

JCJARCHITECTURE

PRELIMINARY DESIGN PROGRAM, DECEMBER 2015

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JCJARCHITECTURE

INTRODUCTION

SECTION 3.1.1

3.1.1 - INTRODUCTION

0	SUMMARY ON FACILITY DEFICIENCIE
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3.1.1 INTRODUCTION

PRELIMINARY DESIGN PROGRAM, DECEMBER 2015

1-INTRODUCTION

The purpose of the Preliminary Design Program is to define the programmatic, functional, spatial, and environmental requirements of the educational facility necessary to meet the District's educational program, and perform the review and investigation required to clearly define the existing building deficiencies. Based on the District's educational program we have identified the programmatic space needs for the Amherst Wildwood Elementary School project. The space needs, along with an evaluation of existing conditions and site development requirements, have formed evaluation of alternatives upon which the most educationally appropriate and cost effective solution will be recommended.

The Town of Amherst submitted their Statement of Interest (SOI) for the Wildwood Elementary School on March 19, 2013. The deficiencies identified in the SOI are detailed in the Appendix of this Preliminary Design Program (PDP). To summarize the deficiencies here, the District has identified the existing open classroom arrangements, a diverse student population with a need for differentiation and intervention, a general lack of appropriate ELL spaces, and inherent problems in building circulation with the existing location of student toilets and the necessity to pass through active learning classrooms in order to reach the student toilet facilities. These deficiencies have been identified as direct problems that the District desires to correct so that they can provide the best possible educational experience for all of their students. The existing Wildwood and Fort River Elementary Schools were built only a few years apart and are nearly identical in design and layout. Both buildings now show similar deficiencies, both from a design standpoint and an infrastructure standpoint. Both schools were built with open-plan classrooms at a time when such design was the prevailing model. Since that time it has been shown that such an environment is not conducive to learning for all students. The relatively high percentage of students needing differentiation and intervention is not well served by the existing environment.

FACILITY DEFICIENCIES

The building layout creates a number of additional design issues. The location of the restrooms requires students to pass through other classrooms to reach a restroom. The overall plan does not meet the current standards when designing a safe building. Additionally, more than half of the educational spaces lack natural light.

The infrastructure of the schools is past its useful life expectancy. There are no sprinkler systems in place and fire alarm systems are not in all areas. HVAC equipment and electrical equipment is obsolete and replacement parts are difficult to find. Further, the systems and overall building envelopes are not energy efficient. Both schools have identified moisture problems and mold and health issues are an ongoing challenge. These problems are exacerbated by the poor ventilation

Refer to Section 4: EVALUATION OF EXISTING CONDITIONS for a full report on the facility's existing conditions and recommended actions.

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MSBA INVITATION TO FEASIBILITY STUDY

The MSBA Board of Directors invited the District to conduct a Feasibility Study on October 10, 2014. A copy of the MSBA Board Action letter is included in the Appendix of this Report.

DESIGN ENROLLMENT

As a result of a collaborative analysis with the MSBA of enrollment projections and space capacity needs for the proposed project the Town of Amherst (District) agrees that the Feasibility Study will investigate and evaluate three (3) potential alternatives which include 3 different design enrollments.

- An enrollment for a 360 student K-6 school, which would maintain the existing 3 elementary school district and create a single new elementary school to replace the existing Wildwood Elementary School
- An enrollment for a 670 student K-6 school, which would require redistricting to a two elementary school system and create a twin-school building to replace the existing Wildwood and Fort River Elementary Schools.
- An enrollment for a 750 student 2-6 school, which would redistricting to a district-wide system, maintaining the existing Crocker Farms building as a Pre-K 1 and creating a new single 2-6 building, replacing the existing Wildwood and Fort River Elementary Schools

A copy of the original Enrollment Certification and the revised Enrollment Certification is included in the Appendix of this report.

CAPITAL BUDGET STATEMENT

The Capital Budget Statement has been developed to demonstrate the Town's capacity to support this project financially by summarizing its available funding capacity, by listing other on-going and planned municipal projects (with their respective budgets) and by estimating the target budget of the Wildwood Elementary School project.

It is important for the MSBA and the District to have a complete understanding of the district's financial resources and ability to support a proposed school project.

The target construction budget for the Wildwood Elementary School Project is \$29,000,000 - \$33,000,000 at this phase of the project.

AMHERST PUBLIC SCHOOL FY 2016 BUDGET

GENERAL FUND APPROPRIATION

FY16 BUDGET BY FUNCTION

	FY11 ACTUAL	FY12 ACTUAL	FY13 ACTUAL	FY14 ACTUAL	FY15 BUDGET	FY15 CURRENT	FY16 BUDGET	DIFF
PAYROLL ACCOUNTS								
Regular Education	6,525,675	6,701,775	6,540,468	6,222,639	6,340,622	6,164,306	6,408,984	244,678
Special Education	3,891,291	4,422,903	4,619,388	4,623,774	4,932,818	4,866,874	4,978,127	111,253
Support Services	817,579	864,570	1,106,509	1,158,244	1,202,994	1,221,904	1,222,990	1,086
School Administration	835,094	806,573	813,221	860,542	860,429	857,414	869,507	12,093
Central Administration	478,963	482,202	572,742	654,112	633,266	724,510	707,565	(16,945)
Information Systems	205,135	212,984	194,795	202,776	234,210	219,391	221,291	1,900
Facilities	723,463	740,282	720,785	746,550	746,417	768,095	752,876	(15,219)
Transportation	194,795	190,105	196,642	201,843	204,162	204,162	203,590	(572)
Total Salaries	13,671,995	14,421,395	14,764,551	14,670,480	15,154,918	15,026,656	15,364,930	338,274
Substitutes	142,771	186,857	160,830	180,665	174,448	192,038	174,448	(17,590)
EXPENSE ACCOUNTS:								
Regular Education	126,304	60,558	59,631	54,116	61,162	71,851	78,988	7,137
Special Education	193,007	219,399	285,574	235,316	135,971	191,599	168,740	(22,859)
Other Programs	477,754	654,748	694,381	850,139	22,500	17,431	4,500	(12,931)
Support Services	23,039	57,357	49,482	73,223	52,834	54,639	67,015	12,376
Progam/Staff Development	147,297	208,165	262,077	403,892	306,891	288,250	341,509	53,259
School Administration	50,573	52,743	42,663	39,869	39,624	41,431	39,482	(1,949)
Central Administration	105,944	106,629	146,551	167,333	121,105	121,425	149,063	27,638
Information Systems	138,871	79,800	128,804	138,189	120,286	120,586	131,631	11,045
Facilities	236,502	127,772	124,077	136,761	135,286	136,286	137,786	1,500
Utilities	482,097	418,744	421,940	443,118	463,677	431,663	416,601	(15,062)
Transportation	406,198	407,361	442,609	461,186	440,760	471,221	462,690	(8,531)
Food Services	79,505	29,933	70,000	46,942	93,000	93,000	122,628	29,628
Health Insurance								
Employees	2,271,395	2,245,601	2,271,204	2,470,873	2,470,433	2,441,233	2,492,416	51,183
Retirees	1,255,348	970,176	1,034,106	1,042,770	1,065,866	1,104,558	1,120,679	16,121
Other Operation Services	484,853	504,448	575,047	520,600	377,117	394,024	470,177	76,153
Other Programs & Control Accts	1,000	1,000	1,000	1,500	254,685	292,672	126,552	(166,120)
Total Expenses	6,479,686	6,144,435	6,609,146	7,085,827	6,161,197	6,271,869	6,330,457	58,588
LEVEL SERVICES TOTAL	20,294,452	20,752,687	21,534,528	21,936,972	21,490,563	21,490,563	21,869,835	379,272
Level Services % Increase					, ,			
Additions and Reductions					-	-	-	-
BUDGET TOTAL	20,294,452	20,752,687	21,534,528	21,936,972	21,490,563	21,490,563	21,869,835	379,272
Change from previous year		458,235	781,840	402,444	(446,409)	(446,409)	379,272	
Percent change from previous year		2.3%	3.8%	1.9%	-2.0%	-2.0%	1.8%	

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PROJECT DIRECTORY

A project directory with contact information for representatives of all District stakeholders (e.g., Superintendent, Wildwood School Building Committee, and others involved in the project), Designer (point of contact and key support staff and subconsultants) and OPM (and key support staff) is included in the Appendix of this report.

PROJECT SCHEDULE

An updated project schedule is included in the Appendix. In summary, the critical milestone dates currently proposed are as follows:

Wildwood School Building Committee vote to submit Preliminary Design Program: December 3, 2015.

Project Team submits Preliminary Design Program to the MSBA: December 7, 2015

Wildwood School Building Committee vote to submit Preferred Schematic Report: January 21, 2016.

Project Team submits Preferred Schematic Report to the MSBA: February 11, 2016.

MSBA Facilities Assessment Subcommittee Presentation: February 24, 2016 or March 9, 2016.

