBING</b>		7.154/sf	972,887
	136,000.00 sf			
<hr/>				
	<i>D2020 Domestic Water Distribution</i>		7.154/sf	972,887
	136,000.00 sf			

**D2030** **Sanitary Waste**

22-0000.000	<b>PLUMBING</b>			
1	Sanitary Waste & Vent Piping (Under Ground)			
1	6" Sanitary Waste & Vent Pipe (U)	75.00 lf	74.00 /lf	5,550
1	4" Sanitary Waste & Vent Pipe (U)	1,640.00 lf	62.00 /lf	101,680
1	3" Sanitary Waste & Vent Pipe (U)	475.00 lf	55.00 /lf	26,125
1	2" Sanitary Waste & Vent Pipe (U)	850.00 lf	45.00 /lf	38,250
1	Cleanout	42.00 ea	450.00 /ea	18,900
1	Sanitary Waste & Vent Piping (Above Ground)			
1	4" Sanitary Waste & Vent Pipe (A)	1,560.00 lf	68.00 /lf	106,080
1	3" Sanitary Waste & Vent Pipe (A)	200.00 lf	59.00 /lf	11,800
1	2" Sanitary Waste & Vent Pipe (A)	2,090.00 lf	48.00 /lf	100,320
1	1-1/2" Kitchen Waste & Vent Pipe (A)	180.00 lf	42.00 /lf	7,560
1	Fixture Rough In Piping	3,750.00 lf	55.00 /lf	206,250
1	Sanitary and Vent Equipment			
1	Grease Interceptor - Interior	1.00 ea	10,000.00 /ea	10,000
1	FD-1 - Floor Drain	35.00 ea	1,000.00 /ea	35,000
1	FD-2 - Floor Drain	2.00 ea	1,200.00 /ea	2,400
1	FD-3 - Floor Sink	9.00 ea	1,600.00 /ea	14,400
1	FD-4 - Floor Drain	1.00 ea	1,200.00 /ea	1,200
1	Electronic Trap Primer	20.00 ea	1,100.00 /ea	22,000
1	SP-1 - Elevator Sump Pump w/Oil Separator	1.00 ea	12,000.00 /ea	12,000
1	Lab Waste & Vent Piping (Under Ground)			
1	4" Lab Waste & Vent Pipe (U)	315.00 lf	85.00 /lf	26,775
1	3" Lab Waste & Vent Pipe (U)	390.00 lf	70.00 /lf	27,300
1	Cleanout	16.00 ea	600.00 /ea	9,600
1	Lab Waste & Vent Piping (Above Ground)			
1	2" Lab Waste & Vent Pipe (A)	605.00 lf	85.00 /lf	51,425
1	Fixture Rough In Piping	555.00 lf	75.00 /lf	41,625
1	Lab Waste Neutralization System	1.00 ls	45,000.00 /ls	45,000

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<i>PLUMBING</i>		6.774/sf	921,240
	136,000.00 sf			
	<i>D2030 Sanitary Waste</i>		6.774/sf	921,240
	136,000.00 sf			
<hr/>				
<i>D2040</i>	<i>Rain Water Drainage</i>			
<i>22-0000.000</i>	<i>PLUMBING</i>			
	1 Storm Piping (Under Ground)			
	1 RD-1 - (Comb RD/OD)	34.00	ea	1,600.00 /ea
	1 Downspout Nozzle	16.00	ea	1,200.00 /ea
	1 15" Storm Pipe (U)	175.00	lf	310.00 /lf
	1 12" Storm Pipe (U)	370.00	lf	225.00 /lf
	1 10" Storm Pipe (U)	210.00	lf	160.00 /lf
	1 8" Storm Pipe (U)	330.00	lf	120.00 /lf
	1 6" Storm Pipe (U)	405.00	lf	75.00 /lf
	1 Storm Piping (Above Ground)			
	1 8" Storm Pipe (A)	525.00	lf	175.00 /lf
	1 6" Storm Pipe (A)	2,415.00	lf	90.00 /lf
	1 4" Storm Pipe (A)	840.00	lf	68.00 /lf
	1 Drain Pipe Insulation	2,915.00	lf	18.00 /lf
	<i>PLUMBING</i>		5.393/sf	733,490
	136,000.00 sf			
	<i>D2040 Rain Water Drainage</i>		5.393/sf	733,490
	136,000.00 sf			
<hr/>				
<i>D2090</i>	<i>Other Plumbing Systems</i>			
<i>22-0000.000</i>	<i>PLUMBING</i>			
	1 Kitchen Plumbing Connections			
	1 Kitchen Equipment and Fixture Connections	1.00	ls	15,000.00 /ls
	1 Radon Mitigation System			
	1 4" PVC (Sched 40) - Risers	800.00	lf	53.00 /lf
	1 4" PVC (Sched 40) - Underground	3,150.00	lf	48.00 /lf
	1 Plumbing General Conditions			
	1 Testing & Disinfection	1.00	ls	12,000.00 /ls
	1 Coordination & Management	1.00	ls	120,000.00 /ls
	1 Permits and Fees	1.00	ls	45,000.00 /ls
	1 Coordination Drawings / BIM	1.00	ls	60,000.00 /ls
	1 Seismic Restraints / Bracing	1.00	ls	40,000.00 /ls
	1 Coring & Patching / Firestopping	1.00	ls	25,000.00 /ls

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
22-0000.000	<b>PLUMBING</b>			
	1 Hoisting & Rigging / Floor Loading	1.00 ls	20,000.00 /ls	20,000
	1 Equipment start up and inspection	1.00 ls	15,000.00 /ls	15,000
	1 Access Panels - Furnish Only	1.00 ls	10,000.00 /ls	10,000
	<b>PLUMBING</b>		<u>4.085/sf</u>	<u>555,600</u>
	136,000.00 sf			
31-0000.000	<b>EARTHWORK</b>			
001	Radon Mitigation System	1.00 ls	345,941.81 /ls	345,942
	<b>EARTHWORK</b>		<u>2.544/sf</u>	<u>345,942</u>
	136,000.00 sf			
	<b>D2090 Other Plumbing Systems</b>		<u>6.629/sf</u>	<u>901,542</u>
	136,000.00 sf			
	<b>D20 PLUMBING</b>		<u>30.522/sf</u>	<u>4,151,009</u>
	136,000.00 sf			
<b>D30</b>	<b>HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)</b>			
<b>D3020</b>	<b>Heat Generating Systems</b>			
23-0000.000	<b>HVAC</b>			
	1 Heating Equipment			
	1 Heat Exchanger HX, 1/2, 230 GPM	2.00 ea	65,000.00 /ea	130,000
	1 P-1A/1B/1C, 200 GPM w/VFD	3.00 ea	20,000.00 /ea	60,000
	1 BP-1A/1B, 110 GPM	2.00 ea	11,000.00 /ea	22,000
	1 Electric Boiler EWB-1/2, 240 KW	2.00 ea	65,000.00 /ea	130,000
	1 Air Separator	1.00 ea	5,500.00 /ea	5,500
	1 Expansion Tank	1.00 ea	4,800.00 /ea	4,800
	<b>HVAC</b>		<u>2.590/sf</u>	<u>352,300</u>
	136,000.00 sf			
	<b>D3020 Heat Generating Systems</b>		<u>2.590/sf</u>	<u>352,300</u>
	136,000.00 sf			
<b>D3030</b>	<b>Cooling Generating Systems</b>			

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
23-0000.000	<i>HVAC</i>			
1	Cooling Equipment			
1	ASHP Condensing Units - DOAS	208.00 ton	2,500.00 /ton	520,000
1	ASHP Condensing Units - RTUs	105.00 ton	2,500.00 /ton	262,500
1	ASHP Condensing Units - VRF	20.00 ton	2,500.00 /ton	50,000
1	Chiller/Heater CH-1	150.00 ton	3,000.00 /ton	450,000
1	P-2A/2B/2C, 300 GPM w/VFD	3.00 ea	23,000.00 /ea	69,000
1	Air Separator	1.00 ea	5,500.00 /ea	5,500
1	Expansion Tank	1.00 ea	4,800.00 /ea	4,800
1	Buffer Tank	1.00 ea	7,000.00 /ea	7,000
1	Premium for Geothermal System (Piping and Equipment)			
	<i>HVAC</i>		10.065/sf	1,368,800
	136,000.00 sf			
	<i>D3030 Cooling Generating Systems</i>		10.065/sf	1,368,800
	136,000.00 sf			
D3040	<i>Distribution Systems</i>			
23-0000.000	<i>HVAC</i>			
1	HVAC Air Distribution			
1	Ductwork Galvanized	136,000.00 lbs	18.50 /lbs	2,516,000
1	Kitchen Grease Duct	1.00 ls	65,000.00 /ls	65,000
1	RGD's	313.00 ea	230.00 /ea	71,990
1	Gym Return Grill	4.00 ea	850.00 /ea	3,400
1	Displacement Diffuser	82.00 ea	475.00 /ea	38,950
1	Linear Diffuser	336.00 lf	125.00 /lf	42,000
1	Misc. Ductwork Accessories - Volume Dampers, Fire Dampers, Volume Dampers etc.	136,000.00 sf	0.60 /sf	81,600
1	Hydronic Piping (Includes Hangers & Supports)			
1	Mechanical Room Piping	1.00 ls	100,000.00 /ls	100,000
1	Hydronic Distribution Piping - Mains	10,000.00 lf	90.00 /lf	900,000
1	Hydronic Distribution Piping - Branch	6,750.00 lf	50.00 /lf	337,500
1	Valves and Accessories	1.00 ls	80,000.00 /ls	80,000
1	Refrigerant Piping (Includes Hangers & Supports)			
1	Refrigerant Piping - Branch (Branch Controller to Fan Coil Unit)	1,450.00 lf	43.00 /lf	62,350
1	Refrigerant Piping - Mains (Branch Selectors to Condenser Unit)	400.00 lf	55.00 /lf	22,000
1	Refrigerant Piping - Rooftop Equipment	600.00 lf	80.00 /lf	48,000
1	Condensate Piping			
1	Condensate Drain Pipe (Type "L" Cu.)	550.00 lf	38.00 /lf	20,900
1	Insulation			
1	Duct wrap insulation	95,000.00 sf	6.85 /sf	650,750
1	Pipe Insulation	19,200.00 lf	15.00 /lf	288,000
1	Exhaust Fans			

**Clinton Middle School**

Item	Description	Takeoff Qty	Unit Cost	Total	
				Unit Cost	Amount
23-0000.000	<i>HVAC</i>				
	1 EF-1, 4,000 CFM (lab exhaust)	0.00	NIC		
	1 EF-2, 2,250 CFM	1.00	ea	5,500.00 /ea	5,500
	1 EF-3, 980 CFM	1.00	ea	3,500.00 /ea	3,500
	1 KEF-1, 8,700 CFM	1.00	ea	12,000.00 /ea	12,000
	1 ASF-1 - Destratification Fan	8.00	ea	5,500.00 /ea	44,000
	1 Kitchen Hood w/Ansul System	1.00	ea	20,000.00 /ea	20,000
	1 Central Air Handling Equipment				
	1 DOAS-1 - Dedicated Outside Air Unit	1,200.00	cfm	28.00 /cfm	33,600
	1 DOAS-2 - Dedicated Outside Air Unit	1,200.00	cfm	28.00 /cfm	33,600
	1 DOAS-3 - Dedicated Outside Air Unit	5,300.00	cfm	28.00 /cfm	148,400
	1 DOAS-4 - Dedicated Outside Air Unit	8,000.00	cfm	28.00 /cfm	224,000
	1 DOAS-5 - Dedicated Outside Air Unit	3,200.00	cfm	28.00 /cfm	89,600
	1 DOAS-6 - Dedicated Outside Air Unit	6,000.00	cfm	28.00 /cfm	168,000
	1 DOAS-7 - Dedicated Outside Air Unit	9,000.00	cfm	28.00 /cfm	252,000
	1 RTU-1 - Rooftop HVAC Unit	8,000.00	cfm	24.00 /cfm	192,000
	1 RTU-2 - Rooftop HVAC Unit	2,000.00	cfm	24.00 /cfm	48,000
	1 RTU-3 - Rooftop HVAC Unit	6,500.00	cfm	24.00 /cfm	156,000
	1 RTU-4 - Rooftop HVAC Unit	6,000.00	cfm	24.00 /cfm	144,000
	1 RTU-5 - Rooftop HVAC Unit	3,000.00	cfm	24.00 /cfm	72,000
	1 MAU-1 - Kitchen Make-up Air Unit	5,500.00	cfm	24.00 /cfm	132,000
	1 ERV-1 - Energy Recovery Ventilator, 200 CFM	1.00	ea	5,000.00 /ea	5,000
	1 Roof Curb	12.00	ea	6,000.00 /ea	72,000
	1 Sound Attenuation	1.00	ls	60,000.00 /ls	60,000
	<i>HVAC</i>			53.262/sf	7,243,640
	136,000.00 sf				
	<i>D3040 Distribution Systems</i>			53.262/sf	7,243,640
	136,000.00 sf				
D3050	<i>Terminal And Package Units</i>				
23-0000.000	<i>HVAC</i>				
	1 Heating & Cooling Terminal Equipment				
	1 Ductless Split System	1.00	ea	10,000.00 /ea	10,000
	1 VRF Indoor Unit	9.00	ea	3,500.00 /ea	31,500
	1 VRF Branch Controller	2.00	ea	7,650.00 /ea	15,300
	1 Fin Tube Radiation	1,025.00	lf	140.00 /lf	143,500
	1 VAV Terminal Unit	7.00	ea	1,200.00 /ea	8,400
	1 VAV Terminal Unit, Fan-Powered	68.00	ea	2,000.00 /ea	136,000
	1 Misc. Terminal Heating & Cooling Equipment	136,000.00	sf	3.00 /sf	408,000
	<i>HVAC</i>			5.535/sf	752,700
	136,000.00 sf				

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
			<b>Total</b>	
<i>D3050 Terminal And Package Units</i>			<i>5.535/sf</i>	<i>752,700</i>
	<i>136,000.00 sf</i>			
<hr/>				
<i>D3060</i>	<i>Controls And Instrumentation</i>			
<hr/>				
<i>23-0000.000</i>	<i>HVAC</i>			
	1 Automatic Temperature Controls for HVAC			
	1 Building Management System	136,000.00	9.50 /sf	1,292,000
	<i>HVAC</i>		<i>9.50 /sf</i>	<i>1,292,000</i>
	<i>136,000.00 sf</i>			
<i>D3060 Controls And Instrumentation</i>			<i>9.50 /sf</i>	<i>1,292,000</i>
	<i>136,000.00 sf</i>			
<hr/>				
<i>D3070</i>	<i>Systems Testing And Balancing</i>			
<hr/>				
<i>23-0000.000</i>	<i>HVAC</i>			
	1 Testing & Balancing			
	1 Testing & balancing	136,000.00	1.20 /sf	163,200
	<i>HVAC</i>		<i>1.20 /sf</i>	<i>163,200</i>
	<i>136,000.00 sf</i>			
<i>D3070 Systems Testing And Balancing</i>			<i>1.20 /sf</i>	<i>163,200</i>
	<i>136,000.00 sf</i>			
<hr/>				
<i>D3090</i>	<i>Other HVAC Systems And Equipment</i>			
<hr/>				
<i>23-0000.000</i>	<i>HVAC</i>			
	1 HVAC General Requirements			
	1 Commissioning Support	1.00	Is 25,000.00 /Is	25,000
	1 Coordination & management	1.00	Is 250,000.00 /Is	250,000
	1 Permits and fees	1.00	Is 138,000.00 /Is	138,000
	1 Coordination / BIM	1.00	Is 80,000.00 /Is	80,000
	1 Seismic restraints / bracing	1.00	Is 35,000.00 /Is	35,000
	1 Coring & patching / firestopping	1.00	Is 40,000.00 /Is	40,000
	1 Hoisting & rigging / floor loading	1.00	Is 100,000.00 /Is	100,000
	1 Equipment start up and inspection	1.00	Is 25,000.00 /Is	25,000
	1 Access panels - furnish only	1.00	Is 10,000.00 /Is	10,000



## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	HVAC		5.169/sf	703,000
	136,000.00 sf			
<hr/>				
	D3090 Other HVAC Systems And Equipment		5.169/sf	703,000
	136,000.00 sf			
<hr/>				
	<b>D30 HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)</b>		<b>87.321/sf</b>	<b>11,875,640</b>
	136,000.00 sf			
<hr/>				
<b>D40</b>	<b>FIRE PROTECTION</b>			
<hr/>				
<i>D4030</i>	<i>Standpipe Systems</i>			
<hr/>				
21-0000.000	<i>FIRE SUPPRESSION</i>			
1	Fire Protection Standpipe			
1	8" Fire Service	1.00	12,000.00 /ls	12,000
1	4" Sprinkler Main w/ Fittings & Hangers	2,330.00	52.50 /lf	122,325
1	3" Sprinkler Main w/ Fittings & Hangers	455.00	43.25 /lf	19,679
1	2-1/2" Sprinkler Main w/ Fittings & Hangers	820.00	41.10 /lf	33,702
1	Fire Department Connection	1.00	3,200.00 /ea	3,200
1	Alarm valve	3.00	4,800.00 /ea	14,400
1	Valves and accessories	1.00	25,000.00 /ls	25,000
	<i>FIRE SUPPRESSION</i>		<u>1.693/sf</u>	<u>230,306</u>
	136,000.00 sf			
<hr/>				
	<i>D4030 Standpipe Systems</i>		<i>1.693/sf</i>	<i>230,306</i>
	136,000.00 sf			
<hr/>				
<i>D4040</i>	<i>Sprinklers</i>			
<hr/>				
21-0000.000	<i>FIRE SUPPRESSION</i>			
1	Fire Protection Sprinkler System			
1	Zone Control Valve	2.00	2,200.00 /ea	4,400
1	Sprinkler Head - Dry	10.00	275.00 /ea	2,750
1	Sprinkler Head - Pendant/Upright	1,236.00	120.00 /sf	148,320
1	Distribution & Branch Piping	17,500.00	35.00 /lf	612,500

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<i>FIRE SUPPRESSION</i>		5.647/sf	767,970
	136,000.00 sf			
	<i>D4040 Sprinklers</i>		5.647/sf	767,970
	136,000.00 sf			
<hr/>				
<i>D4090</i>	<i>Other Fire Protection Systems</i>			
<i>21-0000.000</i>	<i>FIRE SUPPRESSION</i>			
	1 Fire Protection General Conditions			
	1 Hydraulic Calculations	1.00	ls	3,000.00 /ls
	1 Testing & Inspection	1.00	ls	8,000.00 /ls
	1 Drain & Fill System	1.00	ls	2,000.00 /ls
	1 Coordination and Management	1.00	ls	40,000.00 /ls
	1 Permits and Fees	1.00	ls	12,000.00 /ls
	1 Coordination Drawings / BIM	1.00	ls	25,000.00 /ls
	1 Seismic Restraints / Bracing - includes design	1.00	ls	7,000.00 /ls
	1 Coring & Patching / Firestopping	1.00	ls	8,000.00 /ls
	1 Hoisting & Rigging / Floor Loading	1.00	ls	5,000.00 /ls
	<i>FIRE SUPPRESSION</i>		0.809/sf	110,000
	136,000.00 sf			
	<i>D4090 Other Fire Protection Systems</i>		0.809/sf	110,000
	136,000.00 sf			
	<b>D40 FIRE PROTECTION</b>		<b>8.149/sf</b>	<b>1,108,276</b>
	<b>136,000.00 sf</b>			

**D50**

**ELECTRICAL**

<hr/>				
<i>D5010</i>	<i>Electrical Service And Distribution</i>			
<i>26-0000.000</i>	<i>ELECTRICAL</i>			
	2 Normal Power and Distribution			
	2 Meter provisions/metering	12.00	ea	1,500.00 /ea
	2 Power Monitoring	1.00	ea	25,000.00 /ea
	2 4000A 480/277V main distribution panel with SPD	1.00	ea	265,000.00 /ea
	2 1200A 480/277V distribution panelboard	1.00	ea	40,000.00 /ea
	2 250A 480/277V distribution panelboard	3.00	ea	25,000.00 /ea
	2 150A 480/277V panelboard (MLO)	1.00	ea	2,500.00 /ea
	2 125A 480/277V panelboard (MLO)	1.00	ea	2,200.00 /ea

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total	
				Unit Cost	Amount
26-0000.000	<i>ELECTRICAL</i>				
2	60A 480/277V panelboard (MLO)	3.00 ea	1,000.00 /ea		3,000
2	225KVA transformer K-13	1.00 ea	36,730.00 /ea		36,730
2	75KVA transformer K-13	1.00 ea	11,675.00 /ea		11,675
2	45KVA transformer K-13	3.00 ea	8,690.00 /ea		26,070
2	30KVA transformer K-13	4.00 ea	7,470.00 /ea		29,880
2	30KVA transformer	2.00 ea	4,940.00 /ea		9,880
2	800A 208/120V distribution panelboard (MCB)	1.00 ea	25,000.00 /ea		25,000
2	225A 120/208V double tub panelboard	3.00 ea	7,500.00 /ea		22,500
2	225A 120/208V panelboard (Shunt trip)	1.00 ea	6,500.00 /ea		6,500
2	150A 120/208V panelboard (MLO)	2.00 ea	2,500.00 /ea		5,000
2	125A 120/208V panelboard (MCB)	6.00 ea	3,000.00 /ea		18,000
2	125A 120/208V panelboard (MLO)	3.00 ea	2,200.00 /ea		6,600
2	100A 120/208V panelboard	3.00 ea	2,500.00 /ea		7,500
2	150A 3P enclosed circuit breaker	7.00 ea	2,070.00 /ea		14,490
2	Feeders				
2	1200A feed (alum)	55.00 lf	516.00 /lf		28,380
2	800A feed (alum)	30.00 lf	340.00 /lf		10,200
2	400A feed (alum)	80.00 lf	170.00 /lf		13,600
2	250A feed (alum)	820.00 lf	88.00 /lf		72,160
2	225A feed (alum)	295.00 lf	74.00 /lf		21,830
2	150A feed (alum)	160.00 lf	47.50 /lf		7,600
2	125A feed (alum)	285.00 lf	38.00 /lf		10,830
2	100A feed (alum)	45.00 lf	33.50 /lf		1,508
2	70A feed	200.00 lf	36.00 /lf		7,200
2	60A feed	985.00 lf	28.00 /lf		27,580
2	Emergency Power and Distribution				
2	600KW diesel fueled generator set in weatherproof enclosure (Quote)	1.00 ls	320,000.00 /ls		320,000
2	600KW diesel fueled generator set in weatherproof enclosure (Labor)	1.00 ea	12,250.00 /ea		12,250
2	400A automatic transfer switch (Labor)	1.00 ea	1,100.00 /ea		1,100
2	Annunciator (Labor)	1.00 ea	850.00 /ea		850
2	1200A automatic transfer switch	1.00 ea	25,100.00 /ea		25,100
2	1200A docking station (Labor)	1.00 ea	2,530.00 /ea		2,530
2	1200A 480/277V distribution panelboard EMSB	1.00 ea	65,000.00 /ea		65,000
2	400A 480/277V distribution panelboard (MLO)	1.00 ea	12,000.00 /ea		12,000
2	100A 480/277V panelboard (MLO)	3.00 ea	1,750.00 /ea		5,250
2	75KVA transformer	1.00 ea	7,900.00 /ea		7,900
2	250A 208/120V distribution panelboard	1.00 ea	25,000.00 /ea		25,000
2	100A 208/120V panelboard (MLO)	1.00 ea	1,750.00 /ea		1,750
2	Feeders				
2	1200A feed (alum)	40.00 lf	516.00 /lf		20,640
2	400A feed (alum)	55.00 lf	170.00 /lf		9,350
2	250A feed (alum)	15.00 lf	88.00 /lf		1,320
2	125A feed (alum)	30.00 lf	38.00 /lf		1,140
2	100A feed (alum)	35.00 lf	33.50 /lf		1,173
2	100A feed (MI cable)	800.00 lf	99.00 /lf		79,200
2	MI cable connections	32.00 ea	250.00 /ea		8,000
2	Machine and Equipment Power				
2	Misc Equipment wiring	136,000.00 sf	1.00 /sf		136,000
2	Elevator feed and connection	1.00 ea	6,000.00 /ea		6,000

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount	
<b>Total</b>					
26-0000.000	<i>ELECTRICAL</i>				
	2 Chiller/Heater unit feed and connection	1.00 ea	12,000.00 /ea	12,000	
	2 ASHP feed and connection	3.00 ea	5,000.00 /ea	15,000	
	2 Boiler connection	2.00 ea	2,500.00 /ea	5,000	
	2 Boiler feed and connection (Electric, 300A, 480V, 70LF ea.)	140.00 lf	142.00 /lf	19,880	
	2 Split unit feed and connection	1.00 ea	2,500.00 /ea	2,500	
	2 VRF/Indoor feed and connection	9.00 ea	650.00 /ea	5,850	
	2 VRF/BC feed and connection	2.00 ea	650.00 /ea	1,300	
	2 ERV feed and connection	1.00 ea	5,000.00 /ea	5,000	
	2 MAU feed and connection	1.00 ea	5,500.00 /ea	5,500	
	2 Pump feed and connection	7.00 ea	1,200.00 /ea	8,400	
	2 DOAS feed and connection	7.00 ea	5,000.00 /ea	35,000	
	2 RTU feed and connection	5.00 ea	5,000.00 /ea	25,000	
	2 MAU feed and connection	1.00 ea	3,500.00 /ea	3,500	
	2 ERU feed and connection	1.00 ea	5,000.00 /ea	5,000	
	2 EF feed and connection	3.00 ea	1,000.00 /ea	3,000	
	2 WH feed and connection	2.00 ea	1,200.00 /ea	2,400	
	2 Destratification fan feed and connection	8.00 ea	1,200.00 /ea	9,600	
	2 Cord reel with feed and connection	10.00 ea	1,500.00 /ea	15,000	
	2 Motorized door feed and connection (allow)	8.00 ea	1,500.00 /ea	12,000	
	2 Kitchen/Servery Equipment feed and connections	1.00 ls	30,000.00 /ls	30,000	
	2 KEF feed and connection	1.00 ea	1,500.00 /ea	1,500	
	2 Hood feed and connection	1.00 ea	1,500.00 /ea	1,500	
	2 Scoreboard/ shot clocks with feed and connection	2.00 loc	15,000.00 /loc	30,000	
	2 Misc. gym equipment feed and connections	1.00 ls	15,000.00 /ls	15,000	
	<i>ELECTRICAL</i>		13.690/sf	1,861,895	
	136,000.00 sf				
	<i>D5010 Electrical Service And Distribution</i>			13.690/sf	1,861,895
	136,000.00 sf				

**D5020** *Lighting & Branch Wiring*

26-0000.000	<i>ELECTRICAL</i>			
	2 Lighting and Controls			
	2 Type AD8	381.00 ea	960.00 /ea	365,760
	2 Type B2	47.00 ea	250.00 /ea	11,750
	2 Type B4	22.00 ea	250.00 /ea	5,500
	2 Type C (Strip)	92.00 ea	165.00 /ea	15,180
	2 Type CP1 (Decorative)	20.00 ea	1,500.00 /ea	30,000
	2 Type D	561.00 ea	400.00 /ea	224,400
	2 Type G (Gym)	30.00 ea	550.00 /ea	16,500
	2 Type K2	63.00 ea	250.00 /ea	15,750
	2 Type LP8	24.00 ea	800.00 /ea	19,200
	2 Type RP1	2.00 ea	1,200.00 /ea	2,400
	2 Type SW4	17.00 ea	400.00 /ea	6,800
	2 Type U2	141.00 ea	250.00 /ea	35,250

## Clinton Middle School

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
26-0000.000	<i>ELECTRICAL</i>			
	2 Type ZW (walpak)	29.00 ea	450.00 /ea	13,050
	2 Exit sign (not depicted at this scope level)	136,000.00 ea	1.00 /ea	136,000
	2 Lighting not depicted at this scope level	136,000.00 ea	3.00 /ea	408,000
	2 Lighting Controls (Wireless)			
	2 Network lighting controls	136,000.00 sf	2.00 /sf	272,000
	2 Occupancy sensor	388.00 ea	220.00 /ea	85,360
	2 S - Single pole switch	234.00 ea	36.00 /ea	8,424
	2 WAC	9.00 ea	350.00 /ea	3,150
	2 Lighting Circuitry			
	2 Device box	2,100.00 ea	32.00 /ea	67,200
	2 3/4" EMT	5,000.00 ea	11.50 /ea	57,500
	2 #12 THHN	25,000.00 ea	1.10 /ea	27,500
	2 12/2 MC	40,000.00 ea	6.25 /ea	250,000
	2 LV cable	7,000.00 ea	2.20 /ea	15,400
	2 Branch Circuitry			
	2 Device plate	1,225.00 ea	6.00 /ea	7,350
	2 WP device plate	3.00 ea	22.00 /ea	66
	2 Floor box	93.00 ea	550.00 /ea	51,150
	2 Device box	1,270.00 ea	32.00 /ea	40,640
	2 3/4" EMT	7,000.00 lf	11.50 /lf	80,500
	2 #12 THHN	35,000.00 lf	1.10 /lf	38,500
	2 12/2 MC	30,000.00 lf	6.25 /lf	187,500
	2 Lightning and Power Specialties			
	2 Building & service grounding	1.00 ls	20,000.00 /ls	20,000
	2 Lightning protection System (not depicted in specs or plans)	1.00 ls	80,000.00 /ls	80,000
	2 Miscellaneous Systems			
	2 Coring	1.00 ls	10,000.00 /ls	10,000
	2 Temporary power and lights	1.00 ls	125,000.00 /ls	125,000
	2 Seismic restraints	1.00 ls	5,000.00 /ls	5,000
	2 Fireproofing	1.00 ls	2,500.00 /ls	2,500
	2 Subcontractor supervision & general conditions	1.00 ls	150,000.00 /ls	150,000
	2 BIM & Coordination	1.00 ls	150,000.00 /ls	150,000
	2 Seismic restraints	1.00 ls	5,000.00 /ls	5,000
	2 Fees & permits	1.00 ls	120,000.00 /ls	120,000
	2 Testing and Commissioning			
	2 Testing and commissioning/Coordination study	1.00 ls	25,000.00 /ls	25,000
	2 General Power			
	2 Duplex receptacle	750.00 ea	36.00 /ea	27,000
	2 Duplex receptacle in floor box	93.00 ea	36.00 /ea	3,348
	2 Duplex receptacle (USB)	37.00 ea	46.00 /ea	1,702
	2 Duplex receptacle (Hosp)	10.00 ea	46.00 /ea	460
	2 Double duplex receptacle	97.00 ea	72.00 /ea	6,984
	2 GFI duplex receptacle	317.00 ea	51.00 /ea	16,167
	2 GFI duplex receptacle (Hosp)	3.00 ea	57.00 /ea	171
	2 Special purpose outlet	12.00 ea	65.00 /ea	780
	2 Devices not depicted at this scope level	136,000.00 sf	0.50 /sf	68,000
	2 PV Conduit and Pulls for future	1.00 ls	30,000.00 /ls	30,000

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
			<b>Total</b>	
	<i>ELECTRICAL</i>		<i>24.595/sf</i>	<i>3,344,892</i>
	<i>136,000.00 sf</i>			
<hr/>				
	<i>D5020 Lighting &amp; Branch Wiring</i>		<i>24.595/sf</i>	<i>3,344,892</i>
	<i>136,000.00 sf</i>			
<hr/>				
<i>D5030</i>	<i>Communications &amp; Security</i>			
<hr/>				
<i>08-0000.000</i>	<i>DOORS &amp; WINDOWS</i>			
	10 Card Readers	4.00 ea	3,500.00 /ea	14,000
	<i>DOORS &amp; WINDOWS</i>		<i>0.103/sf</i>	<i>14,000</i>
	<i>136,000.00 sf</i>			
<hr/>				
<i>27-0000.000</i>	<i>COMMUNICATIONS</i>			
	001 PA Clock System			
	001 Head end	1.00 ls	30,000.00 /ls	30,000
	001 ECS	82.00 ea	350.00 /ea	28,700
	001 Clock	92.00 ea	250.00 /ea	23,000
	001 Speaker (Talk back)	69.00 ea	300.00 /ea	20,700
	001 Speaker	68.00 ea	250.00 /ea	17,000
	001 Speaker backbox	137.00 ea	55.00 /ea	7,535
	001 Device box with conduit stub to ceiling	174.00 ea	165.00 /ea	28,710
	001 Cabling	30,000.00 lf	2.20 /lf	66,000
	001 Speech Amplification			
	001 Speech Amplification (per classroom)	52.00 loc	3,800.00 /loc	197,600
	001 Area of refuge			
	001 Area of refuge	1.00 ls	25,000.00 /ls	25,000
	001 Av System			
	001 Projectors and AV equipment (provided by others, with FFE)			
	001 AV backbox and conduit stub to ceiling (PH/PL/TVHL)	101.00 ea	165.00 /ea	16,665
	001 Cafeteria Stage Sound system	1.00 ls	75,000.00 /ls	75,000
	001 Cafeteria stage sound system (Rough-in)	1.00 ls	25,000.00 /ls	25,000
	001 Cafeteria Stage/Platform			
	001 Stage/Platform lighting and dimming system	1.00 ls	75,000.00 /ls	75,000
	001 Stage/Platform lighting and dimming system (Rough-in)	1.00 ls	25,000.00 /ls	25,000
	001 Sound System			
	001 Gymnasium & Cafeteria	1.00 ls	30,000.00 /ls	30,000
	001 Media Center	1.00 ls	30,000.00 /ls	30,000
	001 Band Room (spec)	1.00 ls	15,000.00 /ls	15,000
	001 Digital signage			
	001 Rough-In for Digital signage	136,000.00 sf	0.50 /sf	68,000
	001 Telephone and Communications Systems			
	001 Telcomm MDF closet, modify and connections	1.00 ls	15,000.00 /ls	15,000

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total	
				Unit Cost	Amount
<i>27-0000.000 COMMUNICATIONS</i>					
001	Telcomm IDF closet, modify and connections	1.00	ls	10,000.00 /ls	10,000
001	1-port device (W)	58.00	ea	26.00 /ea	1,508
001	1-port device	7.00	ea	26.00 /ea	182
001	2-port device	103.00	ea	52.00 /ea	5,356
001	2-port device (floor)	12.00	ea	52.00 /ea	624
001	4-port device (floor)	5.00	ea	120.00 /ea	600
001	WS (2-port device)	35.00	ea	52.00 /ea	1,820
001	PH (2-port device)	49.00	ea	52.00 /ea	2,548
001	PL (2-port device)	49.00	ea	52.00 /ea	2,548
001	TVHL (2-port device)	3.00	ea	52.00 /ea	156
001	WAP device	78.00	ea	750.00 /ea	58,500
001	Wire guard	4.00	ea	125.00 /ea	500
001	Cat. 6A cable	132,000.00	lf	2.30 /lf	303,600
001	Backbone cabling	300.00	lf	25.00 /lf	7,500
001	Device box with conduit stub to ceiling	219.00	ea	165.00 /ea	36,135
001	Cable tray	65.00	lf	70.00 /lf	4,550
001	4" sleeves	8.00	ea	250.00 /ea	2,000
001	Network Switching & VOIP	136,000.00	sf	3.00 /sf	408,000
	<i>COMMUNICATIONS</i>			12.243/sf	1,665,037
	<i>136,000.00 sf</i>				
<i>28-0000.000 ELECTRONIC SAFETY &amp; SECURITY</i>					
10	Security Access Control & CCTV				
10	Security control panel/monitoring	1.00	ls	25,000.00 /ls	25,000
10	CCTV camera (180)	4.00	ea	3,000.00 /ea	12,000
10	CCTV camera (180) WP	11.00	ea	3,500.00 /ea	38,500
10	CCTV camera (PTZ)	4.00	ea	2,500.00 /ea	10,000
10	CCTV camera	39.00	ea	2,000.00 /ea	78,000
10	Card reader	18.00	ea	600.00 /ea	10,800
10	Duress button	5.00	ea	250.00 /ea	1,250
10	Door contact	39.00	ea	300.00 /ea	11,700
10	Motion sensor	8.00	ea	300.00 /ea	2,400
10	REX	18.00	ea	350.00 /ea	6,300
10	Electric lock (provided by DHC, connection only)	38.00	ea	150.00 /ea	5,700
10	Electric power transfer	22.00	ea	350.00 /ea	7,700
10	VMS (Intercom)	2.00	ea	2,500.00 /ea	5,000
10	VMS (Intercom)	2.00	ea	1,200.00 /ea	2,400
10	Security wall box 1" sleeve	50.00	ea	200.00 /ea	10,000
10	Door J-Box	22.00	ea	40.00 /ea	880
10	Device box	210.00	ea	40.00 /ea	8,400
10	3/4" EMT	10,000.00	lf	11.50 /lf	115,000
10	Cabling	20,000.00	lf	2.20 /lf	44,000
10	Security devices and cabling not depicted at this scope level	136,000.00	sf	1.50 /sf	204,000
10	Fire Alarm System				
10	Control panel	1.00	ea	30,000.00 /ea	30,000
10	Smoke control panel	1.00	ea	5,000.00 /ea	5,000
10	NAC	1.00	ea	1,500.00 /ea	1,500
10	Annunciator	2.00	ea	2,000.00 /ea	4,000

**Clinton Middle School**

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
28-0000.000	<i>ELECTRONIC SAFETY &amp; SECURITY</i>			
10	Beacon	1.00 ea	225.00 /ea	225
10	Bell	1.00 ea	225.00 /ea	225
10	Knox Box	4.00 ea	350.00 /ea	1,400
10	Graphic map	1.00 ea	1,000.00 /ea	1,000
10	Radio master box	1.00 ea	9,500.00 /ea	9,500
10	Initiating device	75.00 ea	165.00 /ea	12,375
10	Duct smoke detector with remote test switch	6.00 ea	550.00 /ea	3,300
10	Audio/visual device	130.00 ea	145.00 /ea	18,850
10	Visual device	65.00 ea	125.00 /ea	8,125
10	Remote alarm indicator	9.00 ea	115.00 /ea	1,035
10	Modules	30.00 ea	165.00 /ea	4,950
10	Device box	310.00 ea	38.00 /ea	11,780
10	3/4" EMT	12,500.00 lf	11.50 /lf	143,750
10	FA cabling	18,000.00 lf	2.20 /lf	39,600
10	FA devices and cabling not depicted at this scope level	136,000.00 sf	1.50 /sf	204,000
10	BDA/DAS System			
10	BDA/DAS system	1.00 ls	100,000.000 /ls	100,000
10	In-Building Cellular Amplification System			
10	In-Building Cellular Amplification System	1.00 ls	100,000.000 /ls	100,000
10	Air Quality Sensors			
10	Environmental Sensors - Air Quality (spec)	136,000.00 sf	0.50 /sf	68,000
	<i>ELECTRONIC SAFETY &amp; SECURITY</i>		<u>10.056/sf</u>	<u>1,367,645</u>
	136,000.00 sf			
	<i>D5030 Communications &amp; Security</i>		22.402/sf	3,046,682
	136,000.00 sf			

G4010 *Site Electrical Utilities*

33-0000.000	<i>UTILITIES</i>			
001	Electrical Site Distribution - Electrical Contractor			
001	Utility mounted transformer meter	1.00 ea	850.00 /ea	850
001	Connections at manhole (electrical)	1.00 ea	10,000.00 /ea	10,000
001	Manhole	2.00 ea	12,500.00 /ea	25,000
001	Primary service duct bank 2-4" conduits (concrete encased)	840.00 lf	135.00 /lf	113,400
001	Secondary service duct bank 4000A feed (concrete encased)	130.00 lf	2,435.00 /lf	316,550
001	Generator service duct bank 1200A & 100A feed and control wiring (concrete encased)	130.00 lf	695.00 /lf	90,350
001	Telecommunications service duct bank 4-4" conduits (concrete encased)	880.00 lf	185.00 /lf	162,800
001	TC handhole	6.00 ea	1,500.00 /ea	9,000
001	Transformer pad and grounding	1.00 ls	3,500.00 /ls	3,500
001	Generator pad	1.00 ls	3,000.00 /ls	3,000
001	Site Lighting			



**Clinton Middle School**

Item	Description	Takeoff Qty	Unit Cost	Total	
				Unit Cost	Amount
33-0000.000	<b>UTILITIES</b>				
001	Type ZSL2	28.00 ea	2,500.00 /ea		70,000
001	Type ZSL4	2.00 ls	3,200.00 /ls		6,400
001	Type ZSL4FT	10.00 ls	3,200.00 /ls		32,000
001	Circuitry	4,800.00 ea	18.00 /ea		86,400
001	Pole base and grounding	40.00 ea	650.00 /ea		26,000
001	EV Stations				
001	EV Stations and circuitry	7.00 loc	15,000.00 /loc		105,000
001	Site Demolition				
001	Site Demolition and make safe	1.00 ls	10,000.00 /ls		10,000
	<b>UTILITIES</b>		<b>7.869/sf</b>		<b>1,070,250</b>
	136,000.00 sf				
<b>G4010 Site Electrical Utilities</b>				<b>7.869/sf</b>	<b>1,070,250</b>
	136,000.00 sf				
<b>D50 ELECTRICAL</b>				<b>68.557/sf</b>	<b>9,323,719</b>
	136,000.00 sf				
<b>D SERVICES</b>				<b>196.137/sf</b>	<b>26,674,644</b>
	136,000.00 sf				

**E**

<b>E10</b>		<b>EQUIPMENT</b>			
<b>E1010</b>		<b>Commercial Equipment</b>			
11-0000.000	<b>EQUIPMENT</b>				
2	Food Service Equipment - Allowance	1.00 ls	650,000.00 /ls		650,000
	<b>EQUIPMENT</b>		<b>4.779/sf</b>		<b>650,000</b>
	136,000.00 sf				
<b>E1010 Commercial Equipment</b>				<b>4.779/sf</b>	<b>650,000</b>
	136,000.00 sf				

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
<b>Total</b>				
<hr/>				
<i>E1060</i>	<i>Residential Equipment</i>			
<hr/>				
11-0000.000	<b>EQUIPMENT</b>			
80	Nurses Office Refrigerator	1.00	ea	1,500.00 /ea
80	Staff Room Refrigerator	3.00	ea	2,000.00 /ea
80	Science Prep Room Refrigerator	3.00	ea	1,500.00 /ea
80	Adult Living Refrigerator	1.00	ea	1,500.00 /ea
80	Life Science Fridge/Freezer	1.00	ea	1,500.00 /ea
100	Microwaves	3.00	ea	500.00 /ea
100	Dishwasher	1.00	ea	1,500.00 /ea
100	Front Load Washer	1.00	ea	2,000.00 /ea
100	Front Load Dryer	1.00	ea	2,000.00 /ea
	<b>EQUIPMENT</b>			0.162/sf
	<i>136,000.00 sf</i>			<i>22,000</i>
<hr/>				
	<i>E1060 Residential Equipment</i>		<i>0.162/sf</i>	<i>22,000</i>
	<i>136,000.00 sf</i>			
<hr/>				
<i>E1090</i>	<i>Other Equipment</i>			
<hr/>				
11-0000.000	<b>EQUIPMENT</b>			
2	Kiln (Furnish & Install)	1.00	ea	16,500.00 /ea
010	Rigging and Curtain System	1.00	allow	185,000.00 /allow
10	Motorized Basketball Hoops, Winch, Connectors.	6.00	ea	12,500.00 /ea
10	Motorized Divider Curtain in Gym	1.00	ea	20,000.00 /ea
10	Volley Ball Equipment - Net	1.00	ls	10,000.00 /ls
10	Volley Ball Equipment - Sleeves & Poles	1.00	ls	5,000.00 /ls
38	Wall Pads - 6' tall x 2' wide, Fire Rated - Gym, Allowance	1,700.00	sf	38.50 /sf
38	Interior Scoreboard w/Shot Clock	1.00	ea	15,000.00 /ea
38	Wall Pads - Calming room Allowance (35lf/ea)	630.00	ea	40.00 /ea
	<b>EQUIPMENT</b>			3.067/sf
	<i>136,000.00 sf</i>			<i>417,150</i>
<hr/>				
	<i>E1090 Other Equipment</i>		<i>3.067/sf</i>	<i>417,150</i>
	<i>136,000.00 sf</i>			
<hr/>				
	<b>E10 EQUIPMENT</b>		<b>8.008/sf</b>	<b>1,089,150</b>
	<b>136,000.00 sf</b>			

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total <span style="border: 1px solid black; padding: 2px;">Total</span>	Amount
<b>E20 FURNISHINGS</b>					
<i>E2010 Fixed Furnishings</i>					
06-2000.000	<b>FINISH CARPENTRY</b>				
	2 General Office, Custom Desk	1.00	ls	23,000.00	/ls 23,000
	2 Stage Front / Proscenium, Allowance	1.00	ls	20,000.00	/ls 20,000
	2 Custom Display Cases	1.00	ls	20,000.00	/ls 20,000
	2 Solid Surface Benches	50.00	lf	300.00	/lf 15,000
	2 Solid Surface Counters	36.00	lf	298.00	/lf 10,728
	<b>FINISH CARPENTRY</b>			0.652/sf	88,728
	136,000.00				sf
10-0000.000	<b>SPECIALTIES</b>				
	20 Curtains & Track - Resting Area	3.00	ea	2,000.00	/ea 6,000
	<b>SPECIALTIES</b>			0.044/sf	6,000
	136,000.00				sf
	3.00				Labor hours
12-0000.000	<b>FURNISHINGS</b>				
	2 Window Shades	136,000.00	sf	0.70	/sf 95,200
	10 PLAM Countertops w/Backsplash	1,733.00	lf	115.00	/lf 199,295
	10 PLAM Base Cabinets	755.00	ea	860.00	/ea 649,300
	10 PLAM Cubbies	20.00	ea	1,180.00	/ea 23,600
	10 PLAM Tall / Teacher Cabinets	123.00	ea	1,725.00	/ea 212,175
	10 PLAM Wall Cabinets	368.00	ea	700.00	/ea 257,600
	10 Epoxy Peg Boards	20.00	ea	950.00	/ea 19,000
	10 Epoxy Tops w/Backsplash	512.00	lf	340.00	/lf 174,080
	10 Epoxy Sills / Backsplashes	252.00	lf	240.00	/lf 60,480
	10 Mobile Workstations w/Epoxy Tops	49.00	ea	2,550.00	/ea 124,950
	10 Metal Grilles at Sills / Backsplash's (4" x 30")	322.00	ea	150.00	/ea 48,300
	001 Band / Music Storage Cabinets, Allowance	1.00	ls	85,000.00	/ls 85,000
	10 Telescopic Bleachers - Gymnasium	1.00	ls	175,000.00	/ls 175,000
	10 Band Room, Movable Bleachers - NIC				
	<b>FURNISHINGS</b>			15.618/sf	2,123,980
	136,000.00				sf
<b>E2010 Fixed Furnishings</b>				16.314/sf	2,218,708
	136,000.00				sf
	3.00				Labor hours

**Clinton Middle School**

Item	Description	Takeoff Qty	Unit Cost	Amount
			<b>Total</b>	
	<b>E20 FURNISHINGS</b>		<b>16.314/sf</b>	<b>2,218,708</b>
	136,000.00 sf			
	3.00 Labor hours			
	<b>E EQUIPMENT AND FURNISHINGS</b>		<b>24.322/sf</b>	<b>3,307,858</b>
	136,000.00 sf			
	3.00 Labor hours			
<b><u>F</u></b>				
<b>F20</b>	<b>SELECTIVE BUILDING DEMOLITION</b>			
<i>F2010</i>	<i>Building Demolition</i>			
02-0000.000	<i>EXISTING CONDITIONS &amp; DEMO</i>			
01	Hazardous Material Abatement	125,000.00 sf	15.50 /sf	1,937,500
110	Demolition of Existing High School	125,000.00 sf	11.00 /sf	1,375,000
	<i>EXISTING CONDITIONS &amp; DEMO</i>		<i>24.357/sf</i>	<i>3,312,500</i>
	136,000.00 sf			
	<i>F2010 Building Demolition</i>		<i>24.357/sf</i>	<i>3,312,500</i>
	136,000.00 sf			
	<b>F20 SELECTIVE BUILDING DEMOLITION</b>		<b>24.357/sf</b>	<b>3,312,500</b>
	136,000.00 sf			
	<b>F SPECIAL CONSTRUCTION AND DEMOLITION</b>		<b>24.357/sf</b>	<b>3,312,500</b>
	136,000.00 sf			

**G**

## Clinton Middle School

					<b>Total</b>
Item	Description	Takeoff Qty	Unit Cost		Amount
<b>G10 SITE PREPARATION</b>					
<i>G1010 Site Preparation</i>					
31-0000.000	<b>EARTHWORK</b>				
10	GENERAL CONDITIONS				
10	Supervision	240.00 hrs	130.707 /hrs		31,370
10	Mobilization	15.00 mvs	1,596.004 /mvs		23,940
10	Construction Stakeout	1.00 ls	30,705.18 /ls		30,705
10	Saw Cutting	500.00 lf	6.535 /lf		3,268
10	Subcontractor OH&P	1.00 ls	498,063.18 /ls		498,063
10	EROSION CONTROL				
10	SWPPP Plan & Monitoring	1.00 ls	13,896.25 /ls		13,896
10	Stone Construction Entrance	120.00 sy	62.052 /sy		7,446
10	Silt Fence - Install	4,400.00 lf	4.499 /lf		19,796
10	Erosion Controls - Maintain	12.00 mnth	423.876 /mnth		5,087
10	Erosion Controls - Remove	4,400.00 lf	2.064 /lf		9,081
10	12" Straw Wattle	4,400.00 lf	8.943 /lf		39,350
10	Inlet Protection	35.00 ea	164.416 /ea		5,755
10	BioRetention Ponds	558.00 cy	64.666 /cy		36,083
10	Temporary Seeding	85,685.00 sf	0.179 /sf		15,326
	<b>EARTHWORK</b>		5.435/sf		739,165
	136,000.00 sf				
	<i>G1010 Site Preparation</i>		5.435/sf		739,165
	136,000.00 sf				
<i>G1020 Site Demolition &amp; Relocations</i>					
31-0000.000	<b>EARTHWORK</b>				
10	Site Demolition	1.00 ls	257,980.21 /ls		257,980
	<b>EARTHWORK</b>		1.897/sf		257,980
	136,000.00 sf				
	<i>G1020 Site Demolition &amp; Relocations</i>		1.897/sf		257,980
	136,000.00 sf				
<i>G1030 Site Earthwork</i>					
31-0000.000	<b>EARTHWORK</b>				
10	Cut to Fill	36,000.00 cy	8.654 /cy		311,551
10	Fill from Cut	36,000.00 cy	3.247 /cy		116,893