MSBA Board of Directors meeting for approval to proceed into Schematic Design: March 30, 2016.

Projected MSBA Board of Directors meeting for approval of Project Scope and Budget Agreement: September 28, 2016.

Projected City vote for Project Scope and Budget Agreement and full funding of the project: November 8, 2016.

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Project Schedule





EDUCATIONAL PROGRAM

SECTION 3.1.2

3.1.2 - Educational Program

0 Educational Planning

3.1.2 EDUCATIONAL PROGRAM

PRELIMINARY DESIGN PROGRAM, DECEMBER 2015

3.1.2 - EDUCATIONAL PROGRAM

The District has worked with the Designer and Educational Planner to run workshops to help determine the proposed educational activities that currently occur and are planned for the future at the Wildwood Elementary School. The process of collaboration, outcomes and documentation of support is outlined in the following narrative:

The Educational Visioning Process

The process of educational visioning for Wildwood Elementary School took place through a series of meetings with a group of approximately 10 Amherst-Pelham Regional School (APRS) leaders and administrators (the Ed Leadership Team – ELT), and then workshops with a larger group of approximately 30 APRS elementary school teachers, parents, district administrators and community partners (the Educational Working Group – EWG). Three full-day EWG visioning workshops took place on September 10, September 15, and October 15, 2015.

EWG Visioning Workshop One identified priority goals for the new Wildwood Elementary School and engaged participants in the discussion and creation of 21st century learning goals for the district. The group also conducted an analysis of the district and school's strengths, challenges, opportunities and goals and shared an overview of each elementary school's most promising programs and initiatives.

EWG Visioning Workshop Two engaged participants in the exploration and prioritization of facility "design patterns" that support forward-thinking and flexible teaching and learning strategies. The group also saw many examples of how "guiding principles" for design can help to set priorities for school design projects and created their own list of priority guiding principles. Key spaces and adjacencies were also brainstormed and discussed.

EWG Visioning Workshop three continued the discussion of key spaces and important adjacencies and engaged participants in a hands on 'bubble diagramming" process in which they diagramed, presented and discussed the design ideas that they would like to inform the preliminary/conceptual design process for Wildwood.

The District's Educational Plan is included in this section of the Report.

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Educational Program



Amherst Public Schools November 24, 2015

Amherst Public Schools District Mission

The mission of our schools is to provide all students with a high quality education that



enables them to be contributing members of a multiethnic, multicultural, pluralistic society. We seek to create an environment that achieves equity for all students and ensures that each student is a successful learner, is fully respected, and learns to respect others.

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Guiding Principles

The development of guiding principles for the Wildwood School Project is driven by the notion of creating a school environment where students, teachers and families truly want to be and to engage in teaching and learning. Further, the Wildwood School is a place where students, teachers, families, and community members work towards a common purpose: equitable and high quality educational and social experiences for all students.

Excitement and Engagement

- Students are engaged and excited about their learning
- The learning is authentic, meaningful, and relevant
- All students' needs are met through differentiated approaches
- Students are provided with opportunities to grapple and struggle with new ideas and concepts in effort to foster a growth mindset
- Student voices are heard and learning is visible throughout the school
- Students engage in continual self-assessment

Building Community

- Community-building is a priority within the classroom, across grade levels, within the school, and across the Amherst community
- Students will have a "small school" experience and feel connected and known by peers and adults in the school

Adaptability and Flexibility

- The infrastructure will be flexible and built for the future
- The spaces in the building will support *all* learners to engage in deep thinking and learning
- The building will be green with an eye toward climate justice

Collaboration and Sharing Expertise

- The physical building will support teacher collaboration (i.e., collaborative work spaces and accessible storage of shared materials and resources)
- Teachers will have ample opportunities to share best practices
- Students will learn how to collaborate and there will be ample opportunities to practice teaming skills

21st Century Learning Goals

The following list of priority "21st Century Learning Goals" for Amherst elementary school students were developed by the Educational Working Group (EWG). The EWG represented parents of elementary students, community members and officials, district administrators, and teachers. Five teams of 4-5 participants worked together to create their own set of Learning Goals, after which each team presented to the larger group, with each member subsequently voting on their priority Learning Goals.

Empathy, Citizenship, and Ethics

Flexibility and community; social and self-awareness

Curiosity, Creativity, and Risk-Taking

• Self-directed learning; imagination

Collaboration

Cultural Awareness and Expression

Multi-cultural Literacy and Global Awareness

Effective Oral and Written Communication

Grade & School Configuration Policies

Located in the Pioneer Valley of Western Massachusetts, the Town of Amherst is a diverse, inclusive community offering numerous educational and cultural opportunities. Host to Amherst College, Hampshire College, and the University of Massachusetts Amherst, the Town enjoys transparent, professional, and high-level government services, quality education, support for open space and agriculture, and respect for its history.

The Amherst Public Schools currently educate approximately 1,200 students in grades PreK-6. More than the vast majority of Massachusetts school districts, our diverse student body reflects state demographic averages.

Race	% of District	% of State
Black / African American	8.6	8.7
Asian	13.9	6.3
Hispanic	20.6	17.9
Native American	0.3	0.2
White	48.7	63.7
Native Hawaiian / Pacific Islander	0.2	0.1
Multi Race, Non-Hispanic	7.8	3.1
English Language Learners	15.2	8.5
Students with Disabilities	17.6	17.1
Free & Reduced Lunch	41.2	38.3

Currently, district students are educated in three K-6 elementary schools: Fort River, Wildwood, and Crocker Farm which also houses five integrated preschool classrooms for students throughout the town. The infrastructure of the three schools differs significantly. While Crocker Farm is the oldest, a renovation/addition completed in 2002 makes this school an excellent space for teaching and learning. By contrast, Wildwood and Fort River, built in 1970 and 1973, respectively, have many educational and infrastructure challenges that affect teaching and learning. Built as "open classrooms," noise issues led to the erection of partial walls, resulting in the current "quad" set-up, with each quad comprised of four classrooms sharing a boys' and a girls' bathroom. Unfortunately, since the walls do not extend to the ceiling, noise from one classroom easily reaches another. Additionally, serious moisture issues are pervasive at both schools, with staff members and parents/guardians expressing concerns about indoor air quality.

The stark differences between the learning environments of these three schools can be seen in teachers' responses to selected items from the 2014 statewide Teaching, Empowering, Leading, and Learning (TELL) survey. In response to "The physical environment of classrooms in this school supports teaching and learning":

- 96% of Crocker Farm teachers agreed
- 24% of Wildwood teachers agreed
- 9% of Fort River teachers agreed (ranking 990th out of 992 Massachusetts schools that completed the survey)
- 83% of Massachusetts elementary school teachers agreed

In response to "Teachers and staff work in a school that is environmentally healthy":

- 87% of Crocker Farm teachers agreed
- 25% of Wildwood teachers agreed
- 18% of Fort River teachers agreed
- 72% of Massachusetts elementary school teachers agreed

In 2010, the district closed Mark's Meadow School (another K-6 elementary school), redistricting the entire town to the remaining three schools, which resulted in more than 30% of students transferring schools. The new attendance zones were created to normalize the population of income-eligible students across the three schools, in response to the School Committee's desire to have equitable schools across the district. However, in achieving socioeconomic equity, the map of attendance zones did not prioritize geographic distance from schools for some students (see map below). Therefore, many



students living in apartments on East Hadley Road now attend different elementary schools than do their neighbors in an adjacent complex.

For a few years after the redistricting, the percentages of income-eligible students remained fairly consistent across the three schools. In the past two years, however, these percentages have shifted, with Crocker Farm now at 35%, Fort River at 44%, and Wildwood at 43%. We have also seen a shift in the overall student population at these three schools. While Crocker Farm is on the verge of being over-enrolled and Wildwood's enrollment is relatively stable, Fort River is now under-enrolled (see table below) due to a consistent decline in students over the past 10 years. Based on current projections gathered from rolling forward current classes along with census data for younger students, we expect these trends to continue.

	FY '08	FY '09	FY '10	FY '11	FY '12	FY '13	FY '14	FY '15	FY '16
WW Resident	416	403	368	471	440	426	402	394	401
WW Choice					6	5	18	24	
FR Resident	476	458	434	400	391	357	345	346	333
FR Choice						19	23	20	14
CF Resident	322	331	341	371	383	394	421	407	404
CF Choice						4	14	15	13

Another challenge with the district's existing organization is that it does not allow for ongoing inter-school collaboration. Teachers spend roughly six hours each school year collaborating on curriculum and instruction with colleagues from other schools. Given our district Theory of Action, which states, "If all teachers engage in an ongoing cycle of disciplined collaboration, focused on the examination and continuous improvement of student learning and instructional practice, engagement and achievement will increase for all students," the current model is woefully inadequate in this area. Innovations and creative ideas at one school do not have a consistent vehicle to transfer to the other two schools, hampering not only district growth but also implementation of district initiatives.

Also, relevant to grade level configuration is the movement towards project-based, authentic learning as a cornerstone of our district identity. To increase student engagement and help students see how content relates to the real world, we are partnering with Expeditionary Learning, a national organization with its Northeast Regional Headquarters located in Amherst. As part of this initiative, many teachers are reading *Leaders of Their Own Learning*, a text that describes how non-standardized assessment can be used in authentic ways that influence teaching and learning and improve the student experience. One key principle of this education philosophy is that learning is an active endeavor, with students working on projects both individually and in small groups, a practice which requires multiple work-stations and flexible classroom configurations. Unfortunately, this type of project-based learning cannot be properly implemented at either Wildwood or Fort River, where the lack of acoustic privacy and breakout rooms make it quite difficult for students to work in groups without distracting each other.

These are not the only challenges at Wildwood and Fort River. Both sites have accessibility issues for students and adults with mobility challenges. For instance, to reach the bathroom, students in the "interior" quad classrooms must walk through one or two "exterior" quad classrooms. Besides being problematic for students with mobility challenges, this is disruptive to learning and also takes up physical classroom space, since walking lanes need to be maintained for traffic flow to the bathrooms. Another challenge is the placement/location of the school libraries, which are open to two major hallway areas and are adjacent to the instrumental music rooms, which generate significant noise. Limited natural light is present in the interior quad areas and none exists in many of the breakout rooms where students receive Title I and Special Education services.

Our district has recently seen a significant increase in ELL students with little to no English speaking skills, primarily due to programs at the University of Massachusetts Amherst. While we would like to create an "ELL Newcomer" program, these students are currently spread across our three schools, so no grade level at any school has enough students in this category to merit creating this program. Although we try to teach these students as best we can while also maintaining our commitment to all ELL students — including those who are progressing in their language development — these two distinct ELL populations require distinct instructional models, which are difficult to balance for our dedicated ELL teachers.

Listed below are advantages to transitioning the district to a two-school model, with all Preschool-1st grade students attending Crocker Farm and all 2nd through 6th grade students attending the building that results from this project:

- Ensure that every classroom has an appropriate space for active, engaged student learning that aligns with our philosophy of education and equity
- Ensure that every learning environment is appropriate for all students, including those with special needs and/or ELL students (both of whom are often the most vulnerable to learning environments that have frequent noise or movement distractions)
- Ensure that regular collaboration between groups of educators with similar positions can occur on a consistent basis so that best practices can be shared and transferred to multiple classrooms, providing a similar experience for all students
- Ensure that all students, regardless of disabilities or mobility challenges, are able to attend an ADA-compliant school
- Develop a system that guarantees socioeconomic equity for all schools without subdividing Section 8 housing complexes to achieve this goal
- Provide annual operational savings that can be used to either increase programming in the school and/or reduce the cost of our district to the town
- Ensure a newcomer ELL program could be developed in a cost-neutral way, since all similarly-aged students who would benefit from this program would attend the same school
- Stabilize the variability of the enrollment in our schools
- Develop an early childhood center, with a program focused solely on young children, particularly in the areas of social-emotional connections and early literacy
- Close two outdated elementary schools that no longer support the form of education that is consistent with student needs in the 21st century and that have significant mold and air quality issues

Given that a grades 2-6 school would be larger than any of our current schools, the school could be separated into two distinct wings, each with its own administrative, teaching, and mental health teams. The initial community feedback placed significant value on students feeling connected to a smaller group of children and adults; this organization of the intermediate school will be able to provide that experience. The school would not only benefit from the economies of scale that occur with a larger building but would also allow for collaboration between the two wings, while maintaining the small school experience valued by students, staff, and parents/guardians. The projected student enrollment of this school would be 750, consistent with the MSBA's guidance.

Crocker Farm's enrollment would drop from its current 415 students to 350 students, resolving the overcrowding issues while allowing for additional early childhood classroom spaces.

Listed below are the advantages to retaining the K-6, 3 school model with a renovation or replacement to Wildwood:

- Retain geographically-based student enrollment in schools for most students
- One fewer transitions for students and families
- Lower transportation costs
- Fewer students would be affected by the transition that would come from the building project

11/24/15

- Siblings would be more likely to be in the same school
- Increased opportunities for peer mentoring and multi-age educational programming
- Increased opportunities for long-term relationships between students, teachers, administrators, and families

In the most recently approved 670 student K-6 option, many of the benefits of both other options will be realized, such as:

- Ensure that every classroom has an appropriate space for active, engaged student learning that aligns with our philosophy of education and equity
- Ensure that every learning environment is appropriate for all students, including those with special needs and/or ELL students (both of whom are often the most vulnerable to learning environments that have frequent noise or movement distractions)
- Ensure that all students, regardless of disabilities or mobility challenges, are able to attend an ADA-compliant school
- Close two outdated elementary schools that no longer support the form of education that is consistent with student needs in the 21st century and that have significant mold and air quality issues
- Retain geographically-based student enrollment in schools for most students
- One fewer transitions for students and families
- Lower transportation costs
- Fewer students would be affected by the transition that would come from the building project
- Siblings would be more likely to be in the same school
- Increased opportunities for peer mentoring and multi-age educational programming
- Increased opportunities for long-term relationships between students, teachers, administrators, and families

We aim to explore all of the options approved by the MSBA for this project.

Class Size Policies

The Amherst School Committee recognizes the relationship between class size, effective teaching, and student achievement and that this relationship varies across grade levels, among subjects and by methods of instruction. Class sizes that rise above acceptable levels affect both educational quality and the School District's ability to attract and retain the best possible teachers. Therefore, class size will be determined by several variables including grade level, subject area, particular needs of the pupils in the classroom, nature of the learning objectives, availability of classroom space, instructional methods, availability of support staff, and budgetary constraints.

The annual guidelines for Elementary School class sizes will specify the range in class size for each grade. The District's preferred ranges for Elementary School class sizes are as follows:

Kindergarten and First Grade - 17 to 21 students Second and Third Grades - 19 to 23 students Fourth through Sixth Grades - 20 to 24 students

The School Committee recognizes that the annual guidelines for Elementary School class sizes (and actual class sizes) may be different from these preferred ranges; however, the goal for the class size guidelines will be to keep Elementary School class sizes as low as possible within these preferred ranges, particularly in the youngest grades.

In addition, the district has recently implemented a co-teaching special education model at all of the elementary schools. The class size of co-taught classrooms is slightly less than in other classes to best accommodate students with special needs and leave room for students with special needs who may enroll after the beginning of the school year.

School Scheduling Method

The Amherst Public Schools have developed a schedule to design sufficient time for each core content area while maintaining a whole child approach, recognizing the value that social-emotional instruction, specials, and recess have for elementary students. In addition, we provide contractual preparation time for all professional staff members. The current weekly time allotments are as follows:

Literacy: 550-700 minutes Mathematics: 300-350 minutes Science/Tech/Engineering: 90-120 minutes Social Studies: 90-120 minutes Social Curriculum: 50-100 minutes Art: 40 minutes Music: 40 minutes

Instrumental Music (option for older elementary students): 75 minutes Physical Education, Health, and Wellness: 60 minutes Instructional Technology: 40 minutes Library: 40 minutes Integrated Arts (grades 5 & 6): 40 minutes

The Amherst School Committee supports the provision of an adequate number of specials teachers in the district. These programs support the commitment the community holds to provide a well-rounded program of studies to elementary students. The specialists have additional hours beyond their specials teaching responsibilities to integrate with classroom teachers and other staff members to provide an integrated approach to teaching and learning. While this is a formal part of the schedule for students in grades 5-6, the integrated arts is occurring across all grade levels.

The instrumental music program is robust. Strings lessons are available in 3rd grade and wind lessons are available starting in 4th grade. Finding space for both the small group lessons as well as the ensembles is a significant challenge. It is not currently possible to schedule enough small group rooms to accommodate the needs of the program, so entryways into teacher work rooms are used for these lessons. More information about the space needs of arts programs can be found below in the Teaching Methodology and Structure section.

If the World Language program is reintroduced into the district, time allotments will likely shift to accommodate this priority.

Teaching Methodology and Structure

Below is an overview of the general elementary curriculum and methods used by our talented staff members.

Math

The Amherst Elementary Math program consistently provides opportunities to engage and challenge all students through the use of multiple modalities while supporting a model of growth mindset. To implement the 2011 Massachusetts State Frameworks, teachers have access to and use Everyday Math, Drexel open response problems, number talks, and technology. Teachers help students to lead math congresses and to share mathematical ideas and thinking.

To set the stage for this work, the district has employed three math coaches charged with working with grade level teams on a two week rotation throughout the year. On week one the coach visits each classroom during math instruction supporting class lessons and gathering student work. On week two, the coach facilitates a meeting with grade level teachers and special education teachers.