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
<b>Total</b>				
31-0000.000	<i>EARTHWORK</i>			
10	Compaction - Cut & Level On Site	36,000.00	1.885 /cy	67,858
10	Fine Grade / Shape Ponds	10,100.00	1.390 /sf	14,035
10	Fine Grade Athletic Field	8,110.00	1.789 /sy	14,506
10	Fine Grade - Swales	500.00	0.908 /sf	454
10	Gravel Base Below Paving	17,956.00	23.197 /sy	416,527
10	Gravel Base Below Basketball Court	657.00	23.197 /sy	15,240
10	Gravel Base Below Sidewalk	18,097.00	3.426 /sf	61,999
10	Phasing - Allowance	1.00	750,000.00 /ls	750,000
10	Premium for Geothermal System (Wells and Sitework Support)	1.00	2,000,000.00 /ls	2,000,000
	<i>EARTHWORK</i>		27.714/sf	3,769,063
	136,000.00	sf		
32-0000.000	<i>EXTERIOR IMPROVEMENTS</i>			
10	Truck Surplus Soils (Assumed Clean)	5,500.00	25.00 /cy	137,500
10	Truck Surplus Soils, Premium for Arsenic, RCS2	8,250.00	52.00 /tons	429,000
	<i>EXTERIOR IMPROVEMENTS</i>		4.165/sf	566,500
	136,000.00	sf		
	<i>G1030 Site Earthwork</i>		31.879/sf	4,335,563
	136,000.00	sf		
	<b>G10 SITE PREPARATION</b>		<b>39.211/sf</b>	<b>5,332,708</b>
	<b>136,000.00</b>	<b>sf</b>		
<b>G20</b>	<b>SITE IMPROVEMENTS</b>			
<i>G2020</i>	<i>Parking Lots</i>			
32-0000.000	<i>EXTERIOR IMPROVEMENTS</i>			
25	Fine Grading - Driveway/Parking	17,956.00	1.651 /sy	29,646
25	Grade Basketball Court	657.00	9.177 /sy	6,029
25	Grade Sidewalk	18,097.00	1.321 /sy	23,903
25	Asphalt Subcontractor	18,613.00	40.217 /sy	748,550
2	Vertical Granite Curb	8,755.00	78.218 /lf	684,798
2	Landscape curbing allowance	1.00	48,155.27 /ls	48,155
6	Line Painting	1.00	27,517.31 /ls	27,517
	<i>EXTERIOR IMPROVEMENTS</i>		11.534/sf	1,568,599
	136,000.00	sf		

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total Amount
<i>G2020 Parking Lots</i>			<i>11.534/sf</i>	<i>1,568,599</i>
	<i>136,000.00 sf</i>			
<i>G2030 Pedestrian Paving</i>				
<i>32-0000.000</i>	<i>EXTERIOR IMPROVEMENTS</i>			
30	Unit Pavers	8,325.00	sf 30.00 /sf	249,750
30	Unit Paver Prep	8,325.00	sf 20.00 /sf	166,500
	<i>EXTERIOR IMPROVEMENTS</i>		<i>3.061/sf</i>	<i>416,250</i>
	<i>136,000.00 sf</i>			
<i>G2030 Pedestrian Paving</i>			<i>3.061/sf</i>	<i>416,250</i>
	<i>136,000.00 sf</i>			
<i>G2040 Site Development</i>				
<i>32-0000.000</i>	<i>EXTERIOR IMPROVEMENTS</i>			
6	Site Concrete, Flatwork - Ramps & Sidewalks	43,025.00	sf 15.00 /sf	645,375
6	Site Concrete, Walls & Footings, Forming	5,097.00	sfca 32.00 /sfca	163,104
6	Site Concrete, Walls & Footings	136.00	cy 110.00 /cy	14,960
6	Site Concrete, Flatwork	927.00	cy 110.00 /cy	101,970
6	Site Concrete, Re-Bar	15.00	ton 3,500.00 /ton	52,500
001	Exterior Score Board Allowance - Multi Field	1.00	ls 50,000.00 /ls	50,000
20	Turf Field - NIC See Alternate			
20	Rubber Play Surfacing @ Playground	1.00	ls 227,000.00 /ls	227,000
001	Traffic Signs	40.00	ea 225.00 /ea	9,000
001	Entry Signs, Allow	2.00	ea 15,000.00 /ea	30,000
001	Basket Ball Hoops	6.00	ea 8,500.00 /ea	51,000
001	Bollards - utility	15.00	ea 2,063.797 /ea	30,957
001	Bollards - stainless steel	6.00	ea 4,127.597 /ea	24,766
001	Trash receptacles	5.00	ea 3,500.00 /ea	17,500
001	Flagpole - 40' Ht.	1.00	ea 15,000.00 /ea	15,000
001	Bike racks	25.00	ea 350.00 /ea	8,750
001	Shade Structure Allowance	3.00	ea 10,000.00 /ea	30,000
001	Bioretention Boardwalk, Allowance	1.00	ea 150,000.00 /ea	150,000
001	Play Ground Equipment - Allowance	1.00	ls 400,000.000 /ls	400,000
20	4' Ht - Chain link fence at playground	400.00	lf 75.00 /lf	30,000
20	4' Ht - Chain link fence at field perimeter	1,200.00	lf 60.00 /lf	72,000
20	4' Ht - Chain link fence at outdoor classroom	320.00	lf 75.00 /lf	24,000
20	8' Ht - Mechanical screen at generator	155.00	lf 125.00 /lf	19,375
20	20' W - Vehicular Gate at Back Exit	1.00	ls 6,000.00 /ls	6,000
20	Pedestrian Guardrail @ Loading Dock, 2 Line Railing	1.00	ls 21,000.00 /ls	21,000
20	Replace Existing Fence - 50% Allowance	1.00	ls 120,000.00 /ls	120,000



## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total Amount
<b>32-0000.000</b>				
	<i>EXTERIOR IMPROVEMENTS</i>			
30	Landscaping Misc. Seat Walls & Raised Planters	1.00	ls	275,000.00 /ls
	<i>EXTERIOR IMPROVEMENTS</i>		19.039/sf	2,589,257
	136,000.00			sf
<hr/>				
	<i>G2040 Site Development</i>		19.039/sf	2,589,257
	136,000.00			sf
<hr/>				
<i>G2050</i>	<i>Landscaping</i>			
<hr/>				
<b>32-0000.000</b>				
	<i>EXTERIOR IMPROVEMENTS</i>			
2	Irrigation Systems - Field	1.00	ls	125,000.00 /ls
2	Irrigation Systems - Temp irrigation, Planting Beds / Lawns	77,000.00	sf	1.30 /sf
2	Irrigation Systems - Drip Strips at Plantings	1.00	ls	50,000.00 /ls
25	Mulching	66,200.00	sf	1.25 /sf
10	Strip & Stockpile Topsoil	20,000.00	cy	11.005 /cy
10	Screen Topsoil	18,500.00	cy	17.894 /cy
10	Export Tailings	4,000.00	cy	11.929 /cy
10	Ammend and Place Topsoil	12,000.00	cy	25.00 /cy
10	Bioretention Soils / Rain Garden	10,000.00	sf	11.929 /sf
10	Import Topsoil	2,377.00	cy	60.19 /cy
10	Replace Topsoil - On Site	2,377.00	cy	13.73 /cy
10	Disposal of Top Soil RCS2	6,000.00	cy	60.00 /cy
5	Lawn and Planting Maintenance	1.00	ls	15,000.00 /ls
5	High use lawn seed / SOD at Field	190,300.00	sf	1.20 /sf
5	Gravel Maintenance Edging (Including Steel Edge)	3,200.00	sf	25.00 /sf
5	Finegrade & Sod - Fields	77,000.00	sf	1.85 /sf
120	Shade Trees	190.00	ea	2,000.00 /ea
120	Flowering Trees	8.00	ea	900.00 /ea
120	Coniferous Trees	20.00	ea	1,000.00 /ea
120	Shrubs	1,225.00	ea	78.00 /ea
120	Perennials	14,000.00	ea	18.00 /ea
120	Landscaping VE Goal	-1.00	ls	226,000.00 /ls
	<i>EXTERIOR IMPROVEMENTS</i>		21.369/sf	2,906,245
	136,000.00			sf
<hr/>				
	<i>G2050 Landscaping</i>		21.369/sf	2,906,245
	136,000.00			sf



## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Total Amount	
<b>G20 SITE IMPROVEMENTS</b>				<b>55.003/sf</b>	<b>7,480,351</b>
	<b>136,000.00</b>	<b>sf</b>			
<hr/>					
<b>G30</b>		<b>SITE MECHANICAL UTILITIES</b>			
<hr/>					
<i>G3010</i>		<i>Water Supply</i>			
<hr/>					
<i>33-0000.000</i>	<i>UTILITIES</i>				
c 4	4" DIP Water	90.00	lf 110.826 /lf	9,974	
c 4	6" DIP Water	160.00	lf 99.681 /lf	15,949	
c 4	8" DIP Water	2,415.00	lf 53.948 /lf	130,284	
c 4	4" Valves & Fittings	1.00	ls 1,675.12 /ls	1,675	
c 4	6" Valves & Fittings	1.00	ls 31,471.54 /ls	31,472	
c 4	8" Valves & Fittings	1.00	ls 19,167.170 /ls	19,167	
c 4	Water Main Testing - Air	2,656.00	lf 2.298 /lf	6,103	
c 4	Water Main Flushing	2,656.00	lf 2.064 /lf	5,481	
c 4	Water Main Chlorination	2,656.00	lf 2.064 /lf	5,481	
	<i>UTILITIES</i>		<u>1.659/sf</u>	<u>225,586</u>	
	<i>136,000.00</i>	<i>sf</i>			
<i>G3010 Water Supply</i>				<i>1.659/sf</i>	<i>225,586</i>
	<i>136,000.00</i>	<i>sf</i>			
<hr/>					
<i>G3020</i>		<i>Sanitary Sewer</i>			
<hr/>					
<i>33-0000.000</i>	<i>UTILITIES</i>				
8	6" SDR-35 Sewer	52.00	lf 65.354 /lf	3,398	
8	8" SDR-35	638.00	lf 91.591 /lf	58,435	
8	Connect to Existing Sewer Manhole	2.00	ea 9,021.550 /ea	18,043	
8	Sewer Manhole	3.00	ea 3,204.39 /ea	9,613	
8	Grease Trap	1.00	ea 10,347.89 /ea	10,348	
8	Set Frame & Cover	6.00	ea 1,622.145 /ea	9,733	
8	Concrete Invert	3.00	ea 890.183 /ea	2,671	
8	Sewer Main Testing - Air	640.00	lf 5.847 /lf	3,742	
8	Sewer Main Testing - Mandrel	640.00	lf 3.894 /lf	2,492	
8	Manhole Testing - Air	3.00	ea 316.447 /ea	949	
	<i>UTILITIES</i>		<u>0.878/sf</u>	<u>119,425</u>	
	<i>136,000.00</i>	<i>sf</i>			
<i>G3020 Sanitary Sewer</i>				<i>0.878/sf</i>	<i>119,425</i>
	<i>136,000.00</i>	<i>sf</i>			

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
				<b>Total</b>
	<i>G3020 Sanitary Sewer</i>		<i>0.878/sf</i>	<i>119,425</i>
	<i>136,000.00 sf</i>			
<hr/>				
<i>G3030</i>	<i>Storm Drainage System</i>			
<hr/>				
<i>33-0000.000</i>	<i>UTILITIES</i>			
	12 12" HDPE	2,215.00	lf 71.820 /lf	159,082
	12 18" HDPE	1,107.00	lf 59.781 /lf	66,178
	12 24" HDPE Storm Sewer	1,107.00	lf 96.407 /lf	106,722
	12 Field Underdrain	960.00	lf 34.974 /lf	33,576
	12 Recharge System Chambers	0.00	ea	
	12 4' Diameter Catch Basin	33.00	ea 4,113.837 /ea	135,757
	12 Drain Basin - Nyoplast	2.00	ea 4,877.17 /ea	9,754
	12 4' Diameter Drain Manholes	28.00	ea 3,769.870 /ea	105,556
	12 Water Quality Unit	3.00	ea 30,358.463 /ea	91,075
	12 Set Frame & Grate / Cover	61.00	ea 1,688.187 /ea	102,979
	12 Brick Invert	28.00	ea 756.726 /ea	21,188
	12 Rip-Rap / Stone Swale	200.00	sy 61.336 /sy	12,267
	<i>UTILITIES</i>		<i>6.207/sf</i>	<i>844,135</i>
	<i>136,000.00 sf</i>			
				<i>G3030 Storm Drainage System</i>
			<i>6.207/sf</i>	<i>844,135</i>
	<i>136,000.00 sf</i>			
				<b>G30 SITE MECHANICAL UTILITIES</b>
			<b>8.744/sf</b>	<b>1,189,146</b>
	<b>136,000.00 sf</b>			
<hr/>				
<b>G40</b>	<b>SITE ELECTRICAL UTILITIES</b>			
<hr/>				
<i>G4020</i>	<i>Site Lighting</i>			
<hr/>				
<i>33-0000.000</i>	<i>UTILITIES</i>			
	001 Electrical Site Lighting - Excavation - Site Contractor Scope Below:			
	001 UG Electric Duct Bank 2-2.5"	730.00	lf 71.339 /lf	52,077
	001 Site Lighting	3,000.00	lf 28.797 /lf	86,391
	001 Light Pole Bases	30.00	ea 1,827.149 /ea	54,814
	<i>UTILITIES</i>		<i>1.421/sf</i>	<i>193,282</i>
	<i>136,000.00 sf</i>			

## Clinton Middle School

Item	Description	Takeoff Qty	Unit Cost	Amount
	<i>G4020 Site Lighting</i>		<i>1.421/sf</i>	<i>193,282</i>
	<i>136,000.00 sf</i>			
	<b>G40 SITE ELECTRICAL UTILITIES</b>		<b>1.421/sf</b>	<b>193,282</b>
	<b>136,000.00 sf</b>			
	<b>G SITEWORK</b>		<b>104.379/sf</b>	<b>14,195,488</b>
	<b>136,000.00 sf</b>			

## Z

### Z10

### GENERAL REQUIREMENTS

#### Z1050

#### *Temporary Facilities and Controls*

- 01-0000.000     **PROJECT REQUIREMENTS**
- 10 Ceremonial Costs (Groundbreaking, Topping Off, Ribbon Cutting, etc) - GMP Allowance value to be negotiated at time of GMP
  - 10 Debris Control, Removal and Dumpsters
  - 10 Winter Conditions (General)
  - 10 Temporary Electric Consumption
  - 10 Staging and Hoisting
  - 10 Safety Materials (guardrails, railing, etc.)
  - 10 Final Cleaning for Site and Building
  - 10 Project and Site Traffic Signage
  - 10 Temporary Enclosures
  - 10 Multi Vista / Open Space
  - 10 Field Engineering/Building Layout
  - 10 Temporary Walkways (Parking)
  - 10 Interim Cleaning for Site and Building
  - 10 Safety Labor and Protection General
  - 10 Maintenance/Protection
  - 10 Temporary Toilets
  - 10 Temporary Water and Sewer
  - 10 Police Detail Allowance
  - 10 Site Enclosure Fences and Gates
  - 10 Temporary Stairs

**Clinton Middle School**

---

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	<i>Z1050 Temporary Facilities and Controls</i>			<i>0</i>
	<i>136,000.00 sf</i>			
	<b>Z10 GENERAL REQUIREMENTS</b>			<b>0</b>
	<b>136,000.00 sf</b>			
	<b>Z GENERAL</b>			<b>0</b>
	<b>136,000.00 sf</b>			

**Clinton Middle School**

---

**Estimate Totals**

Description	Amount	Totals	Rate
<b>Direct Cost</b>	<b>84,048,967</b>	<b>84,048,967</b>	
Design Contingency	8,404,897		10.000 %
Escalation	5,042,938		6.000 %
Construction Contingency	1,680,979		2.000 %
<b>Subtotal</b>	<b>15,128,814</b>	<b>99,177,781</b>	
Sub Default Insurance	1,239,722		1.250 %
Project Requirements	4,425,600		
GCs & GRs (Price Proposal)	7,169,858		
Preconstruction Fee (Price Proposal)	12,835,180	112,012,961	
		<b>112,012,961</b>	
General Building Permit - Waived			
<b>Subtotal</b>		<b>112,012,961</b>	
CM Fee	2,285,979		2.000 %
<b>Subtotal</b>	<b>2,285,979</b>	<b>114,298,940</b>	
Project GSF 136000			
<b>Total</b>		<b>114,298,940</b>	



## Clinton Middle School - Alternates

### *Town of Clinton Clinton Middle School*

<b>Project name</b>	Clinton Middle School - Alternates 100 W Boylston St. Clinton MA 01510
<b>Architect</b>	Lamoureux Pagano Associates
<b>Document</b>	SD - Alternates
<b>Estimator</b>	Fontaine Bros.
<b>Job size</b>	136000 sf

ALTERNATES		
Add Alternate 1 - Add PV Canopy Structure	\$	917,900.00
Add Alternate 2 - Turf Field ILO Sod	\$	1,016,119.00

## Clinton Middle School - Alternates

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
<b><u>ALT 1</u></b>				
<b>03-0000.000</b>	<b>CONCRETE</b>			
03-0010.165	<i>Concrete Foundations</i>			
125	Concrete Material - Footings, Parking Canopy	1.00 ls	150,000.00 /ls	150,000
	<i>Concrete Foundations</i>		1.103/sf	150,000
	136,000.00 sf			
	<b>CONCRETE</b>		<b>1.103/sf</b>	<b>150,000</b>
	<b>136,000.00 sf</b>			
<b>05-0000.000</b>	<b>METALS</b>			
05-1200.110	<i>Structural Steel</i>			
a 01	Structural Steel - PV / Parking Canopy, Allow (18psf)	67.00 tn	6,500.00 /tn	435,500
a 01	Structural Steel - PV / Parking Canopy, Uplift Connectors	1.00 ls	15,000.00 /ls	15,000
	<i>Structural Steel</i>		3.313/sf	450,500
	136,000.00 sf			
05-5820.120	<i>Misc Steel</i>			
140	Misc Metals - PV / Parking Canopy	7,350.00 sf	2.00 /sf	14,700
	<i>Misc Steel</i>		0.108/sf	14,700
	136,000.00 sf			
	<b>METALS</b>		<b>3.421/sf</b>	<b>465,200</b>
	<b>136,000.00 sf</b>			
<b>09-0000.000</b>	<b>FINISHES</b>			
09-9113.100	<i>Painting- Exterior</i>			
30	Paint Canopy Steel / Underside of Deck, Galv.	7,350.00 sf	2.10 /sf	15,435
	<i>Painting- Exterior</i>		0.113/sf	15,435
	136,000.00 sf			



### Clinton Middle School - Alternates

Item	Description	Takeoff Qty	Unit Cost	Total Amount
<b>FINISHES</b>				<b>0.113/sf</b>
		<b>136,000.00 sf</b>		<b>15,435</b>
<hr/>				
<b>26-0000.000</b>	<b>ELECTRICAL</b>			
<hr/>				
26-0000.100	<i>Electrical</i>			
	2 PV Canopy Lighting	7,350.00 sf	6.00 /sf	44,100
	<i>Electrical</i>		0.324/sf	44,100
		136,000.00 sf		
<b>ELECTRICAL</b>				<b>0.324/sf</b>
		<b>136,000.00 sf</b>		<b>44,100</b>
<hr/>				
<b>31-0000.000</b>	<b>EARTHWORK</b>			
<hr/>				
31-2323.260	<i>Excavation</i>			
	10 Excavate for PV / Parking Canopy	1.00 ls	75,000.00 /ls	75,000
	<i>Excavation</i>		0.551/sf	75,000
		136,000.00 sf		
<b>EARTHWORK</b>				<b>0.551/sf</b>
		<b>136,000.00 sf</b>		<b>75,000</b>
<hr/>				
	<b>ALT 1 PV Canopy Structure</b>		<b>5.513/sf</b>	<b>749,735</b>
		<b>136,000.00 sf</b>		

### ALT 2

<b>32-0000.000</b>	<b>EXTERIOR IMPROVEMENTS</b>			
<hr/>				
32-1313.100	<i>Site Concrete</i>			
	6 Turf Curb	4,500.00 sfca	35.00 /sfca	157,500
	6 Turf Curb, Concrete	98.00 cy	110.00 /cy	10,780
	6 Turf Curb, Re-Bar	2.00 ton	3,500.00 /ton	7,000

### Clinton Middle School - Alternates

Item	Description	Takeoff Qty	Total	
			Unit Cost	Amount
	Site Concrete		1.289/sf	175,280
	136,000.00 sf			
32-1823.110	Athletic Surfacing / Turf Field			
20	Turf Field (Including Drainage)	77,000.00 sf	11.00 /sf	847,000
	Athletic Surfacing / Turf Field		6.228/sf	847,000
	136,000.00 sf			
32-8000.100	Irrigation Systems			
2	Irrigation Systems @ Field	-1.00 ls	50,000.00 /ls	(50,000)
	Irrigation Systems		(0.368)/sf	(50,000)
	136,000.00 sf			
32-9219.110	Lawns & Grasses			
5	Finegrade & Sod - Fields	-77,000.00 sf	1.85 /sf	(142,450)
	Lawns & Grasses		(1.047)/sf	(142,450)
	136,000.00 sf			
<b>EXTERIOR IMPROVEMENTS</b>			<b>6.102/sf</b>	<b>829,830</b>
	136,000.00 sf			
<b>ALT 2 Turf Field</b>			<b>6.102/sf</b>	<b>829,830</b>
	136,000.00 sf			

**Clinton Middle School - Alternates**

---

**Estimate Totals**

Description	Amount	Totals	Rate
<b>Direct Cost</b>	<b>1,579,565</b>	<b>1,579,565</b>	
Design Contingency	157,957		10.000 %
Escalation	102,672		6.500 %
Construction Contingency	31,591		2.000 %
<b>Subtotal</b>	<b>292,220</b>	<b>1,871,785</b>	
Subcontractor Default Insurance	23,694		
GCs & GRs (Price Proposal)			
Preconstruction Fee			
	<b>23,694</b>	<b>1,895,479</b>	
		<b>1,895,479</b>	
CM Fee	38,683		2.000 %
<b>Subtotal</b>	<b>38,683</b>	<b>1,934,162</b>	
Project GSF 136000			
<b>Total</b>		<b>1,934,162</b>	

## 4.1.2 SCHEMATIC DESIGN BINDER

---

- R. Updated Project Work Plan
  - 1. Updated Project Directory
  - 2. Roles & Responsibilities
  - 3. Communications &  
Document Control  
Procedures
  - 4. Designer's Work Plan
  - 5. OPM Project Schedule
  - 6. CM Project Schedule

## MSBA Module 4

### Schematic Design

## 4.1.2 SCHEMATIC DESIGN BINDER

### R. Updated Project Work Plan

#### 1. Updated Project Directory

#### OWNER

Town of Clinton  
Clinton Town Hall  
242 Church Street  
Clinton, MA 01510

Michael Ward, Town Administrator  
Tel: (978) 365-4120  
Email: [mward@clintonma.gov](mailto:mward@clintonma.gov)

Sean Kerrigan, Selectman  
Tel: (978) 365-4120  
Email: [skerrigan@clintonma.gov](mailto:skerrigan@clintonma.gov)

Bill McGrail, Co-Chair  
Finance Committee  
Tel: (978) 365-4110  
Email: [wmcgrail@mmp.org](mailto:wmcgrail@mmp.org)

Brian Farragher, Director of Facilities  
Facilities & Grounds Department  
Tel: (978) 365-4171  
Email: [bfarragher@clintonma.gov](mailto:bfarragher@clintonma.gov)

Phil Duffy, Director  
Community & Economic Development  
Tel: (978) 365-4114  
Email: [pduffy@clintonma.gov](mailto:pduffy@clintonma.gov)

Angelica Arroyo, English Learners Parent Advis.  
Council  
Tel: (508) 615-7442  
Email: [angielinaa@gmail.com](mailto:angielinaa@gmail.com)

Clinton Public Schools  
150 School Street  
Clinton, MA 01510

Steven Meyer, Superintendent  
Tel: (978) 365-4200 c. 978-962-1431  
Email: [smeyer@clinton.k12.ma.us](mailto:smeyer@clinton.k12.ma.us)

## MSBA Module 4

### Schematic Design

## 4.1.2 SCHEMATIC DESIGN BINDER

### R. Updated Project Work Plan

#### 1. Updated Project Directory

#### School Building Committee

Michael Ward, Town Administrator

Tel: (978) 365-4120

Email: [mward@clintonma.gov](mailto:mward@clintonma.gov)

\* PBC Voting member

Sean Kerrigan, Selectman

Tel: (978) 365-4120

Email: [skerrigan@clintonma.gov](mailto:skerrigan@clintonma.gov)

Brendan Bailey, School Committee Chair

Tel: (978) 365-4112, c (978) 809-8940

Email: [bbailey@clintonma.gov](mailto:bbailey@clintonma.gov)

Matthew Varakis, School Comm. Vice-Chair

Tel: (978) 365-4200

Email: [mvarakis@comcast.net](mailto:mvarakis@comcast.net)

Steven Meyer, Superintendent

Tel: (978) 365-4200 c. 978-962-1431

Email: [smeyer@clinton.k12.ma.us](mailto:smeyer@clinton.k12.ma.us)

\*PBC Voting member

Brian Farragher, Director of Facilities

Facilities & Grounds Department

Tel: (774) 261-0194

Email: [bfarragher@clintonma.gov](mailto:bfarragher@clintonma.gov)

Chris McGown, Chair of PBC & Head of DPW

Tel: (978) 365-4110

Email: [cmcgown@clintonma.gov](mailto:cmcgown@clintonma.gov)

\*PBC Voting member

Jennifer LeMontagne, Principal

Tel: (978) 365-4220

Email: [lemontagnej@clinton.k12.ma.us](mailto:lemontagnej@clinton.k12.ma.us)

Shane McCarthy, Teacher

Tel: (617) 833-2568

Email: [shanefmccarthy11@gmail.com](mailto:shanefmccarthy11@gmail.com)

## MSBA Module 4

### Schematic Design

School Building Committee

## 4.1.2 SCHEMATIC DESIGN BINDER

### R. Updated Project Work Plan

#### 1. Updated Project Directory

Bill McGrail, Co-Chair

Finance Committee

Tel: (978) 365-5109

Email: [wmcgrail@mmp.org](mailto:wmcgrail@mmp.org)

Chris Magliozzi, Vice-Chair of PBC

Tel: (978) 368-1637

Email: [cmagliozzi@fbcconstruction.com](mailto:cmagliozzi@fbcconstruction.com)

\*PBC Voting member

Michael Moran, PBC Member

Tel: (978) 368-0355

Email: [mjm@cmmoran.net](mailto:mjm@cmmoran.net)

\*PBC Voting member

Brian Delory, PBC Member

Tel: (978) 857-7395

Email: [brian.delorey@gmail.com](mailto:brian.delorey@gmail.com)

\*PBC Voting member

Timothy O'Toole, PBC Member

Tel: (508) 328-1009

Email: [tim.otoole66@gmail.com](mailto:tim.otoole66@gmail.com)

\*PBC Voting member

Phil Duffy, Director

Community & Economic Development

Tel: (978) 365-4114

Email: [pduffy@clintonma.gov](mailto:pduffy@clintonma.gov)

Kelly Turcotte, Special Education Parent Advisory Council

Tel: (508) 667-5452

Email: [Kellyturcotte7@gmail.com](mailto:Kellyturcotte7@gmail.com)

Laura Taylor, Parent-Teacher Association

Tel: (781) 929-7178

Email: [Taylorfamily01510@outlook.com](mailto:Taylorfamily01510@outlook.com)

Angelica Arroyo, English Learners Parent Advisory Council

## MSBA Module 4

### Schematic Design

## 4.1.2 SCHEMATIC DESIGN BINDER

### R. Updated Project Work Plan

#### 1. Updated Project Directory

Tel: (508) 615-7442

Email: [angielinaa@gmail.com](mailto:angielinaa@gmail.com)

School Committee (separate from School Building Committee—listing Chair & Vice-Chair only)

Brendan Bailey, School Committee Chair

Tel: (978) 365-4112, c (978) 809-8940

Email: [bbailey@clintonma.gov](mailto:bbailey@clintonma.gov)

Matthew Varakis, School Comm. Vice-Chair

Tel: (978) 365-4200

Email: [mvarakis@comcast.net](mailto:mvarakis@comcast.net)

Clinton Middle School  
100 West Boylston Street  
Clinton, MA 01510

Courtney Harter, Principal

Tel: (978) 365-4220

Email: [harterc@clinton.k12.ma.us](mailto:harterc@clinton.k12.ma.us)

Shane McCarthy, Teacher

Tel: (617) 833-2568

Email: [shanefmccarthy11@gmail.com](mailto:shanefmccarthy11@gmail.com)

### MSBA

40 Broad Street, Suite 500  
Boston, MA 02109

Allison Sullivan, Project Coordinator

Email: [allison.sullivan@massschoolbuildings.org](mailto:allison.sullivan@massschoolbuildings.org)

Veatriki Dagkalakou, Project Manager

Email:

[veatriki.dagkalakou@massschoolbuildings.org](mailto:veatriki.dagkalakou@massschoolbuildings.org)

### OPM

Dore + Whittier  
260 Merrimac Street  
Building 7, 2nd Floor  
Newburyport, MA 01950

Trip Elmore, Project Director

Tel: (978) 914-5507

Email: [telmore@doreandwhittier.com](mailto:telmore@doreandwhittier.com)

Steve Brown, Sr. Project Manager

Tel: (617) 947-5258

Email: [sbrown@doreandwhittier.com](mailto:sbrown@doreandwhittier.com)

Mike Cox, Project Manager

Tel: (781) 492-6289

Email: [mcox@doreandwhittier.com](mailto:mcox@doreandwhittier.com)



## MSBA Module 4

### Schematic Design

## 4.1.2 SCHEMATIC DESIGN BINDER

### R. Updated Project Work Plan

#### 1. Updated Project Directory

Elias Grijalva, Asst. Project Manager  
Tel: (603) 867-7977  
Email: [Egrijalva@doreandwhittier.com](mailto:Egrijalva@doreandwhittier.com)

Rachel Rincon, Asst. Project Manager  
Tel: (617) 650-3204  
Email: [rrincon@doreandwhittier.com](mailto:rrincon@doreandwhittier.com)

### ARCHITECT

Lamoureux Pagano Assoc. | Architects  
108 Grove Street  
Suite 300  
Worcester, MA 01605

Eric D. Moore, AIA  
Principal-In-Charge & Laboratory Consultant  
Tel: (508) 752-2831 Fax: (508) 757-7769  
Email: [emoore@lpaa.com](mailto:emoore@lpaa.com)

Sean Brennan, AIA, Project Architect  
Email: [sbrennan@lpaa.com](mailto:sbrennan@lpaa.com)

Peter A. Caruso Jr., AIA, LEED AP, Project Manager  
Email: [pcaruso@lpaa.com](mailto:pcaruso@lpaa.com)

Christina Bazelmans, AIA, LEED AP BD+C  
Ed Programming/Sustainable Design/Library Media  
Email: [cbazelmans@lpaa.com](mailto:cbazelmans@lpaa.com)

Christopher Lee, Technology/BID Specialist  
Email: [clee@lpaa.com](mailto:clee@lpaa.com)

CONSULTANTS

*Site/Civil*

Nitsch Engineering  
120 Front Street  
Worcester, MA 01610

Matthew Brassard, PE, Exec. Project Manager  
Tel: (508) 365-1035  
Email: [mbrassard@nitschengdc.com](mailto:mbrassard@nitschengdc.com)

Jared Gentilucci, PE, Project Manager  
O: (508)365-1032  
Email: [jgentilucci@nitscheng.com](mailto:jgentilucci@nitscheng.com)

Chelsea Christenson, PE, Project Manager  
O: (508) 365-1031

*Traffic*

Nitsch Engineering, Inc.  
2 Center Plaza, Suite 430  
Boston, MA 02108

Brian Zimolka, PE, ENV SP Traffic Sr. Project Mgr.  
(617) 388-0063  
Email: [bzimolka@nitscheng.com](mailto:bzimolka@nitscheng.com)

*Site Surveying*

Nitsch Engineering, Inc.  
2 Center Plaza, Suite 430  
Boston, MA 02108

Denis Seguin, Directory of Land Surveying  
(617) 388-0063  
Email: [dseguin@nitscheng.com](mailto:dseguin@nitscheng.com)

*Landscape Architecture*

Studio 2112  
840 Summer Street, Suite 102  
Boston, MA 02127

Lynne Giesecke, Principal  
Tel: (857) 350-3856  
Email: [lgiesecke@studio2112la.com](mailto:lgiesecke@studio2112la.com)

*Educational Programming*

New Vista Design  
32 Sheridan Street, Suite 2  
Jamaica Plain, MA 02130

David Stephen  
Tel: (617) 733-0847  
Email: [david@newvistadesign.net](mailto:david@newvistadesign.net)

*Structural*

Bolton & DiMartino Inc.  
100 Grove Street  
Worcester, MA 01605

Chris Tutlis, PE  
Tel: (508) 756-8972 Fax: (508) 757-9750  
Email: [chris@boltonanddimartino.com](mailto:chris@boltonanddimartino.com)

*Fire Protection*

Sensible Solutions  
64 Knightly Road  
Hadley, MA 01035

Lily Kara Barak, PE, President  
Tel: (413) 427-7290 Fax: (413) 549-5593  
Email: [lkbarak@crocker.com](mailto:lkbarak@crocker.com)

***Plumbing Engineering & HVAC***

Seaman Engineering Corp.  
22 West Street, Unit C  
Millbury, MA 01527

Kevin Seaman, PE President  
Tel: 508-865-1400  
Email: [Kevin@seamanengineers.com](mailto:Kevin@seamanengineers.com)

Chris Robinson, PE. Plumbing Engineer  
Email: [chris@seamanengineers.com](mailto:chris@seamanengineers.com)

Derek Mathieu  
Email: [derek@seamanengineers.com](mailto:derek@seamanengineers.com)

***Acoustical/Theatrical Consultant***

Cavanaugh Tocci Associates  
327 F Boston Post Road  
Sudbury, MA 01776

Lincoln Berry, Principal – Acoustics  
Tel: (978) 443-7871  
Email: [LBerry@cavtocci.com](mailto:LBerry@cavtocci.com)

Alexander Bagnall, Principal – Theatrical  
Tel: (978) 443-7871  
Email: [ABagnall@cavtocci.com](mailto:ABagnall@cavtocci.com)

***Technology***

Edvance Technology  
300 Brickstone Square, Suite 201  
Andover, MA 01880

Scott Goodrich, President  
Tel: (978) 256-9900  
Email: [sgoodrich@edvancetech.com](mailto:sgoodrich@edvancetech.com)

***Electrical/Lighting, Data/Communications, Security***

ART Engineering Corp.  
38 Front Street, 3<sup>rd</sup> Flr  
Worcester, MA 01608

Azim Rawji, P.E. Principal  
Tel: (508) 797-0333 Fax: (508) 797-5130  
Email: [azim@artengineering.us](mailto:azim@artengineering.us)

Aly Rawji, Project Manager  
Email: [aly@artengineering.us](mailto:aly@artengineering.us)

Robbie Burnett  
Email: [rburnett@artengineering.us](mailto:rburnett@artengineering.us)

***Kitchen/Food Service***

Colburn & Guyette Consulting  
100 LedgeWood Place, Suite 104  
Rockland, MA 02370

Todd Guyette  
Tel: (781) 826-5522 Fax: (781) 826-5523  
Email: [rtg@colburnguyette.com](mailto:rtg@colburnguyette.com)

Ed Arons, Project Manager  
Email: [earons@colburnguyette.com](mailto:earons@colburnguyette.com)

***Sustainable Design***

The Green Engineer  
23 Bradford Street, 1<sup>st</sup> Floor  
Concord, MA 01742

Chris Schaffner, President  
Tel: (978) 369-8978 x 102  
Email: [chris@greenengineer.com](mailto:chris@greenengineer.com)

Carrie Havey, LEED AP, Project Manager  
Tel: (978) 369-8978  
Email: [carrie@greenengineer.com](mailto:carrie@greenengineer.com)

***Hazardous Materials***

Universal Environmental Consultants  
12 Brewster Road  
Framingham, MA 01702

Ammar Dieb, President  
Tel: (508) 628-5486 Fax: (508) 628-5488  
Email: [adieb@uec-env.com](mailto:adieb@uec-env.com)

***Cost Estimating***

A.M. Fogarty & Associates  
175 Derby Street, Suite 5  
Hingham, MA 02043

Peter Timothy, President  
Tel: (781) 749-7272 x202  
Email: [ptim@amfogarty.com](mailto:ptim@amfogarty.com)

***Specifications Consultant***

Architx  
5 Topsy Drive  
Stafford Springs, CT 06076

Traci R. Hillebrecht, Principal  
Tel: (860) 872-9627  
Email: [traci@architx.net](mailto:traci@architx.net)

***Geotechnical***

Lahlaf Geotechnical Consulting  
23 McGuinness Way  
Billerica, MA 01821

Abdelmadjid (Madjid)Lahlaf, PE., PhD, Principal  
Tel: (978) 330-5912 Fax: (978) 330-5056  
Email: [madjid.lahlaf@lgcinc.net](mailto:madjid.lahlaf@lgcinc.net)

***GeoEnvironmental***

Lord Environmental, Inc.  
1506 Providence Highway – Suite 30  
Norwood, MA 02062-4647

Ralph Tella, President  
Tel: (781) 255-5554 ext 1004  
Email: [RTella@lordenv.com](mailto:RTella@lordenv.com)

***Accessibility/Code Consultant***

RW Sullivan Engineering  
529 Main Street, Suite 203  
Boston, MA 02129

Don E. Contois, P.E.  
Tel: (617) 337-9312  
Email: [dec@rwsullivan.com](mailto:dec@rwsullivan.com)

*Furniture & Fixtures Consultant*

Blueline Design  
The Amherst Building  
34 Main Street  
Amherst, MA 01002

Mindi Sahner  
Tel: (413) 253-3080 Fax: (413) 256-6456  
Email: [msahner@aol.com](mailto:msahner@aol.com)

CONSTRUCTION MANAGER

Fontaine Bros. Inc.  
510 Cottage Street  
Springfield, MA 01104

David Fontaine, Jr., Principal  
Tel: (413) 244-3463  
Email: [drj@fontainebros.com](mailto:drj@fontainebros.com)

Mark Abdella, VP of CM Services  
Tel: (617) 413-6801  
Email: [mabdella@fontainebros.com](mailto:mabdella@fontainebros.com)

Jamie Blume, Project Executive  
Tel: (617) 823-7639  
Email: [jblume@fontainebros.com](mailto:jblume@fontainebros.com)

Beth Paulson, Project Manager  
Tel: (413) 266-0955  
Email: [bpaulson@fontainebros.com](mailto:bpaulson@fontainebros.com)

Mark Hogan, Senior Superintendent  
Tel: (413) 246-4793  
Email: [mhogan@fontainebros.com](mailto:mhogan@fontainebros.com)

Matt Wilder, Superintendent  
Tel: (413) 355-6776  
Email: [mwilder@fontainebros.com](mailto:mwilder@fontainebros.com)

Chelsey Mutri, VP of Pre-Construction Services  
Tel: (508) 975-3483  
Email: [cmutri@fontainebros.com](mailto:cmutri@fontainebros.com)

Jon Donlevy, Estimating/Procurement

Tel: (413) 335-0112

Email: [jdonlevy@fontainebros.com](mailto:jdonlevy@fontainebros.com)

Brian Davies, MEP Director

Tel: (508) 926-9197

Email: [bdavies@fontainebros.com](mailto:bdavies@fontainebros.com)

Ben Hedges, Director of Virtual Design &  
Construction

Tel: (860) 965-4284

Email: [bhedges@fontainebros.com](mailto:bhedges@fontainebros.com)

Elizabeth Wambui, Director of Diversity, Inclusion &  
Community Impact

Tel: (413) 800-4661

Email: [lwambui@fontainebros.com](mailto:lwambui@fontainebros.com)

Chrisa Spedding, Director of Project Planning

Tel: (413) 519-5154

Email: [cspedding@fontainebros.com](mailto:cspedding@fontainebros.com)

Joel Kent, Chief Operating Officer

Tel: (781) 291-9625

Email: [jkent@fontainebros.com](mailto:jkent@fontainebros.com)

Shane Sampson, Senior Project Manager

Tel: (508) 728-6651

Email: [ssampson@fontainebros.com](mailto:ssampson@fontainebros.com)

Clinton Middle School  
Module 5 and 6 Responsibility Matrix  
02/23/2024

5.0 FUNDING THE PROJECT (MODULE 5)						
Responsibility Matrix		OWNER	OPM	DESIGNER	CMAR	MSBA
<b>5.0 Requirements</b>						
A.	Total Project Budget		✓			
B.	Detailed Project Scope Description			✓		
C.	Signed Reimbursement Rate Certification	✓	✓			
D.	Updated Project Schedule		✓			
E.	Project Cash Flow		✓		✓	
F.	Project Site Information		✓	✓	✓	
G.	Furnishings, Fixtures & Equipment List			✓		
H.	(2) Original Certifications for Project Scope & Budget	✓				
I.	Copy of District Authorization Vote	✓				
J.	(3) Signed Project Scope and Budget Agreements	✓				
K.	(2) Certifications by Legal Counsel for PFA	✓				
L.	Copy of District Vote for PFA	✓				
M.	Certified Copies of all Local Funding Votes	✓				
N.	No-Action Letters (If applicable)	✓				

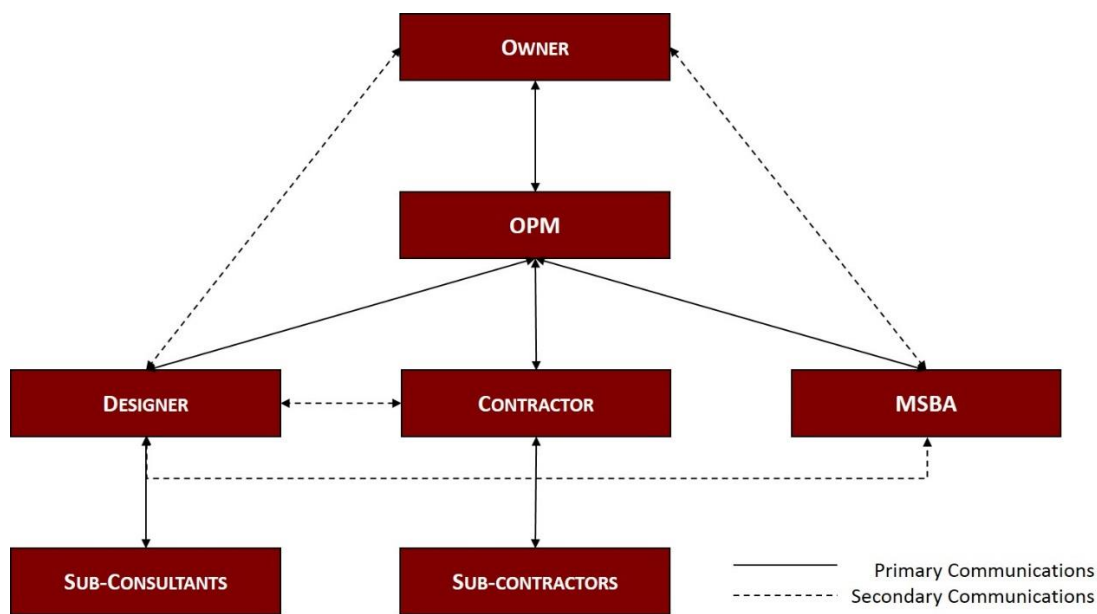
6.0 DETAILED DESIGN (MODULE 6)						
Responsibility Matrix		OWNER	OPM	DESIGNER	CMAR	MSBA
	OPM Contract for Detailed Design	✓	✓			
	Designer Contract for Detailed Design	✓	✓	✓		
	CM contract for Construction Services	✓	✓	✓	✓	
<b>6.0 Design Development</b>						
A.	Kick-Off Meeting	✓	✓	✓	✓	
B.	Preparation of Design Documents			✓		
C.	Commissioning Agent Kick-Off Meeting	✓	✓	✓	✓	
D.	Regulatory Meetings	✓	✓	✓	✓	
E.	Submission of NOI to Conservation Commission	✓		✓		
F.	Submission to Planning Board	✓		✓		
G.	Cost Estimate			✓	✓	
H.	Value Engineering	✓	✓	✓	✓	
I.	Submission to MSBA		✓	✓		
<b>MSBA Review</b>	J. MSBA Review & Comment					✓
	K. Designer's Response to MSBA Comments		✓	✓		
<b>Construction Documents</b>						
A.	Preparation of Design Documents			✓		
B.	Regulatory Meetings	✓	✓	✓	✓	
C.	Develop Final Site Phasing & Logistics Plans	✓	✓	✓	✓	
D.	Develop Early Bid Packages (Site, Steel & Concrete)		✓	✓	✓	
E.	Develop Front End Procurement Language	✓	✓	✓	✓	
F.	Constructability Review		✓		✓	
G.	Cost Estimate - 60%			✓	✓	
H.	Value Engineering	✓	✓	✓	✓	
I.	Submission to MSBA		✓	✓		
<b>MSBA Review</b>	J. MSBA Review & Comment					✓
	K. Designer's Response to MSBA Comments			✓		
Responsibility Matrix		OWNER	OPM	DESIGNER	CMAR	MSBA
L.	Structural and MEP Peer Review		✓	✓		
M.	Cost Estimate - 90%			✓	✓	
N.	Value Engineering	✓	✓	✓	✓	
O.	Submission to MSBA		✓	✓		
<b>MSBA Review</b>	P. MSBA Review & Comment					✓
	Q. Designer's Response to MSBA Comments		✓	✓		
R.	Complete Bid Sets			✓		
S.	Addenda			✓		
T.	Bid Trade Contractors	✓	✓	✓	✓	
U.	Bid and De-Scope Subcontractors			✓	✓	
V.	GMP	✓	✓	✓	✓	

COMMUNICATIONS AND DOCUMENT CONTROL PROCEDURES

Effective communication between the various participants in a project is inherent to the success of a project's planning, design, and implementation phases. The lines of communication are numerous and must be clearly defined so that necessary information is identified, distributed, recorded, and appropriate action is taken. The OPM acts as the primary coordinator of a project and as such is the point of contact for most communications. In this capacity, it is the OPM's responsibility to ensure that information is forwarded to the appropriate parties and that any required follow-up action is overseen as needed.

A valuable resource for any project is a project directory, which can be created and distributed as appropriate. All participating entities will provide the OPM with their representative's name, title, and contact information which will be consolidated into the directory. If changes to this information are necessary, the updated information is provided to the OPM by the applicable party so that the project directory is always kept current.

So that communications are facilitated, and their efficacy maximized amongst the various project participants, a protocol of basic rules needs to be established, defined, and maintained. This protocol will enable a clear understanding and mutual agreement on the communication flow pertaining to the project. Outlined below is a diagram illustrating the appropriate and accepted communication flow between the primary parties involved in a particular project:



Two different types of communication are reflected in the above chart: “Primary” and “Secondary”. Primary communications are defined as information provided and exchanged that is requisite to the contractual responsibilities of the project participants. Secondary communications are informal and focus on a specific topic that is most effectively communicated between the affected parties only. However, the Secondary communications shall be provided to other project participants as deemed appropriate or necessary.

In general, the protocol for the communication dynamic between various primary project participants should be as follows:

- MSBA & OWNER:** All communications occur between the MSBA and Owner during the “Module 1: Eligibility Period” as no other project participants have been identified, including an OPM. Once an OPM has been selected for a project, the OPM acts as the primary conduit of communication between the MSBA and the Owner. The OPM will assist the Owner with all project-related issues throughout the project’s duration.