In the math team meeting, educators discuss state standards and how to engage all students. By starting with the state standard, the team can decide the learning target of the lesson. By assessing student work, the team can then focus on differentiating benchmarks to meet the needs of diverse learners within the student-centered classroom. The team looks at the work offered in the lesson and thinks about the cognitive demand presented in each task. The goal is to provide material that has the types and level of thinking required of students in order to successfully engage with and solve a task. The objective of each lesson is to present students with a variety of experiences in math class where tasks consistently encourage high-level student thinking, synthesis and application. Teachers choose tasks that will engage students in a productive struggle, but yet are attainable. Additionally, these tasks also provide opportunities for student reflection and additional opportunities for learning.

To encourage teachers in their own professional development with Growth Mindset, High Cognitive Demand, and the Standards, the math coaches are leading grades 3-6 in three half-day math labs. For each lab, teachers are given time to explore and creatively plan a math lesson. This design encourages collaboration and team growth within grade levels and the ability to share best practices.

To give every student the opportunity to access in-class activities teachers develop a wellrounded math curriculum. This includes opportunities for numeracy work, core instruction, practice activities, extension activities, small group work, partner work, math projects and the use of spiral reviews. To foster the mathematical practice standards, teachers lead students in computational and conceptual conversations that stress problem solving, the use of multiple representations through mathematical modeling, and sharing of their ideas. Teachers differentiate lessons by addressing the gaps in student learning and offering adjusted activities that provide an enhanced study of the math concepts. For students who have been identified with intervention needs, a math enhancement block is available daily. Students with IEPs have their needs met with a combination of co-teaching and pullout services to support their learning. Amherst elementary teachers are striving to create a culture of mathematicians who have the wherewithal to think through complex problems, to engage in a cycle of inquiry, and to persevere through a challenge when the answers do not come quickly. As educators engage in a collaborative process with student mathematicians, they strive to nurture lifelong habits of successful math learners. Those habits develop the ability to reason about problems, to offer different perspectives, to construct and justify arguments, as well as to have an internal awareness of when an answer does not make sense. The students as well as educators are committed to these overarching learning targets every day and work towards creating a math environment where there are opportunities for growth, understanding, rigor and shared achievements.

Literacy

Based on the Massachusetts Curriculum Frameworks, the English Language Arts Program serves to help all children develop communication skills in writing and reading to develop a lifelong interest in literacy. Using a balanced, multi-faceted approach to literacy instruction, teachers integrate direct instruction with authentic reading and writing experiences so that students learn how to use literacy strategies and skills and have opportunities to apply what they are learning. Teachers strive to find balance for every child by being flexible and selecting appropriate strategies based on their individual needs. Students receive at least 90 minutes of daily instruction in ELA.

Through a balanced approach that includes instruction using the reading and writing workshop model, explicit phonics instruction, and word study, students develop:

- Phonemic and phonological awareness and letter-sound knowledge
- Alphabetic knowledge, blending, sound/symbol correspondence, structural analysis, contextual clues, and high frequency words
- Comprehension strategies in order to evaluate, synthesize, analyze, connect, infer and inquire
- Vocabulary
- Process writing, spelling, and grammar

In addition, students read both orally and silently and are read to from a variety of high quality increasingly complex fiction and nonfiction texts at both independent and instructional levels. Students participate in small group instruction and read a variety of reading materials from trade books, leveled books with controlled vocabulary, and decodable books. Students write daily to support and extend their knowledge of the structure of language and construct meaning. Technology is incorporated into the ELA classroom to support the reading and writing process, including iPads for younger students working on phonemic awareness.

Formal and ongoing informal assessments such as The Benchmark Assessment System, spelling inventories, and phonemic inventories allow teachers and specialists to intervene early with appropriate instruction to students who are not progressing. Grade level data meetings are held twice a year to examine student data and identify students in need of Tier 1 and 2 interventions. Students receive Tier 2 targeted literacy interventions during a 30 minute Enhancement block. Interventionists use Aimsweb assessments to monitor student progress. We use a wide range of Tier 2 interventions that are based on students' specific learning profiles.

Science

The elementary (K-6) science curriculum used in the Amherst Public Schools was designed to align with the 2001 Massachusetts Science and Technology/Engineering Standards and is undergoing revision and realignment to better correlate with the 2013 Draft Revised MA STE Standards. These updated standards are based on the Next Generation Science Standards, which emphasize authentic inquiry and hands-on learning, including: asking questions, defining problems, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, and obtaining, evaluating, and communicating information.

Most units of study used in the district are kit-based. These kits are kept in large bins and need to be stored out of the way of the instructional area, in a designated and securable space. Science instruction at all levels requires access to water (as both a scientific "supply" and for the purposes of clean up and health/safety), so convenient access to sinks is essential. Due to the use of liquids in hands-on investigations, activities, and demonstrations, waterproof (non-carpeted), nonslip floor surfaces are important, especially in areas of the room where science activities will take place (e.g., flooring materials, some of which are not adequate for proper science instruction. Many science investigations also require workspaces larger than the traditional-sized student desks found in most classrooms. Large, seamless desktops/workspaces are strongly preferred to minimize dropping and spilling of supplies, to facilitate ease of producing handwritten work, and to facilitate student collaboration. Set up and use of science materials/equipment at countertops or other large, seamless work spaces is preferred but limited due to current instructional facilities. Lastly, the district is committed to making science learning experiences accessible to every student. This takes the form of differentiation of materials as well as the use of appropriate accommodating equipment, furniture, and the like. A makerspace that would provide an additional instructional room to support students' use of materials and interactions with the science curriculum would support student engagement in the sciences.

The elementary science curriculum incorporates two outdoor components. The first of these is outdoor garden beds. There are approximately two garden beds per grade level at each school, and each school has an outdoor shed equipped with hoses, shovels, and other tools for use in the gardens. At present, some teachers use the garden to plant seeds and observe plant growth in connection with related units of study. The garden curriculum is currently under development, with the goal of creating hands-on lessons and activities that capitalize on the connections between garden-related content and the state learning standards for each grade level. The second outdoor component involves visual and physical connection to the natural world. The visual connection (allowing for daily observations of the outdoors regardless of weather conditions/season) is made possible by the placement of numerous windows in instructional spaces. The physical connection is facilitated by easy access to the outdoors via conveniently located doors, and allows students and teachers the opportunity to engage in scientific thinking and skills practice in an authentic, engaging, and relevant manner.

Social Studies

Students engage in a history/social sciences curriculum that wherever possible integrates with the informational skills components to support the development of analytic thinking and application skills. It is important that there is wall space available for maps and educational posters/displays

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as well as ample storage capacity for books and other content materials. We also integrate the arts into this content area; for example, the Enchanted Circle Theater, a local organization, collaborates with teachers to infuse the arts into 5th grade Social Studies, which promotes learning and engagement. The concept of social justice, while taught across content areas, is particularly connected to social studies. Ensuring that history is studied through multiple perspectives with a focus on multicultural content and pedagogy is a critical element of our program.

Social/Emotional Learning

We utilize multiple tools to ensure that students are supported in the social/emotional realm. Second Step is our core curriculum used for teaching social emotional skills. We employ a tiered model of support and core values to promote positive behavior in all contexts of our school. In addition, many classrooms use the Zones of Regulation program and other Sensory Smart tools that might influence how we design learning spaces that can support all learners in this domain.

World Language

The Amherst Public Schools previous had a World Language Program at the elementary level. The School Committee passed a policy (IHAH) in 2010 to introduce this program to our schools. They wrote, "This policy is in line with the Amherst Elementary School District goals of academic achievement, social justice, and the preparation and encouragement of every student to become a participating, responsible citizen within a global society. Spanish is currently by far the most often non-English language spoken in the homes of Amherst Elementary School children, and therefore Spanish is the language that provides the best opportunity to meet these goals."

While the program was enjoyed by students, it had staff split between the three schools to cover the instruction, which led to significant scheduling challenges that prevented the programs from fully realizing its potential. The World Language policy was suspended due to a budget shortfall in 2013. If operational savings occur from the result of this building project, exploring the restoration of this program is a priority.

The Integrated Arts

Over the past few years, the Amherst Integrated Arts Initiative has been a critical part of the work of the district. It is our belief that the arts play a central role in the education of our students. In a collaborative process, our specialist team developed a definition and foundational goals for the initiative:

The Amherst Integrated Arts Initiative* is an approach to teaching in which students construct and demonstrate understanding through interdisciplinary experiences. Students engage in a creative process that connects multiple disciplines and meets evolving objectives through these experiences.

*This includes visual, literary, performing, movement/kinesthetic, and the technical arts

Common Threads in Arts Integration

- Collaborative Work
- Community Building

- Creative Process
- Equity and Empowerment
- Skill Development
- Interdisciplinary Curriculum

Foundational Learning Goals for AIAI:

- Students and teachers regularly engage in exciting collaborative learning experiences
- The initiative offers opportunities for building community and enriching students' lives in and beyond school
- Students and teachers consciously develop their personal creative process through regular practice
- The initiative promotes equity by honoring and celebrating our diverse community to inspire and empower students
- Students will have opportunities to develop and practice skills in discrete disciplines, including the visual, performing, movement/kinesthetic, literary and technology arts
- Students and teachers have opportunities to engage in meaningful interdisciplinary work.

Art Program

Students in kindergarten through 6th grade receive 40 minute art sessions once per week. Additionally, students in 5th and 6th grades have weekly Arts Immersion classes, a choice-based district-wide initiative to provide students with an immersive and interdisciplinary experience in each of the Specials areas.

Currently, the art room has ample space for a maximum of 24 students to discover, plan, and create art. Advantages currently include proper separation between workspaces and storage spaces, natural light, and placement of the art room near the main entrance of the school. The room has a large storage closet, a poorly-ventilated kiln, and ample but inefficiently structured shelving and closet units. The sliding doors of the closets are heavy and dangerous for small children to use.

New or renovated art rooms must be equipped to provide all students with a rigorous, varied, and exciting art education in a variety of high-quality media and with many possibilities for interdisciplinary connection. Ample storage spaces must be provided for flat works on paper or canvas as well as three-dimensional mixed-media sculpture. A clay storage area and well-ventilated kiln and glazing area are required, separate from the areas storing paper or flammable liquids. The room must have ample natural light as well as wall space for a projector, whiteboard, and many bulletin board surfaces for displaying exemplary student work and additional relevant works of art. Sinks of varying height (suited to a variety of age ranges) must be provided to store the work of hundreds of students as well as all of the supplies to serve the whole school. Any art room must also have ample storage space in its own large storage closet with shelving (metal is safest), sturdy work tables, large storage closets, teacher preparation areas, class meeting spaces with a whiteboard and projector or smartboard, an area for several computers with internet access, a printer, and plenty of natural light. Ideally, each classroom would also have a door to the outside for outdoor art activities.

In the event that we design two art rooms (this would be necessary only under the reconfiguration option), our students would be well-served by two differentiated art spaces: one for two-dimensional media and one for three-dimensional media, placed close to one another for maximum collaboration between the two art teachers and for collaborative or mixed-media projects. The two-dimensional art room would require many wide, short shelves or drawers for storing flat work, as well as sturdy shelves for holding bottles of paint. Depending on curricular interests, this room might also house a graphic design area, which must be in a separate area from the painting and printmaking supplies. The three-dimensional art room would require an exceptionally large set of storage cubbies/cabinet areas within the classroom itself (in addition to its storage closet) to store student work. There must be a clav area, a well-ventilated kiln and glaze area, a plaster area, and a wide, flat shelving unit for storing sketches and plans for threedimensional projects. The three-dimensional room would be used for exploring ceramics, wire and metal sculpture, mixed-media, papier-mâché, plaster, wood, carving, mosaics, fiber arts (including knitting, weaving, batik, sewing, and quilting). The two-dimensional room would be used for exploring drawing in many media (pencil, charcoal, oil pastel, crayon, etc.), painting (several types), printmaking, collage, cartooning, animation, illustration, and graphic design and/or photography.

Currently, the art teacher experiences limitations in being able to adequately display the many wonderful assignments that students create. While there is some display area in the hallway, the outdated nature of the two small cabinets and multiple bulletin boards do not draw proper attention to the projects. Therefore, ample display areas for both two- and three-dimensional student work is needed. These display spaces should be in hallways, in the lobby, offices, and in other central and community areas throughout the school. These should be lockable, easy to clean, and well-lit.

Another distinct element of the art program is that art specialists collaborate with grade level teachers to integrate curricular standards with creative endeavors. For example, when the 3rd graders study the Wampanoag, the art and grade level teachers present various visual models of these historic dwellings. Then, the art teacher guides students through the process of creating their own wetu. Another grade level studies animal adaptations; the art teacher works with students to create diorama models that include habitat as well as clay animals of their chosen animal. These displays are part of a celebration in which parents are invited.

Finally, the arts rooms need to be fully wired for technology to support student learning in this domain.

Physical Education Program

Students have a 40 minute physical education session each week. A primary goal of the program is to promote our students to become active people throughout the lives; therefore, students are exposed to many different activities so they can find many that they enjoy. There is a mix of team sports and fitness activities throughout the program. Younger students learn core skills to enable greater participation in team and collaborative games. Older students learn about how to position themselves in space during a game, how to move to the correct spot, and the strategy used to achieve a goal. Team activities are included throughout to support the social aspects of

physical education. The physical education teachers also work with small groups of students (often students with special needs) in addition to the weekly classes to support their success in the physical education curriculum and their ability to participate in games at recess and in the community.

Ideal space in a new school (under either configuration) would include a traversing wall to allow for more gross motor activities without needing to use belays. In addition, the ability to divide the gym would allow for concurrent activities to occur during inclement weather.

Music / Performing Arts Programs

Students have a 40 minute classroom music session each week. The program has many components that enrich the lives of students and the school community. At its core, the classes feature large group activities where students learn to work together, play instruments, and engage in song and dance. In addition, a social curriculum is integrated into the program. Cultural diversity is featured through the music that is chosen. An aim is to ensure that students become culturally literate in the musical traditions from around the world.

The mechanics of music, such as music theory and the ability to read and play notes and rhythms, is another core feature of the program. The program is inclusive for all students, including those with intensive special needs.

Current challenges include a music room with poor acoustic spaces at Wildwood. In addition, the music program involves many movement activities, so the size of the space is particularly important. The music program also integrates into classroom activities through the year.

Amherst also has a robust instrumental music program. Students have an opportunity to learn string instruments in 3rd grade and wind instruments starting in 4th grade. There are small group lessons and large ensembles that meet weekly to support student development and provide an experience in musical performance. Finding sufficient small group rooms for lessons is a particular challenge.

The music programs contribute to the community in the school. At assemblies, graduations, and other events, aspects of the programs are integral to bring the community together. Parents/guardians typically enjoy seeing the performances that their students participate in throughout the school year. A large space for performances, such as a cafetorium, is a particular need.

Technology Infrastructure, Instruction Policies & Program Requirements

Labs, Classrooms, Library (Media Center, etc.)

Wildwood School currently has a robust, though multi-generational, technology infrastructure. The district has long recognized the impact technology can have on education and has provided what resources it can to support that vision. Technology currently at Wildwood is summarized as follows:

Infrastructure:

All classrooms are currently wired with Cat 5 ethernet. Unfortunately, the bulk of the wiring was installed before 1998. The majority of classrooms have only a single cluster of 6 drops. This wiring is beginning to show its age, with an increasing number of failures, either due to wiring issues, or failing or damaged jacks. The Ortronics wall plates and jacks used are proprietary and don't use the keystone standard. This limits options when repairing failed jacks. It is often necessary replace the entire faceplate and all 6 jacks with standard replacements. The single location also limits classroom layout. When multiple locations are desired, either additional drops need to be installed, or existing runs are pulled back and relocated. All drops were wired back to the "book room" closet, the MDF, which contains a rack, patch panels, a UPS and switches.

During the summer of 2012, when implementing a district-wide, standardized IP phone system, the Information Systems department, with the assistance of the maintenance department, created two additional wiring closets, or IDF. A wall mounted cabinet was installed containing a UPS, patch panel and switch. Intercom handsets were replaced with IP telephones, which required installation of a Cat 5e network drop. At that time, two additional Cat 5e drops were added below the phone location to provide additional flexibility.

All the current switches are capable of providing some 802.11af or 802.11at power over Ethernet.

Many locations currently prove extremely challenging to add or replace network cabling due to building design.

Prior to the summer of 2012, the wireless infrastructure for the schools was inconsistent and provided incomplete, spotty coverage. Wireless access points were consumer grade devices which required individual management. In 2012, the Information Systems Department implemented a system-wide enterprise grade wireless infrastructure. The technology at that time was 802.11n and supported both 2.4 and 5 GHz radios. Access points were placed to provide almost complete coverage to the building. During the summer of 2015, some of the 802.11n access points were replaced with 3x3 802.11ac access points to support newer technology, higher speeds and greater density.

The network operating system is Windows-based utilizing Active Directory. Most of the servers reside in the nearby Middle School, with additional servers at both the Amherst-Pelham Regional High School and Pelham Elementary. Users can login to any computer at any building in the district. The Middle School and Wildwood are connected via private underground fiber. There are currently 12 strands of multimode cable and 6 strands of single mode. The single mode cable is currently being used to provide a gigabit connection between locations.

Classroom Instructional Technology

Almost all grade-level classrooms offer the following instructional technology:

- 1-2 modern (<5 year old) desktop computers per classroom for student/staff use running Windows 7
- Digital projector
- Document camera

• At the teacher's request, a Mimio Teach Interactive solution is provided Additionally, teachers were given the option of replacing a desktop computer with a laptop for their use. District-wide, more than 70% of the teachers have chosen this option.