- **MSBA & OPM:** The OPM is the initial contact for project-related communications being directed to the MSBA. In order that the MSBA's requirements and guidelines for a specific project to be met and communication flow to be maintained, the OPM and MSBA will communicate as required. The OPM will review all reports and requests directed to the MSBA prior to forwarding them. There are certain circumstances that will necessitate direct communication between the MSBA and the owner. These might include legal procedures such as, but not limited to, all agreements, funding certifications, and formal review comments and/or concerns. However, the OPM will be copied on all such communications.
- **MSBA & Designer:** Once the Designer is chosen by the MSBA Designer Selection Panel, communications from the MSBA to the Designer, and conversely from the Designer to the MSBA, shall be directed through the OPM.
- **Owner & OPM:** The OPM acts as the primary agent for the project and all project-related issues. As such, the OPM provides the required technical and procedural advice with respect to coordinating the different aspects of the project. Therefore, it is imperative that all communications both to and from the Owner be directed through the OPM. In the event that independent secondary communication between personnel from the School District and other parties assigned to the project bypasses the OPM, such communications shall be recorded and provided to the OPM for record and any requisite follow-up.
- **Owner & Designer:** All contractual and service-related issues pertaining to the Designer shall be communicated through the OPM. However, if secondary communications are necessary without requiring the OPM's presence or involvement, then such communications shall be recorded by the Designer and provided to the OPM.
- **OPM & Designer:** Formal communications from the Designer to the Owner and/or MSBA shall be directed through the OPM. If it is determined that the OPM's direct involvement is not necessary to any informal or other working communications with other parties, the Designer shall provide to the OPM a record and informational copy of any such communication.
- **OPM & Contractor:** A contractor's request for Owner approvals and other coordination issues will be communicated to the Owner via the OPM, acting as the Owner's representative.
- **Designer & Design Sub-Consultants:** All communications with Design Sub-Consultants, working under the Designer's contractual obligations, will only be through the Designer.
- **Designer & Contractor:** The OPM is the contact for all contractual communications between the Designer and Contractor. Detailed communications may be exchanged directly through the Designer and Contractor without the OPM's intervention, but all such communications will be recorded and forwarded to the OPM.
- **Contractor & Construction Sub-Contractors:** All communications with the Construction Contractor's Sub-Contractors will only be through the Contractor and do not require the OPM's involvement.

Supplementing the above communication protocol is the aforementioned "project directory". As defined, the project directory will include the parties listed above by organization, firm, or institution and the specific individuals representing them on the indicated project.

#### **Document Control Protocols**

A large volume of documentation is necessarily generated by a project. Each party participating in a project contributes to the creation, maintenance, and distribution of documentation relative to their involvement. The matrix on the following pages identifies the key documentation, roles, and responsibilities of the primary project participants. The roles and responsibilities are specific to the OPM, Designer, Contractor, Owner, and MSBA are listed by project phase as defined in the MSBA sequence procedures.

The function of the matrix is to both provide clarification and to avoid confusion as to the roles and responsibilities of those involved in a particular task or generation of the associated documentation respective to a particular sequence or phase of a project.

## MSBA Module 4

### Schematic Design

## 4.1.2 SCHEMATIC DESIGN BINDER

### R. Updated Project Work Plan

#### 4. Designer's Work Plan

- School Building Committee Vote on Schematic Design Submission | February 20, 2024
- Schematic Design MSBA Submission | February 23, 2024
- MSBA Board Meeting and Vote to approve Schematic Design | April 24, 2024
- Project Scope and Budget conference with MSBA | March – April, 2024
- Local Project Funding Authorization | June 2024
- Design Development Submission to MSBA | October 2024
- 60% CD Phase Submission to MSBA | February 2025
- 90% CD Phase Submission to MSBA | April 2025
- 100% CD Phase Submission | June 2025
- Trade Contractor Bidding Complete | July 2025

Clinton Middle School Project Schedule

ID	Task Name	Duration	Start	Finish	2023																2024				2025				2026				2027				2028																							
					1/1	2/5	3/12	4/16	5/21	6/25	7/30	9/3	10/8	11/12	12/17	1/21	2/25	3/31	5/5	6/9	7/14	8/18	9/22	10/27	11/31	1/5	2/9	3/16	4/20	5/26	6/29	8/3	9/7	10/11	11/14	12/21	1/25	3/1	4/5	5/10	6/14	7/19	8/23	9/27	11/1	12/6	1/10	2/14	3/21	4/25	5/30	7/4	8/8	9/12	10/17	11/21	12/26	1/30	3/5	4/9
1	<b>MSBA Module 2 - 7</b>	<b>1640 days</b>	<b>Fri 8/5/22</b>	<b>Thu 11/16/28</b>																																																								
2	<b>Mod 2 - Architect selection process</b>	<b>57 days</b>	<b>Fri 8/5/22</b>	<b>Mon 10/24/22</b>																																																								
14	<b>Module 3 - Feasibility Study</b>	<b>181 days</b>	<b>Wed 12/21/22</b>	<b>Wed 8/30/23</b>																																																								
15	<b>Preferred Design Program (PDP)</b>	<b>90 days</b>	<b>Wed 12/21/22</b>	<b>Tue 4/25/23</b>																																																								
16	MSBA Kick off meeting	1 day	Fri 1/6/23	Fri 1/6/23																																																								
17	Introduction	5 days	Wed 12/21/22	Tue 12/27/22																																																								
18	Educational Program	20 days	Wed 12/28/22	Tue 1/24/23																																																								
19	Initial Space Summary	10 days	Wed 1/25/23	Tue 2/7/23																																																								
20	Evaluation of existng conditions	15 days	Wed 2/8/23	Tue 2/28/23																																																								
21	Site development requirements	15 days	Wed 2/8/23	Tue 2/28/23																																																								
22	Preliminary evaluation of Options	15 days	Wed 3/1/23	Tue 3/21/23																																																								
23	Local actions and approvals	1 day	Wed 3/22/23	Wed 3/22/23																																																								
24	Submit PDP to MSBA	4 days	Thu 3/23/23	Tue 3/28/23																																																								
25	<b>MSBA Review of PDP</b>	<b>20 days</b>	<b>Wed 3/29/23</b>	<b>Tue 4/25/23</b>																																																								
26	MSBA PDP review and Comment	15 days	Wed 3/29/23	Tue 4/18/23																																																								
27	Respond to MSBA PDP Comments	5 days	Wed 4/19/23	Tue 4/25/23																																																								
28	<b>Preferred Schematic Report (PSR)</b>	<b>104 days</b>	<b>Fri 4/7/23</b>	<b>Wed 8/30/23</b>																																																								
29	Final evaluation of of alternatives	30 days	Fri 4/7/23	Thu 5/18/23																																																								
30	Preferred solution	25 days	Fri 5/12/23	Thu 6/15/23																																																								
31	Local action and approvals	7 days	Fri 6/16/23	Mon 6/26/23																																																								
32	Submit PSR to MSBA	1 day	Tue 6/27/23	Tue 6/27/23																																																								
33	<b>MSBA Board Approval to proceed with schematic design 8/30/23</b>	<b>46 days</b>	<b>Wed 6/28/23</b>	<b>Wed 8/30/23</b>																																																								
34	<b>MSBA staff review</b>	<b>20 days</b>	<b>Wed 6/28/23</b>	<b>Tue 7/25/23</b>																																																								
35	MSBA PSR review and comment	15 days	Wed 6/28/23	Tue 7/18/23																																																								
36	Respond to MSBA PSR comments	5 days	Wed 7/19/23	Tue 7/25/23																																																								
37	<b>Facilities assessment subcommittee review</b>	<b>31 days</b>	<b>Wed 7/19/23</b>	<b>Wed 8/30/23</b>																																																								
38	FAS Mtg #1	1 day	Wed 7/19/23	Wed 7/19/23																																																								
39	FAS Mtg #2 (if required)	1 day	Wed 8/2/23	Wed 8/2/23																																																								
40	Respond to FAS comments	5 days	Thu 8/3/23	Wed 8/9/23																																																								
41	MSBA Board Approval - 8-30-23	1 day	Wed 8/30/23	Wed 8/30/23																																																								
42	Module 4 - Schematic Design	169 days	Fri 9/1/23	Wed 4/24/24																																																								
43	<b>MA Historical Com.</b>	<b>56 days</b>	<b>Fri 9/1/23</b>	<b>Fri 11/17/23</b>																																																								
44	Assemble documentation to submit PNF	30 days	Fri 9/1/23	Thu 10/12/23																																																								
45	MHC review and response	26 days	Fri 10/13/23	Fri 11/17/23																																																								
46	<b>Deed Registration</b>	<b>100 days</b>	<b>Tue 8/1/23</b>	<b>Mon 12/18/23</b>																																																								
47	Update Site Survey	45 days	Tue 8/1/23	Mon 10/2/23																																																								
48	Compile Deed Information	40 days	Tue 10/3/23	Mon 11/27/23																																																								
49	Prepare DEED for Recording	10 days	Tue 11/28/23	Mon 12/11/23																																																								
50	Record DEED	5 days	Tue 12/12/23	Mon 12/18/23																																																								
51	<b>CM @ Risk Selection</b>	<b>77 days</b>	<b>Tue 9/19/23</b>	<b>Wed 1/3/24</b>																																																								
52	SBC Meeting - Construction Delivery Method & Committee selection	1 day	Tue 9/19/23	Tue 9/19/23																																																								
53	<b>IG Application Process - If CM@R</b>	<b>50 days</b>	<b>Wed 9/20/23</b>	<b>Tue 11/28/23</b>																																																								
54	Complete the IG Application Form	3 days	Wed 9/20/23	Fri 9/22/23																																																								
55	Submit CM@R Application to IG	1 day	Mon 9/25/23	Mon 9/25/23																																																								
56	Max of 60 Day IG application Review Period	45 days	Tue 9/26/23	Mon 11/27/23																																																								
57	IG Formal approval to proceed with the CM @ Risk Delivery Method	1 day	Tue 11/28/23	Tue 11/28/23																																																								
58	<b>CM@R Request For Qualifications (RFQ)</b>	<b>40 days</b>	<b>Wed 9/20/23</b>	<b>Tue 11/14/23</b>																																																								



Project: Clinton Middle School  
Date: Wed 2/21/24

Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress
Split	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	Progress
Milestone	Inactive Task	Manual Task	External Tasks		





Activity ID	Activity Description	Orig. Dur.	Total Float	Start	Finish	Calendar	2024												2025												2026												2027												2028												2029																	
							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
<b>Clinton Middle School: Proposal Schedule</b>																																																																																				
<b>Milestones</b>																																																																																				
<b>Contract Milestones</b>																																																																																				
CMS-1000	RFP Schedule Start (Projected 12-05-23)	0	0	12/5/2023*		7D - No Hol (MS Cal)	◆ RFP Schedule Start (Projected 12-05-23)																																																																													
CMS-1060	Notice to Proceed (NTP) w/Preconstruction Services	0	14	1/4/2024		7D - No Hol (MS Cal)	◆ Notice to Proceed (NTP) w/Preconstruction Services																																																																													
CMS-1040	Notice to Proceed (NTP) - Early Package (TBD)	0	34	7/3/2025		5D - Hol													◆ Notice to Proceed (NTP) - Early Package (TBD)																																																																	
CMS-1010	Building Substantial Completion (SC)	0	0		5/17/2027	7D - No Hol (MS Cal)																																					◆ Building Substantial Completion (SC)																																									
CMS-1070	TCO / CO	0	0		5/17/2027	7D - No Hol (MS Cal)																																					◆ TCO / CO																																									
CMS-1030	Building Final Completion	0	373		8/24/2027	7D - No Hol (MS Cal)																																					◆ Building Final Completion																																									
CMS-1050	Substantial Completion - Phase II Sitework	0	35		7/27/2028	7D - No Hol (MS Cal)																																					◆ Substantial Completion - Phase II Sitework																																									
CMS-1090	Final Contract Completion	0	0		8/31/2028	7D - No Hol (MS Cal)																																					◆ Final Contract Completion																																									
<b>Preconstruction Estimate / Early Release Packages</b>																																																																																				
<b>Construction Manager Procurement</b>																																																																																				
PST-1260	Proposals Received	0	9	12/5/2023		5D - Hol	◆ Proposals Received																																																																													
PST-1270	Owner / Review Proposals & Conduct Interviews	7	9	12/5/2023	12/13/2023	5D - Hol	Owner / Review Proposals & Conduct Interviews																																																																													
PST-1280	Selection Committee Evaluates CM Firms Based on Proposals & Interviews	5	9	12/14/2023	12/20/2023	5D - Hol	Selection Committee Evaluates CM Firms Based on Proposals & Interviews																																																																													
PST-1290	School Building Committee Approves Selection	1	9	12/21/2023	12/21/2023	5D - Hol	School Building Committee Approves Selection																																																																													
PST-1300	Issue CM Notice of Award	1	9	12/22/2023	12/22/2023	5D - Hol	Issue CM Notice of Award																																																																													
PST-1370	CM Agreement Executed	5	9	12/22/2023	12/29/2023	5D - Hol	CM Agreement Executed																																																																													
PST-1380	Issue CMR Notice to Proceed w/Preconstruction Services	3	9	1/2/2024	1/4/2024	5D - Hol	Issue CMR Notice to Proceed w/Preconstruction Services																																																																													
<b>Schematic Design Phase (SD)</b>																																																																																				
PST-1670	Produce Schematic Design Documents	30	0	12/5/2023	1/17/2024	5D - Hol	■ Produce Schematic Design Documents																																																																													
PST-1680	Perform SD Cost Estimate	20	0	1/18/2024	2/14/2024	5D - Hol	■ Perform SD Cost Estimate																																																																													
PST-1700	SD Estimate Reconciliation & VE	5	0	2/15/2024	2/21/2024	5D - Hol	SD Estimate Reconciliation & VE																																																																													
PST-1710	Submit SD Reconciled Estimate	1	0	2/21/2024	2/21/2024	5D - Hol	Submit SD Reconciled Estimate																																																																													
PST-1690	Present SD Reconciled Estimate to Building Committee / Local Actions & Approvals	2	0	2/22/2024	2/23/2024	5D - Hol	Present SD Reconciled Estimate to Building Committee / Local Actions & Approvals																																																																													
PST-1720	Submit SD to MSBA	1	0	2/26/2024	2/26/2024	5D - Hol	Submit SD to MSBA																																																																													
PST-1730	MSBA Review SD Submission & Provide Comments	15	0	2/27/2024	3/18/2024	5D - Hol	■ MSBA Review SD Submission & Provide Comments																																																																													
PST-1740	Prepare & Submit Final SD Submission to MSBA	10	0	3/19/2024	4/1/2024	5D - Hol	■ Prepare & Submit Final SD Submission to MSBA																																																																													
PST-1750	MSBA Review & Approve SD Submission	17	0	4/2/2024	4/24/2024	5D - Hol	■ MSBA Review & Approve SD Submission																																																																													
<b>Design &amp; Implement Community Information Campaign</b>																																																																																				
PST-1830	Form Subcommittee	15	0	3/5/2024	3/25/2024	5D - Hol	■ Form Subcommittee																																																																													
PST-1840	ID Roles & Responsibilities	15	0	3/26/2024	4/15/2024	5D - Hol	■ ID Roles & Responsibilities																																																																													
PST-1850	Schedule Community Forums	15	0	4/16/2024	5/6/2024	5D - Hol	■ Schedule Community Forums																																																																													
PST-1860	Author Informational Assets	18	0	5/7/2024	5/31/2024	5D - Hol	■ Author Informational Assets																																																																													
<b>Local Authorization</b>																																																																																				
PST-1760	Prepare for Local Authorization for Funding	28	0	4/24/2024	6/3/2024	5D - Hol	■ Prepare for Local Authorization for Funding																																																																													
PST-1820	Town Meeting	1	3	5/28/2024*	5/28/2024	5D - Hol	Town Meeting																																																																													
PST-1810	Ballot Vote (06-03-24)	1	0	6/3/2024	6/3/2024	5D - Hol	Ballot Vote (06-03-24)																																																																													
<b>Design Development Phase (DD)</b>																																																																																				
PST-1390	Produce Design Development Documents	99	0	6/4/2024	10/22/2024	5D - Hol	■ Produce Design Development Documents																																																																													
PST-1400	Perform DD Cost Estimate	20	2	9/16/2024	10/11/2024	5D - Hol	■ Perform DD Cost Estimate																																																																													
PST-1410	DD Estimate Reconciliation	4	2	10/14/2024	10/17/2024	5D - Hol	DD Estimate Reconciliation																																																																													
PST-1420	CM Submit DD Reconciled Estimate	1	2	10/18/2024	10/18/2024	5D - Hol	CM Submit DD Reconciled Estimate																																																																													
PST-1770	Submit DD to MSBA	1	84	10/18/2024	10/18/2024	5D - Hol	Submit DD to MSBA																																																																													
PST-1780	MSBA Review DD Submission & Provide Comments	21	84	10/21/2024	11/18/2024	5D - Hol	■ MSBA Review DD Submission & Provide Comments																																																																													
PST-1790	Prepare & Submit Final DD Submission to MSBA	12	84	11/19/2024	12/6/2024	5D - Hol	■ Prepare & Submit Final DD Submission to MSBA																																																																													
PST-1800	MSBA Review & Approve DD Submission	14	84	12/9/2024	12/27/2024	5D - Hol	■ MSBA Review & Approve DD Submission																																																																													
<b>Construction Document Design Phase (CD)</b>																																																																																				
<b>60% Construction Documents</b>																																																																																				
PST-1000	Produce 60% Construction Documents	86	0	10/23/2024	2/25/2025	5D - Hol	■ Produce 60% Construction Documents																																																																													
PST-1020	CM Perform & Submit 60% CD Estimate	15	71	12/20/2024	1/13/2025	5D - Hol	■ CM Perform & Submit 60% CD Estimate																																																																													
PST-1180	60% CD Estimate Reconciliation	2	71	1/14/2025	1/15/2025	5D - Hol	60% CD Estimate Reconciliation																																																																													
PST-1190	CM Submit 60% CD Reconciled Estimate	1	71	1/16/2025	1/16/2025	5D - Hol	CM Submit 60% CD Reconciled Estimate																																																																													

	<span style="color: blue;">■</span> Actual Work <span style="color: green;">■</span> Remaining Work <span style="color: red;">■</span> Critical Remaining Work <span style="color: black;">◆</span> Milestone	<b>Clinton Middle School: Proposal Schedule</b> <b>Fontaine Bros., Inc</b>	Layout: Fontaine - All Activities_Clinton TASK filter: All Activities  Print Date: 2/20/2024 Page 1 of 21	
	Clinton Middle School: Proposal Schedule Fontaine Bros., Inc		Print Date: 2/20/2024 Page 1 of 21	















































## 4.1.2 SCHEMATIC DESIGN BINDER

---

- S. Local Actions & Approvals
  - 1. Certified SBC Meeting Minutes where SD Submittal was Approved
  - 2. PowerPoint Presentation at All-Boards Meeting
  - 3. Signed Local Actions & Approvals Certification

## MSBA Module 4

### Schematic Design

## 4.1.2 SCHEMATIC DESIGN BINDER

### S. Local Actions & Approvals

#### 1. Meeting Agendas & Minutes

1. Agenda: Clinton Middle School Building Committee– 13	6/20/2023
2. Minutes: Clinton Middle School Building Committee– 13	6/20/2023
3. Agenda: Clinton Middle School Building Committee– 14	7/18/2023
4. Minutes: Clinton Middle School Building Committee– 14	7/18/2023
5. Agenda: Clinton Middle School Building Committee– 15	8/22/2023
6. Minutes: Clinton Middle School Building Committee– 15	8/22/2023
7. Agenda: Clinton Middle School Building Committee– 16	9/19/2023
8. Minutes: Clinton Middle School Building Committee– 16	9/19/2023
9. Agenda: Clinton Middle School Building Committee– 17	10/03/2023
10. Minutes: Clinton Middle School Building Committee– 17	10/03/2023
11. Agenda: Clinton Middle School Building Committee– 18	10/17/2023
12. Minutes: Clinton Middle School Building Committee– 18	10/17/2023
13. Agenda: Clinton Middle School Building Committee– 19	11/14/2023
14. Minutes: Clinton Middle School Building Committee– 19	11/14/2023
15. Agenda: Clinton Middle School Building Committee– 20	12/19/2023
16. Minutes: Clinton Middle School Building Committee– 20	12/19/2023
17. Agenda: Clinton Middle School Building Committee– 21	1/09/2024
18. Minutes: Clinton Middle School Building Committee– 21	1/09/2024
19. Agenda: Clinton Middle School Building Committee– 22	1/30/2024
20. Minutes: Clinton Middle School Building Committee– 22	1/30/2024
21. Agenda: Clinton Middle School Building Committee– 23	2/06/2024
22. Minutes: Clinton Middle School Building Committee– 23	2/06/2024
23. Agenda: Clinton Middle School Building Committee– 24	2/20/2024
24. Minutes: Clinton Middle School Building Committee– 24	2/20/2024

# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: June 20, 2023  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 013  
Meeting Location: Clinton Middle School - Media Center

---

1. Call to Order & number of voting members present:
2. Previous Topics and Approval of June 6th, 2023, Meeting Minutes:
3. Invoices and Commitments for approval
  - 3.1. Central Mass Signal, LLC June invoice, in the amount of \$29,687.51
4. Public All-Boards Meeting Update
5. SBC/PBC Discussion and PBC vote for the preferred option.
6. Permanent Building Committee Vote to submit PSR to MSBA
7. Local Actions Letter Approval Letter
8. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting.
9. Public Comment
10. Next Meetings
11. Adjourn:



**PERMANENT BUILDING COMMITTEE  
SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
MEETING MINUTES**

Project: Clinton Middle School  
Subject: School Building Committee Meeting  
Location: Clinton Middle School  
Distribution: Attendees, Project File

Project No: 202000640305  
Meeting Date: 06/20/2023  
Time: 6:30 PM  
Prepared By: E. Grijalva

---

Present

<b>Name</b>	<b>Affiliation</b>
Michael Ward*	Town Administrator -PBC Member
Brendon Bailey	School Committee Chair
Steven Meyer*	Superintendent – PBC Member
Brian Farragher	Director of Facilities
Chris McGown*	Chair of PBC, Head of DPW
Chris Magliozzi*	Vice-Chair of PBC
Michael Moran*	PBC Member
Brian Delorey*	PBC Member
Phil Duffy	Director of Community & Econ. Dev.
Trip Elmore	DWMP
Elias Grijalva	DWMP
Peter Caruso	LPAA
Sean Brennan	LPAA
Eric	LPAA

\*PBC Voting Members

---

Description

Action

13.1	<p><b>Call to Order:</b> 6:36 PM meeting was called to order by PBC Chair C. McGown with 6 of 7 voting members in attendance.</p>	Record																																																
13.2	<p><b>Previous Topics &amp; Approval of June 6, 2023, Meeting Minutes:</b> A motion to approve the 06/06/2023 meeting minutes was submitted by S. Meyer and seconded by B. Delorey.</p> <p><b>Discussion:</b> None.  <b>Abstentions:</b> None</p> <p>All in favor, motion passes, June 6, 2023, meetings are certified as approved.</p>	Record																																																
13.3	<p><b>Invoices and Commitments</b></p> <p><b>Invoice 1:</b> Central Mass Signal, LLC June Invoice, in the amount of \$29,687.51</p> <p>A motion was made by C. Magliozzi and seconded by M. Moran for the approval of the Central Mass Signal June Invoice.</p> <p><b>Discussion:</b> None.  <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve Central Mass Signal June Invoice for payment.</p>	Record																																																
13.4	<p><b>Public All Boards Meeting Update</b></p> <p>T. Elmore briefly shares a few pictures from the All-Boards Public meeting that took place on June 14, 2023 and shares the estimated local share cost ranges for each building option, which is represented in the chart below.</p> <table border="1"> <thead> <tr> <th>Evaluation Criteria</th> <th>BR</th> <th>AR-1</th> <th>AR-2</th> <th>AR-1.5</th> <th>NC-1</th> </tr> </thead> <tbody> <tr> <td><b>Enrollment</b></td> <td>-</td> <td>700</td> <td>700</td> <td>700</td> <td>700</td> </tr> <tr> <td><b>Educational Program Fulfillment</b></td> <td>1</td> <td>3</td> <td>4</td> <td>3</td> <td>5</td> </tr> <tr> <td><b>Space Summary</b></td> <td>1</td> <td>3</td> <td>1</td> <td>2</td> <td>5</td> </tr> <tr> <td><b>Site &amp; Facility Goals &amp; Objective</b></td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> <tr> <td><b>Energy Efficient &amp; Utilities</b></td> <td>4</td> <td>4</td> <td>3</td> <td>4</td> <td>4</td> </tr> <tr> <td><b>Construction Phasing Impact</b></td> <td>5-10 YRS</td> <td>4 YRS</td> <td>4 YRS</td> <td>4 YRS</td> <td>3 YRS</td> </tr> <tr> <td><b>Estimated Local Share</b></td> <td>\$113 - \$125M</td> <td>\$78- \$86M</td> <td>\$86- \$95M</td> <td>\$74 - \$81M</td> <td>\$83- \$92M</td> </tr> </tbody> </table> <p><b>Discussion:</b> None</p>	Evaluation Criteria	BR	AR-1	AR-2	AR-1.5	NC-1	<b>Enrollment</b>	-	700	700	700	700	<b>Educational Program Fulfillment</b>	1	3	4	3	5	<b>Space Summary</b>	1	3	1	2	5	<b>Site &amp; Facility Goals &amp; Objective</b>	4	4	4	4	4	<b>Energy Efficient &amp; Utilities</b>	4	4	3	4	4	<b>Construction Phasing Impact</b>	5-10 YRS	4 YRS	4 YRS	4 YRS	3 YRS	<b>Estimated Local Share</b>	\$113 - \$125M	\$78- \$86M	\$86- \$95M	\$74 - \$81M	\$83- \$92M	Record
Evaluation Criteria	BR	AR-1	AR-2	AR-1.5	NC-1																																													
<b>Enrollment</b>	-	700	700	700	700																																													
<b>Educational Program Fulfillment</b>	1	3	4	3	5																																													
<b>Space Summary</b>	1	3	1	2	5																																													
<b>Site &amp; Facility Goals &amp; Objective</b>	4	4	4	4	4																																													
<b>Energy Efficient &amp; Utilities</b>	4	4	3	4	4																																													
<b>Construction Phasing Impact</b>	5-10 YRS	4 YRS	4 YRS	4 YRS	3 YRS																																													
<b>Estimated Local Share</b>	\$113 - \$125M	\$78- \$86M	\$86- \$95M	\$74 - \$81M	\$83- \$92M																																													
13.5	<p><b>SBC/PBC Recap and Discussion</b></p>	Record																																																

**T. Elmore** briefly recaps each 700-enrollment building option as a refresher for discussion and before voting proceeds.

- AR.1(700) Mainly Renovation – 145,500 SQFTT
  - Total Project Cost Range: **\$137 to \$151**
  - MSBA Reimbursement Range: **\$58 to \$65**
  - Potential Local Share Range: **\$78 to \$86**
  - Project Duration: **4 years**
  - Disturbance to the learning environment: **Very High**
  
- AR.2(700) Addition/Renovation – 156,000 SQFTT
  - Total Project Cost Range: **\$148 to \$164**
  - MSBA Reimbursement Range: **\$63 to \$69**
  - Potential Local Share Range: **\$86 to \$95**
  - Project Duration: **4 years**
  - Disturbance to the learning environment: **High**
  -
  
- AR.1.5(700) Addition/Renovation– 150,000 SQFT
  - Total Project Cost Range: **\$134 to \$148**
  - MSBA Reimbursement Range: **\$60 to \$66**
  - Potential Local Share Range: **\$74 to \$81**
  - Project Duration: **4 years**
  - Disturbance to the learning environment: **High**
  
- NC.1(700) New Construction – 136,000 SQFT
  - Total Project Cost Range: **\$135 to \$149**
  - MSBA Reimbursement Range: **\$52 to \$57**
  - Potential Local Share Range: **\$83 to \$92**
  - Project Duration: **3 years**
  - Disturbance to the learning environment: **Low**

**Discussion:**

**C. McGown** shares that his two top options are AR1.5 & NC1.

**C. Magliozzi** agrees and states that one option satisfies the educational process. Our school committee and our school department have both said we have an educational problem and a programmatic problem, and you know doing the Base Repair doesn't solve it. Again, see what solves the problem the best and disrupts our children the least. I have a hard time essentially sentencing children for four years of the renovation project.

**S. Meyer** states that you can't overlook the disruption to students.



**P. Duffy** asks what the differences between AR1.5 and NC.1, in terms of fulfilling the educational program.

**E. Moore** explains in any of the reno options, we're constrained by the existing spaces such as the existing cafeteria and gymnasium. We can't move those spaces around. One of the things we talked about was having an area to come in and having that community use of the spaces and having a central area to access both of those. You can't do that when they are on opposite sides of the building. Also, since AR1.5 uses existing spaces, the rooms are not always going to be the right size for what you need and they're not always going to have the right relationship with each other.

**S. Brennan** additionally the other thing that was part of the educational program was to have a nice separation between the upper and lower school. AR1.5 doesn't quite accomplish that. However, in the new construction option, we have a building that is split.

**T. Elmore** states a renovation project versus new construction has very different risks associated with it. There are unknowns that you hit in a renovation project. When you're in the demo phase and you're trying to figure out how to replumb these first-floor areas. You're going to cut out most of these hallway slabs and do you influence any of the structural members underneath? All I'm trying to do here is point out the facts, that there will be unknowns and more risk. So, it's just a factor whereas new construction, you're doing it in sequence, do things in the proper order, and you're not going to impact what's in the ground.

**P. Duffy** asks if you have done soil testing.

**T. Elmore** explains that we have structural soil testing data from the last project, which saved the project money.

**M. Moran** asks what the next steps are.

**T. Elmore** replies that after you pick the option, we'll be moving forward into Schematic Design (SD), which refines the plans better.

**M. Moran** asks if there will there be any differences in operating costs in NC1 vs AR1.5.

**E. Moore** you get better insulation value in building option NC-1 versus AR1.5.

**PBC vote for the preferred option.**

A motion to submit option **NC1- 700 Enrollment**, as the PBC recommended building option for the PSR submission was made by C. Magliozzi, 2<sup>nd</sup> by B. Delorey.

**Discussion:** None

	All in favor, motion passes to approve NC1-700 enrollment as the preferred option.																																									
13.6	<p><b>Permanent Building Committee Vote to submit PSR to MSBA</b>                  A motion to submit the Preferred Schematic Report to the MSBA was made by C. Magliozzi ,2<sup>nd</sup> by B. Delorey.</p> <table border="1"> <thead> <tr> <th colspan="2">Call Vote</th> <th>Yes</th> <th>No</th> <th>Abstain</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Michael Ward</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Steve Meyer</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Chris Magliozzi</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>Michael Moran</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>Brian Delory</td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>Timothy O' Toole</td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td>Chris McGown</td> <td>x</td> <td></td> <td></td> </tr> </tbody> </table> <p><u>Vote on the motion:</u> Those FOR <b>6</b>                  Those AGAINST _____; ABSTAIN _____  <b>Motion: <u>Passes</u></b></p> <p>(An official copy will be provided for the PSR submission)  <b>Discussion:</b> None</p>	Call Vote		Yes	No	Abstain	1	Michael Ward	x			2	Steve Meyer	x			3	Chris Magliozzi	x			4	Michael Moran	x			5	Brian Delory	x			6	Timothy O' Toole				7	Chris McGown	x			Record
Call Vote		Yes	No	Abstain																																						
1	Michael Ward	x																																								
2	Steve Meyer	x																																								
3	Chris Magliozzi	x																																								
4	Michael Moran	x																																								
5	Brian Delory	x																																								
6	Timothy O' Toole																																									
7	Chris McGown	x																																								
13.7	<p><b>Local Actions Letter Approval Letter</b>  <b>T. Elmore</b> explains that part of the PSR submission is to put together a local action letter which is standard MSBA language on your letterhead that just states that we've had these open public meetings and that they have been posted. No voting needed.  <b>Discussion:</b> None</p>	Record																																								
13.8	<p><b>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting.</b>  <b>Discussion:</b> None.</p>	Record																																								
13.9	<p><b>Public Comment:</b>  <b>Discussion:</b> None</p>	Record																																								
13.10	<p><b>Next Meeting:</b></p> <ul style="list-style-type: none"> <li>07.18.2023 - CMS Building Committee Virtual ZOOM Meeting No.014 @ 6:30 PM</li> </ul>	Record																																								
13.11	<p><b>Adjourn:</b> 7:39 PM A motion was made by S. Meyer and seconded by B. Delorey to adjourn the meeting.  <b>Discussion:</b> None.                  All in favor, the meeting is adjourned.</p>	Record																																								

Sincerely,  
**DORE + WHITTIER**  
 Elias Grijalva  
 Assistant Project Manager

Project: Clinton Middle School  
Meeting: School Building Committee  
Meeting No. 013 – 06/20/2023  
Page: 6

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.

# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: July 18, 2023  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 014  
Meeting Location: Zoom  
Meeting Link: <https://us06web.zoom.us/j/84493667367?pwd=cDltdmtnUEpUNnd0Q3Q5NS9lWDlSdz09>  
Meeting ID: 844 9366 7367  
Passcode: 419054  
One tab Mobile: +16468769923,84493667367#,,,,\*419054# US (New York)

---

1. Call to Order & number of voting members present:
2. Renovation/ Construction of the Library
3. Senior Center Carriage Housing Painting Change Order
4. Previous Topics and Approval of June 20th, 2023, Meeting Minutes:
5. Invoices and Commitments for approval:
  - 5.1. DWMP invoice #011, for the month of June, in the amount of \$15,000.00
  - 5.2. LPA|A Invoice #006, for the month of June, in the amount of \$31,445.00
6. PSR Submission Update
7. Facilities Assessment Committee Update
8. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting.
9. Public Comment
10. Next Meetings
11. Adjourn:



**PERMANENT BUILDING COMMITTEE  
SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
MEETING MINUTES**

Project:	Clinton Middle School	Project No:	202000640305
Subject:	School Building Committee Meeting	Meeting Date:	07/18/2023
Location:	ZOOM	Time:	6:30 PM
Distribution:	Attendees, Project File	Prepared By:	E. Grijalva

---

<b>Name</b>	<b>Affiliation</b>
Michael Ward*	Town Administrator -PBC Member
Steven Meyer*	Superintendent – PBC Member
Chris McGown*	Head of DPW - Chair of PBC
Chris Magliozzi*	Vice-Chair of PBC
Shane McCarthy	Teacher
Trip Elmore	DWMP
Elias Grijalva	DWMP
Peter Caruso	LPAA
Sean Brennan	LPAA
Phil Duffy	Director of Community & Econ. Dev.
Marie Letarte	Public

\*PBC Voting Members

	Description	Action
14.1	<b>Call to Order:</b> 6:31 PM meeting was called to order by PBC Chair C. McGown with 4 of 7 voting members in attendance.	Record
14.2	<p><b>Renovation / Construction of the Library</b></p> <p><b>M. Latard</b> updates the PBC on the library project that was approved by the Massachusetts Board of Library commissioners, and they required both town and select board approvals. It is a town project, and the town will need a permanent building committee like the Clinton Middle School building project. We would like to be added to the agenda from time to time to update the PBC on the progress of the library and possibly get feedback.</p> <p><b>M. Ward</b> shares that the library board has hired a consultant and they are going to write the application for them as well as work on community outreach. They need to get input as to what is needed for the library, maybe this committee can give them some input.</p>	Record
14.3	<p><b>Senior Center Carriage Housing Painting Change Order</b></p> <p><b>Proposal:</b> Fox Painting Co. change order proposal in the amount of <u>\$40,000.00</u></p> <p>A motion was made by <u>S. Meyer</u> and seconded by <u>C. Magliozzi</u> for the approval of the Senior Center Carriage Housing Painting Change order.</p> <p><b>Discussion:</b> None.  <b>Roll Call Vote:</b> S. Meyer (Y), C. Magliozzi (Y), C. McGown (Y), M. Ward (Y)  <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve Senior Center Carriage Housing Painting Change Order.</p>	Record
14.4	<p><b>Previous Topics &amp; Approval of June 20, 2023, Meeting Minutes:</b> A motion to approve the 06/20/2023 meeting minutes was submitted by <u>M. Ward</u> and seconded by <u>S. Meyer</u>.</p> <p><b>Discussion:</b> None.  <b>Roll Call Vote:</b> S. Meyer (Y), C. Magliozzi (Y), C. McGown (Y), M. Ward (Y)  <b>Abstentions:</b> None</p> <p>All in favor, motion passes, June 20, 2023, meetings are certified as approved.</p>	Record
14.5	<p><b>Invoices and Commitments</b></p> <p><b>Invoice 1:</b> DWMP Invoice #011, for the month of June, in the amount of <u>\$15,000.00</u></p> <p>A motion was made by <u>M. Ward</u> and seconded by <u>C. Magliozzi</u> for the approval of the DWMP June invoice.</p>	Record

	<p><b>Discussion:</b> None.  <b>Roll Call Vote:</b> S. Meyer (Y), C. Magliozzi (Y), C. McGown (Y), M. Ward (Y)  <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve DWMP June invoice.</p> <hr/> <p><b>Invoice 2:</b> LPA A Invoice #006, for the month of June, in the amount of <u>\$31,445.00</u></p> <p>A motion was made by <u>C. Magliozzi</u> and seconded by <u>S. Meyer</u> for the approval of the LPA A June Invoice.</p> <p><b>Discussion:</b> None.  <b>Roll Call Vote:</b> S. Meyer (Y), C. Magliozzi (Y), C. McGown (Y), M. Ward (Y)  <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve LPA A June invoice.</p>	
14.6	<p><b>PSR SUBMISSION</b></p> <p><b>T. Elmore</b> shares some important dates and upcoming meetings.</p> <ul style="list-style-type: none"> <li>• <b>06.27.2023</b> -PSR Submitted to MSBA</li> <li>• <b>07.19.2023</b> – Pre- Facilities Assessment Subcommittee Meeting       <ul style="list-style-type: none"> <li>○ Running through the process of the FAS meeting</li> <li>○ Boilerplate that describes the next steps after approval</li> </ul> </li> <li>• <b>08.02.2023</b> – Facilities Assessment Subcommittee</li> <li>• <b>TBD</b> – Preferred Schematic Conference Call with District Board</li> <li>• <b>08.30.2023</b>- Approval date expected to move forward into schematic design.</li> </ul> <p><b>Discussion:</b>  <b>T. Elmore</b> shares that in Module 4, we further define elements of the building and start the process of developing a real schedule, a real budget, drawings with layouts, and much more details. After the conclusion of Module 4, we go into funding the project, which should take place in June of 2024.</p>	Record
14.7	<p><b>Facilities Assessment Committee Update</b></p> <ul style="list-style-type: none"> <li>• The Facilities Assessment Subcommittee meets to hear district presentations regarding proposed projects and provide feedback to districts before the project is presented to the Board. The Project Management Subcommittee meets to review audit appeals for MSBA projects.</li> <li>• Districts with projects requiring Board approval for a preferred schematic design and/or project scope and budget will be asked to present information about the project at a Facilities Assessment Subcommittee meeting in advance of the Board meeting at which the project vote will occur.</li> </ul> <p><b>Discussion:</b> None</p>	Record

14.8	<p><b>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting.</b></p> <p><b>Discussion:</b>  <b>S. Meyer</b> shares that in the next couple of months, two big topics we'll be discussing are the New Energy Code and whether we will go Design Bid Build or Construction Manager (CM) @ Risk.</p> <p><b>T. Elmore</b> states that he anticipates that at our next school building committee meeting we will address the New Energy Code, New Stretch Code, and New Mass state building code. The Green Engineer would participate in those meetings to allow a forum where we could ask questions and get them answered regarding these topics. This is new to the industry in the state of Massachusetts and all the design professionals are trying to figure it out. There are still lots of questions.</p> <p><b>M. Ward</b> asks if there will be any information provided for the CM @ risk, like a list of Pros and Cons or a presentation.</p> <p><b>T. Elmore</b> replies that we have a presentation of the pros/cons and various benefits that each can bring to the table. We're anticipating the CM @ Risk discussion will take place in the month of September, with the idea of bringing a CM on board by the end of the year, so that they could participate in the Schematic Design evaluation, which includes both the estimate as well as the phasing and scheduling of the work.</p>	Record
14.9	<p><b>Public Comment:</b>  <b>Discussion:</b> None</p>	Record
14.10	<p><b>Next Meeting:</b></p> <ul style="list-style-type: none"> <li>08.22.2023 - CMS Building Committee Remote @ 6:30PM</li> </ul> <p><b>Discussion:</b>  <b>S. Brennan</b> shares that given our current work plan and design review, we do foresee the need for a meeting for the next three months. We have some big items we want to share, obviously, sustainability, CM @ Risk, updated building plans, layouts, and material selections.</p>	Record
14.11	<p><b>Adjourn:</b> 7:01 PM A motion was made by <u>S. Meyer</u> and seconded by <u>C. Magliozzi</u> to adjourn the meeting.</p> <p><b>Discussion:</b> None.  All in favor, the meeting is adjourned.</p>	Record

Sincerely,  
**DORE + WHITTIER**  
 Elias Grijalva  
 Assistant Project Manager  
 Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.



**PERMANENT BUILDING COMMITTEE  
SCHOOL BUILDING SUB-COMMITTEE  
MEETING AGENDA**



Meeting Date: August 22, 2023  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 015  
Meeting Location: Zoom  
Meeting Link: <https://us06web.zoom.us/j/88026164931?pwd=NElVV1ZmKzJldDI4OE1rT1BqZ1lEZz09>  
Meeting ID: 880 2616 4931  
Passcode: 409629  
One tab Mobile: +16468769923,,88026164931#,,,,\*409629# US (New York)

---

1. Call to Order & number of voting members present:
2. Senior Center Carriage Housing Invoice and Change Order for Approval
3. Previous Topics and Approval of July 18<sup>th</sup>, 2023, Meeting Minutes:
4. Invoices and Commitments for approval:
  - 4.1. DWMP invoice #012, for the month of July, in the amount of \$15,000.00
  - 4.2. LPA|A Invoice #007, for the month of July, in the amount of \$52,700.00
  - 4.3. LPA||A Amendment No.003, for additional land survey services in the amount of \$17,600.00
5. Facilities Assessment Subcommittee (**FAS**) Update
6. LPA|A Update
7. Construction Delivery Method Discussion Only
8. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting.
9. Public Comment
10. Next Meetings
11. Adjourn:

PERMANENT BUILDING COMMITTEE  
SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
MEETING MINUTES



Project: Clinton Middle School  
Subject: School Building Committee Meeting  
Location: ZOOM  
Distribution: Attendees, Project File  
MSBA Module: 3- Feasibility Study

Project No: 20200640305  
Meeting Date: 08/22/2023  
Time: 6:30 PM  
Prepared By: E. Grijalva

---

**Meeting Agenda**

1. Call to Order
2. Senior Center Housing Invoice and Change Order
3. Previous Topics and Approval of July 18, 2023, Meeting Minutes
4. Invoices and Commitments for Approval
5. Facilities Assessment Subcommittee Update
6. LPA|A Update
7. Construction Delivery Method Discussion Only
8. Other Topics not Reasonably Anticipated 48 hours prior to the meeting
9. Public Comment
10. Next Meeting
11. Adjourn

<b>Name</b>	<b>Affiliation</b>
Brendan Bailey	School Committee Chair
Steven Meyer*	Superintendent – PBC Member
Chris McGown *	Chair of PBC- Head of DPW
Chris Magliozzi*	Vice-Chair of PBC
Michael Moran*	PBC Member
Brian Delorey*	PBC Member
Kelly Turcotte	Special Education Parent Advisory
Trip Elmore	DWMP- Project Director
Elias Grijalva	DWMP – Assistant PM
Peter Caruso	LPA A – Project Manager
Sean Brennan	LPA A – Project Architect
Eric Moore	LPA A – Sr. Project Architect
Tina	Public
Joel Bates	Public
Sam Dov	Public

Item No.	Description	Action
15.1	<p><b>Call to Order: 6:32 PM</b> meeting was called to order by PBC Chair, C. McGown with <b>5 of 7</b> members in attendance.</p>	Record
15.2	<p><b>Senior Center Carriage Housing Invoice and Change Order Approval:</b></p> <p><b>Fox Painting Co, Application for Payment No.001 Request, in the amount of <u>\$71,487.50</u></b></p> <p>A motion to approve Fox Painting Co. application for payment request, in the amount of <u>\$71,487.50</u> was submitted by <b>C. Magliozzi</b> and seconded by <b>M. Moran</b>.</p> <p><b>Discussion:</b> None  <b>Roll Call Vote:</b> C. Magliozzi (Y), M. Moran (Y), B. Delorey(Y) S. Meyer (Y), C. McGown (Y)  <b>Abstentions:</b> None</p> <p>All in favor, motion passes.</p> <hr/> <p><b>Fox Painting Co, Change Order Request, in the amount of <u>\$18,000.00</u></b></p> <p>A motion to approve the Fox Painting Co, Change Order Request, in the amount of <u>\$18,000.00</u> was submitted by <b>B. Delory</b> and seconded by <b>C. Magliozzi</b>.</p> <p><b>Discussion:</b>  <b>B. Delorey</b> asks if we have the funds to pay for this.  <b>C. McGown</b> confirms there are funds available. Currently, the project is still under budget.  <b>Roll Call Vote:</b> C. Magliozzi (Y), M. Moran (Y), B. Delorey(Y) S. Meyer (Y), C. McGown (Y)  <b>Abstentions:</b> None</p> <p>All in favor, motion passes, July 18, 2023, meetings are certified as approved.</p>	Record
15.3	<p><b>Previous Topics &amp; Approval of July 18, 2023, Meeting Minutes:</b> A motion to approve the 07/18/2023 meeting minutes was submitted by <b>S. Meyer</b> and seconded by <b>M. Moran</b>.</p> <p><b>Discussion:</b> None.  <b>Roll Call Vote:</b> C. Magliozzi (Y), M. Moran (Y), B. Delorey(Y) S. Meyer (Y), C. McGown (Y)  <b>Abstentions:</b> None</p> <p>All in favor, motion passes, July 18, 2023, meetings are certified as approved.</p>	Record
15.4	<p><b>Invoices and Commitments for Approval</b></p> <p><b>Invoice 1: DWMP Invoice #012, for the month of July, in the amount of <u>\$15,000.00</u></b></p> <p>A motion was made by <b>B. Delorey</b> and seconded by <b>S. Meyer</b> for the approval of the DWMP July invoice.</p>	Record

**Discussion:** None.  
**Roll Call Vote:** C. Magliozzi (Y), M. Moran (Y), B. Delorey(Y) S. Meyer (Y), C. McGown (Y)  
**Abstentions:** None  
 All in favor, motion passes to approve DWMP July invoice.  
**Invoice 2: LPA|A Invoice #007, for the month of July, in the amount of \$52,700.00**

A motion was made by **B. Delorey** and seconded by **C. Magliozzi** for the approval of the LPA|A July Invoice.

**Discussion:** None.  
**Roll Call Vote:** C. Magliozzi (Y), M. Moran (Y), B. Delorey(Y) S. Meyer (Y), C. McGown (Y)  
**Abstentions:** None

All in favor, motion passes to approve LPA|A July invoice.

**LPA|A Amendment No.003 Request for Approval, in the amount of \$17,600.00**

**T. Elmore** explains this amendment is for the survey required to finalize the deed. National Grid has requested a new survey to be completed, due to the existing survey being 20 years old, therefore a new survey is needed to finalize the Deed.

**C. Magliozzi** asks if there is a source for this fund.

**T. Elmore** confirms that the funds are available.

The motion was made by **B. Delorey** and seconded by **S. Meyer**, for the approval of LPA|A Amendment No.003.

**Discussion:** None.  
**Roll Call Vote:** C. Magliozzi (Y), M. Moran (Y), B. Delorey(Y) S. Meyer (Y), C. McGown (Y)  
**Abstentions:** None

All in favor, motion passes to approve LPA|A July invoice.

15.5

**Facilities Assessment Subcommittee (FAS) Update**

**The following items were topics of discussion during the FAS meeting:**

- Appreciation of the Educational Program and responses to comments.
- Opportunity to increase World Language program offerings for all students including English Learners.
- Consideration to adjust Health and Physical Education program schedules to extend throughout the school year.
- Proposed use and staffing considerations for the proposed Media Center and Maker Space.

Record

- The size of the proposed parking in relation to the building as well as refinements to integrate safety measures, designated parking areas and green space; (combined what were two bullets)
- Anticipated further refinement of the building massing to clarify scale and volumes, character, and experience upon entry.
- Appreciation of the layout of the academic and public spaces.
- Distribution and use of Special Education spaces and DESE submittal process.
- Student class size and age requirements related to sub-separate classrooms within a 4-8 grade configuration; and,
- Opportunities for renewable energy use such as geothermal wells, solar panels and other potential energy saving resources.

**Discussion:** None

15.6

**LPA|A Update**

Record

**S. Brennan** demonstrates the updated floor plans, site plan, and traffic patterns, since the Preferred Schematic Report submission on June 20, 2023. (Refer to the meeting packet for visual slides)

**Key differences in Updated floor plans**

- Common spaces are now the collaborative space.
- Color reinforces wayfinding to identify grade neighborhoods.
- Locker rooms switched sides giving more opportunities for further efficiency.
- Locations of Skylights that will bring light into the 2<sup>nd</sup> and 1<sup>st</sup> floors
- The upper floor can view into the Gymnasium.
- Bathrooms have sinks on the exterior side without doors, which reduces the amount of loitering.

**S. Brennan** talks about the new energy code and its implications for projects funded by the Massachusetts School Building Authority.