Networked laser printers are placed strategically in the quads and shared among classrooms. There are also larger capacity network laser printers in both the library and computer laboratory. There is a networked color laser printer in the computer lab. The district employs two simple devices that allow any printer to support Airprint and Google cloud print to support iOS, Chrome and Android Devices.

Mobile Technology

Chromebook carts were installed during the summer of 2015 in every 4th-6th grade classroom. All 3rd-6th grade students received both network and Google Apps for Education accounts. There are currently 4 mobile carts containing 25 modern laptops each shared among classrooms and the library. There is also a 20 unit mobile cart containing 20 modern laptops for use by special education programs. There is a 25 unit iPad cart containing iPad 2s available for use by any classroom or program. There are 2 iPads assigned to each K-2 classroom. A number of special education staff have iPads assigned for use with students. ELL teachers will receive iPads before the end of October 2015.

Library

The library contains 11 modern computers, 1 used for check out, the remainder for student and staff use. There is a shared network laser printer in the library. A SmartBoard interactive whiteboard and projector are available and utilized in one corner of the library. The layout of the library severely limits its utility. It is open on three sides with multiple means of ingress and egress. The limited wall space means limited available electrical outlets and network drops. No walls means all traffic in the main hallways bordering the long sides of the library is distracting and disruptive to instruction. Students access the library for weekly 40 minute specials classes as well throughout the day to select and return books and to work on integrated projects with classroom teachers. The librarians also work with the technology teachers and classroom teachers on integrated projects as part of the arts integration initiative.

Computer Lab

The lab is equipped with 25 current generation desktops. The teacher station is connected to a data projector, document camera and interactive whiteboard. Two shared network printers are located in the lab, one black and white and one color. Unused mobile carts are stored in the lab, leading to a cramped, crowded space. The lab was created by combining two small adjacent instructional spaces. The dividing wall was demolished to approximately 3 feet. Raceway was installed around the perimeter of the two sections containing power and network cabling. Unfortunately no changes were made to the HVAC system to accommodate the 25 computers, monitors, people, printers and projector, so the space can become uncomfortably hot. The lab was originally designed as a Television Studio, so there is still a large cable distribution cabinet located in the space. The pipe leading to the Middle School terminates in the computer lab, so one wall there is a 4" pipe coming from the floor into an 18"x18" box. The connecting fiber cable enters Wildwood from this pipe into the box, then exits the box, runs around the room to the adjacent book closet MDF where it is terminated in the rack.

Instructional Model

The majority of technology education happens at the elementary level for students. However, due to the inclusion of tech instruction in the specials rotation, tech instruction time is limited and integration and collaboration is limited. Technology teachers maximize the available time and bring a variety of technology instruction to students including, but not limited to keyboarding, network and internet safety, word processing, spreadsheets and presentations, programming and robotics.

Inclusion in the specials rotation results in the implementation of the "drag and drop" model of technology instruction. Teachers bring the class to the computer lab, drop them off, and then take their prep time. Technology teachers typically see classes once a week for 40 minutes. With the current model, this really means about 35 minutes due to time required to get settled and logged in. Time at the end of class is needed to logoff and gather things. Since this occurs during teacher prep time, tech teachers rarely have time to collaborate with classroom teachers to fully integrate technology. Despite this, they work with the students to identify current classroom topics and tailor the activities accordingly. The tech teachers do integrate with library, art, music and some PE.

Chromebook carts were introduced into each 4th-6th grade classroom for the fall of 2015. All 3rd-6th grade students were given network and Google apps accounts which represents a significant shift for the elementary schools. The goal is to increase the use of technology in the classroom and to integrate into classroom instruction. Technology teachers now have the option to go to the classroom for tech instruction time.

Goals for the future include classroom teachers providing grade level curriculum maps and collaboration time. Changing the mindset regarding technology and removing technology instruction from the specials rotation is necessary to more fully embrace the idea of a 21st century education. The existing model is outdated. Additional technology professional development time for classroom teachers is also needed to increase their familiarity, comfort and skill level. It would also result in better utilization of building resources.

There is an Acceptable Use Policy for students and staff in the district. Parents are asked to review the Acceptable Use Policy with their children, sign and return the district form to the main office. There is a simplified Acceptable Use Guidelines which summarizes the Acceptable use policy for students. All students receive instruction in the Acceptable Use Policy during the first two months of the school year.

Teacher Planning and Room Assignment Policies

The following information describes both the current organization of room assignments as well as the ideal configuration in a new or renovated space.

Both Fort River and Wildwood Schools were built with the "open classroom" concept in the early 1970's. Once the district realized the limitations of that model, partial walls were erected, making the large spaces into "quads". The majority of quads have four classroom spaces filling

one large space. One upside of this approach is that it promotes collaboration and a sense of being connected to adjacent classrooms. The downsides are numerous, such as the lack of acoustic privacy which interferes with teaching and learning; the lost classroom space due to the fact that "hallways" are needed through classrooms to get to the student bathrooms; the lack of natural light in the indoor quad classrooms; etc. Crocker Farm, while having beautiful classrooms with natural light and acoustic privacy, has a traditional organization of rows of classrooms down long hallways.

The ideal classroom arrangement would be combining the best aspects of both models. Classroom neighborhoods, containing multiple spaces with acoustic privacy but in close proximity, would create the community feeling that is essential for students and teachers. It would promote the collaboration that is central to our district's core beliefs on how to improve outcomes for students. Having small group rooms in the neighborhood also would promote our sense of inclusion and would allow for flexible grouping consistent with our co-teaching model that is being implemented. The classroom spaces in each neighborhood would offer flexibility for project-based learning that is also at the core of our instructional vision for the district. Flexible furniture would also attend to the variability of student needs in our student population.

In terms of the larger spaces, a cafetorium would support many aspects of the school community. This type of multi-use space does not exist at Fort River or Wildwood, which prevents dramatic performances or all-school assemblies from being visually accessible to all students or parents/guardians. In addition, it is currently not possible to "block off" parts of our elementary school buildings for community use. Ideally, core spaces such as the gym and cafetorium could be utilized after hours without the core learning spaces being accessible. If the reconfiguration option is chosen two connected "cafetoriums" (one for each wing) would be ideal.

The building would be designed with multiple learning spaces that are not relegated solely to the classrooms. Having clearly delineated interactive spaces in hallways where small groups of students can work with visual access from the classroom is a key component of ensuring that spaces throughout the entire school can be utilized as learning environments. Chalkboard and display walls will allow for students to feel ownership of the school while also providing additional small group teaching and working spaces.

Special Education Programs

Our student body is highly diverse in all aspects related to identity and demonstrates varied interests, strengths, and challenges. In the previous school year, 17.6% of our students were identified as having special needs. Our firm belief is that supporting this group of students in academic and social-emotional areas is our ethical responsibility and is beneficial to all students. We partner with the Special Education Parent Advisory Council to run parent events, to receive feedback on our programming, and to assist our district on interview teams and with the hiring process. In addition, two members of the executive board of our SEPAC were on the Educational Working Group with David Stephen.

We host robust in-district programs for students with more significant disabilities because we believe that retaining these students in district with their community peers is beneficial not only

to the students with special needs, but to all students in the district. At the current time, only two students are being serviced in an out-of-district placement.

Academic Individualized Mainstream Support (AIMS) Program – specialized programming for students who have a high functioning Autism Spectrum Disorder or other neurological conditions with pragmatic language, executive functioning, socialization and sensory regulation difficulties. This program offers individualized, comprehensive, and intensive intervention to address these areas.

Intensive Learning Needs Program – specialized program for students who present with highly complicated learning profiles and educational needs that require a significant degree of program coordination and service. These students may have one or more disabilities in any of the following areas: Autism, Communication Impairment, Developmental Delay, Health Impairment, Intellectual Impairment, Neurological Impairment, Physical Impairment, Sensory Impairment, and / or Specific Learning Disabilities. This program provides support and services to students with significant needs within the least restrictive setting while focusing on the individual needs of the students.

Building Blocks Therapeutic Program – specialized programming for students whose primary needs are social, emotional, and/or behavioral. This program is designed for students whose needs require a smaller, structured therapeutic setting for all or part of the day. A high staff to student ratio is maintained with individualized programming to meet the needs. Services and support are provided on an individual basis and are designed to assist students in developing effective coping mechanisms and problem-solving strategies towards becoming more fully integrated with their typical peers when appropriate.

In addition to our specialized programs, we offer a wide range of services for our students with special needs who are not in district programs. A number of instructional strategies are being implemented to implemented this year is co-teaching.

Co-teaching is a service delivery system in which two or more teachers share instructional responsibility for a single group of students, primarily in a single classroom or workspace, for specific content or objectives with mutual ownership, shared resources and joint accountability (although each individual's level of participation may vary). Research conducted over the last 30 years shows that students with disabilities who are educated in general education classrooms are more likely than their peers who are educated in separate classrooms to:

- Acquire reading and math skills,
- Graduate from high school,
- Go on to post-secondary education,
- Have better communication skills,
- Obtain meaningful social relationships, and
- Be welcomed and contributing members of their communities.

Instructional benefits of co-teaching include:

- Strategies integrated into classroom routines
- Skills generalized to authentic tasks
- Immediate application of strategies
- Opportunity for daily practice
- Strategies used across the curriculum
- Problem-solving built into lessons
- Improved instruction for all students
- Instructional fragmentation is minimized
- Co-teacher/special service educator understands the expectation for academics and behavior
- Co-teaching provides support and staff development

Historically, there has been a small amount of co-teaching taking place within our schools. When this has occurred, co-teaching has most often best described the staffing pattern rather than the instructional model. Professional development for faculty and staff is essential so that co-teaching pairs learn the differing models of instruction and the necessary skills. This year, we have implemented co-teaching in all of our schools, at all levels. While the research clearly demonstrates the efficacy of this instructional strategy, it is important that we continue to gather feedback from the students learning in this environment to assess their experience. One challenge to our implementation of co-teaching is the physical spaces available at Fort River and Wildwood. The open classrooms lack acoustic privacy, which is critical to many students. In addition, the infrastructure does not easily allow for multiple work spaces in a room, which makes flexible grouping a significant hurdle. In a renovated or new building, we plan to prioritize creating flexible spaces that are consistent with our educational philosophy of inclusion and appropriate responses to student variability.

The core related service providers—Speech/Language, Occupational and Physical Therapists, along with Behavior Specialist/BCBA (Board Certified Behavior Analyst)- provide required and essential services to students identified with 504 Plans and Individual Educational Plans that include both consultation and direct service in general education and pull-out educational settings. In addition, these professionals, as well as the Vision Specialist, the Teachers of the Hard of Hearing, Autism Specialists and the Assistive Technology Specialist provide screening, evaluation, consultation and collaboration with various teams of professionals serving students. In many cases, the professional therapist works alongside a para-educator with an individual or small group of students while some students may work with the therapist alone. On a regular, but less frequent basis, the professional therapists provide co-treatment to address a combination of skills in a small group experiential or functional learning scenario, such as the Occupational Therapist and Physical Therapist with game skills or the Speech Language Pathology and Occupational Therapist with a unit study-based activity. The therapists consult directly with classroom or special education teachers to make connections to general education curriculum when possible. In addition to service, teams of related service providers, such as the Occupational Therapists or OT/ST, provide training to the school faculty in utilizing specialized techniques, like S'cool Moves or Zones of Regulation, which benefit the student body as a whole. Related service providers are integrated into professional practice teams at Wildwood and the other elementary schools. Several providers also supervise and support the professional development of graduate students during internship placement at Wildwood. Specific Speech Language, Occupation, and Physical Therapy staff are dedicated to the district-wide Intensive Learning Needs program. The core related service providers are an integral part of the Wildwood

Resource Team. This larger group of providers, teachers of special education, guidance counselors and school psychologists review and develop practices and programs for the benefit of the students they serve through regular meetings and sub-committee assignments.

ELL Program

The Amherst Public Schools' population of English language learners in the elementary age range includes approximately 193 students who speak languages including but not limited to: Cambodian, Chinese, Japanese, Korean, Portuguese, and Spanish. Over 40 languages are spoken by our students. Each school has well-trained professional staff who are well-versed in techniques of teaching English as a Second Language and Sheltered English Instruction as well as being familiar with students' cultural, linguistic, and academic experiences. ELLs are supported by 9.5 ELL teachers and 2 aides. Additionally, interpreters are employed to provide clarification in the native language for the English Language Learners who cannot perform coursework in English.

ELL teachers provide instruction both in the mainstream grade-level classroom (pushin/inclusion) and in the ELL classroom (pull-out). The type of instruction is determined by a student's English proficiency.

ELL small group spaces should be located adjacent to or within grade level classroom neighborhoods to promote flexible grouping and reduced instructional time lost to travel. They also need acoustic privacy as students learning a new language have more challenges with understanding content with auditory distractions. As technology to support ELL students is rapidly developing, ensuring that ELL spaces are fully wired is an instructional necessity.

Our elementary district has recently seen a significant increase in "Level 1" ELL students, who have little to no English language skills. Two years ago, the district had 6 Level 1 ELL students; there are currently 33 Level 1 ELL students. This increase is primarily due to the expansion of international programs at the University of Massachusetts Amherst. While we would like to create an "ELL Newcomer" program, these students are currently spread across our three schools, so no grade level at any school has enough students in this category to merit creating this program. Although we try to teach these students as best we can while also maintaining our commitment to all ELL students — including those who have been progressing in their language development for several years — these two distinct ELL populations require distinct instructional models, which are difficult to balance for our dedicated ELL teachers.

Transportation Policies

The Town of Amherst, in conjunction with the Amherst Public Schools, provides transportation. In addition to the state requirements for the transportation of students, as outlined in Chapter 71, Section 68 of the laws of the Commonwealth, Amherst students who reside one and one half miles or more from the school they are entitled to attend shall be provided daily transportation to and from school. Exceptions to this mileage limit may be made by the Superintendent whenever the route to school is determined to be a dangerous way. The School District provides transportation to the special education and special education pre-school students.

The busses service the local elementary school, and due to time and scheduling constraints, the middle and high school students are dropped off between 7:25 am and 7:35 am so that the elementary runs can occur directly after that dropoff. The faculty/staff provide supervision to students during arrival and dismissal times. Past practice has been to limit rider time to less than 35 minutes per route. The limited size of the school site and the limited street access points cause traffic and safety issues for both busses and pedestrian students. Parents picking up students park along the West side of the building which is clearly marked. A crossing guard is provided at the juncture Strong Street and East Pleasant Street for walkers.

Dismissal time is 3:05 pm. Busses typically do not arrive until 2:50 pm.

Loading of students occurs with a release of older students first and younger students last.

All students are introduced to bus conduct and proper behavior on, in and around the bus at bus stops, arrivals and departures.

Bus evacuations are conducted by all schools in accordance with the law.

Lunch Programs

The primary goal of the Amherst Food Service Program is to serve delicious and healthy meals to as many children as possible. This goal has become increasingly important as the percentage of income-eligible families in Amherst has risen substantially over the past several years. The Amherst Public Schools contract with Whitsons, a food service management company, to administer its food service program.

The Amherst Food Service program participates in the National School Lunch and Breakfast program. Lunch runs from 11:25 A.M. - 12:45 P.M. and serves students in kindergarten through sixth grade. Wildwood serves approximately 170 lunches and 58 breakfasts each day. The kitchen is staffed by one manager and two support personnel.

There are two serving lines that lead to a single register. The serving line space is not very flexible and has limited the opportunities to provide promotional activities like guest chefs and the inclusion of a salad bar. The natural light in the cafeteria is limited as well, primarily because of two partitions that divide the cafeteria into three grade specific eating areas.

Functional & Spatial Relationships and Key Programmatic Adjacencies

How the learning areas work together with our educational priorities

The current Wildwood School was opened in 1970 as a model for the open-classroom educational approach. While at one time there were 600 students served, currently 420 come to school each day. Amherst and the surrounding towns are experiencing a downward trend in enrollment. In addition, Wildwood houses a specialized district-wide special education program and an increased ELL population. Within the past five years, Wildwood absorbed students from

a closed elementary school as well as additional/different students from re-districting of the student population.

The guiding principles of excitement and engagement, building community, adaptability and flexibility, collaboration and sharing expertise with a foundation of sustainability make this school "A Place Where You Want to Be." Creating a sustainable building coincides with the community's sense of social equity and climate justice.

- I. Relationships between classrooms and programs
 - a. The school needs student-centered learning spaces that allow for flexibility in use to address the needs of diverse learners and adapt to changes in instructional programs
 - b. Connections between clustered classrooms should be fostered in order to support cohorts of teacher and students in building a sense of community and ownership
 - c. The school accommodates a variety of inclusion, pull-out and reverse inclusion services for students of varying learning needs. The school would need classroom, grade level or grade cluster neighborhoods that allow for sharing of break-out spaces and "maker spaces"
 - d. The school needs spaces that promote student access to the curriculum following Universal Design for Learning. This includes break-out spaces, maker spaces, and science lab for upper-grade classrooms
- II. Spaces inside and outside of classrooms
 - a. The playgrounds are well-used both during school and as a community resource.
 - b. The surrounding trails and curated spaces provide a starting point for indoor/outdoor connections.
- III. Specialized instruction/Inclusion
 - a. The school houses a successful Intensive Learning Program that provides effective and safe learning environments for students with wide-ranging interests and abilities, the physical design of which is integral to the success of the program
 - b. The school would need areas that support regulation through the use of fitness or chill-zones.
- IV. After school/Community Use
 - a. The Monday thru Friday after-school programs are in need of space to engage in sports, play, eating, homework, reading instruction, and tutorials
 - b. It is important for the community-at-large to have access for family resources, parent-guardian organizations and other groups such as resource center/meeting room
- V. Shared spaces
 - a. A priority design element is to provide gathering spaces for classrooms, grade levels and the whole school
 - b. The community has identified the Arts and Technology, along with PE, Music and Library as integral to elementary education. These each require shared classrooms, storage, and workspaces
 - c. A critical element of the new or renovated school is the "small school experience and building community" which are supported through a safe and inviting entry space in which families of diverse backgrounds and community members with diverse interests feel welcomed

Security & Visual Access Requirements

The Wildwood School, as all schools in the Amherst MA, requires a safe environment for the Staff, Students and Public.