**Old Base Requirement:**

- LEED for Schools Certified or NE-CHPS Verified
- Exceed Current Energy Code by 10%
- Specific IAQ Points Required – LEED or NE-CHPS

**Previously for an Additional 2% reimbursement:**

- Exceed current energy code by 20%

**Base Requirement**

- LEED for Schools Silver or NE-CHPS Verified
- Meeting new Stretch Code
- Minimum IAQ Points – LEED or NE- CHPS
- **For an additional 3%:** meet OPT in Specialized Code
- **For an additional 1%:** Achieve two additional IAQ points in LEED or CHPS
- **4% additional available in total**

	<b>Discussion:</b>	
15.7	<p><b>Construction Delivery Method Discussion Only:</b></p> <p>T. Elmore explains the different construction delivery methods: CM at Risk (MGL Chapter 149a) versus Design Bid Build (MGL Chapter 149).</p> <p><b><u>Project owner requirements and considerations are as follows:</u></b></p> <ul style="list-style-type: none"> <li>• Budget Impact</li> <li>• Design</li> <li>• Schedule</li> <li>• Risk Assessment (repair project, lack of swing space, impact on School),</li> <li>• Owners Expertise</li> </ul> <p><b><u>MGL 149: Design – Bid- Build Facts</u></b></p> <ul style="list-style-type: none"> <li>• You are purchasing a building in accordance with plans and specifications.</li> <li>• Selection is bid/price based (lowest bidder wins)</li> <li>• Design is finished, then the bid to GC and subcontractors (After MSBA PFA) – You will not know the number until after.</li> <li>• Traditional Massachusetts project delivery method</li> <li>• Sealed bid, fixed price</li> <li>• Contract value based on a “lump sum” amount.</li> <li>• “Closed Book” construction budget accounting</li> </ul> <p><b><u>MGL Chapter 149a: CM at Risk Facts</u></b></p> <ul style="list-style-type: none"> <li>• You are hiring a construction manager firm that manages the construction of buildings and provides input during the design process. They will help estimate the project and review the drawings. They are part of the team.</li> <li>• Selection is qualifications and cost based.</li> <li>• CM provides pre-construction (Prior to MSBA PFA) &amp; and construction services. – This option costs a little more, but it is helpful when creating our budget. They will have more input on schedule, phasing, and logistics.</li> <li>• CM participates in the sub-contractor prequalification process.</li> <li>• Option for early release bid packages or “fast-track” schedules – If the design is finishing in October and we want to start construction the following summer, we have the option to do an early release package for site work, abatement, demolition, etc. This allows work to start earlier.</li> <li>• Contract value based on a “Guaranteed Maximum Price (GMP)” Cost of work + General Conditions + negotiated CM Fee</li> <li>• GMP Assembled with assumptions and allowances for phasing/ logistics (during schematic design – potential for additional reimbursement for unforeseen items.</li> <li>• “Open Book” construction budget accounting.</li> </ul>	Record

**CM @ Risk Selection Process – 2 ½ to 3 months duration**

- 1) OIG Application
- 2) Form Prequalification / CM Selection Committee
- 3) Develop an Issue RFQ with the owner.
- 4) Develop and issue an RFP with the owner.
- 5) Conduct Interviews
- 6) Select Top choice, Construction Manager

**Design Bid Built: Advantages**

- o Familiar delivery method
- o Simple procurement process to manage.
- o Lowest price proposed & accepted.
- o Simple accounting (GC/GR)

**Construction Manager At Risk: Advantages**

- o Qualifications-based selection
- o The builder assists with budgeting, logistics and constructability.
- o Schematic Design Estimate (reconciled) set budget (Prior to MSBA PFA)
- o Fast track scheduling allows the use of Early Release Packages (ERP)
- o CM joins the “Team” during the design phase and provides input as documents are developed.
- o Negotiations and a “Team” atmosphere reduce the likelihood of claims and schedule extensions.
- o CM assumes risk for project cost and schedule.

➤ **DBB: Disadvantages**

- o Linear process: may mean longer schedule durations.
- o Construction cost not known until bids received; may require re-design/rebid (AFTER PFA)
- o The designer must develop a project phasing and schedule approach.
- o GC project management, safety, and field supervision is minimal.
- o Increased probability of disputes/claims
- o No GC input in design, planning, constructability, or budgeting
- o Full costs not realized until completion.

➤ **CMR: Disadvantages**

- o Requires OPM/Design team to be familiar with the GMP model.
- o The two-step procurement process takes time.
- o Additional CM costs related to preconstruction services.

**Conclusions**

- o DBB is best suited for less complicated/complex projects with a straightforward design.
- o CMR is best suited for complicated/complex project design, phasing, logistics, and schedule management challenges, or strict schedule limitation.

**Discussion:**

**M. Moran** asked who determines the fee schedule for CM @ Risk.

**T. Elmore** explains once we prequalify construction managers, we then issue an RFP Request for Proposals. The CM applicants will then submit a proposal that includes a fee amount, and project team member rates, which will ultimately determine the fee schedule.

**C. Magliozzi** do the design professionals have any opinion about how much value is gained by going CM @ Risk?

**S. Brennan** responded that there is a lot less work, it allows less time for this committee to spend on reviewing and processing the information and potentially holding up the flow of construction.

**P. Caruso** states that he is a big supporter of CM @ Risk. The process is more integrated with the team and we're able to descope the non-file subcontractors alongside the CM.

**T. Elmore** empathizes that this is an open-book process, you get a chance to see what's behind the scenes.

**C. McGown** when do we decide which path to go?

**T. Elmore** replies at the next PBC meeting, in September.

**C. McGown** after the vote, how do we start the process of choosing the Construction Manager?

**T. Elmore** states first we get the vote, then we submit an application to the Inspector General which may take up to sixty-plus days to get the application reviewed by the Office of Inspector General. We anticipate it will take a minimum of three to four months to get the CM on board. Then we want them on board two to three months prior to the submittal of the schematic design. Once we bring them on board, we put in the contract that they're being hired for a stipend, typically around twenty-five to thirty thousand, and then we are obligated to pay them that amount to help us get an estimate for the schematic design submission, produce a schedule, and do a phasing plan. (Refer to CM Selection Process slide)

15.8

**Other Topics not Reasonably Anticipated 48 hours prior to the Meeting:**

**Discussion:** None

Record

15.9

**Public Comment:**

Record



	<p><b>T. Elmore</b> mentions that National Grid has approved the survey scope per conversation with Mike Ward.</p>	
15.10	<p><b>Next Meeting:</b></p> <p>09.19.2023 – CMS Building Committee Remote @ 6:30 PM – Location: TBD 10.17.2023 – CMS Building Committee Remote @ 6:30 PM – Location: TBD</p> <p><b>Discussion:</b> None</p>	Record
15.11	<p><b>Adjourn: 7:22 PM</b> A motion was made by <b>M. Moran</b> and seconded by <b>C. Magliozi</b> to adjourn the meeting.</p> <p><b>Discussion:</b> None. <b>Roll Call Vote:</b> C. Magliozi (Y), M. Moran (Y), B. Delorey(Y) S. Meyer (Y), C. McGown (Y) <b>Abstentions:</b> None</p> <p>All in favor, the meeting is adjourned.</p>	Record

Sincerely,

DORE + WHITTIER

Elias Grijalva

Assistant Project Manager

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.

# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: September 19, 2023  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 016  
Meeting Location: ZOOM  
Meeting Link: <https://us06web.zoom.us/j/82807387737?pwd=c0E5QitBVkU2Vjh0TElVb0YzTVZwdz09>  
Meeting ID: 828 0738 7737  
Passcode: 859559  
One tab Mobile: +13126266799,,82807387737#,,,,\*859559# US (Chicago)

---

1. Call to Order & number of voting members present:
2. Senior Center Carriage Housing Invoice No.002 for approval, in the amount of \$145,112.50
3. Previous Topics and Approval of August 22, 2023, Meeting Minutes:
4. Project Budget Update
  - 4.1. LPA|A Amendment#004 Request for approval
5. Invoices for Approval:
  - 5.1. DWMP invoice #013, for the month of August, in the amount of \$15,000.00
  - 5.2. LPA|A Invoice #008, for the month of August, in the amount of \$35,540.00
6. MSBA Board of Directors Update
7. LPA|A Update
8. Construction Delivery Methodology Discussion and Vote
  - 8.1. If CM at Risk is voted to proceed, Designation of the Qualification, Proposal, and Interview voting members need to be established and approved.
9. Community Outreach
10. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting.
11. Public Comment
12. Next Meetings
13. Adjourn:

PERMANENT BUILDING COMMITTEE  
 SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
 MEETING MINUTES



Project: Clinton Middle School  
 Subject: School Building Committee Meeting  
 Location: ZOOM  
 Distribution: Attendees, Project File  
 MSBA Module: 4- Schematic Design

Project No: 20200640305  
 Meeting Date: 09/19/2023  
 Time: 6:30 PM  
 Prepared By: E. Grijalva

**Meeting Agenda**

	<b>Name</b>	<b>Affiliation</b>
1. Call to Order	Michael Ward*	Town Admin- PBC Member
2. Senior Center Housing Invoice for Approval	Steven Meyer*	Superintendent – PBC Member
3. Previous Topics and Approval of August 22, 2023, Meeting Minutes	Chris McGown*	Chair of PBC, Head of DPW
4. Project Budget Update	Chris Magliozzi*	Vice-Chair of PBC
5. Invoices and Commitments for Approval	Brian Delorey*	PBC Member
6. MSBA Board of Directors Update	Brendon Bailey	School Committee Chair
7. LPA A Update	Matthew Varakis	School Committee Vice-Chair
8. Construction Delivery Method Discussion Only	Shane McCarthy	Teacher
9. Community Outreach	Bill McGrail	Finance Committee Co-Chair
10. Other Topics not Reasonably Anticipated 48 hours prior to the meeting	Phil Duffy	Director of Community & Econ. Dev.
11. Public Comment	Kelly Turcotte	Special Education Parent Advisory Council
12. Next Meeting	Christine M.	Public
13. Adjourn	Steve O' Connell	Public
	Trip Elmore	DWMP- Project Director
	Mike Cox	DWMP- Project Manager
	Elias Grijalva	DWMP- Assistant Project Manager
	Peter Caruso	LPAA – Project Manager
	Sean Brennan	LPAA- Project Architect
	Eric Moore	LPAA- Sr. Project Architect
	Kevin Seaman	Seaman Engin.
	Lynne Giesecke	Studio 2112

Item No.	Description	Action
16.1	<p><b>Call to Order: 6:34 PM</b> meeting was called to order by PBC Chair, C. McGown with <b>5 of 7</b> members in attendance.</p>	Record
16.2	<p><b>Senior Center Carriage Housing Invoice and Change Order Approval:</b>            Fox Painting Co, Application for Payment No.002 Request, in the amount of <u>\$145,112.50</u></p> <p>A motion to approve Fox Painting Co.'s application for payment request, in the amount of \$145,112.50 was submitted by S. Meyer and seconded by C. Magliozzi.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> C. Magliozzi (Y), S. Meyer (Y), C. McGown (Y); <b>Abstentions:</b> M. Ward (experienced technical difficulties)            All in favor, motion passes.</p>	Record
16.3	<p><b>Previous Topics &amp; Approval of August 22, 2023, Meeting Minutes:</b>            A motion to approve the 08/22/2023 meeting minutes was submitted by S. Meyer and seconded by C. Magliozzi.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> C. Magliozzi (Y), S. Meyer (Y), C. McGown (Y); <b>Abstentions:</b> M. Ward (experienced technical difficulties)            All in favor, motion passes, August 22, 2023, meetings are certified as approved.</p>	Record
16.4	<p><b>Project Budget Update:</b>  <u>M.Cox</u> updates the committee on the current project budget. After tonight's approval of LPA A Amendment No.004, there will be \$41,706.32 left in the budget for future expenditures.</p> <p><u>LPA A Amendment No.004 request.</u></p> <ul style="list-style-type: none"> <li>• Geotechnical Testing Services:      \$10,010.00             <ul style="list-style-type: none"> <li>○ (4) borings, taking the four corners of the building to confirm the soil condition.</li> </ul> </li> <li>• Fire Hydrant Flow Test:                      \$1,925.00             <ul style="list-style-type: none"> <li>○ Confirm that there is enough water pressure so that we do not have to put a fire pump in the building.</li> </ul> </li> <li>• Amendment No.004 Total:                      <b><u>\$11,935.00</u></b></li> </ul> <p>A motion was made by S. Meyer, and second by M. Ward for the approval of the LPA A Amendment No.004.</p> <p><b>Discussions:</b> None; <b>Roll Call Vote:</b> M. Ward (Y), S. Meyer (Y), C. McGown (Y), B. Delorey; <b>Abstentions:</b> C. Magliozzi (experienced technical difficulties)</p> <p>All in favor, motion passes to approve LPA A Amendment No.004 request.</p>	Record

16.5	<p><b>Invoices and Commitments for Approval</b></p> <p>Invoice 1: DWMP Invoice #013, in the amount of \$15,000.00</p> <p>A motion was made by M. Ward and seconded by B. Delorey for the approval of the DWMP August invoice.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> M. Ward (Y), S. Meyer (Y), C. McGown (Y), B. Delorey; <b>Abstentions:</b> C. Magliozzi (experienced technical difficulties)        All in favor, motion passes to approve DWMP invoice.</p> <hr/> <p>Invoice 2: LPA A Invoice #008, in the amount of 35,540.00</p> <p>A motion was made by M. Ward and seconded by S. Meyer for the approval of the LPA A August Invoice.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> M. Ward (Y), S. Meyer (Y), C. McGown (Y), B. Delorey; <b>Abstentions:</b> C. Magliozzi (experienced technical difficulties)        All in favor, motion passes to approve LPA A invoice.</p>	Record
16.6	<p><b>MSBA Board of Directors Update</b></p> <p><u>T. Elmore</u> shares a few slides from the MSBA Board of Directors meeting that took place on August 30, 2023. The MSBA accepted the project at an estimated total project cost of \$142,184,781.00, with a proposed square footage of 136,000, and a grade configuration of grades 4-8. The MSBA has invited the Town of Clinton into Schematic Design (SD).</p> <p><b>Discussion:</b> None</p>	Record
16.7	<p><b>LPA A Update</b></p> <p><u>P. Caruso</u> introduces two of LPA A sub-consultants L. Giesecke from Studio 2112, landscape architect, and Kevin Seaman from Seaman Engineering, Mechanical engineer. He demonstrates the updated floor plans and some of the changes made since the last presentation.</p> <p><u>L. Giesecke</u> demonstrates the up-to-date site plan and traffic pattern. (refer to meeting packet)</p> <p><b>Discussion:</b>  <u>C. McGown</u> asks, can the buses queue along those two lanes near the rain garden?        S. Brennan confirms the buses can. They could start queueing all the way back to the intersection.  <u>M. Varakis</u> asks if we know how many buses are utilized at the middle school on a typical day.  <u>S. Meyer</u> replies for 12 buses.  <u>M. Varakis</u> states that hopefully, we will have more room than we have today.</p> <p><u>S. Meyer</u> states that during the executive meeting, we discussed relocating the playground closer to the basketball court so that the basketball court and the play area are close in proximity.</p>	Record

L. Giesecke suggests moving the playground north of the landscape berm, right outside the fourth-grade wing, taking advantage of that unprogrammed space, and maintaining the Flexible Greenspace for the PE classes.

S. Meyer likes the suggestion because the playground would be right outside their classroom. A good transition for the students.

S. Meyer asks about area 14 – Multipurpose field, has it been decided if that area will be grass or turf?

L. Giesecke confirms it is grass.

E. Moore states if interested, we can always do an add-alternate in exploring a synthetic turf field.

M. Varakis states that he thinks it's a smart play to at least evaluate it so we can understand the potential cost associated with synthetic turf.

T. Elmore states that if turf is a selected option, then that will increase the budget by an estimated 1 million dollars. It's a significant upgrade.

L. Giesecke explains that there will long long-term operational cost savings.

P. Duffy asks if there is any plan to account for pedestrian circulation along West Boylston Street, there is an existing sidewalk in front of the middle school leading up to the High school.

T. Elmore replies that the sidewalk will remain because we are not disturbing any of that area along West Boylston Street.

L. Giesecke comments there will be pedestrian connections to this within the project.

P. Duffy asked the committee what they thought about the limited pedestrian accommodation.

C. McGown states he is not sure if any upgrades would be part of this project.

C. Magliozzi states he thinks the design team should spend some time thinking about how they can improve the street.

P. Duffy states it might be a good opportunity to look at it within the scope of this project.

C. McGown agrees that the sidewalk is in disrepair and one way or another, it should be upgraded whether it's part of this project or not.

S. Brennan gives an overview of the implications of the MSBA, recently adopted amendments to their energy efficiency credits, and the impact of the new stretch code that the state of Massachusetts adopted.

**Old Base Requirement:** (PSR Design – Program No Longer Exist)

- LEED for Schools Certified or NE-CHPS Verified
- Exceed Current Energy Code by 10%
- Specific IAQ Points Required – LEED or NE-CHPS

**Previously for an Additional 2% reimbursement:**

- Exceed current energy code by 20%

**Base Requirement**

- LEED for Schools Silver or NE-CHPS Verified
- Meeting new Stretch Code
- Minimum IAQ Points – LEED or NE- CHPS
- For an additional 3%: meet OPT in Specialized Code

- For an additional 1%: Achieve two additional IAQ points in LEED or CHPS
- **4% additional available in total**

S. Brennan states our greatest opportunity to make and implement these changes is now, early in the process, so we can avoid costly change orders, but most important is locking in your percentage reimbursement rate and the scope of work at the end of Schematic Design.

#### **New Stretch Mandatory Code Requirements** (refer to meeting packet)

- C402.1.5- Envelope Backstop – New set of criteria. Not included in PSR Design. Computational software that allows us to understand how well the building is performing.
- C402.3- Rooftop Solar Ready – Owned in PSR Design.
- C402.5 Air Leakage Testing – New set of criteria. Not included PSR Design. Stretch code is now required. Rely on Mechanical ventilation and reduce the amount of leakage and thermal loss or infiltration into the building.
- C402.7 – Thermal Bridge Derating- New criteria. Not included in PSR Design. Derating the performance of your wall system
- C403 – Building Mechanical System w/ Energy Recovery – PSR Design had efficiency criteria that were met or exceeded. The new code raises the bar.
- C404- Service Water Heating - PSR Design had efficiency criteria that were met or exceeded. The new code raises the bar.
- C406 Additional Efficiency Measures- PSR Design had efficiency criteria that were met or exceeded. The new code raises the bar.
- EV Parking – PSR Design had efficiency criteria that were met or exceeded. The new code requires 10% of your spaces EV Wiring. PSR was close to 10%. Marginal change.

#### **Discussion:**

C. Magliozzi asked if you had any idea what the increase in electrical costs would be.

K. Seaman replies with the favorable cost of natural gas and high increase rates of electricity, the electric approach does add more cost compared to the burning of natural gas. The trend is steering away from fossil fuels.

C. Magliozzi asked if there is any way to get some data on lifecycle costs relative to equipment replacement, so the committee can evaluate before deciding. How soon does this decision have to be made?

K. Seaman shares that the green engineer has completed energy models for this school.

S. Brennan replies within two weeks, to a month.

T. Elmore recommends that LPA|A reach out to the Green Engineer, so they can demonstrate some operational cost modeling and some life cycle cost in the next meeting on October 3<sup>rd</sup>, 2023, so the committee can make an informed decision.

16.8	<p><b><u>Construction Delivery Method Discussion and Vote:</u></b></p> <p>T. Elmore briefly recaps the Facts, Advantages, and Disadvantages of each Construction Delivery Method, CM @ Risk (Chapter 149a) vs. Design Bid Build (Chapter 149)</p> <p><b><u>Discussion:</u></b>  <u>M. Ward</u> asks are Construction Managers (CM) able to manage the process of subcontractor competitive bidding.  <u>T. Elmore</u> confirms and explains that as a town you have 18 trade categories from mechanical, and electrical, to plumbing and so on, that are directly bid by the town to the filed sub-bidders'. Once the proposals are received, the accepted low-qualified bidder is then assigned to the CM. The CM is the one who owns the subcontractor at the time that you assign it to them. They also buy approximately 25 other trades independently with input from the team. We are involved in the de-scoping and the understanding of what they're procuring from a scope standpoint. Typically, that's where the OPM and the architect will represent the town and really understand what we're buying.</p> <p><u>M. Ward</u> is the CM fully transparent?  <u>T. Elmore</u> replies that it's a fully open-book process. If we want to see something, we get to see it.  <u>M. Ward</u> comments that we haven't done it before in this town but I'm willing to give it a try.  <u>C. Magliozzi</u> shares that he likes the transparency of CM@ Risk and if any problems arise, we can proactively resolve those problems. Whereas a Design Bid Built, we're forced to be combative, where we're forced to rely on the documents, and if we can't resolve the problem then it ends up in court. I come from a construction background, and we don't do Design Bid Built projects, we only do CM @ Risk projects.  <u>B. Delorey</u> commented that he agreed that the CM at Risk method is the way to go.  <u>M. Ward</u> asked if our current consultants, OPM and Designer have any experience with CM @ Risk.  <u>T. Elmore</u> states I have completed 8 public projects using CM @ Risk since 2004, I also have had numerous discussions with the IG's office regarding improving the process, so, I have extensive experience with CM@ @ risk and so does Eric Moore from LPA A, has numerous CM @ Risk projects. So, your team has the experience to do this.  <u>C. McGown</u> commented on past experiences with Design, Bid, and Build projects going to litigation and the Town not winning the legal cases, which M. Ward agreed with. The CM at Risk may proactively help the Town come to a more favorable conclusion at the end of the project.</p> <p>A motion was made by S. Meyer and seconded by B. Delorey for CM @ Risk (Chapter 149a) as the Construction Delivery Method.</p> <p><b>Roll Call Vote:</b> C. Magliozzi (Y), B. Delorey (Y), M. Ward (Y), S. Meyer (Y), C. McGown (Y), <b>Abstentions:</b> None                  Motion passes to use CM @ Risk, as the construction delivery method for this project.</p>	Record
16.8.1	<p><b>If CM at Risk is voted to proceed, the Designation of the Qualification, Proposal, and Interview voting members need to be established and approved.</b></p>	Record



T. Elmore explains the next couple of steps, submitting the MA Inspector General application, Designation of Qualifications, Proposals, and Interview. The voting members need to be established and approved for this process.

**1. MA Inspector General Application to use CM @ Risk as the Construction Delivery Method**

- Complete Application > Submit Application > 60 Days IG Application Review > IG Approval to use CM @ Risk

**2. Develop, issue, and review CM Risk Qualifications to get shortlisted.**

- Create a Request for Qualifications (RFS) > Approve and Issue RFQ > Receive CM Firm Qualifications > Review Qualifications and Select 3-4 firms to submit proposals.

**3. Develop, issue, and Review CM @ Risk Proposals/Interviews to select the CM**

- Create a Request for Proposal (RFP) > Approve and Issue RFP > Receive CM Firm Proposals > Score Proposals > Interview Firms > Negotiate and Award CM

**• CM Subcommittee Criteria**

- At Least (2) members from SBC/PBC, (1) member from OPM, and (1) member from Architect.
  - OPM Representative: Trip Elmore
  - LPA|A Representative: Eric Moore

C. McGown states that M. Moran is not present at this meeting, and we don't want to exclude him from tonight's decision for the CM subcommittee selection. We will be meeting in two weeks; we can vote then, on October 3<sup>rd</sup>.

16.9

**Community Outreach Update**

T. Elmore talks about public outreach.

- The project message needs to come from within the community.
- Keeping the public informed with accurate information
- Address Concerns and issues at local events
- There is one shot at getting this done, so the community needs to understand how important it is to vote.
  - There is no "costs nothing" approach, it only costs most in the future.
    - Example:
      - Spencer East Brookfield HS's original construction project budget was \$60 Million. The project failed to move forward.
      - 10 years later. The same project is now 112 million. Passed the local vote.

The point is that it only costs more if this project does not pass the first time and the need does not go away.

**Discussion:** None

15.10	<b>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting:</b> Discussion: None	Record
15.11	<b>Public Comment:</b> Discussion: None	Record
15.12	<b>Next Meeting:</b> 10.03.2023 – CMS Building Committee Remote @ 6:30PM – Remote via ZOOM 10.17.2023 – CMS Building Committee Remote @ 6:30 PM – Location: TBD 11.14.2023 – CMS Building Committee Remote @6:30 PM – Location TBD 12.19.2023 – CMS Building Committee Remote @6:30PM – Location: TBD  <b>Discussion:</b> None	Record
15.13	<b>Adjourn: 8:16 PM</b> motion was made by <u>M. Ward</u> and seconded by S. Meyer to adjourn the meeting.  <b>Discussion:</b> None; <b>Roll Call Vote:</b> C. Magliozzi (Y), M. Moran (Y), B. Delorey(Y) S. Meyer (Y), C. McGown (Y) <b>Abstentions:</b> None All in favor, the meeting is adjourned.	Record

Sincerely,

DORE + WHITTIER

Elias Grijalva

Assistant Project Manager

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.

# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: October 3, 2023  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 017  
Meeting Location: ZOOM  
Meeting Link: <https://us06web.zoom.us/j/85012813874?pwd=JVGtcGjmHI1J2WKZcziLhom370xmV6.1>  
Meeting ID: 850 1281 3874  
Passcode: 926603  
One tab Mobile: +16468769923,,85012813874#,\*926603# US (New York)

---

1. Call to Order & number of voting members present:
2. Previous Topics and Approval of September 19, 2023, Meeting Minutes:
3. Invoices and Commitments for Approval:
  - 3.1. DWMP invoice #014, for the month of September, in the amount of **\$15,000.00**
  - 3.2. LPA|A Amendment No.005, in the amount of **\$14,190.00**
  - 3.3. Budget Revision Request No.002, Request for Approval
4. Mechanical Systems Discussion and Vote
5. Construction Management @ Risk Subcommittee Selection
6. OIG Application Submission Permission
7. Construction Management @ Risk RFQ Draft Discussion
8. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting.
9. Public Comment
10. Next Meetings
11. Adjourn:

PERMANENT BUILDING COMMITTEE  
SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
MEETING MINUTES



Project:	Clinton Middle School	Project No:	202000640305
Subject:	School Building Committee Meeting	Meeting Date:	10/03/2023
Location:	ZOOM	Time:	6:30 PM
Distribution:	Attendees, Project File	Prepared By:	E. Grijalva
MSBA Module:	4- Schematic Design		

---

**Meeting Agenda**

1. Call to Order & Number of Voting Members
2. Previous Topics and Approval of September 19, 2023, MM
3. Invoices and Commitments for Approval
4. Mechanical Systems Discussion and Vote
5. Construction Management @ Risk Subcommittee Selection
6. OIG Application Submission Permission
7. Construction Management @ Risk RFQ Draft Discussion
8. Other Topics not Reasonably Anticipated 48 hours prior to the meeting
9. Public Comment
10. Next Meeting
11. Adjourn

**Name**

**Affiliation**

Steven Meyer*	Superintendent – PBC Member
Chris McGown *	Chair of PBC- Head of DPW
Michael Moran*	PBC Member
Brian Delorey*	PBC Member
Brendan Bailey	School Committee Chair
Brian Farragher	Director of Facilities
Matthew Varakis	School Committee Vice-Chair
Phil Duffy	Director of Community & Econ.
Trip Elmore	DWMP- Project Director
Elias Grijalva	DWMP – Assistant PM
Peter Caruso	LPA A – Project Manager
Sean Brennan	LPA A – Project Architect
Anthony Hardman	Green Engineer
Carrie Havey	Green Engineer
Kevin Seaman	Seaman Engineer
J Blume	Public – Fontaine Bros
Mark Abdella	Public – Fontaine Bros
Josiah Herbert	Public – Shawmut Design
Jeff Cammuso	Public – Shawmut Design

**\*PBC Voting Members**

Item No	Description	Action
17.1	<p><b>Call to Order:</b> 6:36 PM meeting was called to order by PBC Chair, C. McGown with <b>5</b> of <b>7</b> members in attendance.</p>	Record
17.2	<p><b>Previous Topics &amp; Approval of September 19, 2023, Meeting Minutes:</b> A motion to approve the 09/19/2023 meeting minutes was submitted by S. Meyer and seconded by B. Delorey.  <b>Discussion:</b> None.  <b>Roll Call Vote:</b> B. Delorey(Y) S. Meyer (Y), M. Moran (Y), C. McGown (Y)  <b>Abstentions:</b> None            All in favor, motion passes, September 19, 2023, meetings are certified as approved.</p>	Record
	<p><b>Invoices and Commitments for Approval</b></p> <p><b><u>Invoice 1: DWMP Invoice #014, for the month of September, in the amount of \$15,000.00</u></b>            A motion was made by S. Meyer and seconded by B. Delorey for the approval of the DWMP September invoice.   <b>Discussion:</b> None.  <b>Roll Call Vote:</b> B. Delorey(Y) S. Meyer (Y), M. Moran (Y), C. McGown (Y)  <b>Abstentions:</b> None            All in favor, motion passes to approve DWMP September invoice.</p> <hr/> <p><b><u>LPA A Amendment No.005 Request for Approval, in the amount of \$14,190.00.</u></b>            T. Elmore states this amendment is a result of additional services relative to proving the Traffic Analysis that the MSBA wants us to conduct.             A motion was made by B. Delorey and seconded by S. Meyer for the approval of the LPA A Amendment No.005.   <b>Discussion:</b> None.  <b>Roll Call Vote:</b> B. Delorey(Y) S. Meyer (Y), M. Moran (Y), C. McGown (Y)  <b>Abstentions:</b> None            All in favor, motion passes to approve LPA A Amendment No.005.</p> <hr/> <p><b><u>Budget Revision Request (BRR) No.002 Request for Approval in the amount of \$10,465.00</u></b>            T. Elmore explains that this BRR form is to approve moving money within the budget to cover Designer's Amendment No.005. Moving \$10,465.00 from the other category to the Environmental and Site category.             A motion was made by S. Meyer and seconded by M. Moran for the approval of the LPA A Amendment No.005.  <b>Discussion:</b> None.  <b>Roll Call Vote:</b> B. Delorey(Y) S. Meyer (Y), M. Moran (Y), C. McGown (Y)  <b>Abstentions:</b> None            All in favor, motion passes to approve Budget Revision Request No.002.</p>	Record

17.4

**Mechanical Systems Discussion and Vote**

Record

S. Brennan introduces the consulting engineers that are present in the meeting; Carrie Havey, Anthony Hardman from the Green Engineer, and Kevin Seam from Seaman Engineering. He then recaps what was discussed in the last meeting as well as provides an Order of Magnitude understanding of the cost to go from the New Stretch Code to the Updated Code. the anticipated lifecycle, and the usable life of these new fixtures.

- MSBA revised its funding regarding green incentive points. The 2% that was previously qualified no longer exists. MSBA offered a compliance pathway towards getting an additional 4% points overall.
- New Stretch Mandatory Code:
  - **C402.1.5**- Envelope Backstop, **C402.3**- Rooftop Solar Ready, **C402.5** Air Leakage Testing, **C402.7**- Thermal Bridge Derating, **C403** – Building Mechanical System w/ Energy Recovery, **C404**- Service Water Heating, **C406** Additional Efficiency Measures, **EV Parking**
- The New Stretch Code is an MSBA Requirement, whether the town has adopted it or not and we have to meet a Target Performance Pathway called TEDI. This is the biggest step to meet the New Stretch Code. It's a smaller step to get into the specialized Opt-in Code with all electrified systems.
- Dual Fuel Option requires putting PV on the roof and being electric ready, meaning running conduits and providing space for additional switch gears or panels that you might need to require in the future. You would also have to bring electrical service that would be large enough to surface those future devices.
- PSR Design
  - MSBA Reimbursement: \$81.75M
    - Included 2% Energy Efficiency Incentive Points
- Stretch Mandatory Code
  - MSBA Reimbursement: \$83.25M
    - Includes 2% loss Energy Efficiency Incentive Points
    - + Stretch Code improvements
    - Insulation Increase (to meet TEDI)
    - Triple Panel Window (to meet TEDI)
- Opt-In Code (Stretch code plus the following)
  - MSBA Reimbursement: \$80.25M
    - Includes 4% Energy Efficiency Incentive Points
    - + Stretch Code improvements
  - Path 1
    - All Electric HVAC
    - Electric Domestic Hot Water
    - Electric Cooking Equipment
    - Hybrid fossil electric HVA
    - Full electric infrastructure for future retrofit
    - Solar PV

**S. Brennan** demonstrates a real-life example of data that was collected on gas and electricity usage from The Town of Shrewsbury, who was nice enough to share all their usage, payment terms, and Kw over the past few years. We averaged the numbers out and looked at the consumption for the building heating and what that cost would be in Clinton Dollars. **The biggest question is whether we are going all-electric or trying to keep fossil fuels in the building and what would impact operating costs.**

- Example: Beal Elementary, Shrewsbury MA
  - 142,000 SQF Building
  - Hybrid Fuel Systems
  - Rooftop Package unit with Perimeter fin tube radiation system
    - Estimated Additional Operating cost for Clinton: \$28,000.00

<b>Systems type</b>	<b>Fuel</b>	<b>Service Life</b>
DHW Boilers	Gas	25+/- Years
DHW Boilers	Electric	15+/- Years
Heating Boilers	Gas	25 +/- Years
Air Source Heat	Electric	15+/- Years

T. **Elmore** asks how much PV cost for a building of this size.

A. **Hardman** replies that the rule of thumb is \$3 per watt.

C. **McGown** states we have a project about a mile away that requires solar panels. Is there a way to tie these two projects together where we could use solar to bring the power to this building?

S. **Brennan** states I've never dived that deep into it. What I can say is Beal Elementary School, did this very thing, put in a PV system in their landfill. They voted at the town level to allocate 100% of their coverage for their electrical use. So that building in essence is Net Zero electric based on their local community grid.

C. **Havey** comments you can do offsite PV if it's allocated to this project. I think the broader question is, does that work per the energy code?

A. **Hardman** states he believes off-site is permissible for code.

S. **Brennan** states the PSR estimate did not have PV panels in it. We'll be looking at an estimated \$1.5 million add for a 500 Kw PV system, cost could increase if canopies are added. The existing service to the school is a 2000-amp service.

M. **Moran** asked what the new service would be.

S. **Brennan** confirms the new service would be 4000-amp.

K. **Seaman** states in the PSR Design the VRF systems are in office admin and nursing areas, then for the rest of the building has a mix of air handlers fed by air-source heat pumps for large spaces and chilled water fed style displacement systems with hot water radiation for classrooms. Chilled and hot water would be fed by an air source heat pump chiller/heater. The chiller/heater would make warm enough water to utilize multi-tier fin-tube, coils, or radiant heat. The decision is whether you will with a gas boiler or an electric boiler for supplemental heat.

P. **Duffy** asks if you go all-electric are you limited to only heat pumps for heating? Can you use an electrical lead to generate a hydronic system?

S. **Brennan** replies that we could do Geothermal.

	<p><b>K. Seaman</b> states as far as electric resistance heat, you're limited to how much of that you can use such as a cabinet heater, it would also be expensive.</p> <p><b>A. Hardman</b> talks about the incentives between air sources and geothermal.</p> <p><b>T. Elmore</b> talks about Lexington Hasting School's Geothermal system.</p> <p><b>M. Moran</b> asked what the cost was and what was the outcome as far as electric usage.</p> <p><b>T. Elmore</b> states the Green Engineer did a study on the payback. Geothermal costs about 2.5 million for roughly a building of this size and there was never a payback.</p> <p><b>S. Meyer</b> comments that I think if we were building a system that was primarily future-proof, it would make sense to go full electrification.</p> <p>A motion was made by <b>S. Meyer</b> and seconded by <b>M. Ward</b> to pursue full electrification.</p> <p><b>Discussion:</b></p> <p><b>M. Moran</b> comments there are too many variables with electrification. 67% of electricity generated in Massachusetts is by gas.</p> <p><b>C. McGown</b> comments it might be the case today, but I doubt it will be in 5-10 years.</p> <p><b>A. Hardman</b> states if you go hybrid, we're still doing all the infrastructure for a fully electric building, so we are duplicating cost.</p> <p><b>Roll Call Vote:</b> B. Delorey(Y) S. Meyer (Y), M. Ward (Y), C. McGown (Y)</p> <p><b>Abstentions:</b> M. Moran</p> <p>All in favor, motion passes to proceed with full electric mechanical systems.</p>	
17.5	<p><b><u>Construction Management @ Risk Subcommittee Selection</u></b></p> <p>T. Elmore recaps the outcome of the last PBC Meeting. The Town voted to go CM @ Risk as the Construction Delivery Method for this project. One of the components of this process is selecting a CM @ Risk subcommittee.</p> <p><b>CM @ Risk Subcommittee</b></p> <ul style="list-style-type: none"> <li>• Owners Project Manager (OPM) Representative – Trip Elmore – Project Director</li> <li>• Designer Presentative – Eric Moore – Senior Project Architect</li> <li>• <b>Town of Clinton</b> <ul style="list-style-type: none"> <li>○ <b>S. Meyer</b></li> <li>○ <b>M.Moran</b></li> </ul> </li> </ul> <p><b>Discussion:</b> None</p>	Record



<p>17.6</p>	<p><b><u>OIG Application Submission Permission :</u></b></p> <p>T. Elmore states that we would like Procurement to review the OIG Application if possible because we are submitting the application under the Town of Clinton.</p> <p>A motion was made by S. Meyer and seconded by M. Moran to approve the OIG Application pending final review by M. Ward.</p> <p><b>Discussion:</b> None  <b>Roll Call Vote:</b> B. Delorey(Y) S. Meyer (Y), M. Moran (Y), M. Ward (Y), C. McGown (Y)  <b>Abstentions:</b> None      All in favor, motion passes to approve the OIG Application pending final review.</p>	<p>Record</p>
<p>17.7</p>	<p><b><u>Construction Management @ Risk RFQ Draft Discussion</u></b></p> <p>T. Elmore comments that we have drafted a standard Request for Qualification (RFQ) that was shared prior to this meeting. From a procurement standpoint, we would have to advertise this once we are authorized to put the RFQ on the street.</p> <p>We would like to release the RFQ by next Wednesday, October 11, 2023, so it would need to go into the Central Register by Thursday, October 5<sup>th</sup>, and we would also need to put out a local ad as well as put an ad on COMMBUYS.</p> <p>M. Ward comments to get an ad in the local paper for next week, we would have to submit an ad this Friday by Noon. I can do COMMBUYS once I have the general information.</p> <ul style="list-style-type: none"> <li>• Prepare and Advertise the RFQ: <b>October 05, 2023</b></li> <li>• RFQ Issue Date: <b>October 11, 2023</b></li> <li>• RFQ Deadline: <b>November 02, 2023</b></li> </ul> <p>A motion was made by B. Delorey and seconded by M. Moran to issue all the publications according to the schedule that was discussed.</p> <p><b>Discussion:</b>  <b>M. Moran</b> asked if this is enough time for CMs to submit their qualifications by November 2<sup>nd</sup>.  <b>T. Elmore</b> confirms this is sufficient time.  <b>Roll Call Vote:</b> B. Delorey(Y) S. Meyer (Y), M. Moran (Y), M. Ward (Y), C. McGown (Y)  <b>Abstentions:</b> None      All in favor, motion passes to approve issuing the publications.</p>	<p>Record</p>

17.8	<p><b>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting:</b>          T. Elmore mentions that LPA A received preliminary survey information on the easement location from their surveyor. Within the next couple of days, we will receive the final survey that can be forwarded to National Grid.  <b>Discussion:</b> None</p>	Record
17.9	<p><b>Public Comment:</b>  <b>Discussion:</b> None</p>	Record
17.10	<p><b>Next Meeting:</b>          10.17.2023 – CMS Building Committee Remote @ 6:30 PM – In-Person @ Clinton Middle School          11.14.2023 – CMS Building Committee Remote @6:30 PM – Location TBD          12.19.2023 – CMS Building Committee Remote @6:30PM – Location:TBD  <b>Discussion:</b> None</p>	Record
17.11	<p><b>Adjourn:</b> 8:16 PM a motion was made by S. Meyer and seconded by M. Moran to adjourn the meeting.  <b>Discussion:</b> None.  <b>Roll Call Vote:</b> B. Delorey(Y) S. Meyer (Y), M. Moran (Y), M. Ward (Y), C. McGown (Y)  <b>Abstentions:</b> None          All in favor, the meeting is adjourned.</p>	Record

Sincerely,  
 DORE + WHITTIER

Elias Grijalva  
 Assistant Project Manager  
 Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.

**PERMANENT BUILDING  
COMMITTEE SCHOOL  
BUILDING SUB-COMMITTEE  
MEETING AGENDA**



Meeting Date: October 17, 2023  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 018  
Location: Clinton Middle School - Library  
Prepared By: Elias Grijalva

---

1. Call to Order & number of voting members present
2. RFP for Architectural Services for Renovations to the Senior Center Carriage House
3. Senior Center Carriage Housing Invoice No.003 for Approval, in the amount of \$49,400.00
4. Previous Topics & Approval of October 03, 2023 Meeting Minutes
5. Invoices and Commitment for Approval:
  - LPA|A September Invoice, in the amount of \$46,610.00
6. LPA|A Update – Exterior Building Material Sample Review
7. Construction Management @ Risk Update
8. All Electric versus Hybrid Fuel Building Systems Discussion
9. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting
10. Public Comment
11. Next Meetings
12. Adjourn

PERMANENT BUILDING COMMITTEE  
SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
MEETING MINUTES



Project:	Clinton Middle School	Project No:	20200640305
Subject:	School Building Committee Meeting	Meeting Date:	10/17/2023
Location:	100 West Boylston St, Clinton MA 01510	Time:	6:30 PM
Distribution:	Attendees, Project File	Prepared By:	E. Grijalva
MSBA Module:	4- Schematic Design		

---

**Meeting Agenda**

1. Call to Order & Number of Voting Members
2. RFP for Architectural Services for Reno to the Sr. Cntr Carriage House
3. Sr. Center Carriage Housing Invoice No.003 for Approval
4. Previous Topics and Approval of October 03, 2023, MM
5. Invoices and Commitments for Approval
6. LPA|A Update – Exterior Building Material Sample Review
7. Construction Management @ Risk Update
8. All Electric versus Hybrid Fuel Building System Discussion
9. Other Topics not Reasonably Anticipated 48 hours prior to the meeting
10. Public Comment
11. Next Meeting
12. Adjourn

**Name**

**Affiliation**

Steven Meyer*	Superintendent – PBC Member
Chris McGown *	Chair of PBC- Head of DPW
Michael Moran*	PBC Member
Brian Delorey*	PBC Member
Chris Magliozzi*	Vice Chair of PBC
Michael Ward*	Town Administration – PBC Member
Brendan Bailey	School Committee Chair
Brian Farragher	Director of Facilities
Shane McCarthy	Teacher
Bill McGrail	Finance Committee Co-Chair
Phil Duffy	Director of Community & Econ.
Trip Elmore	DWMP- Project Director
Elias Grijalva	DWMP – Assistant PM
Peter Caruso	LPA A – Project Manager
Jeff Camuso	Shawmut

**\*PBC Voting Members**

Item No	Description	Action
18.1	<p><b>Call to Order:</b> 6:32 PM meeting was called to order by PBC Chair, C. McGown with 6 of 7 members in attendance.</p>	Record
18.2	<p><b>RFP for Architectural Services for Renovations to the Senior Center Carriage House</b>  <b>M. Ward</b> explains we're looking to redesign the carriage house into a ADA compliant fitness center.</p> <p>A motion to approve the RFP Architectural Services was submitted by <b>S. Meyer</b> and seconded by <b>M. Ward</b>.  <b>Discussion:</b> None; <b>Vote:</b> All in favor; <b>Abstention:</b> None  All in favor motion passes to move forward with the RFP for Architectural Services.</p>	Record
18.3	<p><b>Senior Center Carriage Housing Invoice No.003 for Approval, in the amount of \$49,400.00</b>  A motion to approve Fox Painting Invoice No.003 was submitted by <b>M. Ward</b> and seconded by <b>S. Meyer</b>.  <b>Discussion:</b> None; <b>Vote:</b> All in favor; <b>Abstentions:</b> None  All in favor, motion passes, to pay Fox Painting Invoice No.003.</p>	Record
18.4	<p><b>Previous Topics &amp; Approval of October 03, 2023, Meeting Minutes:</b> A motion to approve the 10/03/2023 meeting minutes was submitted by <b>S. Meyer</b> and seconded by <b>M. Ward</b>.  <b>Discussion:</b> None; <b>Vote:</b> S. Meyer(Y), M. Moran (Y), M. Ward (Y), B. Delorey(Y), C. McGown(Y);  <b>Abstentions:</b> C. Magliozzi (Y)  All in favor, motion passes, October 03, 2023, meetings are certified as approved.</p>	Record
18.5	<p><b>Invoices and Commitments for Approval</b>  <u>Invoice 1: LPA A Invoice #009, for the month of September, in the amount of \$46,610.00</u>  A motion was made by <b>S. Meyer</b> and seconded by <b>M. Ward</b> for the approval of the LPA A September invoice.  <b>Discussion:</b> None; <b>Vote:</b> All in favor; <b>Abstentions:</b> None  All in favor, motion passes to approve LPA A September invoice.</p>	Record
18.6	<p><b>LPA A Update – Exterior Building Material Sample Review</b>  <b>E. Moore</b> updates the committee on where LPA A stands in the MSBA process, Module 4: Schematic Design and demonstrates some interior and exterior physical material samples.</p> <p><b>Front Entrance</b> - canopy with skylight at the roof – Let's natural light come in</p> <ul style="list-style-type: none"> <li>○ <u>Base Material</u> – Calcium Silicate (Basis of Estimating in Schematic Design) <ul style="list-style-type: none"> <li>▪ Durable material, last a long time, good quality materials,</li> </ul> </li> <li>○ Next layer is <u>Brick Material</u> <ul style="list-style-type: none"> <li>▪ Large format brick, faster installation, Durable</li> </ul> </li> <li>○ Next layer is <u>Aluminum metal composite/ Fiber Cement Panels</u> <ul style="list-style-type: none"> <li>▪ Same installation methods, Durable</li> </ul> </li> </ul> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• South High Community School <ul style="list-style-type: none"> <li>○ Exterior: <ul style="list-style-type: none"> <li>▪ Brick Masonry, Curtainwall, and composite metal panel at main entry</li> </ul> </li> </ul> </li> </ul>	Record

- Fiber Cement panel, and mineral wool insulation exterior wall
- PVC Roofing and PV System
- Kalwall Skylight with aluminum frame
- Interior:
  - Gym: Harwood flooring system, Kalwall panels, gym equipment, telescopic bleachers, CMU, and high impact GWB walls at Gym
  - Corridor: Hollow metal frames, corridor lockers, tile wall surface and linoleum flooring
  - Band Room: Acoustical Wall panels, and ceiling tile
  - Cafeteria: Linoleum flooring, LED Lighting, stainless steel column covers and Kalwall
  - Science Lab: Mobile wood casework with epoxy counters, steel experiment support frame and casters
  - Common Room: Carpet Tile, ACT, porcelain wall tile, and interactive project
  - Typical Classroom: Linoleum flooring, GWB walls, built in casework, ACT and indirect LED lighting, markerboard and interactive project
- Auburn Middle School- traditional
  - Exterior:
    - Precast Concrete, brick masonry, and insulated metal wall metals at main entry
    - Precast pavers, tabled driveway, and bollards at outside dining
    - Kalwall skylight at Lobby
  - Interior:
  - Gym: Harwood flooring system, Kalwall panels, gym equipment, telescopic bleachers, CMU, and high impact GWB walls at Gym
  - Lobby: Terrazzo floor tile, entry mat carpet tile, plastic laminate wall panels, and Kalwall skylight

**C. Magliozzi** asks what is the purpose of the different types of materials? Why wouldn't it be all one type of material?

**E. Moore** replies with it's an aesthetic thing and masonry is heavy material, using the aluminum or fiber cement panels are much lighter and they don't require the same sort of structural support that masonry requires.

**C. McGown** asks if the cost of brick is more expensive than the other materials?

**E. Moore** states brick is less expensive. We were judicious about where we placed the metal panels. There is a higher percentage of brick versus the metal panels, but this being the entrance it's something that creates some interest and a good opportunity to use color.

**M. Moran** asks when do we value engineering?

**T. Elmore** replies we value engineer all the way through. We value engineer at the end of Schematic Design, again in Design Development, at 60% Construction documents, and 90% construction documents.

**B. McGrail** asks how old is the oldest building that has the aluminum metal composite.

**E. Moore** states we've been using this material for 20 years.

	<p><b>C.McGown</b> states that our town is a mill town, all brick buildings and I would like to see more brick on this building.</p>											
<p>18.7</p>	<p><b><u>Construction Management @ Risk Update</u></b></p> <p><b>T. Elmore</b> shares that we have ten Construction Managers that have expressed interest in this project. We'll be selecting the <b>top</b> 3-4 qualified firms not just qualified firms. As mentioned in the RFQ the decision is made final by the committee. We will make results known after an award and we'll be sharing the scoring sheets and any other information that we might accumulate along the way.</p> <p><b>CM Tracking Log</b></p> <table border="0"> <tr> <td>1. Fontaine Bros</td> <td>6. Barr &amp; Barr</td> </tr> <tr> <td>2. Consigli</td> <td>7. W.T Rich</td> </tr> <tr> <td>3. Bond Building</td> <td>8. Shawmut Design</td> </tr> <tr> <td>4. Suffolk</td> <td>9. Brait Builders</td> </tr> <tr> <td>5. Daniel O'Connell Building</td> <td>10. Lee Kennedy</td> </tr> </table> <p><b>Discussion:</b></p> <p><b>S. Meyer</b> asks when are proposals due?</p> <p><b>T. Elmore</b> states we are accepting proposals on November 2<sup>nd</sup>. The CM subcommittee will independently read and score the Statement of Qualifications to decide who the best qualified firm to invite them to submit a Request for Proposals (RFP). This is an attractive project for many.</p> <p><b>B. McGrail</b> asks what makes this project attractive.</p> <p><b>T. Elmore</b> explains it's the right size project, the ability to bond the work, location from route 495, proximity to several sub-contractors in the area, it's a new construction versus a renovation project, and the site is basically flat.</p> <p><b>M.Moran</b> asks who determines the fee for the proposals.</p> <p><b>T. Elmore</b> explains there are two things in the proposals that get to stick. One is a percentage of the cost of the work the company will deem as a fee which can range from 2 to 3 percent. Second, we also receive staff rates, so we understand the structure of different personnel rates.</p>	1. Fontaine Bros	6. Barr & Barr	2. Consigli	7. W.T Rich	3. Bond Building	8. Shawmut Design	4. Suffolk	9. Brait Builders	5. Daniel O'Connell Building	10. Lee Kennedy	<p>Record</p>
1. Fontaine Bros	6. Barr & Barr											
2. Consigli	7. W.T Rich											
3. Bond Building	8. Shawmut Design											
4. Suffolk	9. Brait Builders											
5. Daniel O'Connell Building	10. Lee Kennedy											
<p>18.8</p>	<p><b><u>All Electric versus Hybrid Fuel Building System Discussion</u></b></p> <p><b>M.Moran</b> states going all electric will cost more in the long run. You can be looking at a \$500,000 electric bill.</p> <p><b>C.McGown</b> states we had the designer's sub-consultant do a comparison cost analysis electric versus hybrid fuel systems and they came back with a difference of \$35,000.00 not \$500,000.00.</p> <p><b>B. Delorey</b> states regardless of if we go electric or hybrid, we need to buy bigger switchgear, we must run all conduits, allocate the space, and the generator must be sized for future load. We're already 90% there.</p> <p><b>E. Moore</b> states that there has been a change on Mass save, they will no longer fund gas equipment after January 1,2024.</p>	<p>Record</p>										

18.9	<p><b><u>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting:</u></b>  <b>Discussion:</b> None</p>	Record
18.10	<p><b><u>Public Comment:</u></b></p> <p><b>M.Ward</b> informs the committee that we submitted the initial survey to National Grid and their response was positive and they were satisfied with the information they received, so because of that they looking to circumvent their step-by-step process and just go to final approval to get the transaction. They will require a final plan to bring to the planning board. The planning board meetings are on the first Tuesday of every month. The next meeting is takin place on November 7<sup>th</sup>.</p> <p><b>T. Elmore</b> states we can have the final plans within two weeks and requests that M. Ward add this to the next board meeting agenda.</p> <p><b>Discussion:</b> None</p>	Record
18.11	<p><b><u>Next Meeting:</u></b>          11.14.2023 – CMS Building Committee Remote @6:30 PM – via Zoom          12.19.2023 – CMS Building Committee Remote @6:30PM – Location: TBD</p> <p><b>Discussion:</b> None</p>	Record
18.12	<p><b><u>Adjourn:</u></b> 8:16 PM a motion was made by <b>B. Delorey</b> and seconded by <b>C. Magliozzi</b> to adjourn the meeting.</p> <p><b>Discussion:</b> None; <b>Vote:</b> All in favor; <b>Abstentions:</b> None          All in favor, the meeting is adjourned.</p>	Record

Sincerely,

**DORE + WHITTIER**

Elias Grijalva

Assistant Project Manager

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.



# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: November 14, 2023  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 019  
Location: ZOOM  
Meeting Link: <https://us06web.zoom.us/j/81892529824?pwd=yZ4Zrnfld5v1ub4o2lGWn5Bagt75P.1>  
Meeting ID: 818 9252 9824  
Passcode: 163860  
One Tab Mobile: +13092053325,,81892529824#,,,,\*163860# US  
Prepared By: Elias Grijalva

---

1. Call to Order & number of voting members present
2. Column Software PBC Invoice for Approval, in the amount of \$39.60
3. Previous Topics & Approval of October 17, 2023, Meeting Minutes
4. Invoices and Commitment for Approval
  - DWMP Invoice No.015, for the month of October, in the amount of \$15,000.00
  - LPA|A Invoice No.010, for the month of October, in the amount of \$64,485.00
5. LPA|A Update – Discussion on Building Control Systems
6. Construction Management @ Risk Update
7. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting
8. Public Comment
9. Next Meetings
10. Adjourn

PERMANENT BUILDING COMMITTEE  
 SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
 MEETING MINUTES



Project:	Clinton Middle School	Project No:	20200640305
Subject:	School Building Committee Meeting	Meeting Date:	11/14/2023
Location:	ZOOM	Time:	6:30 PM
Distribution:	Attendees, Project File	Prepared By:	E. Grijalva
MSBA Module:	4- Schematic Design		

**Meeting Agenda**

1. Call to Order & Number of Voting Members
2. Column Software PBC Invoice for Approval
3. Previous Topics and Approval of October 17, 2023, MM
4. Invoices and Commitments for Approval
5. LPA|A Update – Discussion on Building Control Systems
6. Construction Management @ Risk Update
7. Other Topics not Reasonably Anticipated 48 hours prior to the meeting
8. Public Comment
9. Next Meeting
10. Adjourn

<b>Name</b>	<b>Affiliation</b>
Steven Meyer*	Superintendent – PBC Member
Chris McGown *	Head of DPW - Chair of PBC
Michael Moran*	PBC Member
Brian Delorey*	PBC Member
Chris Magliozzi*	Vice Chair of PBC
Michael Ward*	Town Administration – PBC Member
Matthew Varakis	School Committee- Vice Chair
Brian Farragher	Director of Facilities
Shane McCarthy	Teacher
Becky Tollis	CMS Board Member
Pam Gaw	School Committee Member
Matt Wilder	Public
Jamie J.	Public
Jeremiah Driscoll	Public
Luke Hickey	Public
Trip Elmore	DWMP- Project Director
Elias Grijalva	DWMP – Assistant PM
Peter Caruso	LPA A – Project Manager
Kevin Seaman	Seaman Engineering   Mechanical
Azim Rawji	ART Engineering   Electrical
Christine McCall	Consigli Construction
David Fontaine Jr	Fontaine Bros
Beth Paulson	Fontaine Bros
Mark Abdella	Fontaine Bros
Jamie Blume	Fontaine Bros
Christian Riordan	Suffolk Construction
Josiah Herbert	Shawmut Design & Construct.

**\*PBC Voting Members**

Item No	Description	Action
19.1	<p><b>Call to Order: 6:33PM</b> meeting was called to order by PBC Chair, C. McGown with 6 of 7 members in attendance.            *M. Ward joined the meeting late.</p>	Record
19.2	<p><b>Column Software PBC Invoice for Approval, in the amount of \$39.60</b></p> <p>A motion to approve the Column Software Invoice was submitted by <b>B. Delorey</b> and seconded by <b>C. Magliozzi</b>.  <b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, motion passes, to pay Column Software Invoice.</p>	Record
19.3	<p><b>Previous Topics &amp; Approval of October 17, 2023, Meeting Minutes:</b></p> <p>A motion to approve the 10/17/2023 meeting minutes was submitted by <b>S. Meyer</b> and seconded by <b>B. Delorey</b>.  <b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, motion passes, October 17, 2023, meetings are certified as approved.</p>	Record
19.4	<p><b>Invoices and Commitments for Approval:</b></p> <p><u>Invoice 1: DWMP Invoice #015, for the month of October, in the amount of \$15,000.00</u>            A motion was made by <b>S. Meyer</b> and seconded by <b>B. Delorey</b> for the approval of the DWMP October invoice.  <b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve DWMP October invoice.</p> <p><u>Invoice 2: LPA A Invoice #010, for the month of October, in the amount of \$64,485.00</u>            A motion was made by <b>B. Delorey</b> and seconded by <b>C. Magliozzi</b> for the approval of the LPA A October invoice.  <b>Discussion:</b> None; <b>Roll Call Vote:</b> Vote: B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve LPA A October invoice.</p>	Record

19.5	<p><b><u>LPA A Update – Discussion on Building Control Systems</u></b></p> <p><b>P. Caruso</b> introduces Kevin Seaman, mechanical engineer from Seaman Engineering who discusses the mechanical controls.</p> <p><b><u>Mechanical Controls:</u></b> What makes a Building Automated System (BAS) truly open?</p> <ul style="list-style-type: none"><li>• Serviced by multiple contractors.</li><li>• Open protocol – multiple people can service it and get into the software.</li><li>• No licensing restriction</li><li>• Thin Client Access (web browser) – Access the system anywhere in the world.</li><li>• Replacement controllers available for purchase</li><li>• Affordable and accessible software tools</li><li>• Access to factory training</li></ul> <p>Truly Open Systems have all Three.</p> <ul style="list-style-type: none"><li>• <b>Open Protocol</b><ul style="list-style-type: none"><li>○ Characteristics are published and may be used freely.</li><li>○ Often misinterpreted as interchangeable with open systems</li><li>○ Bacnet standard</li></ul></li><li>• <b>Open Procurement</b><ul style="list-style-type: none"><li>○ Anyone can purchase hardware. No restriction.</li></ul></li><li>• <b>Open Service</b><ul style="list-style-type: none"><li>○ Tools required to work on a system are available to anyone.</li><li>○ Anyone can serve.</li></ul></li><li>• <b>Niagara Interoperability Conformance Statement (NICS)</b><ul style="list-style-type: none"><li>• <u>Written into the Specifications – forces away from proprietary system.</u></li></ul></li></ul> <p><u>Locked In Manufacturers:</u></p> <ul style="list-style-type: none"><li>• Johnson Controls, Honeywell, Siemens, Trane, Alberton, automated logic</li></ul> <p><u>Open Manufactures:</u></p> <ul style="list-style-type: none"><li>• KMC Controls, VYkon, Distech Controls, Facility Explorer, Niagara 4, Honeywell Webs</li></ul> <p><b>M.Moran</b> asks who does the updates to the software when you have an open system.</p> <p><b>K. Seaman</b> states we set up this system in a way where you can get a service contract and if that vendor doesn't work out, you can hire a different vendor.</p> <p><b>P. Caruso</b> states that Kevin can also specify training programs in the specifications to suit the school's needs, for example a recording, for training purposes.</p> <p><b>C. Magliozzi</b> asks what is the lifecycle of this technology? How fast will this technology go obsolete?</p> <p><b>K. Seaman</b> replies with the sensors and thermostats are durable, the co2 sensor has a 10-year warranty. In 10-years the devices will start to wear out, and you'll need to replace them, but maybe by then there will new technology that works better.</p> <p><b>M.Moran</b> asks who overs the commissioning agent?</p>	Record
------	--	--------

**T. Elmore** replies that the MSBA covers the cost of the commissioning agent as part of their commitment to the projects, and they have a pool of around 10-20 commission agents.

**Lighting Controls:** Interior lighting shall be controlled with an automatic control device to shut off building lighting in all spaces and shall function on either:

- A scheduled basis using a time of day operated control device that turns lighting off at specific programmed times; or
- An occupant sensor that shall turn lighting off within 30 minutes of an occupant leaving a space.
- An unscheduled basis by occupant intervention
- Each space shall have at least one control device to independently control general lighting. Shall be activated manually or automatically by sensing an occupant.
- Each perimeter office shall have manual control to uniformly reduce the connected lighting load by 50% or shall be provided with automatic daylighting controls.
- Each perimeter classroom shall have a manual control to uniformly reduce the connected lighting load by 50% and shall be provided with automatic daylighting controls. Classrooms shall have the ability to dim or switch off lights at the presentation/teaching front wall. Lighting controls shall be integrated with the HVAC controls.
- Emergency LED egress and exit lighting shall be provided and will be fed from the emergency life safety branch of the emergency/standby system.

**Lighting Controls LEED Requirements - Option 1**

For all shared multioccupant spaces, meet all the following requirements.

- Have in place multizone control systems that enable occupants to adjust the lighting to meet group needs and preferences, with at least three lighting levels or scenes. (Off/On/Mid-level)
- Lighting for any presentation or projection wall must be separately controlled.
- Switches or manual controls must be located in the same space as the controlled luminaries. A person operating the controls must have a direct line of sight of the controlled luminaries.
- The lighting control will be integrated with the HVAC control. For example, if the sensors do not detect occupants in space within 30 minutes, then the lights shut off. This can be tied in with the HVAC system by also turning it down to a minimum or shutting off.

**T. Elmore** asks if the lighting controls are locally controlled?

**P. Caruso** replies, yes, it is a LEED requirement for all shared multizone spaces.

**T. Elmore** asks, can you control the system with your phone?

**A. Rawji** replies, you can give individual people permission to control the system.

**C. Magliozi** asks, can the same vendor monitoring the HVAC controls, can they help with the lighting controls?

**A. Rawji** replies, unfortunately, they are different vendors for each control system.

## **Security**

- Video Surveillance:
  - Monitor all entry/exits, building perimeter, each stair landing, public spaces & corridors.
- Access Control:
  - Consisting of proximity card readers/key fobs at entry/egress doors.
  - An electric lock and an intercom at the front door with the ability to release the front door from the administration office will be provided.
- Intrusion Detection:
  - Monitor all exterior doors and ground floor windows.
  - Door positions switches will be provided on all exterior doors.
  - Motion detectors will be provided in all rooms with windows accessible from the ground.
  - Keypads to arm/disarm the system will be provided at the building entrance.

**M.Moran** asks, is there any detection of a door being open?

**P. Caruso** replies, yes.

**Fire Alarm:** Provide an addressable fire alarm system with voice evacuation and connection to the fire department.

- Fire alarm system shall conform to applicable codes, supported by standby batteries to support 24 hours of full supervisory operation followed by 15 minutes of alarm.
- Provide combination audiovisual signaling appliances located in all egress pathways, classrooms, public and common areas. Visual devices will be included in all offices. All devices installed per applicable codes.
- Manual pulls stations installed at means of egress.
- Smoke detectors shall be in or at all egress pathways, stairwells, elevators, and mechanical, electrical, and similar rooms.
- Sprinkler tamper and flow devices shall be wired for trouble and alarm indication to FA control panel.
- Provide public safety radio distributed antenna system to boost emergency responder radio frequencies.

## **Public Address / Clock System**

- Speakers will be located in classrooms, administration areas, assembly areas and in public and common areas. Classroom speakers will be talk-back type. Emergency call stations will be provided in each classroom, as well as in all instructional and public areas.
- The system will provide the front office with the ability to make announcements throughout the building premises, to a limited area, or to an individual room. Any telephone handset in the building will be capable of initiating a page. In the front office, the administration staff can select whether they want to initiate or respond to a call via the PA handset, make announcements or play background music through the speaker. The system will be capable of supporting multiple and simultaneous communications.

- A master time & control system will be provided. The system will comprise a master clock that controls and synchronizes the time on peripheral clocks located throughout the school. The system will also control other peripheral devices such as bells, etc. and utilize the school public address system to sound pre-programmed tones for class changes. Clocks will be provided in classrooms, offices, public and assembly areas, and in administration areas.

**Discussion:**

**19.6 Construction Management @ Risk Update**

Record

**T. Elmore** shares the results from the Construction Manager Qualifications and the next steps towards obtaining a CM for this project.

INTERESTED CM APPLICANTS: **12**; Submitted Qualifications: **10**

- CM Subcommittee reviewed RFQ and provided comments/feedback.

**November 14, 2023** - PBC meeting and ranks Qualifications.

**November 15, 2023** - Distribute RFP to Qualified CM's

**November 21, 2023** - CM Site Walk-Through

**December 05, 2023** – Receive CM Proposals

- CM selection subcommittee reviews and ranks CM proposals prior to interview.

**December 13, 2023** - Interview CM firms

**December 19, 2023** - PBC Meeting - Recommendation to Award CM Contract

**January 2024** - Award SD estimating Purchase Order

**Results**

Place	CM Applicant	Score
1st	Fontaine Bros	99
2nd	Consigli	90
3rd	Shawmut	89
4th	WT Rich	85
-	Turner	81
-	Bond Building	74
-	Suffolk	72
-	DOC	73
-	Commodore	65
-	Lee Kennedy	62

**Prequalified Firms to submit proposals:** Fontaine Bros, Consigli, Shawmut & W.T Rich

**Non-Prequalified Firms:** Turner, Bond, Suffolk, DOC, Commodore, Lee Kennedy

**C. Magliozzi** highly suggest that every member of the permanent building committee should be involved in ranking the proposals and attending the interviews.

	<p><b>CM RFP &amp; Interview Selection Subcommittee</b></p> <ul style="list-style-type: none"> <li>• <b>OPM Representative:</b> Trip Elmore</li> <li>• <b>Designer Representative:</b> Eric Moore</li> <li>• <b>District Member #1:</b> Michael Moran</li> <li>• <b>District Member #2:</b> Steve Meyer</li> <li>• <b>District Member #3:</b> Chris Magliozzi</li> <li>• <b>District Member #4:</b> Brian Delorey</li> <li>• <b>District Member #5:</b> Michael Ward</li> <li>• <b>District Member #6:</b> Chris McGown</li> </ul> <p><b>M.Moran</b> asks, what happens if there is a tie?  <b>T. Elmore</b> replies, if you should have a tie, we'll have to vote again. We would have another ballot, disassemble the votes and see if that breaks the tie. I guarantee it's going to be a very difficult decision. All firms that made the shortlist are well qualified.</p> <p><b>December 13, 2023 - Interview CM firms</b></p> <ul style="list-style-type: none"> <li>• Interview Hours: 12PM-4PM</li> <li>• Interviews will be held at Clinton Town Hall</li> <li>• CM's will have 45minutes to an hour to do their presentation and answer questions.</li> </ul> <p><b>Discussion:</b> None</p>	
19.7	<p><b><u>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting:</u></b></p> <p><b>Discussion:</b> None</p>	Record
19.8	<p><b><u>Public Comment:</u></b></p> <p><b>Discussion:</b> None</p>	Record
19.9	<p><b><u>Next Meeting:</u></b>                  12.13.2023 – CMS Construction Managers Interview @ Clinton Town Hall from 12PM-4PM                  12.19.2023 – CMS Building Committee Remote @6:30PM – Location: Remote via Zoom</p> <p><b>Discussion:</b> None</p>	Record
19.10	<p><b><u>Adjourn: 8:00PM</u></b> a motion was made by <b>S. Meyer</b> and seconded by <b>M.Moran</b> to adjourn the meeting.</p> <p><b>Roll Call Vote:</b> B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), C. McGown (Y);</p> <p><b>Abstentions:</b> None</p> <p>All in favor, the meeting is adjourned.</p>	Record

Sincerely,  
**DORE + WHITTIER**  
 Elias Grijalva  
 Assistant Project Manager  
 Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.



# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: December 19, 2023  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 020  
Location: ZOOM  
Meeting Link: <https://us06web.zoom.us/j/82360491295?pwd=TfGM4m6riBElsq2qL5qzbsjZTopfbD.1>  
Meeting ID: 823 6049 1295  
Passcode: 443381  
One Tab Mobile: +16469313860,,82360491295#,,,,\*443381# US  
Prepared By: Elias Grijalva

---

1. Call to Order & number of voting members present
2. Senior Center Carriage House Design Services
3. Previous Topics & Approval of November 14, 2023, Meeting Minutes **(Vote expected)**
4. Invoices and Commitment for Approval **(Vote expected)**
  - DWMP November Invoice No.016, in the amount of \$15,000.00
  - LPA|A November Invoice No. 011, in the amount of \$57,040.00
  - LPA|A Amendment No.006 request for approval, in the amount of \$4,950.00
5. Construction Management @ Risk Update
6. LPA|A Update – FF & E, Building Design and Proprietary Technology
7. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting
8. Public Comment
9. Next Meetings
10. Adjourn

PERMANENT BUILDING COMMITTEE  
 SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
 MEETING MINUTES



Project:	Clinton Middle School	Project No:	20200640305
Subject:	School Building Committee Meeting	Meeting Date:	12/19/2023
Location:	ZOOM	Time:	6:30 PM
Distribution:	Attendees, Project File	Prepared By:	E. Grijalva
MSBA Module:	4- Schematic Design		

**Meeting Agenda**

1. Call to Order & Number of Voting Members
2. Senior Center Carriage House Design Services
3. Previous Topics and Approval of December 19, 2023, MM
4. Invoices and Commitments for Approval
5. LPA|A Update – FF & E, Building Design and Proprietary
6. Construction Management @ Risk Update
7. Other Topics not Reasonably Anticipated 48 hours prior to the meeting
8. Public Comment
9. Next Meeting
10. Adjourn

<b>Name</b>	<b>Affiliation</b>
Steven Meyer*	Superintendent – PBC Member
Chris McGown *	Head of DPW - Chair of PBC
Michael Moran*	PBC Member
Chris Magliozzi*	Vice Chair of PBC
Michael Ward*	Town Administration – PBC Member
Matthew Varakis	School Committee- Vice Chair
Phil Duffy	Director of Community & Eco Dev.
Trip Elmore	DWMP- Project Director
Elias Grijalva	DWMP – Assistant PM
Eric Moore	LPA A – Principal in Charge
Peter Caruso	LPA A – Project Manager
Sean Brennan	LPA A – Project Architect
David Fontaine Jr	Fontaine Bros
Beth Paulson	Fontaine Bros
Mark Abdella	Fontaine Bros
Jamie Blume	Fontaine Bros
Chelsey Mutrie	Fontaine Bros
Brian Davies	Fontaine Bros
MJ Lafond	Sr. Supt.
Brendan	unknown
<b>*PBC</b>	<b>Voting</b>
<b>Members</b>	

Item No	Description	Action
20.1	<p><b>Call to Order:</b> 6:32PM meeting was called to order by PBC Chair, C. McGown with 5 of 7 members in attendance.</p>	Record
20.2	<p><b>Senior Center Carriage House Design Services</b></p> <p><b>M.Ward</b> provides update on the Senior Center Carriage Housing project.</p> <ul style="list-style-type: none"> <li>• <b>Purpose:</b> Turn the Senior Carriage House into a fitness center</li> <li>• Received numerous inquiries, but only received (1) qualification submission from SSB Architects             <ul style="list-style-type: none"> <li>○ Received a late submission, waiting on Attorney General's Office to determine how to handle the late proposal.</li> <li>○ <b>SSB Architects</b> specialized in historic renovation, with relevant projects in their portfolio.</li> </ul> </li> <li>• <b>Next Steps:</b> <ul style="list-style-type: none"> <li>○ Waiting on a response from Attorney General office on the late proposal</li> <li>○ Forming a subcommittee to interview SSB Architects or deciding on re-bidding.</li> </ul> </li> </ul> <p><b>RFQ Subcommittee:</b> Chris McGown, Chris Magliozzi, Michael Ward</p> <p><b>Discussion:</b>  <b>C. McGown</b> comments that we should wait to hear back from the Attorney General and interview both companies.</p>	Record
20.3	<p><b>Previous Topics &amp; Approval of December November 14,2023, Meeting Minutes:</b></p> <p>A motion to approve the 11/14/2023 meeting minutes was submitted by <b>M. Ward</b> and seconded by <b>C. Magliozzi</b>.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, motion passes, November 14, 2023, meetings are certified as approved.</p>	Record
20.4	<p><b>Invoices and Commitments for Approval:</b></p> <p><u>Invoice 1: DWMP Invoice #016, for the month of November, in the amount of \$15,000.00</u>  A motion was made by <b>C. Magliozzi</b> and seconded by <b>M. Moran</b> for the approval of the DWMP November invoice.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve DWMP November invoice.</p>	Record

	<p><u>Invoice 2: LPA A Invoice #011, for the month of November, in the amount of \$57,040.00</u>          A motion was made by <b>S. Meyer</b> and seconded by <b>M. Moran</b> for the approval of the LPA A November invoice.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve LPA A November invoice.</p>	
	<p><u>LPA A Amendment No.006 for approval, in the amount of \$4,950.00</u></p> <p><b>S. Brennan</b> explains due to recent changes to the building code and the adoption of rules for additional incentive points, we are proposing a change order to engage Passivhaus consultant for an early study to validate potential cost savings with the Passivhaus approach.</p> <p>A motion was made by <b>M. Moran</b> and seconded by <b>S. Meyer</b> for the approval of the LPA A Amendment No.006 request.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), <b>M. Ward (Y)</b>, C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, motion passes to approve LPA A November invoice.</p>	
20.5	<p><b>Construction Management @ Risk Update</b></p> <p><b>T. Elmore</b> comments that (3) outstanding proposals were received from highly qualified construction companies.</p> <p><b>Results</b> (Refer to Meeting Packet to view the scorecard)</p> <ul style="list-style-type: none"> <li>• <b>1<sup>st</sup>:</b> Fontaine Bros</li> <li>• <b>2<sup>nd</sup>:</b> Shawmut Design and Construction</li> <li>• <b>3<sup>rd</sup>:</b> Consigli Construction</li> </ul> <p>A motion was made by <b>M. Moran</b> and seconded by <b>C. Magliozzi</b> to approve Fontaine Bros as the recommended CM for the Clinton Middle School project.</p> <p><b>Discussion:</b> None</p>	Record

20.6	<p><b><u>LPA A Update</u></b></p> <p><b>P. Caruso</b> shares room data sheets on major spaces in the building, indicating what furniture, fixtures and equipment are in those specific rooms.</p> <p><b>Furniture, fixtures, and equipment</b></p> <ul style="list-style-type: none"><li>• Typical Classrooms</li><li>• Typical Science Lab</li><li>• Cafeteria</li><li>• Media Center<ul style="list-style-type: none"><li>○ Destiny System will be maintained.</li></ul></li></ul> <p><b>*Refer to Meeting packet for a list of furniture, equipment/technology in each space.</b> <b>*Red font indicates items that need to be confirmed by LPA A subconsultants</b></p> <p><b>M.Moran</b> asks if there will be any gas in the science labs? <b>P. Caruso</b> replies, there will not be any gas in the science labs.</p> <p><b>Proprietary Technology Items</b></p> <ul style="list-style-type: none"><li>• Network Switches – Extreme networks</li><li>• Wireless Access Devices – Cisco Meraki</li><li>• Telephone System- Mitel</li><li>• Integrated Security System- Verkada</li></ul> <p><b><u>Geothermal System &amp; Photovoltaic System</u></b></p> <ul style="list-style-type: none"><li>• None of these systems are currently captured in the last cost estimate, once the CM is on board, we can have a more meaningful conversation with them relative to budget and logistics to determine if either are a right fit for the project.</li><li>• Potential for incentives, especially federal incentives with the inflation reduction act.</li><li>• Intention is to include these systems in the schematic design estimates for the project scope and budget agreement with the MSBA.</li></ul> <p><b>M.Moran</b> asks, do you know what the operating cost savings are for Geothermal. <b>E. Moore</b> replies we'll have to get cost information and present this data at a different PBC meeting. <b>M. Ward</b> comments this is something worth looking at, but what does it entail in terms of looking at it. <b>T. Elmore</b> states the Green Engineer has done the geothermal analysis and they are already part of LPA A team, I suggest inviting Chris Schaffner from the Green Engineer to join our next PBC meeting for an education session.</p> <p><b><u>Security System</u></b></p> <ul style="list-style-type: none"><li>• (3) Types of Security Systems that included in the design and cost estimate<ul style="list-style-type: none"><li>○ Video Surveillance, Intrusion Detection and Access Control</li></ul></li></ul> <p><b>S. Brennan</b> demonstrates the updated building design.</p> <ul style="list-style-type: none"><li>• Redesign exterior building envelope with improved aesthetics per the feedback received.</li><li>• Will be carrying (1) operable window in the classrooms, opening about 4-5 inches.</li><li>• PV Ready</li></ul>	Record
------	---	--------

	<ul style="list-style-type: none"> <li>• Car Charging Stations = 10% of parking spot</li> </ul> <p>*Refer to meeting packet for building design visuals</p> <p><b>Discussion:</b>  <b>M. McGown</b> comments that he likes this rendition more than the first one. It's more in line with what we were looking for.  <b>P. Duffy</b> comments that he's very happy with the massing and the materials. Some of the details can be refined as we move forward.  <b>C. Magliozzi</b> comments it's a big improvement from the first version, I'm interested in exploring options for more development of the roof edge at the top, and in understanding the placement and design of skylights on the large side of the building.  <b>T. Elmore</b> asks do you think by January 9<sup>th</sup>, you'll have any of your interior elevations?  <b>S. Brennan</b> replies potentially, if not will be ready for the next PBC meeting.</p>	
20.7	<p><b><u>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting:</u></b></p> <p><b>E. Moore</b> announces that Katie Crockett will no longer be the principal in charge as she is retiring at the end of the year. The MSBA requires notifications for any changes in leadership or major staffing projects. I will be the new Principle in Charge for this project.</p> <p><b>Discussion:</b> None</p>	Record
20.8	<p><b><u>Public Comment:</u></b>  <b>Discussion:</b> None</p>	Record
20.9	<p><b><u>Next Meeting:</u></b></p> <p>01.09.2023 – CMS Building Committee Remote Meeting No.021 @6:30PM – Location: Zoom      02.06.2024 – CMS Building Committee Remote Meeting No.022 @6:30PM – Location: Zoom      02.13.2024 – All Boards Meeting – In-Person; Location: TBD      02.20.2024 – CMS Building Committee Remote Meeting No.023 @6:30PM – Location: In-Person</p> <p><b>Discussion:</b> None</p>	Record
20.10	<p><b><u>Adjourn: 7:58PM</u></b> a motion was made by <b>C. Magliozzi</b> and seconded by <b>M. Ward</b> to adjourn the meeting.</p> <p><b>Roll Call Vote:</b> C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), M. Ward (Y), C. McGown (Y);  <b>Abstentions:</b> None      All in favor, the meeting is adjourned.</p>	Record

Sincerely,

**DORE + WHITTIER**

Elias Grijalva

Assistant Project Manager

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.

# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: January 9, 2024  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 021  
Location: ZOOM  
Meeting Link: <https://us06web.zoom.us/j/89223864901?pwd=5P1uirz57xY6ijhskjy0apscOZ5LLG.1>  
Meeting ID: 892 2386 4901  
Passcode: 887252  
One Tab Mobile: +16469313860,,89223864901#,,,,\*887252# US  
Prepared By: Elias Grijalva

---

1. Call to Order & number of voting members present.
2. Previous Topics & Approval of December 19, 2023, Meeting Minutes **(Vote expected)**
3. Invoices and Commitment for Approval **(Vote expected)**
  - DWMP December Invoice No.017, in the amount of \$25,000.00
  - LPA|A December Invoice No. 012, in the amount of \$53,323.00
4. CM Introductions
5. LPA|A Update -Typical Classrooms and Updated SD
6. TEDI Vs. PHIUS
7. Property DEED and registry filing update
8. Project funding discussion
9. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting
10. Public Comment
11. Next Meetings
12. Adjourn

PERMANENT BUILDING COMMITTEE  
SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
MEETING MINUTES



Project:	Clinton Middle School	Project No:	202000640305
Subject:	School Building Committee Meeting	Meeting Date:	01/09/2024
Location:	ZOOM	Time:	6:30 PM
Distribution:	Attendees, Project File	Prepared By:	E. Grijalva
MSBA Module:	4- Schematic Design		

---

**Meeting Agenda**

1. Call to Order & Number of Voting Members
2. Previous Topics and Approval of December 19, 2023 MM
3. Invoices and Commitments for Approval
4. CM Introductions
5. LPA|A Update – Typical Classrooms and Updated SD
6. TEDI Vs. PHIUS
7. Property DEED and registry filing Update
8. Project funding discussion
9. Other Topics not Reasonably Anticipated 48 hours prior to the meeting
10. Public Comment
11. Next Meeting
12. Adjourn

<b>Name</b>	<b>Affiliation</b>
Steven Meyer*	Superintendent – PBC Member
Chris McGown *	Head of DPW - Chair of PBC
Michael Moran*	PBC Member
Chris Magliozzi*	Vice Chair of PBC
Michael Ward*	Town Administration – PBC Member
Matthew Varakis	School Committee- Vice Chair
Brian Delorey*	PBC Member
Phil Duffy	Director of Community & Eco Dev.
Brian Farragher	Director of Facilities
Shane MCarthy	Teacher
Trip Elmore	DWMP- Project Director
Bill Connolly	Observer
Elias Grijalva	DWMP – Assistant PM
Eric Moore	LPA A – Principal in Charge
Peter Caruso	LPA A – Project Manager
Sean Brennan	LPA A – Project Architect
David Fontaine Jr	Fontaine Bros – CEO
Beth Paulson	Fontaine Bros – Project Manager
Chelsey Mutrie	Fontaine Bros -VP of Precon Srv

**\*PBC Voting Members**



Item No	Description	Action
21.1	<p><b>Call to Order:</b> 6:33 PM meeting was called to order by PBC Chair, C. McGown with 6 of 7 members in attendance.</p>	Record
21.2	<p><b>Previous Topics &amp; Approval of December 19, 2024, Meeting Minutes:</b>            A motion to approve the 12/19/2023 meeting minutes was submitted by <b>S. Meyer</b> and seconded by <b>M. Moran</b>.  <b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None; All in favor, motion passes.</p>	Record
21.3	<p><b>Invoices and Commitments for Approval:</b>  <u>Invoice 1: DWMP Invoice #017, for the month of December, in the amount of \$25,000.00</u>            A motion was made by <b>M. Ward</b> and seconded by <b>B. Delorey</b> for the approval of the DWMP December invoice.  <b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None; All in favor, motion passes.</p> <p><u>Invoice 2: LPA A Invoice #012, for the month of November, in the amount of \$53,323.00</u>            A motion was made by <b>M. Ward</b> and seconded by <b>M. Moran</b> for the approval of the LPA A December invoice.  <b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None; All in favor, motion passes.</p>	Record
21.4	<p><b>Construction Introductions</b></p> <p>The Fontaine team provides concise introductions and presents an overview of the timeline and logistical plans for the site.</p> <p><b>Pre-Construction Services</b></p> <ol style="list-style-type: none"> <li>1. Estimating: Chad Bergeron</li> <li>2. BIM + VDC: Ben Hedges</li> <li>3. Safety: Mark Bisson</li> <li>4. Sustainability: Tracy Routhier</li> <li>5. MEP: Brian Davies</li> <li>6. Scheduling: Christa Spedding</li> </ol> <p><b>Preconstruction Timeline:</b></p> <ul style="list-style-type: none"> <li>• Schematic Design: Aug 2023 – Feb 2024</li> <li>• Vote Support: Mar – June 2024</li> <li>• Design Development: June – Oct 2024</li> <li>• 60% CD: Nov – Feb 2025</li> </ul>	Record

- Pre GMP #1 approval
- 90% CD: Feb -April 2025
  - Pre GMP#2 approval
- 100% CD: April – June 2025
- GMP Development: Jul – Aug 2025
  - Final GMP approval

**Site Logistics Plan**

Overview of the phased approach to construction and development, ensuring minimal disruption to daily operations.

- **Summer 2025**
  - Establish perimeter and construction entrance.
  - Fix traffic flow and student crosswalk
  - Redirect students off site to pick up and maintain car access around the read of the school.
- **Construction 2025 – Spring 2026**
  - On going construction activities
- **Summer 2026**
  - Connect utilities on the west side while maintaining structure boundaries.
- **Fall 2026**
  - Resume original traffic patterns as construction continued within the perimeter.
- **Summer 2027**
  - Demolition of the existing building begins.
  - First day of school in 2027 with established parking and bus loop
- **Fall 2027**
  - Complete turnover of the parking lot
  - Focus on completing the

Discussion:

**C. McGown** asks what’s the difference between Guaranteed Maximum Price (**GMP**) 1 and (**GMP**) 2.

**T. Elmore** highlights the importance of timing in deciding when to implement the GMP, either early in the project or after obtaining market input and bids. Utilizing the GMP process with Construction Manager (CM) at risk allows for flexibility in adjusting the project scope until all subcontractors are awarded. This flexibility helps in making informed decisions for the benefit of the community and avoiding unnecessary cash reserves. The value of awarding the GMP in chunks, such as sitework, foundations, structural steel, and MEPs, to better manage costs and keep important aspects of the building intact.

**M. Moran** asks at what point do we value engineering (**VE**)?

**T. Elmore** replies every step of the way, subsequent VE reviews will be conducted three more times at 60%, 90% and 100% Construction Document (CD).

21.5

**LPA|A Update: Typical Classrooms and Updated SD**

Record

**Schematic Design Schedule**

- 01.24.2024: SD Drawings and specifications to cost estimators.
- 02.01.2024: Cost Estimates are due.
- 02.02.2024: Cost Estimate Reconciliation
- 02.06.2024: SBC/PBC Presentation (Cost estimate)

- 02.09.2024: Submit presentation and estimate to the town.
- 02.13.2024: All Boards Meeting
- 02.20.2024: PBC Vote to submit schematic design MSBA.
- 02.23.2024: Submit DESE and SD packet.

**P. Caruso** demonstrates what a typical classroom and science lab will look like.

#### **Typical Classroom Main Points:**

- There are (6) dedicated classrooms for each grade, totaling 30 classrooms, not including special education, wellness, executive functioning, etc.
- Each classroom is about 900 square feet, designed for 20 to 25 students, with specific features on the teaching wall, including three magnetic marker boards and an interactive short throw projector.
- Technological flexibility is provided on the back wall with data and electrical outlets, along with a mix of monitors and tack boards.
- -Finishes for general classrooms include linoleum flooring, painted chip gypsum board walls, plastic laminate countertops, and pendant LED light fixtures.
- Grades four through six will have two sinks, one accessible and one with a deep bowl, while grades seven through eight won't have any sinks, following MSBA requirements.
- Cabinets along the corridor wall include a teacher wardrobe cabinet, a phone, and a digital display for clock and door messages.
- Detailed specifications are provided for emergency features and other aspects of the classroom design.
- The speech reinforcement device (SR) is in the ceiling.
- Displacement diffusers in opposite corners of classrooms allow for fresh air circulation in the students' breathing zone.
- Windows along the exterior wall are aesthetically designed to work with exterior fenestration, with plans for one operable window per classroom.
- Each classroom has a communicating door to adjacent classrooms, equipped with security lock sets for both sides, ensuring passage mode for egress even when locked.
- Emergency responders reviewed and approved the door security features.
- Elevations of classroom spaces reveal details like windows, base cabinets with open and lockable shelving, displacement diffusers, teaching wall elements, and sinks for specific grades.
- The presentation provides a comprehensive view of the design and features of the classroom spaces.

#### **Typical Science Lab**

- There will be three labs, each around 1440 square feet, located in the seventh and eighth-grade academic wing.
- MSBA guidelines dictate their design, accommodating up to 24 students for safety.
- Science labs share similarities with general classrooms in terms of technology, featuring magnetic whiteboards, interactive short throw projectors on the teaching wall, and a dedicated teacher demonstration table with accessories.
- Each science lab includes a 300 square foot prep room, and the teacher's own dedicated lab sink.

- Finishes include linoleum flooring, painted gypsum board walls, epoxy countertops to resist chemical damage, wood-finish cabinets, and a ceiling with two-foot by two-foot acoustical tiles and pendant LED light fixtures.
- Instead of individual desks and chairs, mobile student tables for two students each are provided, along with stools featuring a backstop.
- The design emphasizes functionality, safety, and durability in the science lab spaces.
- Science labs designed without fume hoods or gas for teachers; shared lab sinks and electrical outlets for students.
- Adherence to MSBA safety guidelines with emergency eyewash, shower, fire extinguisher, fire blanket cabinet, goggle cabinet with UV disinfectant, and safety data sheets station.
- Accessible and general handwashing stations provided, along with a steel frame for hanging objects in experiments.
- Prep rooms equipped with the same finishes as the main lab, including a refrigerator, high-end dishwasher, chemical storage cabinet, and sink.
- Communicating doors between science labs, a dedicated chemical storage room across the hall, and interior elevations showcasing casework, cabinets, and teacher demonstration areas.

**M. Moran** asked if there is a neutralization system?

**P. Caruso** replies yes there will be. As of right now, the collection system is outside.

**S. Brennan** shares the exterior design.

- The current focus on exterior design prioritizes buying scope to ensure cost coverage during this phase.
- A detailed look at the roof edge has been developed, emphasizing refinement as the project progresses.
- Notable revisions include overhangs for the cafeteria and kitchen windows, large south-facing windows with shading structures, and GFRC clad panels for stair towers.
- Canopies, skylight shed roofs, and outdoor engagement spaces, including a courtyard with play areas and raised garden beds, are highlighted.
- Emphasis on the main entry canopy providing cover, large fenestrations for admin and guidance, and a courtyard between two wings.
- Mention of the media center and art rooms with articulated fenestration for doors and windows, creating a dynamic visual effect.

21.6

**TEDI Vs. PHIUS** (Refer to meeting packet for visuals on TEDI vs. PHIUS)

Record

**S. Brennan** explains the differences between Thermal Emissivity Density Index (TEDI) and Passive House Institute in the United States (PHIUS).

- TEDI feasibility study initially met code requirements, but based on preliminary observations, a feasibility study for PHIUS was requested to explore potential cost savings and efficiency.
- Detailed comparison between TEDI and PHIUS, considering factors such as windows, window-wall ratio, doors, insulation values, air infiltration rates, modeling requirements, certifications, blower door tests, and additional costs associated with modifications to meet PHIUS standards.

	<ul style="list-style-type: none"> <li>• Notable differences include the need for Passivhaus certified windows, different door and window systems, variations in insulation values, multiple modelers, and certifications for PHIUS, higher blower door testing requirements, and the installation of a 250 KW PV array for PHIUS.</li> <li>• Concerns about the potential increased costs associated with deviations from the base model and a comparison of certification fees for LEED and Mass Save under both pathways.</li> <li>• The presentation includes charts illustrating the costs associated with certifications and fees for each pathway, emphasizing the potential financial implications of choosing between TEDI and PHIUS compliance.</li> </ul> <p><b>T. Elmore</b> clarifies that we are pursuing TEDI, currently.</p>	
21.7	<p><b>Property DEED and registry filing Update</b></p> <p><b>T. Elmore</b> emphasizes the approaching deadline for the property and registry filing. Urgently, need evidence of property ownership within a month to avoid delay in the project schedule.</p> <p><b>Discussion:</b> None</p>	Record
21.8	<p><b>Project Funding Discussion</b></p> <p><b>S. Meyer</b> comments on the PTA meeting that he attended and shares concerns that were raised during the meeting.</p> <p>General concerns raised in the meeting:</p> <ol style="list-style-type: none"> <li>1. <b>Timing of tax impacts:</b> Questions about the timing of the vote in June 2024 and when the borrowing process begins, affecting tax implications. Consideration of short-term borrowing for the initial years.</li> <li>2. <b>Debt exclusion timing:</b> Uncertainty about when the debt exclusion takes effect in relation to the final borrowing.</li> <li>3. <b>Interest rates:</b> Discussion about the estimates made with bond counselors and the need to explore a range of interest rates, considering potential variations beyond the initial estimate of 5%, such as 7.5%.</li> </ol> <p>* Concerns expressed by the PTA members revolve around gaining a clearer understanding of the project's cost implications and ensuring transparency for the community.</p> <p><b>Discussion:</b></p> <p><b>T. Elmore</b> comments that we should present the answers to these questions at the all boards committee and post the response on the website.</p>	Record

21.9	<p><b><u>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting:</u></b></p> <p><b>M. Ward</b> shares an update on the Senior Center Carriage Housing Project. The second proposer acknowledged that most likely the Town of Clinton couldn't accept their proposals and I expect that would be the answer from the Attorney General as well.</p> <p><b>Discussion:</b> None</p>	Record
21.10	<p><b><u>Public Comment:</u></b></p> <p><b>Discussion:</b> None</p>	Record
21.11	<p><b><u>Next Meeting:</u></b></p> <p>02.06.2024 – CMS Building Committee Remote Meeting No.022 @6:30PM – Location: Zoom        02.13.2024 – All Boards Meeting – In-Person; Location: TBD        02.20.2024 – CMS Building Committee Remote Meeting No.023 @6:30PM – Location: In-Person</p> <p><b>Discussion:</b> None</p>	Record
21.12	<p><b><u>Adjourn: 8:12 PM</u></b> a motion was made by <b>M. Moran</b> and seconded by <b>M. Ward</b> to adjourn the meeting.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, the meeting is adjourned.</p>	Record

Sincerely,

**DORE + WHITTIER**

Elias Grijalva

Assistant Project Manager

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.

# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: January 30, 2024  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 022  
Location: ZOOM  
Meeting Link: <https://us06web.zoom.us/j/83692330688?pwd=PkM0wg3z2hjuXlcWYZfhka2sMKhgwf.1>  
Meeting ID: 836 9233 0688  
Passcode: 263692  
One Tab Mobile: 16468769923,,83692330688#,,,,\*263692# US (New York)  
Prepared By: Elias Grijalva

---

1. Call to Order & number of voting members present.
2. Geothermal & PV Systems Discussion/Vote
3. COA Carriage House Designer Services Award
4. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting
5. Public Comment
6. Next Meetings
7. Adjourn

PERMANENT BUILDING COMMITTEE  
 SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
 MEETING MINUTES



Project: Clinton Middle School  
 Subject: School Building Committee Meeting  
 Location: ZOOM  
 Distribution: Attendees, Project File  
 MSBA Module: 4- Schematic Design

Project No: 20200640305  
 Meeting Date: 01/30/2024  
 Time: 6:30 PM  
 Prepared By: E. Grijalva

**Meeting Agenda**

1. Call to Order & Number of Voting Members
2. Geothermal & PV Systems Discussion/Vote
3. COA Carriage House Designer Services Award
4. Other Topics not Reasonably Anticipated 48 hours prior to the meeting
5. Public Comment
6. Next Meeting
7. Adjourn

**Name**

**Affiliation**

Steven Meyer*	PBC Member- Superintendent
Chris McGown *	PBC Chair
Michael Moran*	PBC Member
Michael Ward*	PBC Member- Town Administration
Brian Delorey*	PBC Member
Shane MCarthy	SBC Member - Teacher
Trip Elmore	DWMP- Project Director
Elias Grijalva	DWMP – Assistant Project Manager
Eric Moore	LPA A – Principal in Charge
Peter Caruso	LPA A – Project Manager
Sean Brennan	LPA A – Project Architect
Kevin Seaman	Seaman Engineering
David Fontaine Jr	Fontaine Bros – CEO
Jamie Blume	Fontaine Bros- Project Executive
Beth Paulson	Fontaine Bros – Project Manager
Chelsey Mutrie	Fontaine Bros – VP of Precon.

**\*PBC Voting Members**



Item No	Description	Action
22.1	<p><b>Call to Order:</b> 6:33PM meeting was called to order by PBC Chair, C. McGown with 5 of 7 members in attendance.</p>	Record
22.2	<p><b>Geothermal &amp; PV Systems Discussion/Vote</b></p> <p><b>Schematic Design Schedule update</b> provided by P. Caruso</p> <p>1/12/24 Schematic Design (SD) drawings and specifications to cost estimators.          2/01/24 Cost Estimates are due.          2/02/24 Cost Estimate reconciliation          2/06/24 SBC/PBC presentation (cost estimate)          2/09/24 Submit presentation and Cost Estimate to the Town          2/13/24 All-Boards Meeting          2/20/24 SBC vote to submit Schematic Design (SD) Package          2/23/24 Submit DESE &amp; SD Package</p> <p><b>S. Brennan</b> summarizes the base system in Schematic Design (SD) and a potential geothermal system option.</p> <p><b>Packaged Air Source Heat Pump</b> (Base system design)</p> <ul style="list-style-type: none"> <li>• Dedicated Outdoor Air Systems (DOAS)</li> <li>• Packaged HVAC Systems</li> <li>• Inverter Variable Speed Compressors</li> <li>• Energy Recovery (ERV) Wheels or Core</li> <li>• Hot Water or Electric Back-up Heat</li> </ul> <p><b>Heat Recovery Chiller/Heater</b> (Base system design)</p> <ul style="list-style-type: none"> <li>• Generates both chilled water and hot water simultaneously.</li> <li>• Operation down to 0F with 130 F water</li> <li>• Multiple 30-ton modules (Est. 150 ton+)</li> </ul> <p><b>Geothermal System Types</b></p> <ul style="list-style-type: none"> <li>• <b>Traditional</b> – normal well field; takes up a lot more land.</li> <li>• <b>Proprietary</b> – pyramidal drilling; preserves the land and provides greater development options in the future.</li> </ul>	Record

<b>Geothermal Cost Comparison</b>			
	<b>Est. Current System (ASHP only)</b>	<b>Est. Geothermal System (partial)</b>	<b>Delta</b>
Mechanical Scope (Direct Cost Only)	\$11,400,000	\$11,650,000	\$250,000
Geothermal Wells and Site Work	\$0	\$3,000,000	\$3,000,000
<b>Subtotal</b>	<b>\$11,400,000</b>	<b>\$14,650,000</b>	<b>\$3,250,000</b>
Mass Save Rebates (275 Tons)	(\$220,000) \$800/ton	(\$553,000) 90 tons @ \$4500/ton 185 tons @ \$800/ton	(\$333,000)
IRA (est. 34%)	\$0	\$ (4,981,000.00)	\$(4,981,000.00)
<b>Estimated Total Const. Costs</b>	<b>\$11,180,000</b>	<b>\$9,116,000</b>	<b>\$(2,064,000.00)</b>

- The annual heating energy consumption is estimated to be 190,800kWh/year.
- The Annual Heating Energy Cost is +/- 190,800kWh/year (.22cents) = \$42,000.00

<b>System</b>	<b>Annual Cost</b>	<b>Median Service Life</b>
Air-sourced heat pumps	\$16,790.00	15-20 years
Ground Source Heat Pumps	\$10,494.00	20-25 years
	\$(6,296.00)	(5-10 years)

- The savings of using geothermal equipment to be approx. \$6,300/year
  - A geothermal system is expected to be 25-50% more efficient than an equivalent air source system.

**T. Elmore** emphasizes that nobody has received actual grants from this Inflation Reduction Act (IRA), so there is a little risk to consider, but it is published. The check would be issued about a year after the building is complete and you would need to meet the criteria, which is not fully understood at this point.

**M. Moran** asks, does anyone know if this system is running in other schools?

**T. Elmore** replies, there are several schools, for example Lexington and Cambridge

**M. Moran** asks, has anyone heard any comments and how it's working?

**K. Seaman** mentions that early installations, particularly in Westboro, utilized a system with standing column wells to extract water from the ground. While this method was efficient and

saved the need for numerous boreholes, there were notable failures due to the early stage of implantation.

**M. Moran** asks, how many wells would there be?

**K. Seaman** replies, the proposed design will be a partial geothermal system, which means about 20 wells estimated at 700 feet in depth.

**S. Meyer** mentions, the tax credit for geothermal only applies to projects which construction begins before January 1, 2025.

A motion was made by B. Delorey and 2<sup>nd</sup> by M. Moran, to proceed with Geothermal for the Schematic Design (SD) submission.

**Discussion:** None; **Roll Call Vote:** B. Delorey (Y), M. Moran (Y), S. Meyer (Y), C. McGown (Y);  
**Abstention:** M. Ward (Experienced technical difficulties)

**Photovoltaic System Update presented by S. Brennan.**

**Estimated available square footage for photovoltaic (PV) cells is the following:**

- Roof PV array | 28,830sf | +/-400kW array\*
- Parking Lot Canopy PV array | 7,350sf | +/-100kW array\*
- TOTAL | 36,180sf | +/-500kW array.
  - Anything over 500kWh will require battery storage.

**PV system on New School:**

- 500kW estimated generation = 405,000kWh/year
- 405,000kWh/year x \$0.22/kWh = **\$89,100/year\***

**Budgetary Numbers:**

School Roof (~400kW)	\$1,400,000
Parking Lot Canopy (~100kW)	\$ 350,000
Parking Lot Canopy Framing	\$ 750,000

-----  
PV System Budget                      \$2,500,000

\*Estimated Town Share After Incentives (30%): \$2,500,000 x 70% = \$1,750,000

**M.Moran** asks, does the unused power go back to the grid?

**T. Elmore** replies, yes, it goes back to the grid and then you get a credit swap.

**M.Moran** asks, will National Grid take it?

**T. Elmore** replies, you will have to work with National Grid to get them to take it.

**S. Meyer** asks, is there any negative impact in terms of the energy code that we need to meet?

**S. Brennan** replies, no there is not.

A motion was made by S. Meyer and 2<sup>nd</sup> by M. Moran, to have the PV system as an add alternate.

**Discussion:** None; **Roll Call Vote:** B. Delorey (Y), M. Moran (Y), S. Meyer (Y), C. McGown (Y);  
**Abstention:** M. Ward (Experienced technical difficulties)

	<b>S. Brennan</b> provides an updated rendering of the project. (refer to project website to watch the latest rendering)	
22.3	<p><b>COA Carriage House Designer Services Award</b></p> <p>A motion was made by S. Meyer and 2<sup>nd</sup> by M. Moran, to accept SSV Architects qualifications and move forward with a price proposal.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey (Y), M. Moran (Y), S. Meyer (Y), C. McGown (Y), M. Ward (Y); <b>Abstention:</b> None</p>	Record
22.4	<p><b>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting:</b></p> <p><b>Discussion:</b> None</p>	Record
22.5	<p><b>Public Comment:</b></p> <p><b>Discussion:</b> None</p>	Record
22.6	<p><b>Next Meeting:</b></p> <p>02.06.2024 – CMS Building Committee Remote Meeting No.022 @6:30PM – via Zoom          02.13.2024 – All Boards Meeting – In-Person; Location: CMS Cafetorium          02.20.2024 – CMS Building Committee Remote Meeting No.023 @6:30PM – via Zoom</p> <p><b>Discussion:</b> None</p>	Record
22.7	<p><b>Adjourn: 8:16 PM</b> a motion was made by S. Meyer and seconded by M. Ward to adjourn the meeting.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey(Y), C. Magliozzi (Y), S. Meyer(Y), M. Moran (Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None</p> <p>All in favor, the meeting is adjourned.</p>	Record

Sincerely,

**DORE + WHITTIER**

Elias Grijalva

Assistant Project Manager

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.

# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: February 6, 2024  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 023  
Location: ZOOM  
Meeting Link: <https://us06web.zoom.us/j/83780505605?pwd=UqxeyPKDBdyQtSgmHakUg8PCjBkzPa.1>  
Meeting ID: 837 8050 5605  
Passcode: 948445  
One Tab Mobile: +13052241968,83780505605#,,,,\*948445# US  
Prepared By: Elias Grijalva

---

1. Call to Order & number of voting members present.
2. Senior Center Carriage House Project: Approval of Designer Services (**Vote expected**)
3. Previous Topics & Approval of January 09, 2024 & January 30, 2024, Meeting Minutes (**Vote expected**)
4. Invoices and Commitment for Approval (**Vote expected**)
  - DWMP January Invoice No.018, in the amount of \$25,000.00
  - LPA|A January Invoice No. 013, in the amount of \$44,859.00
5. Proprietary Items Vote (**Vote expected**)
6. Construction Cost Reconciliation Update
7. Total Project Budget Review (MSBA Form 3011)
8. Property DEED and registry filing update
9. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting.
10. Public Comment
11. Next Meetings
12. Adjourn

PERMANENT BUILDING COMMITTEE  
 SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
 MEETING MINUTES



Project: Clinton Middle School  
 Subject: School Building Committee Meeting  
 Location: ZOOM  
 Distribution: Attendees, Project File  
 MSBA Module: 4- Schematic Design

Project No: 202000640305  
 Meeting Date: 02/06/2024  
 Time: 6:30 PM  
 Prepared By: E. Grijalva

**Meeting Agenda**

1. Call to Order & Number of Voting Members
2. Previous topics & MM for Approval
3. Invoices and Commitments
4. Proprietary Items Vote
5. Construction Cost Reconciliation Update
6. Total Project Budget Review
7. Property DEED and registry filing update
8. Other Topics not Reasonably Anticipated 48 hours prior to the meeting
9. Public Comment
10. Next Meeting
11. Adjourn

Name	Affiliation
Steven Meyer*	PBC Member- Superintendent
Chris McGown *	PBC Chair
Michael Moran*	PBC Member
Michael Ward*	PBC Member- Town Administration
Brian Delorey*	PBC Member
Brian Farragher	CMS Facilities Director
Kelly Turcotte	CMS Spec. Ed. Parent Advisory Council
Matthew Varakis	CMS School Committee Vice Chair
Trip Elmore	DWMP- Project Director
Elias Grijalva	DWMP – Assistant Project Manager
Eric Moore	LPA A – Principal in Charge
Peter Caruso	LPA A – Project Manager
David Fontaine Jr	Fontaine Bros – CEO
Jamie Blume	Fontaine Bros- Project Executive
Beth Paulson	Fontaine Bros – Project Manager
Chelsey Mutrie	Fontaine Bros – VP of Precon.
Joel Kent	Fontaine Bros – Chief Operating Officer
Shane Sampson	Fontaine Bros- Sr. Project Manager

**\*PBC Voting Members**

Item#	Description	Action
23.1	<p><b>Call to Order: 6:34PM</b> meeting was called to order by PBC Chair, C. McGown with 5 of 7 members in attendance.</p>	<b>Record</b>
23.2	<p><b>Previous Topics &amp; Meeting Minutes for Approval</b>            A motion to approve the January 9, 2024, meeting minutes was submitted by S. Meyer and seconded by M. Moran.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey (Y), M. Moran (Y), S. Meyer(Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None; <b>All in favor, motion passes.</b></p>	<b>Record</b>
	<p>A motion to approve the January 30, 2024, meeting minutes was submitted by S. Meyer and seconded by B. Delorey.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey (Y), M. Moran (Y), S. Meyer(Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None; <b>All in favor, motion passes.</b></p>	
23.3	<p><b>Invoices and Commitments for Approval</b></p> <p><b>Invoice 1:</b> DWMP January Invoice, in the amount of \$25,000.00            A motion was made by S. Meyer and seconded by M. Moran for the approval of DWMP January Invoice.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey (Y), M. Moran (Y), S. Meyer(Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None; <b>All in favor, motion passes.</b></p>	<b>Record</b>
	<p><b>Invoice 2:</b> LPA A January Invoice, in the amount of \$44,859.00            A motion was made by S. Meyer and seconded by M. Moran for the approval of LPA A January Invoice.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey (Y), M. Moran (Y), S. Meyer(Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None; <b>All in favor, motion passes</b></p>	
23.4	<p><b>Proprietary Items Vote</b></p> <p>T. Elmore states that according to the Massachusetts School Building Authority (MSBA) mandates that approval for proprietary items requires a vote from the committee.</p> <ul style="list-style-type: none"> <li>• Network Switches – Extreme networks.</li> <li>• Wireless Access Devices – Cisco Meraki</li> <li>• Telephone System- Mitel</li> <li>• Integrated Security System- Verkada</li> </ul> <p>A motion was made to accept the proprietary items by S. Meyer and 2<sup>nd</sup> by M. Moran.</p>	<b>Record</b>

	<p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey (Y), M. Moran (Y), S. Meyer(Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None; <b>All in favor, motion passes</b></p>																									
23.5	<p><b>Construction Cost Reconciliation Update</b></p> <p>T. Elmore summarizes the construction cost reconciliation.</p> <p><b>Reconciled Budget</b>                      \$114.4 million  <b>Value Engineering Identified:</b>    \$1.5 million  <b>Total Project Budget:</b>                \$139.3 million</p> <ul style="list-style-type: none"> <li>• Approximately 90% through reconciliation with some questions remaining.</li> <li>• Potential Identified \$1.5 million in value engineering savings.                         <ul style="list-style-type: none"> <li>○ Planting reductions, playground equipment reductions, reduce size of granite curb,</li> </ul> </li> <li>• Total project budget is projected at \$139.3 million.</li> <li>• Project currently under budget compared to previous estimates.</li> <li>• Small discrepancy of around \$500,000 between different estimates</li> </ul> <p><b>Discussion:</b>                      M.Moran asks, what happens if the bids come over the budget?                      T. Elmore replies, we can adjust the scope according to identified VE items, or we can negotiate when we are doing procurement.                      C. McGown asks, is this standard file sub bid where anyone is allowed to bid                      T. Elmore replies, we must prequalify the trades.                      C. 'McGown asks, do we prequalify them or are they prequalified through DCAMM.                      T. Elmore replies, we do the prequalifying. We have devised a method to streamline the prequalifying process and reduce the burden on the team. It generally takes two and half months to do.</p>	<b>Record</b>																								
23.6	<p><b>Total Project Budget Review</b></p> <p>T. Elmore reviews the 3011 and the major categories.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><b>Section</b></th> <th style="text-align: left;"><b>Amount</b></th> </tr> </thead> <tbody> <tr> <td>Feasibility Study:</td> <td>\$1 million</td> </tr> <tr> <td>Administrative Cost:</td> <td>\$4.1 million</td> </tr> <tr> <td>Design Cost:</td> <td>\$12 million</td> </tr> <tr> <td>Construction Cost:</td> <td>\$114.4 million</td> </tr> <tr> <td>Miscellaneous Cost</td> <td>\$850 thousand</td> </tr> <tr> <td>FF&amp;E</td> <td>\$2.7 million</td> </tr> <tr> <td><b>Sub-total:</b></td> <td><b>\$135.3 million</b></td> </tr> <tr> <td>Contingency</td> <td>\$4 million</td> </tr> <tr> <td><b>Total:</b></td> <td><b>139.3 million</b></td> </tr> <tr> <td>Approx Local Share</td> <td>\$68.2 million</td> </tr> <tr> <td>Potential Geothermal/PV Grant</td> <td>(\$2.5 million)</td> </tr> </tbody> </table>	<b>Section</b>	<b>Amount</b>	Feasibility Study:	\$1 million	Administrative Cost:	\$4.1 million	Design Cost:	\$12 million	Construction Cost:	\$114.4 million	Miscellaneous Cost	\$850 thousand	FF&E	\$2.7 million	<b>Sub-total:</b>	<b>\$135.3 million</b>	Contingency	\$4 million	<b>Total:</b>	<b>139.3 million</b>	Approx Local Share	\$68.2 million	Potential Geothermal/PV Grant	(\$2.5 million)	<b>Record</b>
<b>Section</b>	<b>Amount</b>																									
Feasibility Study:	\$1 million																									
Administrative Cost:	\$4.1 million																									
Design Cost:	\$12 million																									
Construction Cost:	\$114.4 million																									
Miscellaneous Cost	\$850 thousand																									
FF&E	\$2.7 million																									
<b>Sub-total:</b>	<b>\$135.3 million</b>																									
Contingency	\$4 million																									
<b>Total:</b>	<b>139.3 million</b>																									
Approx Local Share	\$68.2 million																									
Potential Geothermal/PV Grant	(\$2.5 million)																									



	<p>Potential Local Share: \$65.7 million</p> <p><b>Discussion:</b>          M. Varakis asks can the designer speak to any recent projects they've done. What's the likelihood we see 50% of that contingency number back based on a new building.          E. Moore replies, Auburn Middle School &amp; Nelson Elementary schools, both saw money come back in terms of unused contingency, whether it was 50% or not, I don't have those exact figures.</p>	
23.7	<p><b>Property DEED and registry filing update</b></p> <p><b>C.McGown states that the property Deed and registry filing should be completed this week.</b></p>	<b>Record</b>
23.8	<p><b><u>Other Topics not Reasonably Anticipated 48 hours prior to the Meeting:</u></b>  <b>Discussion:</b> None</p>	<b>Record</b>
23.9	<p><b><u>Public Comment:</u></b>  <b>Discussion:</b> None</p>	<b>Record</b>
23.10	<p><b><u>Next Meeting:</u></b>          02.13.2024 – All Boards Meeting – In-Person; Location: CMS Cafetorium          02.20.2024 – CMS Building Committee Remote Meeting No.023 @6:30PM – via Zoom</p> <p><b>Discussion:</b> None</p>	<b>Record</b>
23.11	<p><b><u>Adjourn: PM</u></b> a motion was made by M. Ward and seconded by M. Moran to adjourn the meeting.  <b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey (Y), M. Moran (Y), S. Meyer(Y), M. Ward (Y), C. McGown (Y); <b>Abstentions:</b> None; <b>All in favor, motion passes.</b></p> <p>➤</p>	<b>Record</b>

Sincerely,

**DORE + WHITTIER**

Elias Grijalva

Assistant Project Manager

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.

# PERMANENT BUILDING COMMITTEE SCHOOL BUILDING SUB-COMMITTEE MEETING AGENDA



Meeting Date: February 20, 2024  
Meeting Time: 6:30 PM  
Project Name: Clinton Middle School  
Project Number: 202000640305  
Meeting Purpose: SBC Meeting No. 024  
Location: Remote- Zoom  
Meeting Link: <https://us06web.zoom.us/j/83150253943?pwd=BC2l91Zlg7xF52q4Agl1Hfl4KybGt1.1>  
Meeting ID: 831 5025 3943  
Passcode: 935820  
One Tab Mobile: +16469313860,,83150253943#,,,,\*935820# US  
Prepared By: Elias Grijalva

---

1. Call to Order & number of voting members present.
2. COA Carriage House Design Contract
3. Previous Topics & Approval of February 6, 2024, Meeting Minutes **(Vote expected)**
4. All Boards Meeting Update
5. Value Engineering (VE) Items & vote to accept Landscaping VE **(Vote expected)**
6. Project Budget Update
7. Schematic Design (SD) Review & Approval to have DWMP & LPA | A submit SD Package to the MSBA **(vote expected)**
8. Next steps: Public Outreach
9. Other Topics not Reasonably Anticipated 48 hours prior to the Meeting
10. Public Comment
11. Next Meetings
12. Adjourn

PERMANENT BUILDING COMMITTEE  
SCHOOL BUILDING COMMITTEE SUB-COMMITTEE  
MEETING MINUTES



Project: Clinton Middle School  
Subject: School Building Committee Meeting  
Location: ZOOM  
Distribution: Attendees, Project File  
MSBA Module: 4- Schematic Design

Project No: 202000640305  
Meeting Date: 02/20/2024  
Time: 6:30 PM  
Prepared By: E. Grijalva

**Meeting Agenda**

1. Call to Order & Number of Voting Members
2. COA Carriage House Design Contract
3. Previous topics & MM for Approval
4. All Boards Meeting Update
5. VE Items & vote to accept landscape VE
6. Project Budget Update
7. SD Review & Approval to submit to MSBA
8. Next steps: Public Outreach
9. Other Topics not Reasonably Anticipated 48 hours prior to the meeting
10. Public Comment
11. Next Meeting
12. Adjourn

**Name**

**Affiliation**

Steven Meyer\* PBC Member- Superintendent  
Chris McGown \* PBC Chair  
Michael Moran\* PBC Member  
Michael Ward\* PBC Member- Town Admin  
Brian Delorey\* PBC Member  
Chris Magliozzi\* PBC Member & Vice Chair  
Brian Farragher CMS Facilities Director  
Brendan Bailey CMS SC Chair  
Matthew Varakis CMS SC Vice Chair  
Trip Elmore DWMP- Project Director  
Elias Grijalva DWMP – Assistant PM  
Peter Caruso LPA|A – Project Manager  
Jamie Blume Fontaine Bros- Project Ex.  
Chelsey Mutrie Fontaine Bros – VP of Precon.

**\*PBC Voting Members**

Item No.	Description	Action
24.1	<p><b>Call to Order &amp; number of voting members present</b> 4:04pm meeting was called to order by PBC Chair C. McGown with 6 of 7 voting members in attendance.</p>	Record
24.2	<p><b>COA Carriage House Design Contract</b></p> <p><b>C.McGown</b> remarked that this matter had already been addressed during our previous Permanent Building Committee Meeting and no additional information is available at this time.</p> <p><b>Discussion:</b> None</p>	
24.3	<p><b>Previous Topics &amp; Approval of February 6 ,204, Meeting Minutes:</b></p> <p>A motion to approve the February 06,2024 meeting minutes was submitted by S. Meyer and seconded by M. Moran.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey (Y), M. Moran (Y), M. Ward (Y), S. Meyer(Y), C. McGown (Y); <b>Abstentions:</b> C. Magliozzi; All in favor, motion passes.</p>	Record
24.4	<p><b>All Boards Meeting Update</b></p> <p>T. Elmore comments that the meeting had a good turnout, all questions from various boards and the community were addressed, and the project costs were significantly lower than projected in the feasibility study.</p> <p>S. Meyer notes that there were some concern neighbors from the South Main area worried about construction vehicles and entrance access, which was addressed before and during the presentation.</p> <p><b>Discussion:</b> None</p>	Record
24.5	<p><b>Value Engineering (VE) Items &amp; vote to accept landscape VE</b> (refer to meeting packet for a list of identified VE items)</p> <p>T. Elmore highlights the list of potential cost reductions identified during the project estimation. We are proposing a 30% reduction amounting to approximately \$320,000.00. We are seeking the committee's approval to proceed with this cost-savings measure and ensure it's documented as a valuable engineering item for the Schematic Design submission.</p> <p>A motion to approve the landscape value engineering items was submitted by S. Meyer and seconded by M. Moran.</p> <p><b>Discussion:</b>        C. Magliozzi asks is this motion for just the landscape reduction or the other value engineering items as well?        T. Elmore confirms this is strictly for landscape reduction.</p>	Record

	<p><b>Roll Call Vote:</b> B. Delorey (Y), C. Magliozzi (Y), Moran (Y), M. Ward (Y), S. Meyer(Y), C. McGown (Y) <b>Abstentions:</b> None; All in favor, motion passes.</p>	
24.6	<p><b>Project Budget Update</b></p> <p>T. Elmore notes that there was a recent change in the budget from the last meeting. The core academic ineligible square footage increased from 50 to 500 square feet. The additional 450 square feet is deemed ineligible. The adjustment resulted in a reduction of the facilities grants by approximately half a million dollars, consequently increasing the local share by the same amount. Thus, the initial local share presented was 61.3 million, it now stands closer to 61.8 million. It's important to note that these figures are subject to change as negotiations with the MSBA progress over the next month.</p> <p><b>Discussion:</b>        S. Meyer asks what did the MSBA cut off?        T. Elmore states the makerspace off the library, the MSBA deem the space to be ineligible.</p>	Record
24.7	<p><b>Schematic Design (SD) Review &amp; Approval to have DWMP &amp; LPA   A submit SD Package to the MSBA (vote expected)</b></p> <p>A motion was made by S. Meyer to approve the Clinton Building Project Schematic Design Budget and Submission by the OPM and Design Team to the MSBA.        2<sup>nd</sup> by B. Delorey.</p> <p><b>Discussion:</b>        M. Ward asks when the MSBA assesses the Schematic Design package, will they make changes or amendments to the design or budget, or is it more like a review process which simply involves either approving or rejecting it outright?        T. Elmore replies, during the discussions with the MSBA, the focus would primarily be on clarifying any spaces they have questions about regarding eligibility, which influences the budget allocation. The MSBA typically does not engage in other aspects of the project at this stage.</p> <p><b>Roll Call Vote:</b> B. Delorey (Y), C. Magliozzi (Y), Moran (Y), M. Ward (Y), S. Meyer(Y), C. McGown (Y) <b>Abstentions:</b> None; Vote results: <b>(6)</b> in Favor, <b>(0)</b> Oppose, <b>(0)</b> Abstain        Motion: <b><u>Passes</u></b> / Fails</p>	Record
24.8	<p><b>Next Steps: Public Out</b></p> <p>T. Elmore highlights the importance of preparing for the next steps after working with the MSBA over the next month. He emphasizes the need to inform the public and address any potential questions or misinformation accurately. The team will provide support, as they are all invested in the project's success.</p> <p>Next Steps:</p> <ul style="list-style-type: none"> <li>• Update FAQ document.</li> <li>• Add user friendly links to current information on websites.</li> </ul>	Record

	<ul style="list-style-type: none"> <li>• Work with PTA</li> <li>• March 15 - Dr. Meyer on Chamber of Commerce TV Show</li> <li>• Upcoming Community Events</li> </ul> <p>DWMP, LPA   A , &amp; Fontaine are available for “support of;</p> <ul style="list-style-type: none"> <li>• Upcoming Events in the Town of Clinton</li> <li>• Support in generating the facts about the project.</li> <li>• Answering any community questions</li> </ul> <p><b>Discussion:</b>  M. Varakis suggested the idea of pre-recording a presentation with key slides and voiceovers to distribute widely, aiming to combat misinformation and ensure factual understanding among the public.  T. Elmore emphasizes the importance of having local community members represent the project data, rather than relying on consultants. A recent incident at the Whittier vocation school, where the contractor involvement in campaign efforts for a favorable vote was met with disapproval from the community. The community voices must be at the forefront of the project presentations and discussion to maintain trust and credibility.  C. Magliozzi requests a guide on what the committee are allowed to do and what we are not allowed to do, in terms of advocacy.  T. Elmore states he will look into it.</p>	
24.9	<p><b>Other topics not Reasonably Anticipated 48 hours prior to the Meeting:</b>  <b>Discussion:</b> None</p>	Record
24.10	<p><b>Public Comment:</b>  <b>Discussion:</b> None.</p>	Record
24.11	<p><b>Next SBC Meeting:</b>  ➤ PBC/SBC Remote Meeting: March 12, 2024 @ 6:30PM</p>	Record
24.12	<p><b>Adjourn: 7:14 PM</b> A motion was made by S. Meyer and seconded by C. Magliozzi to adjourn the meeting.</p> <p><b>Discussion:</b> None; <b>Roll Call Vote:</b> B. Delorey (Y), C. Magliozzi (Y), Moran (Y), M. Ward (Y), S. Meyer(Y), C. McGown (Y) <b>Abstentions:</b> None; All in favor, motion passes.</p>	Record

Sincerely,

DORE + WHITTIER

Elias Grijalva

Assistant Project Manager

Cc: Attendees, File

The above is my summation of our meeting. Please contact me for incorporation into these minutes if you have any additions and/or corrections.



Massachusetts School Building Authority



# Clinton MIDDLE SCHOOL BUILDING PROJECT

February 15, 2024  
All-Boards Meeting

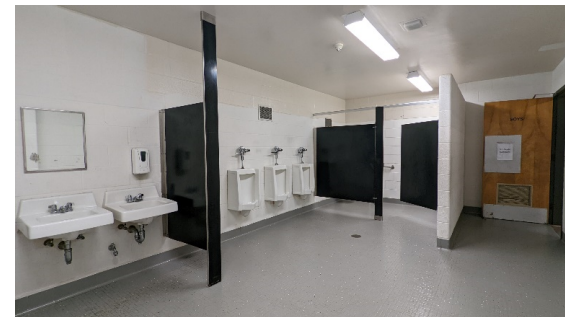
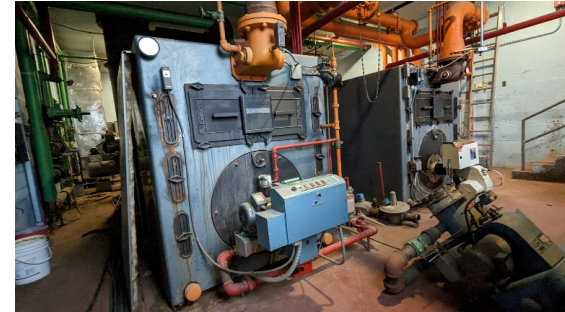
PSR Phase - 06.27.2023	Base Repair	New
Option	BR	NC-1 [700]
Building Square Footage	130,000	136,000
MSBA \$/Sq.Ft. Reimbursement Cap	-	@ \$393 sf
Cost ESTIMATE including Contingency	\$101.5M	\$135 - \$149M
MAXIMUM Reimbursement Amount	\$0	\$52 - \$57M
POTENTIAL Local Share	\$101.5M	\$83 - \$92M
Duration & Disturbance Time Frame	5 to 10 years  very high	3 years  low



### Estimated Project Costs

#### Scope of Work

HVAC	±\$13.6M
Plumbing	±\$3.9M
Electrical	±\$9.8M
Haz Mat Abatement & Demo	±\$3.7M
Roofing & Structure	±\$4.4M
Fire Protection	±\$1.5M
Accessibility	±\$1.2M
Interior Ceilings	±\$1.1M
Exterior Walls	±\$5.5M
Exterior Doors & Windows	±\$2.1M
Interior Finishes	±\$2.3M
Exterior Improvements	±\$3.0M



# OPTIONS COST COMPARISON



## Tier 1 Upgrades

- HVAC System Replacement: \$13,650,000.00
  - Replacing 48 yr. old gas fired boilers
  - New RTU heat pump system and ductwork
  - New classroom units and piping
  - VRF for admin, gym, café, media
  - All new controls
- Plumbing System Replacement: \$3,900,000.00
  - New domestic water system and fixtures
  - New AG sanitary W&V and AG Storm
- Electrical System Replacement: \$8,710,000.00
  - New Electrical Service & Equipment
  - Normal and emergency power (Generator)
  - Mechanical wiring, new lighting
  - Fire Alarm, BDA, lightning protection
- Tel/Com & AV Upgrade: \$1,105,000.00
  - New AV Rough-In
  - New Security & Access Control
  - Assisted Listening systems, master clock/PA
- Hazardous Materials Abatement \$1,585,000.00
  - Removals associated with above ceiling and mechanical systems
- Demo & Temp Protection: \$1,950,000.00
  - Removal of all ceilings/necessary walls for new systems
  - Removal of all existing systems
  - Protection of all finishes (floor, millwork, doors, etc.)
- Necessary Structural Upgrades: \$1,150,000.00
  - Structural Steel for new roof units and new roof openings
  - Seismic clips at interior masonry walls
  - Supplemental steel for new above ceiling systems
- Sitework for Updating Utilities: \$675,000.00
  - New 8" water line for sprinkler system
  - New primary electrical feeds/ductbank
- Interior Ceilings Replacement: \$1,105,000.00
  - New ACT ceilings throughout
  - Healthzone ACT in kitchen and bathrooms

- Necessary Drywall/Paint Upgrades: \$1,950,000.00
  - Walls and soffits for new systems
  - New paint throughout
- Remove/Abate 28 Yr. Old Roof: \$617,500.00
- Complete Roof Replacement: \$3,325,000.00
  - New adhered PVC Roof assembly
  - Flashings and blocking for new roof penetrations
- Temporary Student Classrooms: \$5,000,000.00
  - Swing space classroom trailers allowance for 200 students
  - Includes temporary utilities

## Tier 1 Code Required Upgrades

- Fire Sprinkler System: \$1,560,000.00
  - Complete new fire protection system
  - Necessary Canopy and Kitchen heads
- Accessibility Required Upgrades: \$1,200,000.00
  - Elevator replacement
  - Stage vertical lift
  - Signage
  - Bathroom updates (partitions, accessories)
  - Classroom casework with sinks
  - Egress doors and hardware
  - Interior door hardware
  - Misc. exterior surface upgrades (sidewalks, athletic paths)
  - Stair Railings
  - Accessible gym seating

## Tier 2 Upgrades

- Replace All Existing Windows/Exterior Doors: \$2,150,000.00
  - Replace all existing windows/storefront DGU
  - New blocking and sealants
- New Energy Compliant Façade: \$5,500,000.00
  - New insulated metal panel to entire façade
  - Exterior wall AVB to existing masonry
  - Exterior wall flashings and tie-ins
- Flooring Finishes Replacement: \$2,350,000.00
  - Remove and Replace VCT flooring and base throughout
  - New carpet in admin & media, new tile in all bathrooms
- Classroom Casework Replacement: \$1,885,000.00
  - Upgrade all classroom casework
- Exterior Improvements: \$3,000,000.00
  - New bituminous parking, curbing and line stripping
  - New sidewalks and site lighting
  - Landscaping, fence and field updates
- New Lockers: \$550,000.00
- Kitchen & Athletic Equipment Upgrades: \$1,080,000.00
  - Adequate sized cooler and serving equipment
  - New telescoping bleachers & gym partitions
  - Misc. theatre and athletic equipment updates

# BASE REPAIR DETAIL

## Tier 1 Upgrades

➤ HVAC System Replacement:	\$13,650,000.00
➤ Plumbing System Replacement:	\$3,900,000.00
➤ Electrical System Replacement:	\$8,710,000.00
➤ Tel/Com & AV Upgrade:	\$1,105,000.00
➤ Hazardous Materials Abatement	\$1,582,500.00
➤ Demo & Temp Protection:	\$1,950,000.00
➤ Necessary Structural Upgrades:	\$1,150,000.00
➤ Sitework for Updating Utilities:	\$675,000.00
➤ Interior Ceilings Replacement:	\$1,105,000.00
➤ Necessary Drywall/Paint Upgrades:	\$1,950,000.00
➤ Remove/Abate Roof:	\$617,500.00
➤ Complete Roof Replacement:	\$ 3,325,000.00
➤ Temporary Student Classrooms:	\$ 5,000,000.00

## Tier 2 Upgrades

➤ Replace All Existing Windows/Exterior Doors:	\$2,150,000.00
➤ New Energy Compliant Façade:	\$5,500,000.00
➤ Flooring Finishes Removal and Replacement:	\$2,350,000.00
➤ Classroom Casework Replacement:	\$1,885,000.00
➤ Exterior Improvements:	\$3,000,000.00
➤ New Lockers:	\$550,000.00
➤ Kitchen & Athletic Equipment Upgrades:	\$1,080,000.00
GC's/GR's and CM Fee:	\$2,477,250.00

<b>Tier 2 Estimated Construction Cost:</b>	<b>\$18,992,250.00</b>
<b>Tier 2 Estimated Contingencies:</b>	<b>\$3,418,605.00</b>
<b>Tier 2 Estimated Soft Cost:</b>	<b>\$3,798,450.00</b>
<b>Total Estimated Tier 2 Cost:</b>	<b>\$26,209,305.00</b>

2025

\$4,191,397 threshold

## Tier 1 Code Required Upgrades

➤ Fire Sprinkler System:	\$1,560,000.00
➤ Accessibility Required Upgrades:	\$1,200,000.00
GC's/GR's and CM Fee:	\$7,122,000.00

<b>Tier 1 Estimated Construction Cost:</b>	<b>\$54,602,000.00</b>
<b>Tier 1 Estimated Contingencies:</b>	<b>\$9,828,360.00</b>
<b>Tier 1 Estimated Soft Costs:</b>	<b>\$10,920,400.00</b>
<b>Total Estimated Tier 1 Cost:</b>	<b>\$75,350,760.00</b>

2030

## Total Base Repair Estimate

<b>Total Estimated Tier 1 Cost:</b>	<b>\$75,350,760.00</b>
<b>Total Estimated Tier 2 Cost:</b>	<b>\$26,209,305.00</b>

**Total Estimated Cost: \$101,560,065.00**

# BASE REPAIR TIMELINE

**700 STUDENT GRADES 4-8**

**136,000 GROSS SQUARE FEET**



	PROPOSED	DIFFERENCE	GUIDELINE
<u>CORE ACADEMIC SPACES</u>	36,120	50	36,070
<u>SPECIAL EDUCATION</u>	14,200	6,150	8,050
<u>ART &amp; MUSIC</u>	5,100	500	4,600
<u>VOCATIONS &amp; TECHNOLOGY</u>	4,320	0	4,320
<u>HEALTH &amp; PHYSICAL EDUCATION</u>	9,400	1,000	8,400
<u>MEDIA CENTER</u>	4,405	0	4,405
<u>DINING &amp; FOOD SERVICE</u>	10,558	1,000	9,558
<u>MEDICAL</u>	660	50	610
<u>ADMINISTRATION &amp; GUIDANCE</u>	3,500	0	3,500
<u>CUSTODIAL &amp; MAINTENANCE</u>	2,175	0	2,175
<u>OTHER</u>	0	0	0
<b>SUBTOTAL</b>	<b>90,438</b>	<b>8,750</b>	<b>81,688</b>
<u>NON-PROGRAMMED SPACES</u>	45,562	11,250	34,312
<b>TOTAL</b>	<b>136,000</b>	<b>20,000</b>	<b>116,000</b>
	1.50		1.41

# SPACE SUMMARY TEMPLATE

## **SINCE WE MEET LAST, SOME MAJOR MILESTONES/ DECISIONS MADE INCLUDES THE FOLLOWING:**

- MSBA APPROVED TOWN TO PROCEED TO SD  
IN AUGUST 2023**
- CONSTRUCTION MANAGER SELECTED IN DEC. 2023**
- BUILDING WILL BE ALL-ELECTRIC (no gas)**
- GEOTHERMAL HEATING WILL BE INCLUDED**
- BUILDING WILL BE “SOLAR READY”; PV’s will be  
included as an add alternate**

**UPDATES**

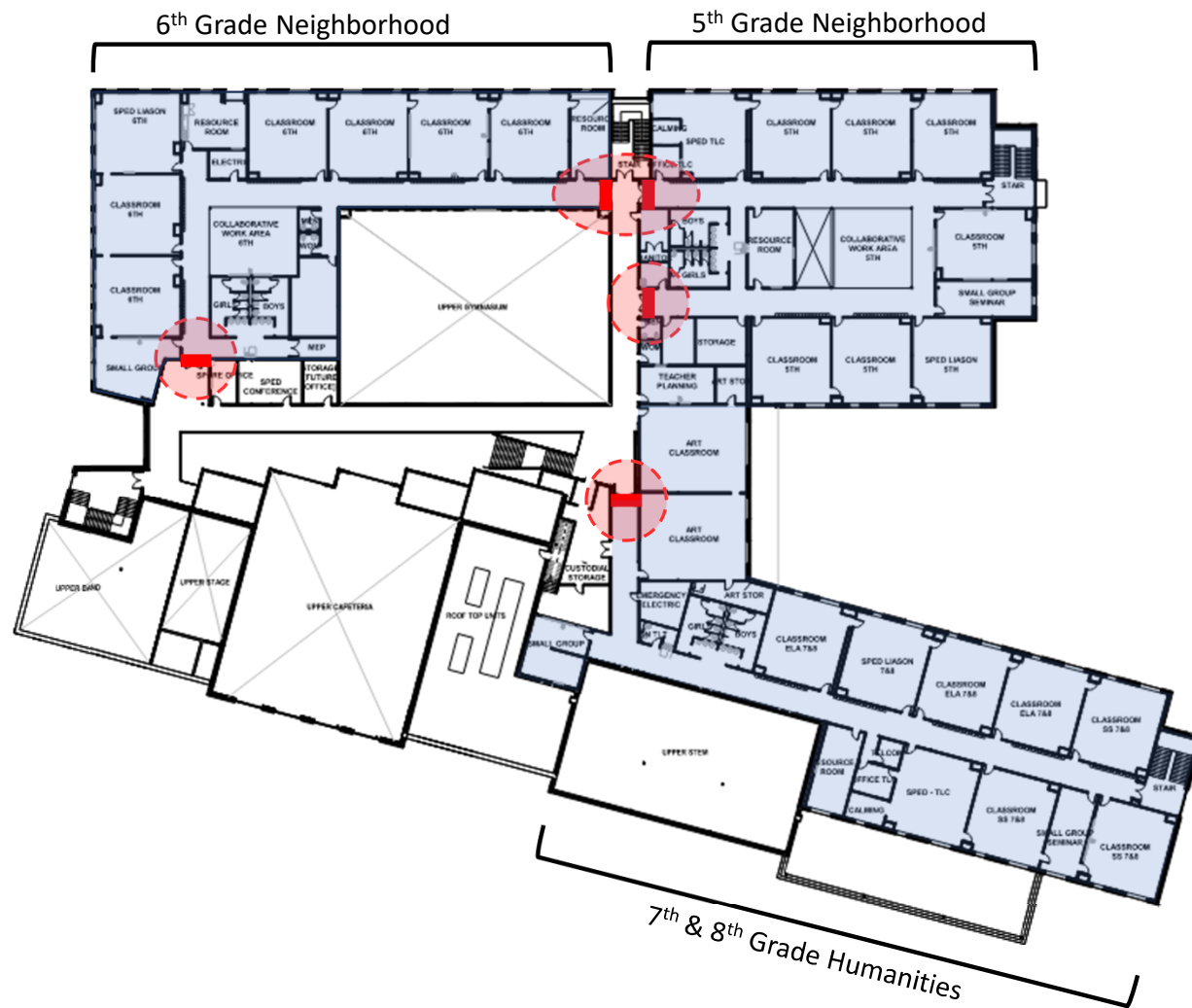
Main Entrance



# FIRST FLOOR PLAN



# FIRST FLOOR PLAN



# SECOND FLOOR PLAN



# SECOND FLOOR PLAN





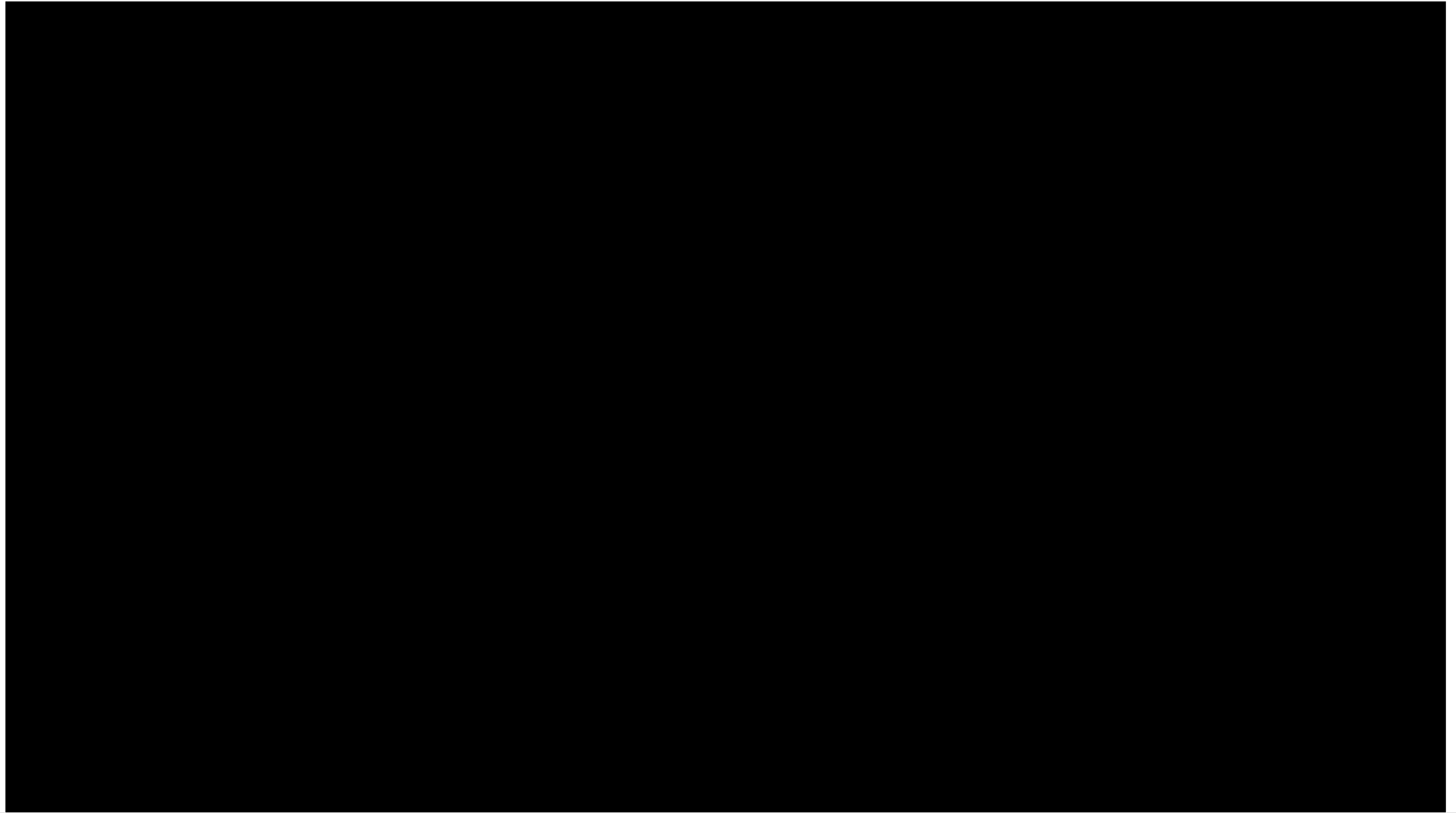
**AERIAL VIEW**



**AERIAL VIEW**



**AERIAL VIEW**



**UPDATE VIDEO**

1st Day of School 2025



- ① 8' Site Fence w/ Privacy Screen
- ② Ring Road Paved w Binder
- ③ Contractor Parking (70 Car Capacity)
- ④ FBI & Dore + Whittier Field Office
- ⑤ Existing Bus Loop
- ⑥ Existing Student Drop Off Loop
- ⑦ Subcontractor Conex Boxes
- ⑧ Primary Site Access Gate
- ⑨ Emergency Site Access Gate
- ⑩ Temporary ADA Sidewalk

Legend:

- Pedestrian Traffic
- Bus Circulation
- Parent Circulation

# ENABLING PACKAGE

Site Entrance



# SITE ENTRANCE

Drop Off Loop (Looking Southwest)






**PARENT DROP OFF**

Construction 2025



- ① 8' Site Fence w/ Privacy Screen
- ② Ring Road Paved w Binder
- ③ Contractor Parking (70 Car Capacity)
- ④ FBI & Dore + Whittier Field Office
- ⑤ Existing Bus Loop
- ⑥ Existing Student Drop Off Loop
- ⑦ Subcontractor Conex Boxes
- ⑧ Primary Site Access Gate
- ⑨ Emergency Site Access Gate
- ⑩ Temporary ADA Sidewalk

-  Pedestrian Traffic
-  Bus Circulation
-  Parent Circulation




# CONSTRUCTION OF NEW BUILDING



1st Day of School 2026



- ① 8' Site Fence w/ Privacy Screen
- ② Ring Road Paved w Binder
- ③ Contractor Parking (70 Car Capacity)
- ④ FBI & Dore + Whittier Field Office
- ⑤ Existing Bus Loop
- ⑥ Existing Student Drop Off Loop
- ⑦ Patch Roadway as Required
- ⑧ Primary Site Access Gate
- ⑨ Emergency Site Access Gate
- ⑩ Temporary ADA Sidewalk




-  Pedestrian Traffic
-  Bus Circulation
-  Parent Circulation

# RETURN TO SCHOOL IN 2026

Summer 2027



- ① 8' Site Fence w/ Privacy Screen
- ② Permanent Ring Road
- ③ Contractor Parking
- ④ FBI & Dore + Whittier Field Office
- ⑤ Demolition Phase Site Access Gate
- ⑥ School Staff & FFE Parking
- ⑦ Basketball Court Complete
- ⑧ Primary Site Access Gate
- ⑨ Emergency Site Access Gate
- ⑩ Dumpsters

-  Pedestrian Traffic
-  Bus Circulation
-  Parent Circulation

# DEMOLITION & MOVE IN

1st Day of School 2027

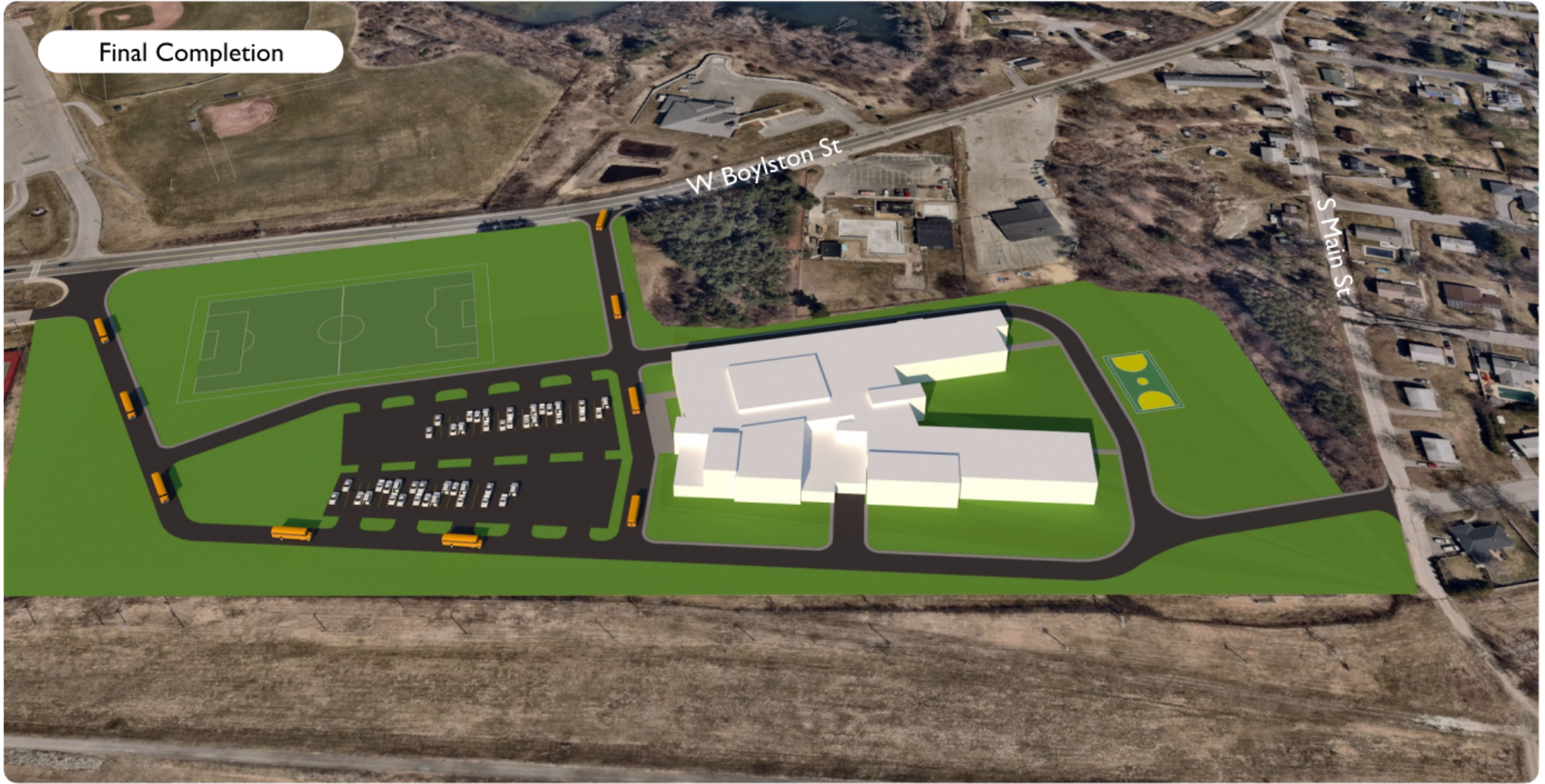


- ① 8' Site Fence w/ Privacy Screen
- ② Site Utilities & Prep for Final Paving
- ③ School Overflow Parking
- ④ New Middle School Staff Parking
- ⑤ New Bus Loop
- ⑥ New Student Drop Off Loop
- ⑦ FBI & Dore + Whittier Field Office
- ⑧ Primary Site Access Gate
- ⑨ Contractor Parking
- ⑩ Landscape & Hardscape Complete

- Pedestrian Traffic
- Bus Circulation
- Parent Circulation

# 1<sup>st</sup> DAY OF SCHOOL IN THE NEW BUILDING

Final Completion



**COMPLETION OF SITE WORK**

# MSBA BUDGET FORM 3011

Ineligible Costs for State Reimbursement

Clinton Middle School

2/9/24 TE

DRAFT

Enter Budget Values for Ineligible Costs in light yellow highlighted cells.

Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(9) Feasibility Study Agreement	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Facilities Grant Enter Budget Values for Ineligible Costs in light yellow highlighted cells.	Estimated Maximum Total Facilities Grant <sup>1</sup>
OPM Feasibility Study	\$284,000		\$284,000	
A&E Feasibility Study	\$600,000		\$600,000	
Environmental & Site	\$50,000		\$50,000	
Other	\$56,000		\$56,000	
<b>Feasibility Study Agreement Subtotal</b>	<b>\$1,000,000</b>		<b>\$1,000,000</b>	<b>\$782,400</b>
Administration	\$30,000		\$30,000	
<b>Owner's Project Manager</b>				
Design Development	\$392,000		\$392,000	
Construction Contract Documents	\$982,000	\$43,364	\$938,636	
Bidding	\$181,000		\$181,000	
Construction Contract Administration	\$2,400,000	\$1,282,616	\$1,117,384	
Closeout	\$125,000		\$125,000	
Extra Services	\$0		\$0	
Reimbursable & Other Services	\$0		\$0	
Cost Estimates	\$40,000		\$40,000	
Advertising	\$2,000		\$2,000	
Permitting	\$0		\$0	
Owner's Insurance	\$350,000		\$350,000	
Other Administrative Costs	\$50,000		\$50,000	
<b>Administration Subtotal</b>	<b>\$4,132,000</b>	<b>\$1,406,000</b>	<b>\$2,726,000</b>	<b>\$2,132,822</b>
<b>Architecture and Engineering</b>				
Basic Services				
Design Development	\$3,600,000		\$3,600,000	
Construction Contract Documents	\$3,975,000	\$128,700	\$3,846,300	
Bidding	\$200,000		\$200,000	
Construction Contract Administration	\$3,175,000	\$4,091,300	\$0	
Closeout	\$130,000		\$130,000	
Other Basic Services	\$0		\$0	
<b>Basic Services Subtotal</b>	<b>\$11,100,000</b>	<b>\$4,220,000</b>	<b>\$6,880,000</b>	
Reimbursable Services				
Construction Testing - TEDI	\$200,000		\$200,000	
Printing (over minimum)	\$10,000		\$10,000	
Other Reimbursable Costs	\$5,000		\$5,000	
Hazardous Materials	\$300,000		\$300,000	
Geotechnical & Geo-Environmental	\$250,000		\$250,000	
Site Survey	\$80,000		\$80,000	
Wetlands	\$0		\$0	
Traffic Studies	\$80,000		\$80,000	
<b>Architectural / Engineering Subtotal</b>	<b>\$12,005,000</b>	<b>\$4,220,000</b>	<b>\$7,785,000</b>	<b>\$6,090,984</b>
<b>CM at Risk Pre-Construction Services</b>				
Pre-Construction Services	\$273,000		\$273,000	\$213,595
Site Acquisition	\$0		\$0	\$0
Land / Building Purchase	\$0		\$0	\$0
Appraisal Fees	\$0		\$0	\$0
Recording fees	\$0		\$0	\$0
<b>Site Acquisition Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Construction Costs				
<b>SUBSTRUCTURE</b>				
Foundations	\$2,869,461		\$2,869,461	
Basement Construction	\$1,303,725		\$1,303,725	
<b>SHIEL</b>				
Super Structure	\$7,609,135		\$7,609,135	
Exterior Closure	\$0		\$0	
Exterior Walls	\$6,345,675		\$6,345,675	
Exterior Windows	\$1,810,945		\$1,810,945	
Exterior Doors	\$298,850		\$298,850	
Roofing	\$3,898,551		\$3,898,551	
<b>INTERIORS</b>				
Interior Construction	\$7,052,681		\$7,052,681	
Staircases	\$361,000		\$361,000	
Interior Finishes	\$5,100,455		\$5,100,455	
<b>SERVICES</b>				
Conveying Systems	\$216,000		\$216,000	
Plumbing	\$4,151,000		\$4,151,000	
HVAC	\$11,875,640		\$11,875,640	
Fire Protection	\$1,108,276		\$1,108,276	
Electrical	\$8,253,469		\$8,253,469	
<b>EQUIPMENT &amp; FURNISHINGS</b>				
Equipment	\$1,089,150		\$1,089,150	
Furnishings	\$2,218,708		\$2,218,708	
<b>SPECIAL CONSTRUCTION &amp; DEMOLITION</b>				
Special Construction	\$0		\$0	
Existing Building Demolition	\$1,375,000		\$1,375,000	
In-Building Hazardous Material Abatement	\$1,515,000		\$1,515,000	
Asbestos Containing Floor Material / Ceiling Tile Abatement	\$420,000	\$420,000	\$0	
Other Hazardous Material Abatement	\$0		\$0	
<b>BUILDING SITE WORK</b>				
Site Preparation	\$3,332,708		\$3,332,708	

NOTE that ineligible costs can not exceed Estimated Budget Cost for any individual line item, distribute across multiple lines if needed.

Template Revised: December 2023  
Incorporates revisions to MSBA's project funding limits policy, which was approved at the October 25, 2023 MSBA Board of Directors Meeting.

Category	Estimated Budget	Excluded Costs	Eligible Soft Costs
Administration	\$4,482,000	\$1,406,000	\$3,076,000
A/E Services	\$12,855,000	\$4,220,000	\$8,635,000
Site Acquisition: Ineligible, therefore not included in calculation			
Miscellaneous Project Costs:	\$650,000	\$250,000	\$600,000
Owners Contingency: Not included in this calculation			
<b>Total Eligible Soft Costs =</b>			<b>\$13,791,000</b>

Category	Estimated Budget	Excluded (%)	Scope Excluded Costs
CM Pre-Construction Services:	\$273,000		
Construction Cost:	\$114,295,882		
Construction Contingency: Not included in this calculation			
Total Construction Cost:	\$114,569,882		
Soft Cost Allowance:	20%		
Reimbursable Soft Cost:	\$22,913,778		
Eligible minus Reimbursable =	-\$9,122,778	If >0 enter into Cell C16	
If Eligible minus Reimbursable is negative, OK.			
If Eligible minus Reimbursable is positive enter value into "Soft Costs that exceed 20% of Construction Cost" below in the Ineligible column.			

Scope Excluded OPM & Designer Costs associated with Scope Excluded Building Costs	Estimated Budget	Excluded (%)	Scope Excluded Costs
Scope Excluded A/E/P/E (GSF):	1,500	(1.1000%)	
Total (GSF):	136,000		
OPM Basic Services:	\$3,944,000	1.1000%	\$43,364
Designer Basic Services:	\$1,700,000	1.1000%	\$128,700

Scope Excluded OPM & Designer Costs associated with Scope Excluded Site Work	Estimated Budget	Excluded (%)	Scope Excluded Costs
Scope Excluded Direct Construction Cost (\$):	\$0	(0.0000%)	
Total Direct Construction Costs (\$):	\$84,046,467		
OPM Basic Services:	\$3,944,000	0.0000%	\$0
Designer Basic Services:	\$1,700,000	0.0000%	\$0
Total Scope Excluded OPM Fees (\$):	\$0		\$0 Enter in Cell C13
Total Scope Excluded Designer Fees (\$):	\$0		\$0 Enter in Cell C28

Ineligible Building Area	Ineligible NSF	Ineligible A/E/P/E GSF	Other Ineligible GSF	Estimated District Cost
Core Academic:	50		75	\$63,031
Special Education:				\$0
Art & Music:	500		750	\$630,308
Vocations & Technology:				\$0
Chapter 74 CTE:				\$0
Health & Physical Education:	1,000	1,500		\$1,260,615
Media Center:				\$0
Auditorium / Drama:				\$0
Dining & Food Services:	1,000		1,500	\$1,260,615
Medical:	50		75	\$63,031
Administration & Guidance:				\$0
Custodial & Maintenance:				\$0
Other:				\$0
<b>Total:</b>	<b>1,500</b>	<b>1,500</b>	<b>2,400</b>	<b>\$3,277,600</b>

Mark Up Ratio	Construction Budget	Construction Trades Subtotal	Mark Up Ratio
	\$114,295,882	\$84,046,467	1.359913106 = Mark Up Ratio

Demolition and Abatement Costs	Total Demolition and Abatement Costs:	Eligible Demolition and Abatement Costs:	Marked Up Eligible Costs:
	\$3,310,000	-\$420,000	\$3,930,149

MSBA Budget category totals:

- Feasibility Study \$1 M
- Administration \$4.1 M
- Design \$12 M

(Continued on the next page)

Site Improvements	\$7,480,351	\$0	
Site Civil / Mechanical Utilities	\$3,189,146	\$0	
Site Electrical Utilities	\$1,263,532	\$0	
Scope Excluded Site Work	\$0	\$0	
<b>Construction Trades Subtotal</b>	<b>\$84,046,467</b>	<b>\$420,000</b>	
Contingencies (Design and Pricing)	\$8,404,647	\$42,000	
Sub-Contractor Bonds	\$1,239,688	\$6,196	
D/B/B Insurance	\$0	\$0	
General Conditions	\$7,169,856	\$35,829	
D/B/B Overhead & Profit - GR's	\$4,425,600	\$22,116	
GMP Insurance - in GR's	\$0	\$0	
GMP Fee	\$2,285,918	\$11,423	
GMP Contingency	\$1,680,629	\$8,400	
Escalation to Mid-Point of Construction	\$5,942,788	\$25,200	
<b>Construction Cost over Funding Cap</b>	<b>\$114,295,892</b>	<b>\$29,874,079</b>	
<b>Construction Budget</b>	<b>\$114,295,892</b>	<b>\$30,445,243</b>	<b>\$65,604,748</b>
Alternates	\$0	\$0	\$0
Ineligible Work Included in the Base Project	\$0	\$0	\$0
Alternates Included in the Total Project Budget	\$0	\$0	\$0
Alternates Excluded from the Total Project Budget	\$1,579,565	\$0	\$1,579,565
<b>Subtotal to be Included in Total Project Budget</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Miscellaneous Project Costs	\$0	\$0	\$0
Utility Company Fees	\$300,000	\$0	\$300,000
Testing Services	\$300,000	\$0	\$300,000
Swing Space / Modulators	\$0	\$0	\$0
Other Project Costs (Mailing & Moving)	\$250,000	\$0	\$250,000
<b>Miscellaneous Project Costs Subtotal</b>	<b>\$850,000</b>	<b>\$250,000</b>	<b>\$469,440</b>
Furnishings and Equipment	\$1,500,000	\$650,000	\$1,500,000
Furniture, Fixtures, and Equipment	\$1,200,000	\$350,000	\$1,200,000
Technology	\$2,700,000	\$1,020,000	\$2,700,000
<b>FF&amp;E Subtotal</b>	<b>\$2,700,000</b>	<b>\$1,020,000</b>	<b>\$1,314,432</b>
Soft Costs that exceed 20% of Construction Cost	\$0	\$0	\$0
<b>Project Budget</b>	<b>\$135,255,892</b>	<b>\$37,347,443</b>	<b>\$76,608,421</b>

<b>Eligible Site Work Cost</b>			
Total Direct Site Work Costs:	\$15,265,737		
Ineligible Site Work Costs:	\$0		132,100 Eligible Building GSF
Potentially Eligible Direct Site Work Costs:	\$15,265,737		<b>\$55 Site Work Cost Limit (\$/sf) includes Mark Up</b>
Potentially Eligible Marked Up Site Work Costs:	\$20,760,076	\$7,265,500	Site Work Cost Allowance includes Mark Up
<b>Marked Up Eligible Site Work Costs:</b>	<b>\$7,265,500</b>		

<b>Construction Costs and Funding Cap</b>			
Total Building Area (GSF):	136,000		
Ineligible Excess Auditorium/PE Areas (GSF):	-1,500		Site Work Cost beyond Funding Limit:
Other Ineligible Building Areas (GSF):	-2,400		\$13,494,576
Eligible Building GSF:	132,100		Ineligible Demo & Abatement:
<b>Building Cost Funding Limit (\$/sf):</b>	<b>\$550</b>		\$571,164
Eligible Building Costs:	\$72,655,000		Scope Excluded Aud/PE Areas:
Eligible Site Work Costs:	\$7,265,500		\$1,260,615
Eligible Demolition & Abatement Costs:	+ \$3,930,149		Other Ineligible Building Areas:
<b>Basis of Construction Costs:</b>	<b>\$83,850,649</b>		\$2,016,985
Construction Budget:	\$114,295,892		Construction Cost over Funding Cap:
Basis of Construction Cost:	\$83,850,649		\$13,101,903
Ineligible Construction Costs:	\$30,445,243		
Construction Cost over Funding Cap:	\$0		
If > 0 enter value into Cell C98			

<b>FF&amp;E Reimbursement</b>			
Eligible Enrollment:	700	Enter Eligible Enrollment	
Furniture, Fixtures & Equipment:	\$1,200/student	Estimated Budget	Eligible Costs
Technology:	\$1,200/student	\$1,500,000	\$840,000
		\$1,200,000	\$840,000
			\$0 If > 0 enter in Cell C112
			\$0 If > 0 enter in Cell C113

<b>Incentive Points</b>			
1.65	(0-2) Maintenance		
0.00	(0-6) Newly Formed Regional School District		
0.00	(0-5) Major Reconstruction or Reno/Reuse type in rounded to 2 decimal places		
	#DIV/0!	0 gsf	Renovated or Existing to Remain
		0 gsf	Total at Conclusion of Project
			If Cell G117 > 0 enter value into Cell F116
0.00	(0-1) Overlay Zoning 40R and 40S		
0.00	(0-0.5) Overlay Zoning 100 units or 50% of units 1, 2, or 3 family structures		
4.00	(0-4) Energy Efficiency - "Green Schools"		
<b>5.65</b>	<b>Total Incentive Points</b>		Owner's Contingency Cap: 0.50%
			Construction Contingency Cap: 1.00%

<b>Board Authorization</b>		72.59 Reimbursement Rate Before Incentive Points
Design Enrollment	700	5.65 Total Incentive Points
Total Building Gross Floor Area (GSF)	136,000	78.24% MSBA Reimbursement Rate
Total Project Budget (excluding Contingencies)	\$135,255,892	
Scope Items Excluded or Otherwise Ineligible	-\$37,341,243	
Third Party Funding (Ineligible)	-\$0	
Estimated Basis of Maximum Total Facilities Grant <sup>1</sup>	\$97,914,649	
Reimbursement Rate <sup>1</sup>	78.24%	
Est. Max. Total Facilities Grant (before recovery) <sup>1</sup>	\$76,608,421	
Cx Costs associated with Ineligible Building Area <sup>2</sup>	-\$3,588	
Cost Recovery associated with Prior Projects <sup>2</sup>	-\$0	
Estimated Maximum Total Facilities Grant <sup>1</sup>	\$76,604,833	

**NOTES**  
 This template was prepared by the MSBA as a tool to assist Districts and consultants in understanding MSBA policies and practices regarding potential impact on the MSBA's calculation of a potential Basis of Total Facilities Grant and proposed Total Maximum Facilities Grant. This template does not contain a final, exhaustive list of all evaluations which the MSBA may use in determining whether items are eligible for reimbursement by the MSBA. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed school project that may or may not agree with the estimates generated by the District using this template.

1 - The Estimated Basis of Total Facilities Grant and Estimated Maximum Facilities Grant amounts do not include any potentially eligible contingency funds and are subject to review and audit by the MSBA.

2 - Costs associated with the commissioning of ineligible building area is estimated to result in the recovery of a portion of the overall commissioning cost. The OPM has estimated this recovery of funds to be \$ \_\_\_\_\_. The proposed demolition of the \_\_\_\_\_ is expected to result in the MSBA recovering a portion of state funds previously allocated to the District for the \_\_\_\_\_ project at the existing facilities completed in \_\_\_\_\_. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed school project that may or may not agree with the estimated cost recovery generated by the District and its consultants using this template.

3 - Pursuant to Section 3.21 of the Project Funding Agreement and the applicable policies and guidelines of the Authority, any project costs associated with the allocation or transfer of funds from either the Owner's contingency or the Construction Contingency to other budget line items shall be subject to review by the Authority to determine whether such costs are eligible for reimbursement by the Authority. All costs are subject to review and audit by the MSBA.

<b>Commissioning (Cx) Costs associated with Ineligible Building Area</b>	
Building GSF:	136,000
Cx Fee per GSF:	\$0.92
Ineligible GSF:	3,900
Ineligible Cx Costs:	\$3,588 If > 0 enter in Cell B128
Commissioning Fee Schedule	

<b>Cost Recovery associated with Prior Projects</b>	
Prior Project ID Number:	
Prior Project Total Grant:	
Propose School Opens:	
Prior Project Substantial Completion:	
Beneficial use (years):	0.00
Unused Years:	20%
Unused Years as a % of 20:	100.00%
Prior Project Cost Recovery:	\$0 If > 0 enter in Cell B128

- MSBA Budget category totals:**
- Feasibility Study \$1 M
  - Administration \$4.1 M
  - Design \$12 M
  - Construction \$114.3 M
  - Misc & Furniture \$3.5 M
  - Contingency \$4 M

**(Max Reimbursement \$77.9 M)**

**Max. Project Cost = \$139.3 M**

By signing this Total Project Budget, I hereby certify that I have read and understand the form and further certify, to the best of my knowledge and belief, that the information supplied by the District in the table above is true, accurate, and complete.

# Summary of reimbursement and local share

• Total Project Cost	\$ 139.3 Million
• Less MSBA Max. <u>Reimbursement Funds</u>	<u>- \$ 77.9 Million</u>
• Sub-total = <b>local share</b>	<b>\$ 61.3 Million</b>
• Less Potential Geothermal & PV State and Federal Grant Funds	<u>- \$ 2.5 Million</u>
• Revised potential local share	\$ 59 Million

- Currently, Municipalities can finance MSBA new building projects for 30 years
  - Recent legislature filed may allow up to 40 year financing
  - Municipal interest rates are typically lower and more stable than normal interest rates
- Once a debt exclusion is approved, short term borrowing will be used to cover the expenses incurred during the construction process.
  - This will result in an incremental tax increase beginning in FY26
- Once the project is completed, the final exact amount will be borrowed and financed
  - The total impact of the borrowing will most likely be in FY29

## Financing a New Building



<b>Residential Tax Impact</b>	<b>25 yrs at 4.0%</b>	<b>30 yrs at 4.25%</b>	<b>40 yrs at 5.25%</b>
Borrowing Amount	\$61,300,000	\$61,300,000	\$61,300,000
Capital Debt Rate Estimate	1.61	1.50	1.52
2024 Average Assessed Residential Value	\$403,286	\$403,286	\$403,286
Average Annual Debt Exclusion Increase	\$650	\$605	\$612

<b>Debt Exclusion Increase:</b>	<b>25 yrs at 4.0%</b>	<b>30 yrs at 4.25%</b>	<b>40 yrs at 5.25%</b>
Quarterly	\$162.50	\$151.25	\$153.00
Monthly	\$54.17	\$50.42	\$51.00
Weekly	\$12.50	\$11.63	\$11.77
Daily	\$1.78	\$1.66	\$1.68

Current estimated cost of borrowing \$61.3M

Expiring Debt Exclusions During Construction	Average Tax Impact	Expiration Date
Clinton Elementary School	\$40.33	5/1/2025
Rauscher Farm Open Space Acquisition	\$24.20	5/1/2028
Senior Center Renovation	\$12.10	5/1/2028
<b>Total</b>	<b>\$76.63</b>	

Expiring Debt Exclusions After Construction	Average Tax Impact	Expiration Date
School Track / Fire Engine	\$8.07	2030
School Track, Fire Engine, Water St. Sidewalks	\$20.16	2031
Savage Field Renovations	\$8.07	2032
<b>Total</b>	<b>\$36.30</b>	

## Expiring Debt Exclusions

- Clinton High School was completed in 1999
- Clinton Elementary School was completed in 2003
- Clinton Middle School was completed in 1974
  
- Fifty year old buildings, typically require major upgrades to their systems :
  - CHS will be 50 years old in 2049
  - CES will be 50 years old in 2053
  - CMS is 50 years old now
  
- If we try to just complete base repairs, in 2050, the town will have two buildings approximately 50 years old, and one approximately 75 years old.

## Timing of this Process

Thank you for attending/watching

Any Questions?

**Thank you and Questions**



# TOWN OF CLINTON

*Office of the Selectmen*

242 Church Street,

Clinton, Massachusetts 01510

Tel: (978) 365-4120 • Fax: (978) 365 4130

BOARD OF SELECTMAN

Edward J. Devault  
Mary Rose Dickhaut  
Sean J. Kerrigan  
Matthew H. Kobus  
Julie K. Perusse

Michael J. Ward  
*Town Administrator*

02/21/2024

Ms. Diane Sullivan  
Senior Capital Program Manager  
40 Broad Street, Suite 500  
Boston, Massachusetts 02109

Dear Ms. Sullivan:

The Town of Clinton Permanent Building Committee (“PBC”) has completed review of the Schematic Design Submittal for the Clinton Middle School project and voted to approve and authorize the OPM to submit the Schematic Design related submittals to the MSBA for consideration on February 20, 2024. A draft copy of the PBC meeting minutes, which includes the specific language of the vote and the number of votes in favor, opposed and abstained, are attached. A certified copy will be submitted upon approval of the meeting minutes.

The PBC held (*11*) meetings regarding the Clinton Middle School project since the MSBA Board of Directors approved the Town to proceed into Schematic Design on August 30, 2023.

- **SBC/PBC Meeting No. 14**
  - Date/Time: July 18, 2023, at 6:30pm
  - Location: Remote Meeting via Zoom
  - Topics Discussed: PSR Submission Update, Facility Assessment Subcommittee (FAS) Update
- **SBC/PBC Meeting No. 15**
  - Date/Time: August 22, 2023, at 6:30pm
  - Location: Remote Meeting via Zoom
  - Topics Discussed: FAS Update, LPA|A Update, CM @ Risk Method Discussion
- **SBC/PBC Meeting No. 16**
  - Date/Time: September 19, 2023, at 6:30pm
  - Location: Remote Meeting via Zoom
  - Topics Discussed: Project Budget Update, MSBA Board of Directors Update, LPA|A Update, CM@R discussion & vote, Community Outreach
- **SBC/PBC Meeting No. 17**
  - Date/Time: October 03, 2023, at 6:30pm
  - Location: Remote Meeting via Zoom
  - Topics Discussed: Mechanical Systems Discussion/Vote, CM@R subcommittee selection, OIG Application submission permission, CM@R RFQ draft discussion.
- **SBC/PBC Meeting No. 18**
  - Date/Time: October 17, 2023, at 6:30pm
  - Location: Clinton Middle School – Media Center
  - Topics Discussed: LPA|A Update, CM@R Update, All Electric vs Hybrid fuel system discussion



**TOWN OF CLINTON**  
*Office of the Selectmen*  
242 Church Street,  
Clinton, Massachusetts 01510  
Tel: (978) 365-4120 • Fax: (978) 365 4130

BOARD OF SELECTMAN

Edward J. Devault  
Mary Rose Dickhaut  
Sean J. Kerrigan  
Matthew H. Kobus  
Julie K. Perusse

Michael J. Ward  
*Town Administrator*

- **SBC/PBC Meeting No. 19**
  - Date/Time: November 14, 2023, at 6:30pm
  - Location: Remote meeting via Zoom
  - Topics Discussed: LPA|A Update, CM@R Update,
- **SBC/PBC Meeting No. 20**
  - Date/Time: December 19, 2023, at 6:30pm
  - Location: Remote Meeting via Zoom
  - Topics Discussed: LPA|A Update, CM@R Update,
- **SBC/PBC Meeting No. 21**
  - Date/Time: January 09, 2024, at 6:30pm
  - Location: Remote Meeting via Zoom
  - Topics Discussed: CM Introduction, LPA|A Update, TEDI vs PHIUS, Property DEED and registry filing update, project funding discussion
- **SBC/PBC Meeting No. 22**
  - Date/Time: January 30, 2024, at 6:30pm
  - Location: Remote Meeting via Zoom
  - Topics Discussed: Geothermal & PV Discussion/Vote
- **SBC/PBC Meeting No. 23**
  - Date/Time: February 06, 2024, at 6:30pm
  - Location: Remote Meeting via Zoom
  - Topics Discussed: Construction Cost Reconciliation Update, Total Project Budget Review, Property DEED and registry filing update.
- **SBC/PBC Meeting No. 24**
  - Date/Time: February 20, 2024, at 6:30pm
  - Location: Remote Meeting via Zoom
  - Topics Discussed: All Boards Meeting Update, VE Items, Project Budget Update, Vote on SD Design, Next steps.

In addition to the SBC/PBC meetings listed above, the Town held (1) public meeting, which was posted in compliance with the Open Meeting Law, at which the Clinton Middle School project was discussed.

**February 15, 2024** – Community & All Boards Public Meeting with Owner's Project Manager DWMP, Designer LPA|A, Superintendent of Schools Steve Meyer. Topics discussed: Team Introduction, Base Repair Cost Evaluation, New Building Design Review, Timeline, Estimated Construction Cost & Total Project Cost Review, Local funding impact, and Questions & Answers

The meeting presentation materials, meeting minutes, and summary materials as they relate to the Clinton Middle School project. Are available locally for public review at:

[www.clintonmiddleschoolbuildingproject.com](http://www.clintonmiddleschoolbuildingproject.com) > *Committee*  
([Clinton Middle School Building Project](#))



# TOWN OF CLINTON

Office of the Selectmen

242 Church Street,

Clinton, Massachusetts 01510

Tel: (978) 365-4120 • Fax: (978) 365 4130

BOARD OF SELECTMAN

Edward J. Devault  
Mary Rose Dickhaut  
Sean J. Kerrigan  
Matthew H. Kobus  
Julie K. Perusse

Michael J. Ward  
Town Administrator

To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, §§ 18-25 and 940 CMR 29 *et seq.*

P

If you have any questions or require any additional information, please contact the Owner's Project Manager, Dore & Whittier Management Partners, at (978) 499-2999.

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By:  
Michael Ward  
Title: Chief Executive Officer & Town Administrator

Date: 02/21/2024

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By:  
Steve Meyer  
Title: Superintendent of Schools

Date: 02/21/2024

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By:  
Brendan Bailey  
Title: Chair of the School Committee

Date: 02/21/2024

## 4.1.2 SCHEMATIC DESIGN BINDER

---

### T. Supporting Documents

1. Press & Media Coverage
2. Clinton MSBA Design  
Enrollment Certification
3. Deed Recording  
Documents



A proactive community outreach effort has continued throughout the Schematic Design phase. Some of the key steps include the following:

- The project website continued to be maintained and updated so the public will have current information and can be found here: <https://www.clintonmiddleschoolbuildingproject.com/>  
As discussed in the PSR, the intent is to continue to upload public documents (i.e. general information, existing conditions, meeting minutes, reports, graphics, schedules, project photos, presentations, etc.) available for viewing on this website. The District has also added a link to submit questions or comments.
- All-Boards Meeting: The project team presented an update to the All-Boards group at an open to the public and televised meeting that took place on February 15<sup>th</sup>, 2024, at the Clinton Middle School cafeteria. The All-Boards group consists of the following town boards:
  - Board of Selectmen
  - School Committee
  - Finance Committee
  - Permanent Building Committee / School Building Committee

LPA|A presented an update on the project to date, including a review of the site and building that is being submitted to MSBA as part of the SD submission. Additionally, the Superintendent and Town Manager discussed tax implications to the town residents based on the estimated project costs.

- School Building Committee (SBC) Meetings: All SBC meetings have been conducted in accordance with the state's open meeting law. All agendas and minutes of these meetings can be found in section 4.1.2, S. The final SBC meeting for the PSR was held on February 20<sup>th</sup>, 2024, at the Middle School where the SD package was voted on and approved to be submitted to MSBA.
- The Clinton Middle School/MSBA project is a regular agenda item for all CPS school committee meetings. All CPS school committee meetings are live-streamed, and the recordings are available online. Additionally, the local paper (Clinton Item) has run multiple articles in which the CMS/MSBA updates from the school committee meeting have been feature articles. Finally, multiple updates have been provided to the Clinton Board of Selectmen and the Clinton Finance Committee. These meetings are broadcast on Clinton Cable TV and the recordings are available online. Refer to section 4.1.2, A, 1 for a list of all meetings that were held.

### Schematic Design

#### T. Supporting Documents

##### 1. Press and News Articles

- Clinton Public Schools has made every effort to keep the public informed of the MSBA process. The District puts out a monthly newsletter, as part of this process. The newsletter is sent to all addresses that the District has on file and is also available to anyone who signs up on the District's website. Within the newsletter, the superintendent, Steven Meyer, always includes an update on the project. Here is a list of monthly newsletters from March 2022 to now:

<https://conta.cc/42fgkBz>  
<https://conta.cc/3T3d7To>  
<https://conta.cc/3QCbz0Y>  
<https://conta.cc/465ay6O>  
<https://conta.cc/3NIDJdA>  
<https://conta.cc/45Kyo8i>  
<https://conta.cc/3NIR5In>  
<https://conta.cc/3FrRe8t>  
<https://conta.cc/3lyJ8f2>  
<https://conta.cc/3XN4Ulv>  
<https://conta.cc/3WCzL3j>  
<https://conta.cc/3U2TfN0>  
<https://conta.cc/3Dd8ZYm>  
<https://conta.cc/3R83FJK>  
<https://conta.cc/3tk5TNb>  
<https://conta.cc/3xR2R5S>  
<https://conta.cc/3KM0bdb>  
<https://conta.cc/3vBORfc>



# Massachusetts School Building Authority

**Deborah B. Goldberg**  
*Chair, State Treasurer*

**James A. MacDonald**  
*Chief Executive Officer*

**Mary L. Pichetti**  
*Executive Director / Deputy CEO*

August 31, 2023

Mr. Michael J. Ward, Town Administrator  
Town of Clinton  
242 Church Street  
Clinton, MA 01510

Re: Town of Clinton, Clinton Middle School

Dear Mr. Ward:

On August 30, 2023, the Massachusetts School Building Authority's Board of Directors voted to approve the Town of Clinton's Preferred Schematic for the Clinton Middle School project. Based on this approval, enclosed is a Design Enrollment Certification for 700 students in grades 4-8 for your review and execution.

Please sign and return the attached certification within 21 calendar days to document the Town of Clinton's agreement on the design enrollment for the Clinton Middle School project.

If you have any questions or comments, please do not hesitate to contact Allison Sullivan ([Allison.Sullivan@MassSchoolBuildings.org](mailto:Allison.Sullivan@MassSchoolBuildings.org)).

Sincerely,



Michael McGurl  
Director of Capital Planning

Cc: Legislative Delegation  
Matthew H. Kobus, Chair, Clinton Select Board  
Brendan Bailey, Chair, Clinton School Committee  
Dr. Steven Meyer, Superintendent, Clinton Public Schools  
Trip Elmore, Owner's Project Manager, Dore & Whittier Management Partners, LLC  
Kathryn Crockett, Designer, Lamoureux Pagano Associates, Architects  
File: 10.2 Letters (Region 2)

**MASSACHUSETTS SCHOOL BUILDING AUTHORITY  
TOWN OF CLINTON  
CLINTON MIDDLE SCHOOL  
DESIGN ENROLLMENT CERTIFICATION**


As a result of a collaborative analysis with the Massachusetts School Building Authority (the "MSBA") of enrollment projections and space capacity needs for the proposed project at Clinton Middle School, the Town of Clinton hereby acknowledges and agrees that the design of the proposed project at Clinton Middle School shall be based on an enrollment of no more than 700 students in grades 4-8. The Town of Clinton further acknowledges and agrees that, pursuant to 963 CMR 2.00 *et seq.*, the MSBA shall determine the square feet per student space allowance and total square footage for grades 4-8 in a middle school serving 700 students. The Town of Clinton acknowledges and agrees that it has no right or entitlement to any particular design enrollment, square feet per student space allowance, or total square footage and that it has no right or entitlement to a design enrollment any greater than 700 students for Clinton Middle School, and further acknowledges and agrees that it shall not bring any claim or action, legal or equitable, against the MSBA, or any of its officers or employees, for the purpose of obtaining an increase in the design enrollment of Clinton Middle School that it has acknowledged and agreed to herein. The Town of Clinton further acknowledges and agrees that, among other things, the design enrollment, square feet per student space allowance, and total square footage of Clinton Middle School shall be subject to the approval of the MSBA's Board and that the final approval of a proposed project at Clinton Middle School shall be within the sole discretion of the MSBA's Board.

The undersigned, for themselves and the Town of Clinton, hereby certify that they have read and understand the contents of this Design Enrollment Certification and that each of the above statements is true, complete and accurate. The undersigned also hereby certify that they have been duly authorized by the appropriate governmental body to execute this Certification on behalf of the Town of Clinton and to bind the Town of Clinton to its terms.



Chief Executive Officer

9/1/2023  
Date

  
Superintendent of Schools

8/31/23  
Date



Duly Authorized Representative of School Committee

Sept 01, 2023  
Date

Property Address: 75 and 100 West Boylston Street, Clinton, MA (Worcester County)

**QUITCLAIM DEED**

**TOWN OF CLINTON** a Massachusetts municipal corporation, having an address at 242 Church Street, Clinton, Massachusetts 01510 (“Grantor”),

for consideration paid and in full consideration of Ten and 00/100 Dollars (\$10.00), grants and conveys to

**NEW ENGLAND POWER COMPANY**, a Massachusetts corporation, having an address at 170 Data Drive, Waltham, Massachusetts 02451, (together with its successors and assigns, “Grantee”)

***WITH QUITCLAIM COVENANTS,***

All of Grantor’s right, title and interest in and to that certain parcel of land located southerly of West Boylston Road (Route 110) in the Town of Clinton, County of Worcester, Commonwealth of Massachusetts, shown as “PARCEL B” on a plan entitled “PLAN OF LAND, CLINTON MIDDLE SCHOOL, 100 WEST BOYLSTON STREET, CLINTON, MA 01510” prepared by Nitsch Engineering for the Town of Clinton, dated 10-24-23, last revised 01-09-24, recorded with the Worcester District Registry of Deeds (the “Registry”) in Plan Book 975, Page 121 (the “ANR Plan”), and being more particularly described on Exhibit A attached hereto and made a part hereof. The Granted Premises constitute a portion of the premises granted to the Grantor (the “1969 Parcel”) by deed from The Commonwealth of Massachusetts, acting through its Metropolitan District Commission to the Grantor dated January 9, 1969, and recorded with the Registry in Book 4928, Page 585 (the “1969 Deed”).

The Grantor hereby also grants to the Grantee, with quitclaim covenants, the following perpetual rights and easements:

1. From time to time, exclusive of all others, to construct, reconstruct, install, repair, replace, maintain, operate, inspect and patrol, for the transmission of high and low voltage electric energy and for the transmission of intelligence by any means, whether

now existing or hereafter devised, lines of towers or poles or both (any of which may be erected and/or constructed at the same or different times) with wires and cable strung upon and from the same, together with all necessary foundations, anchors, guys, braces, fittings, equipment and appurtenances, including a buried ground wire and such footbridges, causeways and ways of access, if any (collectively, the "Improvements"), as may be reasonably necessary for the convenient construction, reconstruction, installation, repair, replacement, maintenance, operation, inspection and patrolling of the Improvements, in, over, across, upon, under and through two (2) certain strips of land shown as Easement C on the ANR Plan and Easement D on a plan entitled "EASEMENT PLAN, 75 WEST BOYLSTON STREET, CLINTON, MA 01510" prepared by Nitsch Engineering for the Town of Clinton, dated 10-30-23 (collectively, the "Easement Areas"). Easement C is located southerly of West Boylston Road (Route 110) in the Town of Clinton, County of Worcester, Commonwealth of Massachusetts, constituting a portion of the 1969 Parcel and Easement D is located northerly of said West Boylston Road (Route 110) constituting a portion of the premises granted to the Grantor by deed from The Commonwealth of Massachusetts, acting by and through its Division of Capital Asset Management and Maintenance (formerly the Division of Capital Planning and Operations) to the Grantor dated April 23, 1999, and recorded with the Registry in Book 21354, Page 317. The Easement Areas are more particularly described on Exhibit B attached hereto and made a part hereof.

2. To pave, excavate and/or change the grade so much thereof as is reasonable, necessary and proper in connection with the exercise of the forgoing rights and easements.
3. From time to time, without further payment therefor, to clear and keep cleared by physical, chemical or other means, the Easement Areas of trees, underbrush, buildings, above and below ground structures and other obstructions (the first clearing may be for less than the full width and may be widened from time to time to the full width) and to renew, replace, add to and otherwise change the Improvements and each and every part thereof and all appurtenances thereto and the location thereof within the Easement Areas; and to pass along the Easement Areas to and from the adjoining lands and to pass over the Grantor's adjoining lands to and from the Easement Areas as reasonably required.

The Grantor, for itself and its successors and assigns, hereby covenants and agrees with the Grantee that no act will be permitted within the Easement Areas which is inconsistent with the rights and easements hereby granted; that no buildings or structures will be erected or constructed within the Easement Areas; that no recreational use will be allowed within the Easement Area; and that the present grade or ground level of the Easement Areas will not be changed by excavation or filling. Notwithstanding the foregoing or any other provision of this Deed to the contrary, (i) the Grantee acknowledges that on the date of this Deed certain improvements owned by the Grantor

exist within the boundaries of Easement Areas and are shown on the ANR Plan and the Easement Plan (collectively, the “Grantor Improvements”), (ii) the Grantor Improvements may remain, and (iii) the Grantor Improvements may be reconstructed, repaired, replaced, maintained and used from time to time without the consent of the Grantee, provided, however, that (A) any reconstruction or replacement of the Grantor Improvements shall be in-kind and shall not change the present grade or ground level of the Easement Areas, and (B) the Grantor may not add to or expand the footprint of the Grantor Improvements without the prior written consent and approval of the Grantee, which approval shall not be unreasonably withheld, delayed or conditioned.

It is the intention of the Grantor to grant to the Grantee all the rights and easements aforesaid and any and all additional and/or incidental rights and easements needed to construct, reconstruct, install, repair, replace, maintain, operate, inspect and patrol and otherwise change, for the transmission of high and low voltage electric energy and the transmission of intelligence, the Improvements, in, over, across, upon, under and through the Easement Areas. The Grantor hereby agrees to execute, acknowledge and deliver to the Grantee such further deeds and instruments as may be necessary to secure to the Grantee the rights and easements intended to be herein conveyed. It is intended by the parties that the rights and easements granted herein shall be assignable and may be apportioned by the Grantee.

These provisions shall bind and inure to the benefit of the successors and assigns of the respective parties.

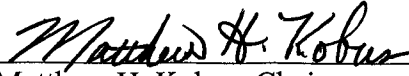
It is agreed that the Improvements shall remain the property of the Grantee and that the Grantee shall pay all taxes assessed thereon.

Subject to and together with the benefit of all other easements, encumbrances, covenants, conditions, restrictions and other matters of recorded; provided, however, that the Grantor, for itself and its successors and assigns, hereby covenants and agrees that it shall have the sole obligation to repair and maintain, at its sole cost and expense, the fence located on the Granted Premises and referred to in the second full paragraph on the second page of the 1969 Deed.

*[Remainder of Page Intentionally Left Blank – Signature Page Follows]*


EXECUTED as an instrument under seal this 7<sup>th</sup> day of February, 2024.


**TOWN OF CLINTON**  
By its Select Board

  
\_\_\_\_\_  
Matthew H. Kobus, Chair

  
\_\_\_\_\_  
Julie Perusse, Vice Chair

  
\_\_\_\_\_  
Edward J. Devault, Clerk

  
\_\_\_\_\_  
Sean J. Kerrigan, Member

  
\_\_\_\_\_  
Mary R. Dickhaut, Member

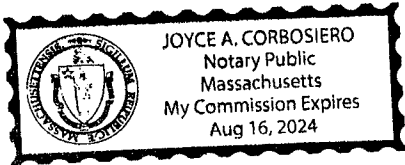


COMMONWEALTH OF MASSACHUSETTS

Worcester, ss.

On this 7th day of February, 2024, before me, the undersigned notary public, personally appeared Matthew H. Kobus, Julie Perusse, Edward J. Devault, Sean J. Kerrigan, and Mary R. Dickhaut, proved to me through satisfactory evidence of identification, which was  photographic identification with signature issued by a federal or state governmental agency,  oath or affirmation of a credible witness,  personal knowledge of the undersigned, to be the persons whose name are signed on the preceding or attached document(s), and acknowledged to me that they each signed it voluntarily for its stated purpose as Members of the Select Board of the Town of Clinton for and on behalf of the Town of Clinton.

Before me,



*Joyce A. Corbosiero*  
Name: \_\_\_\_\_  
Notary Public  
My commission expires: *Aug 16, 2024*

**EXHIBIT A**

**LEGAL DESCRIPTION**

Parcel B

A parcel of land located southerly of West Boylston Road (Route 110) in the Town of Clinton, County of Worcester, Commonwealth of Massachusetts, shown as "PARCEL B" on a plan entitled "PLAN OF LAND, CLINTON MIDDLE SCHOOL, 100 WEST BOYLSTON STREET, CLINTON, MA 01510" prepared by Nitsch Engineering for the Town of Clinton, dated 10-24-23, last revised 01-09-24 (the "ANR Plan"), recorded with the Worcester District Registry of Deeds in Plan Book 975, Page 121, and more particularly described according to the ANR Plan as follows:

BEGINNING at the Southeasterly corner of Parcel B, said point being located on the northwesterly sideline of Main Street;

THENCE turning and running by land now or formerly of Metropolitan District Commission, N 73°12'19" W, a distance of 1,644.27 feet, to a point;

THENCE turning and running by land of the Town of Clinton, N 53°31'45" E, a distance of 123.94 feet, to a point;

THENCE turning and running by land of said Town of Clinton, S 73°12'19" E, a distance of 956.65 feet, to a point;

THENCE turning and running by Parcel C, S 64°00'31" E, a distance of 621.51 feet, to the POINT OF BEGINNING.

CONTAINING 129,172± square feet or 2.965± acres, according to the ANR Plan.

**EXHIBIT B**

**LEGAL DESCRIPTION**

Easement C

A strip of land located southerly of West Boylston Road (Route 110) in the Town of Clinton, County of Worcester, Commonwealth of Massachusetts, shown as "EASEMENT C" on the ANR Plan, and more particularly described according to the ANR Plan as follows:

BEGINNING at the Northwesterly corner of Easement C, said point being located on the Southerly sideline of West Boylston Street (Route 110);

THENCE turning and running by West Boylston Street (Route 110), S 86°00'56" E, a distance of 107.80 feet, to a point;

THENCE turning and running, S 17°56'48" E, a distance of 587.93 feet, to a point at Parcel B;

THENCE turning and running by Parcel B, N 73°12'19" W, a distance of 169.22 feet, to a point;

THENCE turning and running, N 07°56'23" E, a distance of 89.46 feet, to a point;

THENCE turning and running, N 17°56'48" W, a distance of 451.28 feet, to the POINT OF BEGINNING.

CONTAINING 59,439± square feet or 1.364± acres, according to the ANR Plan.

For Grantor's title, see deed from The Commonwealth of Massachusetts, acting through its Metropolitan District Commission to the Grantor dated January 9, 1969, and recorded with the Worcester District Registry of Deeds in Book 4928, Page 585.

Easement D

A strip of land located northerly of West Boylston Road (Route 110) in the Town of Clinton, County of Worcester, Commonwealth of Massachusetts, shown as "EASEMENT D" on a plan entitled "EASEMENT PLAN, 75 WEST BOYLSTON STREET, CLINTON, MA 01510" prepared by Nitsch Engineering for the Town of Clinton, dated 10-30-23 (the "Easement Plan"), recorded with the Worcester District Registry of Deeds in Plan Book 975, Page 116, and more particularly described according to the Easement Plan as follows:

BEGINNING at the Southeasterly corner of Easement D, said point being located on the Northerly sideline of West Boylston Street (Route 110);

THENCE turning and running by West Boylston Street (Route 110), N 86°00'56" W, a distance of 107.80 feet to a point;

THENCE turning and running, N 17°56'48" W, a distance of 776.26 feet, to a point at land now or formerly of Boston and Maine Railroad;

THENCE turning and running by land now or formerly of Boston and Maine Railroad, N 67°54'04" E, a distance of 100.26 feet, to a point;

THENCE turning and running, S 17°56'49" E, a distance of 823.78 feet, to the POINT OF BEGINNING.

CONTAINING 80,000± square feet or 1.836± acres, according to the Easement Plan.

For Grantor's title, see Release Deed from The Commonwealth of Massachusetts, acting by and through its Division of Capital Asset Management and Maintenance (formerly the Division of Capital Planning and Operations) to the Grantor dated April 23, 1999, and recorded with the Worcester District Registry of Deeds in Book 21354, Page 317.

Property Address: off southerly side of West Boylston Street, Clinton, MA (Worcester County)

**QUITCLAIM DEED**

**NEW ENGLAND POWER COMPANY**, a Massachusetts corporation, having an address at 170 Data Drive, Waltham, Massachusetts 02451 (“Grantor”),

for consideration paid and in full consideration of Ten Dollars (\$10.00), grants and conveys to

**TOWN OF CLINTON** a Massachusetts municipal corporation, having an address at 242 Church Street, Clinton, Massachusetts 01510,

***WITH QUITCLAIM COVENANTS,***

a parcel of land located southerly of West Boylston Road (Route 110) in the Town of Clinton, County of Worcester, Commonwealth of Massachusetts, shown as “PARCEL A” on a plan entitled “PLAN OF LAND, CLINTON MIDDLE SCHOOL, 100 WEST BOYLSTON STREET, CLINTON, MA 01510” prepared by Nitsch Engineering for the Town of Clinton, dated 10-24-23, last revised 01-09-24, and being more particularly described on Exhibit A attached hereto and made a part hereof.

Subject to and together with the benefit of all other easements, encumbrances, covenants, conditions, restrictions and other matter of record.


This conveyance does not constitute all or substantially all of the Grantor’s assets in the Commonwealth of Massachusetts.

The parcel of land herein conveyed constitutes only a portion of the property, comprised of approximately 3.9 acres of land, conveyed to Grantor and shown on plan recorded with Worcester District Registry of Deeds in Plan Book 233, Page 57.

For Grantor’s title, see deed from The Commonwealth of Massachusetts acting through its Metropolitan District Commission to the Grantor dated February 27, 1958, and recorded with the Worcester District Registry of Deeds in Book 3957, Page 51.

EXECUTED as an instrument under seal this 8<sup>th</sup> day of February, 2024.

**NEW ENGLAND POWER COMPANY**


By:   
David J. Aho  
Authorized Representative

**COMMONWEALTH OF MASSACHUSETTS**

Middlesex, ss.

On this 8<sup>th</sup> day of February, 2024, before me, the undersigned notary public, personally appeared David J. Aho, Authorized Representative of New England Power Company, proved to me through satisfactory evidence of identification, which was  photographic identification with signature issued by a federal or state governmental agency,  oath or affirmation of a credible witness,  personal knowledge of the undersigned, to be the person whose name is signed on the preceding or attached document(s), and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of New England Power Company.

Before me,

  
Name:  
Notary Public  
My commission expires: 5-13-2027



**GRACE G. WALSH**  
NOTARY PUBLIC  
Commonwealth of Massachusetts  
My Commission Expires  
May 13, 2027



**EXHIBIT A**

**LEGAL DESCRIPTION**

Parcel A

A parcel of land located southerly of West Boylston Road (Route 110) in the Town of Clinton, County of Worcester, Commonwealth of Massachusetts, shown as "PARCEL A" on a plan entitled "PLAN OF LAND, CLINTON MIDDLE SCHOOL, 100 WEST BOYLSTON STREET, CLINTON, MA 01510" prepared by Nitsch Engineering for the Town of Clinton, dated 10-24-23, last revised 01-09-24 (the "Plan"), recorded with the Worcester District Registry of Deeds in Plan Book 975, Page 121, and more particularly described according to the Plan as follows:

BEGINNING at the Northeasterly corner of Parcel A, said point being located on the Southerly sideline of West Boylston Street (Route 110);

THENCE turning and running, along a curve to the left having a radius of 814.12 feet, a distance of 637.35 feet, to a point;

THENCE turning and running, S 64°00'31" E, a distance of 1,006.12 feet, to a point at Main Street;

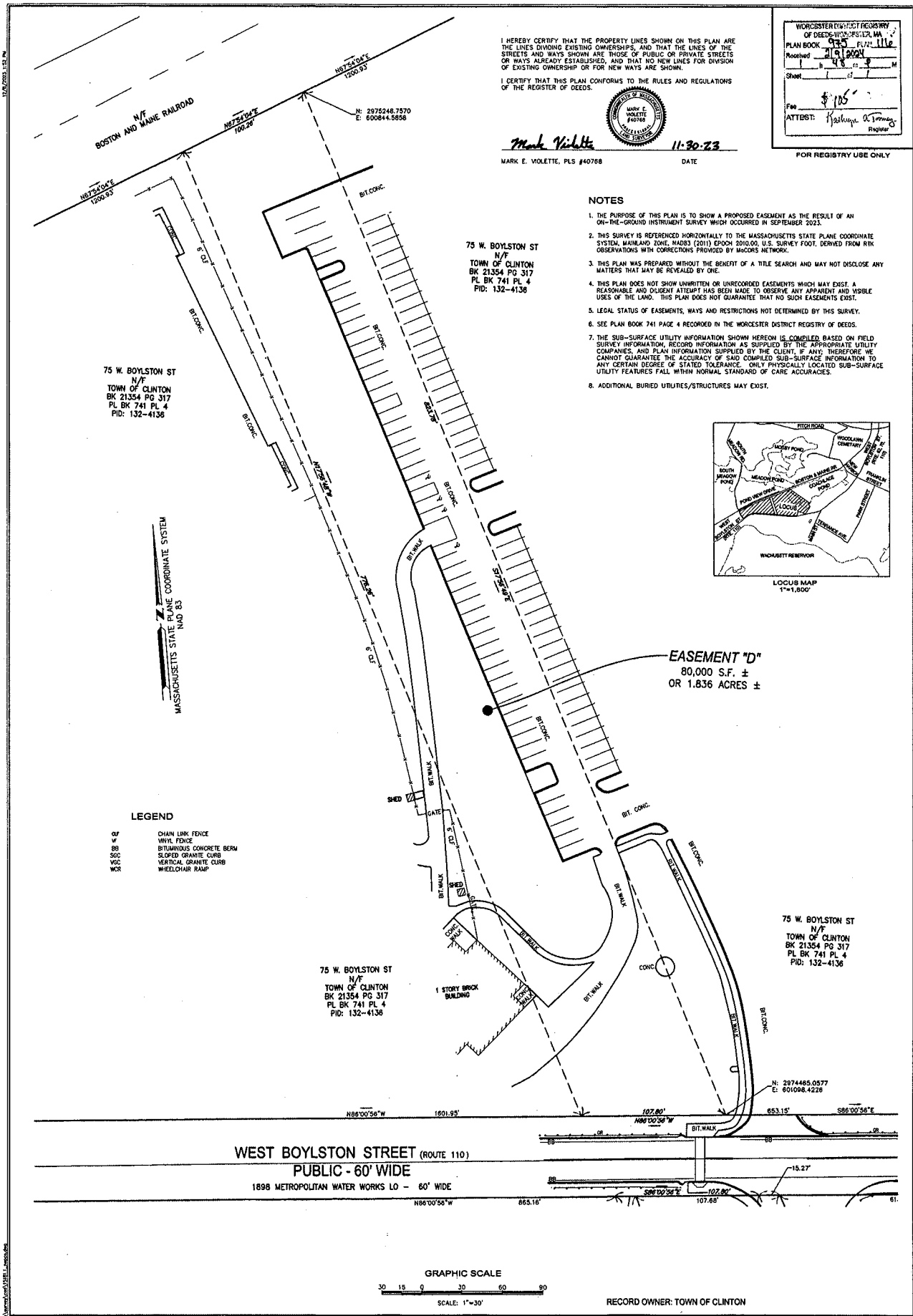
THENCE turning and running by Parcel C, N 73°12'19" W, a distance of 625.66 feet, to a point;

THENCE turning and running, N 64°00'31" W, a distance of 388.49 feet, to a point;

THENCE turning and running, along a curve to the right having a radius of 914.12 feet, a distance of 757.97 feet to a point at West Boylston Street (Route 110);

THENCE turning and running by said West Boylston Street (Route 110), S 86°00'56" E, a distance of 107.68 feet, to the POINT OF BEGINNING.

CONTAINING 139,495± square feet or 3.202± acres, according to the Plan.



I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THAT THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.



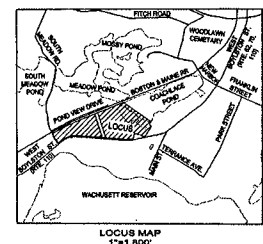
*Mark Volette*  
 MARK E. VOLETTE, PLS #40788  
 DATE: 11-30-23

WORCESTER DISTRICT REGISTRY OF DEEDS-WORCESTER, MA  
 PLAN BOOK 945 P. 1116  
 Recorded 2/9/2024  
 \$185  
 ATTEST: *Hastings O'Leary*  
 Register

FOR REGISTRY USE ONLY

**NOTES**

1. THE PURPOSE OF THIS PLAN IS TO SHOW A PROPOSED EASEMENT AS THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY WHICH OCCURRED IN SEPTEMBER 2023.
2. THIS SURVEY IS REFERENCED HORIZONTALLY TO THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, MANKLAND ZONE, NAD83 (2011) EPON 2010.00, U.S. SURVEY FOOT, DERIVED FROM BIRK OBSERVATIONS WITH CORRECTIONS PROVIDED BY MACORS NETWORK.
3. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE SEARCH AND MAY NOT DISCLOSE ANY MATTERS THAT MAY BE REVEALED BY ONE.
4. THIS PLAN DOES NOT SHOW UNWRITTEN OR UNRECORDED EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT AND VISIBLE USES OF THE LAND. THIS PLAN DOES NOT GUARANTEE THAT NO SUCH EASEMENTS EXIST.
5. LEGAL STATUS OF EASEMENTS, WAYS AND RESTRICTIONS NOT DETERMINED BY THIS SURVEY.
6. SEE PLAN BOOK 741 PAGE 4 RECORDED IN THE WORCESTER DISTRICT REGISTRY OF DEEDS.
7. THE SUB-SURFACE UTILITY INFORMATION SHOWN HEREON IS COMPILED BASED ON FIELD SURVEY INFORMATION, RECORD INFORMATION AS SUPPLIED BY THE APPROPRIATE UTILITY COMPANIES, AND PLAN INFORMATION SUPPLIED BY THE CLIENT. IF ANY; THEREFORE WE CANNOT GUARANTEE THE ACCURACY OF SAID COMPILED SUB-SURFACE INFORMATION TO ANY CERTAIN DEGREE OF STATED TOLERANCE. ONLY PHYSICALLY LOCATED SUB-SURFACE UTILITY FEATURES FALL WITHIN NORMAL STANDARD OF CARE ACCURACIES.
8. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY EXIST.



75 W. BOYLSTON ST  
 N/F  
 TOWN OF CLINTON  
 BK 21354 PG 317  
 PL BK 741 PL 4  
 PID: 132-4136

75 W. BOYLSTON ST  
 N/F  
 TOWN OF CLINTON  
 BK 21354 PG 317  
 PL BK 741 PL 4  
 PID: 132-4136

EASEMENT "D"  
 80,000 S.F. ±  
 OR 1.836 ACRES ±

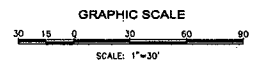
75 W. BOYLSTON ST  
 N/F  
 TOWN OF CLINTON  
 BK 21354 PG 317  
 PL BK 741 PL 4  
 PID: 132-4136

75 W. BOYLSTON ST  
 N/F  
 TOWN OF CLINTON  
 BK 21354 PG 317  
 PL BK 741 PL 4  
 PID: 132-4136

**LEGEND**

OF	CHAIN LINK FENCE
WF	WIRE FENCE
BB	BITUMINOUS CONCRETE BERM
SCC	SLOPED GRANITE CURB
VCC	VERTICAL GRANITE CURB
WCR	WHEELCHAIR RAMP

WEST BOYLSTON STREET (ROUTE 110)  
 PUBLIC - 60' WIDE  
 1898 METROPOLITAN WATER WORKS LO - 60' WIDE



RECORD OWNER: TOWN OF CLINTON



**www.nitscheng.com**  
 270 Main Street, Suite 850  
 Worcester, MA 01608  
 T: (508)365-1030  
 F: (617) 338-6472

- Civil Engineering
- Land Surveying
- Transportation Engineering
- Structural Engineering
- Green Infrastructure
- Planning
- GIS

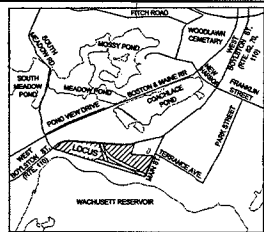
PROJECT # 18181.1  
 FILE: 18181.1\_NEP00.dwg  
 SCALE: 1"=30'  
 DATE: 10-30-23  
 DESIGNED: MEV  
 FIELD BOOK:  
 DRAFTED BY: CRH  
 CHECKED BY: MEV

**EASEMENT PLAN**  
 75 WEST BOYLSTON STREET  
 CLINTON, MA  
 PREPARED FOR:  
**TOWN OF CLINTON**  
 242 CHURCH STREET, CLINTON, MA 01610

SHEET: 1  
**E-1**  
 OF 1 REV.



WORCESTER DISTRICT REGISTRY  
OF DEEDS-WORCESTER, MA  
PLAN BOOK 275 PLAN 121  
Received 2-14-24  
Sheet 1 of 1  
Attest: *Harvey A. Conway*  
Register



1 CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTER OF DEEDS.

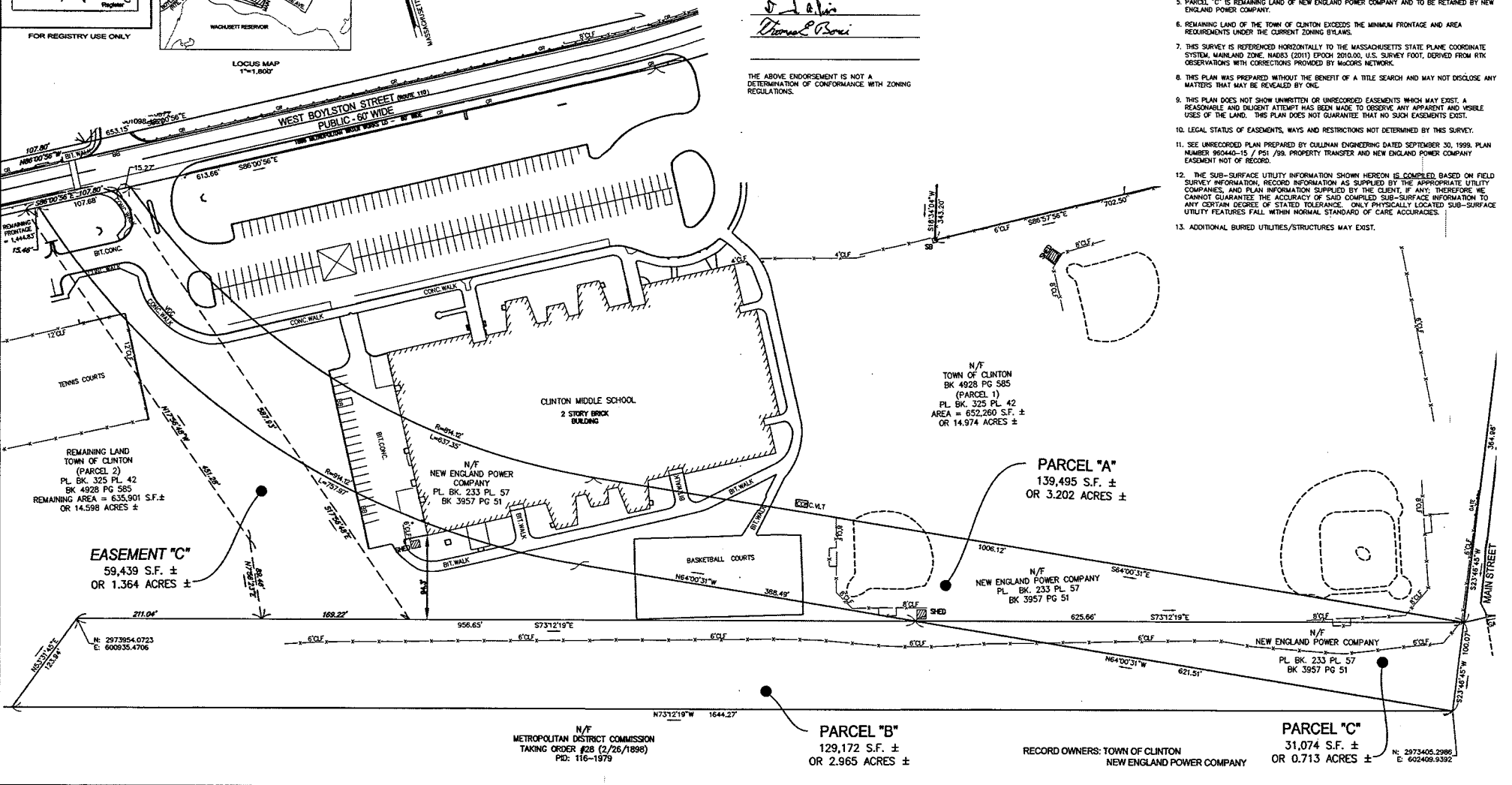
APPROVAL UNDER THE SUBDIVISION CONTROL LAW NOT REQUIRED TOWN OF CLINTON PLANNING BOARD  
2-13-24  
DATE: *Paul J...*  
*Steve J...*  
*Donald A...*  
*Thomas P. B...*



*Mark Violette*  
MARK E. VIOLETTE, PLS #40768  
1-9-24 DATE

LEGEND  
CLF CHAIN LINK FENCE  
WF WHIT FENCE  
BB BITUMINOUS CONCRETE BERM  
SGC SLOPED GRANITE CURB  
VGC VERTICAL GRANITE CURB  
WCR WHEELCHAIR RAMP

- NOTES
1. THE PURPOSE OF THIS PLAN IS TO SHOW A LAND SWAP AND PROPOSED EASEMENT AS THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY WHICH OCCURRED IN JUNE AND SEPTEMBER 2023.
  2. PARCELS "A", "B" AND "C" ARE NOT TO BE CONSIDERED SEPARATE BUILDABLE LOTS UNDER THE CURRENT ZONING BYLAWS.
  3. PARCEL "A" IS INTENDED TO BE CONVEYED FROM NEW ENGLAND POWER COMPANY TO THE TOWN OF CLINTON.
  4. PARCEL "B" IS INTENDED TO BE CONVEYED FROM THE TOWN OF CLINTON TO NEW ENGLAND POWER COMPANY.
  5. PARCEL "C" IS REMAINING LAND OF NEW ENGLAND POWER COMPANY AND TO BE RETAINED BY NEW ENGLAND POWER COMPANY.
  6. REMAINING LAND OF THE TOWN OF CLINTON EXCEEDS THE MINIMUM FRONTAGE AND AREA REQUIREMENTS UNDER THE CURRENT ZONING BYLAWS.
  7. THIS SURVEY IS REFERENCED HORIZONTALLY TO THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, MAINLAND ZONE, NAD83 (2011) EPOCH 2010.00, U.S. SURVEY FOOT, DERIVED FROM RIK OBSERVATIONS WITH CORRECTIONS PROVIDED BY MCOORS NETWORK.
  8. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE SEARCH AND MAY NOT DISCLOSE ANY MATTERS THAT MAY BE REVEALED BY ONE.
  9. THIS PLAN DOES NOT SHOW UNWRITTEN OR UNRECORDED EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO DISCOVER ANY APPARENT AND MISILE USES OF THE LAND. THIS PLAN DOES NOT GUARANTEE THAT NO SUCH EASEMENTS EXIST.
  10. LEGAL STATUS OF EASEMENTS, WAYS AND RESTRICTIONS NOT DETERMINED BY THIS SURVEY.
  11. SEE UNRECORDED PLAN PREPARED BY CULLENAN ENGINEERING DATED SEPTEMBER 30, 1999, PLAN NUMBER 960440-15 / P51 / 99, PROPERTY TRANSFER AND NEW ENGLAND POWER COMPANY EASEMENT NOT OF RECORD.
  12. THE SUB-SURFACE UTILITY INFORMATION SHOWN HEREON IS COMPILED BASED ON FIELD SURVEY INFORMATION, RECORD INFORMATION AS SUPPLIED BY THE APPROPRIATE UTILITY COMPANIES, AND PLAN INFORMATION SUPPLIED BY THE CLIENT, IF ANY. THEREFORE WE CANNOT GUARANTEE THE ACCURACY OF SAID COMPILED SUB-SURFACE INFORMATION TO ANY CERTAIN DEGREE OF STATED TOLERANCE. ONLY PHYSICALLY LOCATED SUB-SURFACE UTILITY FEATURES FALL WITHIN NORMAL STANDARD OF CARE ACCURACIES.
  13. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY EXIST.



**Nitsch Engineering**  
www.nitscheng.com  
370 Main Street, Suite 850  
Worcester, MA 01608  
T: (508) 365-1030  
F: (617) 338-6472

GRAPHIC SCALE  
0 25 50 100 150  
SCALE: 1"=50'

PROJECT #	15181.1
FILE	15181_1_NEPCO.dwg
SCALE	1"=50'
DATE	10-24-23
PROJECT MANAGER	MEV
FIELD BOOK	
DRAWN BY	CPH
CHECKED BY	

PLAN OF LAND  
CLINTON MIDDLE SCHOOL  
100 WEST BOYLSTON STREET, CLINTON, MA 01510  
PREPARED FOR:  
TOWN OF CLINTON  
242 CHURCH STREET, CLINTON, MA 01510  
SHEET:  
ANR-1  
OF 1 REV.

## 4.1.3 SCHEMATIC DESIGN PROJECT MANUAL

---

- A. SD Specifications Table of Contents  
(refer to complete separate bound set)
- B. Proprietary Items

### 4.1.3 SD PROJECT MANUAL

---

- A. SD Specifications TOC  
(refer to complete separate  
bound set)

---

TABLE OF CONTENTS

---

**VOLUME I (DIVISIONS 00 THROUGH 01 & APPENDICES)**

---

*\* Red italics = to be included at CD Phase*

**DIVISION 00 — PROCUREMENT AND CONTRACTING REQUIREMENTS**

Document 00 01 01	Project Title Page
Document 00 01 02	Project Directory
Document 00 01 07	Seals Page
Document 00 01 10	Table of Contents
Document 00 01 15	List of Drawings
Document 00 11 16	Invitation to Bid
Document 00 21 13	Instructions to Bidders
Document 00 31 25	Information Available to Bidders – Conservation Commission Order of Resource Delineation
Document 00 31 26	Information Available to Bidders – Conservation Commission Order of Conditions
Document 00 31 32	Geotechnical Data
Document 00 41 14	Trade Contractor Bid Form
Document 00 43 96	Company Information
Document 00 45 19	Non-Collusion Affidavit
Document 00 63 13	Request for Interpretation (RFI) Form
Document 00 63 25	Substitution Request Form
<i>Document 00 70 00</i>	<i>Town of Clinton Form of Subcontract – Trade Contractor Agreement</i>
<i>Document 00 72 00</i>	<i>Town of Clinton Construction Manager at Risk Contract General Conditions of the Contract (Town of Clinton Document 00200) Attachments: 00 72 00a Equal Employment Opportunity; Non- Discrimination and Affirmative Action Program 00 72 00b Goals for Participation by Minority Business Enterprises and Women Business Enterprises and General Guidelines 00 72 00c Procedures for Award of Subcontracts 00 72 00d Forms of Subcontract for Subcontractors</i>
<i>Document 00 72 01</i>	<i>Town of Clinton Supplemental General Conditions (Town of Clinton Document 00300)</i>
<i>Document 00 73 00</i>	<i>Supplementary Instructions to Bidders Attachments: 00 73 00a BIM Execution Plan 00 73 00b Construction Manager's Site-Specific Safety Plan 00 73 00c Insurance Requirements 00 73 00d Sample Certificate of Insurance 00 73 00e Project Schedule 00 73 00f Massachusetts Department of Revenue Certificate of Exemption – Town of Clinton</i>
<i>Document 00 73 43</i>	<i>Affidavit of Prevailing Wage Compliance</i>
<i>Document 00 73 43a</i>	<i>Massachusetts Prevailing Wage Rates and Attachments</i>
<i>Document 00 73 43b</i>	<i>Prevailing Wage Rates</i>
<i>Document 00 85 00</i>	<i>Town of Clinton Form of Tax Payment Certificate</i>
<i>Document 00 95 00</i>	<i>REO &amp; MBE/WBE Worker Utilization</i>

**DIVISION 01 — GENERAL REQUIREMENTS**

Section 01 11 00	Summary of Work <i>Attachment:</i> <ul style="list-style-type: none"><li>Permit Fee Waiver Letter</li></ul>
Section 01 12 00	Project Phasing Requirements
Section 01 14 00	Work Restrictions <i>Attachments:</i> <ul style="list-style-type: none"><li>Clinton Public Schools CORI Request Form</li><li>CORI Compliance / Gender Identity &amp; Expression</li><li>Wage Theft Prevention Certification</li></ul>
Section 01 22 00	Unit Prices
Section 01 23 00	Alternates
Section 01 25 13	Product Substitution Procedures
Section 01 26 00	Contract Modification Procedures
Section 01 26 13	Requests for Interpretation
Section 01 29 00	Payment Procedures
Section 01 31 00	Project Management and Coordination
Section 01 32 00	Construction Progress Documentation
Section 01 33 00	Submittal Procedures
Section 01 41 00	Regulatory Requirements
Section 01 41 17	Utilities Notification
Section 01 42 00	References
Section 01 43 39	Mock-ups
Section 01 45 00	Quality Control
Section 01 45 29	Testing Laboratory Services
Section 01 45 90	Program of Structural Tests and Inspections
Section 01 50 00	Temporary Facilities and Controls
Section 01 56 39	Temporary Tree and Plant Protection
Section 01 60 00	Product Requirements
Section 01 73 00	Execution
Section 01 73 29	Cutting and Patching
Section 01 74 19	Construction Waste Management and Disposal
Section 01 75 00	Starting and Adjusting
Section 01 77 00	Closeout Procedures
Section 01 78 00	Closeout Submittals
Section 01 78 36	Warranties
Section 01 79 00	Demonstration and Training
Section 01 91 13	Commissioning Requirements
Section 01 91 15	Commissioning of Building Enclosure

**APPENDICES**

Appendix A	LGCI Geotechnical Report
Appendix B	Phase I Environmental Site Assessment
Appendix C	Rustic FP Inc. Hydrant Flow Test
Appendix D	UEC Hazardous Materials Identification Study
Appendix E	2017 AHERA 3-Year Re-Inspection Report
Appendix F	Stantec Consulting Services, Inc. Traffic Study
Appendix G	DCR Advisory Ruling – Watershed Protection Act
Appendix H	NGRID Easement Information
Appendix I	Fontaine Bros. Inc. Phasing Plans
Appendix J	Stormwater Pollution Prevention Plan (SWPP)
Appendix K	Soils Management Letter
Appendix L	Arsenic Analytical Report
Appendix M	COM 97 Disposal Soil Sample Reports

---

**VOLUME II (DIVISIONS 02 THROUGH 14)**

---

**DIVISION 02 — EXISTING CONDITIONS**

- Section 02 28 20 Asbestos Remediation
- Section 02 41 17 Building Demolition

**DIVISION 03 — CONCRETE**

- Section 03 05 13 Concrete Sealers
- Section 03 30 00 Cast-in-Place Concrete
- Section 03 30 01 Cast-in-Place Concrete – Sitework
- Section 03 45 00 \* Precast Architectural Concrete  
(\*Trade Contract Required as part of Section 04 00 01)
- Section 03 45 01 Precast Architectural Concrete – Sitework
- Section 03 49 00 Glass Fiber Reinforced Concrete (GFRC)

**DIVISION 04 — MASONRY**

- Section 04 00 01 \* Masonry Trade Contract Requirements  
(\* Trade Contract Required)
- Section 04 20 00 \* Unit Masonry  
(\* Trade Contract Required as part of Section 04 00 01)

**DIVISION 05 — METALS**

- Section 05 00 01 \* Miscellaneous and Ornamental Metals Trade Contract  
Requirements  
(\* Trade Contract Required)
- Section 05 12 00 Structural Steel
- Section 05 21 00 Steel Joists
- Section 05 31 00 Steel Deck
- Section 05 40 00 Cold-Formed Metal Framing
- Section 05 41 00 Steel Shear Stud Connectors
- Section 05 50 00 \* Metal Fabrications  
(\* Trade Contract Required as part of Section 05 00 01)
- Section 05 50 01 Metal Fabrications - Sitework

**Division 06 — WOOD, PLASTICS AND COMPOSITES**

- Section 06 10 00 Rough Carpentry
- Section 06 10 53 Exterior Rough Carpentry
- Section 06 15 10 Simulated Wood Decking
- Section 06 16 00 Sheathing
- Section 06 20 00 Finish Carpentry
- Section 06 40 00 Architectural Woodwork
- Section 06 61 16 Solid Surfacing Fabrications

**DIVISION 07 — THERMAL AND MOISTURE PROTECTION**

- Section 07 00 01 \* Waterproofing, Dampproofing and Caulking Trade Contract  
Requirements  
(\* Trade Contract Required)
- Section 07 00 02 \* Roofing and Flashing Trade Contract Requirements  
(\* Trade Contract Required)
- Section 07 16 13 Polymer Modified Cement Waterproofing
- Section 07 21 00 Thermal Insulation
- Section 07 26 00 Vapor Retarders
- Section 07 27 13 Membrane Air Barriers
- Section 07 42 43 Composite Wall Panels

Section 07 54 19 *	Polyvinyl-Chloride (PVC) Roofing (* Trade Contract Required as part of Section 07 00 02)
Section 07 62 00 *	Sheet Metal Flashing and Trim (* Trade Contract Required as part of Section 07 00 02)
Section 07 71 00 *	Roof Specialties (* Trade Contract Required as part of Section 07 00 02)
Section 07 72 00 *	Roof Accessories (* Trade Contract Required as part of Section 07 00 02)
Section 07 81 00	Applied Fireproofing
Section 07 81 23	Intumescent Fireproofing
Section 07 84 00	Firestopping
Section 07 92 00 *	Joint Sealants (* Trade Contract Required as part of Section 07 00 01)
Section 07 92 01	Exterior Joint Sealants
Section 07 95 13	Expansion Joint Cover Assemblies

#### **DIVISION 08 — OPENINGS**

Section 08 00 05 *	Metal Windows Trade Contract Requirements (* Trade Contract Required)
Section 08 00 08 *	Glass and Glazing Trade Contract Requirements (* Trade Contract Required)
Section 08 11 13	Hollow Metal Doors and Frames
Section 08 12 16	Aluminum Frames
Section 08 14 16	Flush Wood Doors
Section 08 31 00	Access Doors and Panels
Section 08 33 00	Sectional Overhead Doors
Section 08 33 26	Overhead Coiling Grilles
Section 08 43 13 *	Aluminum-Framed Storefronts (* Trade Contract Required as part of Section 08 00 05)
Section 08 44 13 *	Glazed Aluminum Curtain Walls (* Trade Contract Required as part of Section 08 00 05)
Section 08 45 13	Fiberglass Sandwich Panel Assemblies
Section 08 51 13 *	Aluminum Windows (* Trade Contract Required as part of Section 08 00 05)
Section 08 63 00 *	Metal-Framed Skylights (* Trade Contract Required as part of Section 08 00 05)
Section 08 71 00	Door Hardware
Section 08 80 00 *	Glazing (* Trade Contract Required as part of Section 08 00 08)

#### **DIVISION 09 — FINISHES**

Section 09 00 03 *	Tile Trade Contract Requirements (* Trade Contract Required)
Section 09 00 06 *	Resilient Flooring Trade Contract Requirements (*Trade Contract Required)
Section 09 00 09 *	Painting Trade Contract Requirements (*Trade Contract Required)
Section 09 05 60	Common Work Results for Flooring
Section 09 05 63	Moisture Vapor Emission Control
Section 09 21 17	Shaft Wall Assemblies
Section 09 22 16	Non-Structural Metal Framing
Section 09 29 00	Gypsum Board
Section 09 30 13 *	Ceramic Tiling (* Trade Contract Required as part of Section 09 00 03)
Section 09 30 19 *	Porcelain Tiling

	(* Trade Contract Required as part of Section 09 00 03)
Section 09 51 00 *	Acoustical Ceilings
	(* Trade Contract Required)
Section 09 64 66	Wood Athletic Flooring
Section 09 65 13 *	Resilient Base and Accessories
	(* Trade Contract Required as part of Section 09 00 06)
Section 09 65 23 *	Rubber Flooring
	(* Trade Contract Required as part of Section 09 00 06)
Section 09 65 43 *	Linoleum Flooring
	(* Trade Contract Required as part of Section 09 00 06)
Section 09 66 23 *	Resinous Matrix Terrazzo
	(* Trade Contract Required as part of Section 09 00 03)
Section 09 67 23	Resinous Flooring
Section 09 68 13	Tile Carpeting
Section 09 68 16	Sheet Carpeting
Section 09 77 33	Sanitary Wall Panels
Section 09 81 00	Acoustical Insulation
Section 09 84 00	Acoustic Room Components
Section 09 91 00 *	Painting
	(* Trade Contract Required as part of Section 09 00 09)
Document 09 91 13 *	Exterior Painting Schedule
	(* Trade Contract Required as part of Section 09 00 09)
Document 09 91 23 *	Interior Painting Schedule
	(* Trade Contract Required as part of Section 09 00 09)

#### **DIVISION 10 — SPECIALTIES**

Section 10 11 16	Markerboards
Section 10 11 53	Recessed Display Enclosures
Section 10 14 00	Signage
Section 10 14 53	Traffic Signage
Section 10 14 63	Electronic Message Signage
Section 10 21 14	HDPE Fabrications
Section 10 21 23	Cubicle Curtains and Track
Section 10 22 13	Wire Mesh Partitions
Section 10 22 28	Folding Panel Partitions
Section 10 28 13	Toilet Accessories
Section 10 40 00	Safety Specialties
Section 10 51 13	Metal Lockers
Section 10 75 00	Flagpoles

#### **DIVISION 11 — EQUIPMENT**

Section 11 13 00	Loading Dock Equipment
Section 11 13 20	Projection Screens
Section 11 31 00	Appliances
Section 11 40 00	Food Service Equipment
Section 11 53 00	Laboratory Equipment
Section 11 61 43	Stage Curtains
Section 11 66 23	Gymnasium Equipment
Section 11 66 24	Basketball Gym Equipment
Section 11 66 43	Scoreboards
Section 11 66 53	Gymnasium Dividers
Section 11 68 13	Playground Equipment
Section 11 68 33	Athletic Field Equipment
Section 11 95 13	Kilns



**DIVISION 12 — FURNISHINGS**

Section 12 21 16	Vertical Louver Blinds
Section 12 24 00	Window Shades
Section 12 30 00	Casework
Section 12 35 51	Musical Instrument and Uniform Storage Casework
Section 12 35 53	Laboratory Casework
Section 12 36 53	Laboratory Countertops
Section 12 66 13	Telescoping Bleachers

**DIVISION 13 — SPECIAL CONSTRUCTION**

Section 13 31 23	Pre-Engineered Fabric Shade Structures
Section 13 48 00	Sound, Vibration and Seismic Control

**DIVISION 14 — CONVEYING SYSTEMS**

Section 14 24 24 *	Holeless Hydraulic Elevators (* Trade Contract Required)
--------------------	---

---

**VOLUME III (DIVISIONS 21 THROUGH 33)**

---

**DIVISION 21 — FIRE SUPPRESSION**

Section 21 00 01 *	Fire Protection (* Trade Contract Required)
--------------------	--

**DIVISION 22 — PLUMBING**

Section 22 00 00 *	Plumbing (* Trade Contract Required)
--------------------	---

**DIVISION 23 — HEATING, VENTILATING AND AIR CONDITIONING**

Section 23 00 00 *	HVAC (* Trade Contract Required)
--------------------	-------------------------------------

**DIVISION 26 — ELECTRICAL**

Section 26 00 01 *	Electrical (*Trade Contract Required)
Section 26 05 00 *	Common Work Results for Electrical (* Trade Contract Required as part of Section 26 00 01)
Section 26 05 19 *	Electrical Power Conductors and Cables (* Trade Contract Required as part of Section 26 00 01)
Section 26 05 26 *	Grounding and Bonding for Electrical Systems (* Trade Contract Required as part of Section 26 00 01)
Section 26 05 29 *	Hangers and Supports for Electrical Systems (* Trade Contract Required as part of Section 26 00 01)
Section 26 05 33 *	Raceway and Boxes for Electrical Systems (* Trade Contract Required as part of Section 26 00 01)
Section 26 05 48 *	Vibration and Seismic Controls for Electrical Systems (* Trade Contract Required as part of Section 26 00 01)
Section 26 05 53 *	Identification for Electrical Systems (* Trade Contract Required as part of Section 26 00 01)
Section 26 05 73 *	Overcurrent Protective Device Coordination Study (* Trade Contract Required as part of Section 26 00 01)
Section 26 09 43 *	Network Lighting Controls (* Trade Contract Required as part of Section 26 00 01)
Section 26 22 00 *	Low-Voltage Transformers (* Trade Contract Required as part of Section 26 00 01)

Section 26 24 13 *	Switchboards (* Trade Contract Required as part of Section 26 00 01)
Section 26 24 16 *	Panelboards (* Trade Contract Required as part of Section 26 00 01)
Section 26 24 19 *	Motor Controls (* Trade Contract Required as part of Section 26 00 01)
Section 26 25 50 *	Generator Docking Station (* Trade Contract Required as part of Section 26 00 01)
Section 26 27 26 *	Wiring Devices (* Trade Contract Required as part of Section 26 00 01)
Section 26 27 29 *	Electric Vehicle Charging Station (* Trade Contract Required as part of Section 26 00 01)
Section 26 28 13 *	Fuses (* Trade Contract Required as part of Section 26 00 01)
Section 26 28 16 *	Enclosed Switches and Circuit Breakers (* Trade Contract Required as part of Section 26 00 01)
Section 26 32 13 *	Engine Generators (* Trade Contract Required as part of Section 26 00 01)
Section 26 36 00 *	Transfer Switches (* Trade Contract Required as part of Section 26 00 01)
Section 26 41 13 *	Lightning Protection for Structures (* Trade Contract Required as part of Section 26 00 01)
Section 26 51 00 *	Interior Lighting (* Trade Contract Required as part of Section 26 00 01)
Section 26 56 00 *	Exterior Lighting (* Trade Contract Required as part of Section 26 00 01)

**DIVISION 27 — COMMUNICATIONS**

Section 27 05 00*	Common Work Results for Communications (* Trade Contract Required as part of Section 26 00 01)
Section 27 13 00 *	Communications Backbone Cabling (* Trade Contract Required as part of Section 26 00 01)
Section 27 15 00 *	Communications Horizontal Cabling (* Trade Contract Required as part of Section 26 00 01)
Section 27 17 10 *	Testing of Fiber Infrastructure (* Trade Contract Required as part of Section 26 00 01)
Section 27 17 20 *	Testing Category 6A Twist Pair Infrastructure (* Trade Contract Required as part of Section 26 00 01)
Section 27 21 00 *	Data Communications Network Equipment (* Trade Contract Required as part of Section 26 00 01)
Section 27 30 00 *	Area of Refuge System (* Trade Contract Required as part of Section 26 00 01)
Section 27 31 00 *	Voice Communications Equipment (* Trade Contract Required as part of Section 26 00 01)
Section 27 41 00 *	Audio-Video Communications (* Trade Contract Required as part of Section 26 00 01)
Section 27 41 20 *	In-Ceiling Classroom Audio System (* Trade Contract Required as part of Section 26 00 01)
Section 27 51 16 *	Public Address System (* Trade Contract Required as part of Section 26 00 01)
Section 27 51 29 *	Digital Signage and Clock System (* Trade Contract Required as part of Section 26 00 01)
Section 27 53 19 *	Public Safety Radio Distributed Antenna System (* Trade Contract Required as part of Section 26 00 01)

**DIVISION 28 — ELECTRONIC SAFETY AND SECURITY**

- Section 28 10 00 \* Access Control  
(\* Trade Contract Required as part of Section 26 00 01)
- Section 28 15 23 \* Intercom Entry Systems  
(\* Trade Contract Required as part of Section 26 00 01)
- Section 28 20 00 \* Video Surveillance  
(\* Trade Contract Required as part of Section 26 00 01)
- Section 28 30 00 \* Environmental Sensors  
(\* Trade Contract Required as part of Section 26 00 01)
- Section 28 31 00 \* Intrusion Detection  
(\* Trade Contract Required as part of Section 26 00 01)
- Section 28 31 11 \* Addressable Fire-Alarm System  
(\* Trade Contract Required as part of Section 26 00 01)

**DIVISION 31 — EARTHWORK**

- Section 31 10 00 Site Clearing
- Section 31 20 00 Earth Moving
- Section 31 25 00 Erosion and Sedimentation Controls

**DIVISION 32 — EXTERIOR IMPROVEMENTS**

- Section 32 12 16 Asphalt Paving
- Section 32 12 93.10 Artificial Grass Fieldturf
- Section 32 13 13.1 Concrete Paving
- Section 32 13 13.2 Pedestrian Concrete Paving
- Section 32 14 13 Concrete Unit Paving
- Section 32 14 40 Granite Pavement
- Section 32 15 43 Stabilized Aggregate Paving
- Section 32 16 13 Curbs and Gutters
- Section 32 17 23 Pavement Markings
- Section 32 18 16.12 Rubber Surfacing
- Section 32 31 13a Chain Link Fences and Gates
- Section 32 31 13b Lower Field Chain Link Fences and Gates
- Section 32 31 15 Metal Fence and Gate
- Section 32 32 23 Segmental Retaining Walls
- Section 32 33 00 Site Furnishings
- Section 32 80 00 Irrigation
- Section 32 90 20 Natural Filed Sport Surfacing
- Section 32 91 13.16 Mulch
- Section 32 91 19 Landscape Grading
- Section 32 92 00 Lawns and Grasses
- Section 32 93 00 Trees, Plants and Groundcovers
- Section 32 94 00 Bioretention

**DIVISION 33 — UTILITIES**

- Section 33 10 00 Water Utilities
- Section 33 30 00 Sanitary Sewerage Utilities
- Section 33 40 00 Storm Drainage Utilities

End - Table of Contents

### 4.1.3 SD PROJECT MANUAL

---

#### B. Proprietary Items

**PROPRIETARY ITEMS**

---

The following is a list of proposed proprietary items for Clinton Middle School along with reasons for their use. These proprietary items were approved by the Permanent School Building Committee in a public meeting held on 2/06/24 and include the following:

1. **Network Switches:** to be manufactured by Extreme Networks for the following reasons:
  - a. Maintains consistency with similar equipment that is the standard for school networking, ensuring the new systems work seamlessly with existing equipment currently installed within the Clinton Public School District.
  - b. Enhances and streamlines the management of data at various sites, because a single manufacturer's management system can be used by administrators. Multiple manufacturers would require multiple management platforms that increase the complexity and burden on network administrators, requiring additional training and time to support.
  - c. Reduces the overall cost of ongoing support and maintenance from running different systems.
  - d. Reduces the cost and complexity of support by resellers when technical and warranty related issues arise.
  - e. Provides the highest level of coordination with other network equipment installed by the District.
  - f. The manufacturer produces tier level one network equipment for public schools, which is widely used by districts statewide. The equipment is supported by multiple and reliable resellers in Massachusetts that compete for this business.
2. **Wireless Access System:** to be manufactured by Cisco Meraki. Same reasons as network switches.
3. **Telephone System:** to be manufactured by Mitel for the following reasons:
  - a. Maintains consistency with equipment already installed as a standard in the other schools, ensuring that the telephone systems can be networked together. This is only possible if systems are manufactured by the same company. Networked telephone systems provide the opportunity for significant savings on recurring telephone service charges, which are only available when services are shared between like systems.

- b. Enhances and streamlines the management of systems District-wide. One system to train on and support. Multiple manufacturers would require learning two systems rather than a single system, increasing the complexity and burden on system administrators, requiring additional time to support.
  - c. Reduces the overall cost of ongoing support and maintenance from running different systems.
  - d. Reduces the cost and complexity of support by resellers when technical and warranty related issues arise.
  - e. The manufacturer Mitel produces tier level one telephone systems equipment for public schools, which is widely used by school districts statewide. The equipment is supported by multiple and reliable resellers in Massachusetts that compete for this business.
4. **Video Intercom and Door Control System:** to be manufactured by Verkada for the following reasons:
- a. Maintains consistency with equipment that is currently being purchased and deployed in the school district.
  - b. Enhances and streamlines the management of security data at various sites within the District, because a single manufacture's management system can be used by administrators. Multiple manufacturers would require multiple management platforms that increase the complexity and burden on security system administrators, requiring additional training and time to support.
  - c. Reduces the overall cost of ongoing support and maintenance from running different systems.
  - d. Provides the highest level of coordination with other security system equipment installed by the District.
  - e. The manufacturer Verkada produces tier level one cloud-based security system equipment and applications that are supported by multiple and reliable resellers in Massachusetts that compete for this business.

## 4.1.4 SCHEMATIC DESIGN DRAWINGS

---

- A. List of SD Drawings  
(refer to complete separate bound set)

#### 4.1.4 SD DRAWINGS

---

- A. SD List of Drawings (refer to complete separate bound set)



SECTION 00 01 15  
LIST OF DRAWINGS

**VOL 1**

**CIVIL**

- C0.0 General Notes, Legends, and Abbreviations
- C1.0 Roadway and Parking Layout Plan
- C2.0 Grading Plan
- C3.0 Utility Plan
- C4.1 Erosion and Sediment Control Details
- C4.2 Civil Details 1
- C4.3 Civil Details 2
- C4.4 Civil Details 3
- C4.5 Civil Details 4
- C4.6 Civil Details 5

**LANDSCAPE**

- L0.0 Drawing Key
- L2.1 Materials Plan
- L2.2 Materials Plan
- L2.3 Materials Plan
- L2.3A Add Alternate Synthetic Turf Field
- L2.4 Materials Plan
- L3.1 Planting Plan
- L3.2 Planting Plan
- L3.3 Planting Plan
- L3.4 Planting Plan

**ARCHITECTURAL**

- A1.0 Partition Types, Abbreviations, Symbols & Material Legends
- A1.1 Code Plan - First Floor
- A1.2 Code Plan - Second Plan
- A2.1 First Floor Plan
- A2.2 Second Floor Plan
- A2.3 Roof Plan
- A3.1 First Floor Plan - Section A
- A3.2 First Floor Plan - Section B
- A3.3 First Floor Plan - Section C
- A3.4 First Floor Plan - Section D
- A3.5 Second Floor Plan - Section A
- A3.6 Second Floor Plan - Section B
- A3.7 Second Floor Plan - Section C
- A3.8 Second Floor Plan - Section D
- A3.9 Roof Plan - Section A

A3.10 Roof Plan - Section B  
A3.11 Roof Plan - Section C  
A3.12 Roof Plan - Section D  
A5.0 Exterior Elevations - Orientation  
A5.1 Exterior Elevations  
A5.2 Exterior Elevations  
A5.3 Building Sections  
A5.4 Exterior Isometric  
A6.1 Wall Sections  
A6.2 Wall Sections  
A6.3 Wall Sections  
A8.1 Typical 4th-6th Grade Classroom  
A8.2 Typical 7-8th Grade Classroom  
A8.3 Typical Science Classroom  
A8.4 Lobby & Cafeteria Elevations  
A11.1 Room Finish Schedule

**FOOD SERVICE**

K0.1 Foodservice Coordination Notes  
K1.1 Foodservice Utility Schedule  
K1.2 Foodservice Utility Schedule  
K2.1 Foodservice Equipment Layout

**STRUCTURAL**

S1.1 Typical Details and General Notes  
S1.2 Typical Details  
S3.1 Ground Floor Foundation Plan Section A  
S3.2 Ground Floor Foundation Plan Section B  
S3.3 Ground Floor Foundation Plan Section C  
S3.4 Ground Floor Foundation Plan Section D  
S3.5 Second Floor Framing Plan Section A  
S3.6 Second Floor Framing Plan Section B  
S3.7 Second Floor Framing Plan Section C  
S3.8 Second Floor Framing Plan Section D  
S3.9 Roof Framing Plan Section A  
S3.10 Roof Framing Plan Section B  
S3.11 Roof Framing Plan Section C  
S3.12 Roof Framing Plan Section D  
S4.1 Sections  
S5.1 Diagonal Bracing Elevations

**FIRE PROTECTION**

FP1.0 Fire Protection Scope Summary, Legend, Notes  
FP1.1 Fire Protection Details  
FP1.2 Fire Protection Hydraulics

FP1.3 Fire Protection Schematics

- FP4.1 Fire Protection Reflected Ceiling Plan Level 1 Section A
- FP4.2 Fire Protection Reflected Ceiling Plan Level 1 Section B
- FP4.3 Fire Protection Reflected Ceiling Plan Level 1 Section C
- FP4.4 Fire Protection Reflected Ceiling Plan Level 1 Section D
- FP4.5 Fire Protection Reflected Ceiling Plan Level 2 Section A
- FP4.6 Fire Protection Reflected Ceiling Plan Level 1 Section B
- FP4.7 Fire Protection Reflected Ceiling Plan Level 1 Section C
- FP4.8 Fire Protection Reflected Ceiling Plan Level 1 Section D

**PLUMBING**

- P2.1 First Floor Below Grade Plumbing Plan - Section A
- P2.2 First Floor Below Grade Plumbing Plan - Section B
- P2.3 First Floor Below Grade Plumbing Plan - Section C
- P2.4 First Floor Below Grade Plumbing Plan - Section D
- P3.1 First Floor Above Grade Plumbing Plan - Section A
- P3.2 First Floor Below Grade Plumbing Plan - Section B
- P3.3 First Floor Below Grade Plumbing Plan - Section C
- P3.4 First Floor Below Grade Plumbing Plan - Section D
- P3.5 Second Floor Plumbing Plan - Section A
- P3.6 Second Floor Plumbing Plan - Section B
- P3.7 Second Floor Plumbing Plan - Section C
- P3.8 Second Floor Plumbing Plan - Section D
- P3.9 Roof Plumbing Plan - Section A
- P3.10 Roof Plumbing Plan - Section B
- P3.11 Roof Plumbing Plan - Section C
- P3.12 Roof Plumbing Plan - Section D
- P4.1 Unnamed
- P4.2 Unnamed
- P4.3 Water Heater Options

**MECHANICAL**

- H3.1 First Floor HVAC Plan Section A
- H3.2 First Floor HVAC Plan Section B
- H3.3 First Floor HVAC Plan Section C
- H3.4 First Floor HVAC Plan Section D
- H3.5 Second Floor HVAC Plan Section A
- H3.6 Second Floor HVAC Plan Section B
- H3.7 Second Floor HVAC Plan Section C
- H3.8 Second Floor HVAC Plan Section D
- H3.9 Roof HVAC Plan Section A
- H3.10 Roof HVAC Plan Section B
- H3.11 Roof HVAC Plan Section C
- H3.12 Roof HVAC Plan Section D
- H4.1 First Floor HVAC Piping Plan Section A

H4.2 First Floor HVAC Piping Plan Section B  
H4.3 First Floor HVAC Piping Plan Section C  
H4.4 First Floor HVAC Piping Plan Section D  
H4.5 Second Floor HVAC Piping Plan Section A  
H4.6 Second Floor HVAC Piping Plan Section B  
H4.7 Second Floor HVAC Piping Plan Section C  
H4.8 Second Floor HVAC Piping Plan Section D  
H5.1 HVAC Details  
H5.2 HVAC Details  
H5.3 HVAC Schedules  
H5.4 HVAC Schedules

**ELECTRICAL**

E0.1 Electrical Legend  
E0.2 Electrical Notes  
EL0.1 First Floor Plan - Lighting  
EL0.2 Second Floor Plan - Lighting  
EL1.1 First Floor Plan - Lighting Section A  
EL1.2 First Floor Plan - Lighting Section B  
EL1.3 First Floor Plan - Lighting Section C  
EL1.4 First Floor Plan - Lighting Section D  
EL1.5 Second Floor Plan - Lighting Section A  
EL1.6 Second Floor Plan - Lighting Section B  
EL1.7 Second Floor Plan - Lighting Section C  
EL1.8 Second Floor Plan - Lighting Section D  
EL2.1 Lighting Fixture Schedule  
EL3.1 Lighting Control System Riser  
EP0.1 Power - Typical Plans  
EP1.1 First Floor Plan - Power Section A  
EP1.2 First Floor Plan - Power Section B  
EP1.3 First Floor Plan - Power Section C  
EP1.4 First Floor Plan - Power Section D  
EP1.5 Second Floor Plan - Power Section A  
EP1.6 Second Floor Plan - Power Section B  
EP1.7 Second Floor Plan - Power Section C  
EP1.8 Second Floor Plan - Power Section D  
EP1.10 Roof Plan - Power Section A  
EP1.11 Roof Plan - Power Section B  
EP1.12 Roof Plan - Power Section C  
EP1.13 Roof Plan - Power Section D  
EP2.1 Enlarged Electrical Rooms  
EP3.1 Electrical Details  
EP3.2 Electrical Details  
EP3.3 Electrical Details  
EP3.4 Electrical Details

EP3.5 Electrical Details  
EP3.6 Electrical Details  
EP3.7 Electrical Details  
EP3.8 Electrical Details  
EP3.9 Electrical Details  
EP3.10 Electrical Details  
EP4.1 Electrical Distribution Riser  
EP4.2 Electrical Distribution Riser  
EP4.3 Emergency Electrical Distribution Riser  
EP4.4 Electrical Distribution Riser  
ES0.1 Electrical Site Lighting  
ES0.1A Electrical Site Lighting Calculations  
ES0.2 Electrical Site Power  
ES0.3 Electrical Site Details  
ES0.4 Electrical Site Details  
ES0.5 Electrical Site Details  
ES0.6 Lighting Protection Plan  
ES0.7 Lighting Protection Details  
FA0.1 Fire Alarm - Typical Plans  
FA1.1 First Floor Plan - Fire Alarm Section A  
FA1.2 First Floor Plan - Fire Alarm Section B  
FA1.3 First Floor Plan - Fire Alarm Section C  
FA1.4 First Floor Plan - Fire Alarm Section D  
FA1.5 Second Floor Plan - Fire Alarm Section A  
FA1.6 Second Floor Plan - Fire Alarm Section B  
FA1.7 Second Floor Plan - Fire Alarm Section C  
FA1.8 Second Floor Plan - Fire Alarm Section D  
FA3.1 Fire Alarm Riser  
FA4.1 DAS System Riser  
SC2.1 Access Control Riser  
SC2.2 Access Control Details  
SC2.3 Surveillance System Riser  
SC2.4 Surveillance System Details  
TC0.1 Technology - Typical Plans  
TC1.1 First Floor Plan - Technology Section A  
TC1.2 First Floor Plan - Technology Section B  
TC1.3 First Floor Plan - Technology Section C  
TC1.4 First Floor Plan - Technology Section D  
TC1.5 Second Floor Plan - Technology Section A  
TC1.6 Second Floor Plan - Technology Section B  
TC1.7 Second Floor Plan - Technology Section C  
TC1.8 Second Floor Plan - Technology Section D  
TC2.1 Enlarged Telecom Rooms  
TC3.1 Telecom Distribution Riser  
TC3.2 Speech Reinforcement System Riser

TC3.3 Public Address System Riser  
TC3.4 Local Sound System Riser Media Center  
TC3.5 Local Sound System Riser Gym  
TC3.6 Local Sound System Riser Cafeteria

END OF SECTION