- A facility that is locked at all times. An access control system for staff members that allow their staff identification badge to grant access to the building
- A receptionist monitoring main access point(s)
- Visual Security of the main entrance utilizing a video monitoring system that will be monitored at the school secretary's desk.
- Visitors to the building should be granted access via door release after communicating with the secretary via video and audio intercom
- Video surveillance and recording of all areas on the interior and exterior of the building
- Safe, well-lit parking for staff
- Safe, well-lit parking for visitors in close proximity to the building
- Safe vehicular student drop-off and pick-up areas (without crossing traffic)
- Safe pathways for pedestrians and bicyclists coming from varied directions to the school
- Safe bus access systems that do not interfere with drop-off and pick-up traffic
- Safe recess grounds and play fields that can be properly supervised by staff and protected from vehicle traffic
- Safe access for kitchen, facility and shipping / receiving separate from school traffic to the main entrance
- Safe and appropriate access to the perimeter of the building and play fields
- High ratio of staff to students while on outside activities
- All staff trained in a district safety procedures and protocols

Acknowledgments

Educational Visioning

A working group of educational and community leaders and parents/guardians was formed to develop many aspects of this Educational Plan, including the Guiding Principles and 21st Century Learning Goals, among others. The membership included:

Katherine Appy, Amherst School Committee Chair Wendy Bergoffen, Parent/Guardian Ron Bohonowicz, Director of Facilities and Maintenance for the Schools and the Town Alyssa Brewer, Amherst Select Board Chair Jackie Churchill, Community Member Chris Eggemeier, Classroom Teacher Bobbie Finocchio, Principal Terri Geffert, ELL Teacher Maria Gervk, Superintendent Monica Hall, Director of Equity and Professional Development Rick Hood, Amherst School Committee Member Mary Lambert, Math Coach Laura Kent, Parent/Guardian Rebecca Klaus, ELL Teacher Stephen Lott, Classroom Teacher Michael Morris, Assistant Superintendent Irv Rhodes, Community Member Derek Shea, Principal Nicole Singer, Art Teacher Nicole Sproehnle, Parent/Guardian Nancy Stewart, Parent/Guardian Marylou Theilman, Amherst Finance Committee Betsy Todd, Special Education Teacher Gioia Woods, Classroom Teacher Nick Yaffe, Principal David Ziomek, Interim Town Manager

In addition, many other Amherst Public School staff members and administrators contributed to this document in their area of expertise in the curricular sections.

AMHERST PUBLIC SCHOOL

FY16 DISTRICT STAFFING PROFILE

From All Funding Sources

2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	Change
					•		
7.00	6.00	6.00	6.00	6.00	6.00	6.00	0.00
8.80	7.70	8.06	8.58	8.51	8.51	8.51	0.00
		•			•		
0.00	1.20	1.00	0.00	0.00	0.00	0.00	0.00
9.00	7.00	8.00	8.00	8.00	7.00	7.00	0.00
3.10	2.70	2.70	2.70	2.20	3.00	3.00	0.00
4.95	5.25	5.25	5.25	4.95	5.65	5.65	0.00
1.00	1.50	1.50	1.50	0.00	0.00	0.00	0.00
3.20	3.00	2.70	2.70	2.40	3.00	3.00	0.00
5.80	5.10	6.60	4.00	3.50	3.00	3.00	0.00
2.00	3.00	3.00	3.00	3.00	3.00	3.00	0.00
1.20	1.30	1.50	0.00	0.00	0.00	0.00	0.00
60.50	62.20	51.00	51.00	50.00	50.00	50.00	0.00
3.10	2.50	6.20	7.70	8.10	8.60	8.60	0.00
12.60	10.50	10.30	10.00	9.80	9.60	9.60	0.00
24.16	19.55	21.81	21.25	21.75	21.75	21.75	0.00
5.00	4.00	4.00	4.00	3.00	3.00	3.00	0.00
3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.00
3.80	3.00	3.00	3.00	3.00	3.00	3.00	0.00
0.12	0.00	2.50	4.00	3.00	3.00	3.00	0.00
13.66	12.72	15.96	20.95	17.00	16.92	16.92	0.00
54.52	55.91	55.90	63.00	60.46	60.50	60.50	0.00
1.60	1.60	0.60	0.60	0.00	0.00	0.00	0.00
1.00	1.96	1.99	1.80	1.87	3.05	3.05	0.00
229.11	220.69	222.57	232.04	219.54	221.58	221.58	0.00
41.62	44.11	45.91	41.90	41.52	44.19	44.19	0.00
2.10	1.53	1.06	1.06	3.06	2.06	2.06	0.00
0.12	0.12	0.72	1.13	2.21	2.16	2.16	0.00
6.98	6.40	6.90	7.86	9.33	10.18	10.18	0.00
2.66	2.66	3.06	2.62	3.04	3.04	3.04	0.00
16.32	16.42	16.42	16.39	16.39	16.29	16.29	0.00
69.80	71.24	74.07	70.95	75.54	77.91	77.91	0.00
		-			-		
						(10.52)	(10.52)
298.91	291.93	296.64	302.99	295.08	299.48	288.96	(10.52)
	2009-2010 7.00 8.80 0.00 9.00 3.10 4.95 1.00 3.20 5.80 2.00 1.20 60.50 3.10 12.60 24.16 5.00 3.00 3.80 0.12 13.66 54.52 1.60 1.00 229.11 41.62 2.10 0.12 6.98 2.66 16.32 69.80 298.91	2009-2010 2010-2011 7.00 6.00 8.80 7.70 0.00 1.20 9.00 7.00 3.10 2.70 4.95 5.25 1.00 1.50 3.20 3.00 5.80 5.10 2.00 3.00 1.20 1.30 60.50 62.20 3.10 2.50 12.60 10.50 24.16 19.55 5.00 4.00 3.00 3.00 3.10 2.72 54.52 55.91 1.60 1.60 1.00 1.96 229.11 220.69 41.62 44.11 2.10 1.53 0.12 0.12 9.8 6.40 2.66 2.66 16.32 16.42 69.80 71.24	2009-2010 2010-2011 2011-2012 7.00 6.00 6.00 8.80 7.70 8.06 0.00 1.20 1.00 9.00 7.00 8.00 3.10 2.70 2.70 4.95 5.25 5.25 1.00 1.50 1.50 3.20 3.00 2.70 5.80 5.10 6.60 2.00 3.00 3.00 1.20 1.30 1.50 60.50 62.20 51.00 3.10 2.50 6.20 12.60 10.50 10.30 24.16 19.55 21.81 5.00 4.00 4.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 12.60 10.50 10.50 12.60 10.50 10.60 0.12 0.00 2.50 13.66 12.72	2009-2010 2010-2011 2011-2012 2012-2013 7.00 6.00 6.00 6.00 8.80 7.70 8.06 8.58 0.00 1.20 1.00 0.00 9.00 7.00 8.00 8.00 3.10 2.70 2.70 2.70 4.95 5.25 5.25 5.25 1.00 1.50 1.50 1.50 3.20 3.00 2.70 2.70 5.80 5.10 6.60 4.00 2.00 3.00 3.00 3.00 1.20 1.30 1.50 0.00 60.50 62.20 51.00 51.00 3.10 2.50 6.20 7.70 12.60 10.50 10.30 10.00 24.16 19.55 21.81 21.25 5.00 4.00 4.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 <td< td=""><td>2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 7.00 6.00 6.00 6.00 6.00 8.80 7.70 8.06 8.58 8.51 0.00 1.20 1.00 0.00 0.00 9.00 7.00 8.00 8.00 8.00 3.10 2.70 2.70 2.70 2.20 4.95 5.25 5.25 5.25 4.95 1.00 1.50 1.50 1.50 0.00 3.20 3.00 2.70 2.70 2.40 5.80 5.10 6.60 4.00 3.50 2.00 3.00 3.00 3.00 3.00 3.10 2.50 6.20 7.70 8.10 12.60 10.50 10.30 10.00 9.80 24.16 19.55 21.81 21.25 21.75 5.00 4.00 3.00 3.00 3.00 3.00 3.00 3.00</td><td>2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 7.00 6.00 6.00 6.00 6.00 6.00 8.58 8.51 8.51 0.00 1.20 1.00 0.00 0.00 0.00 9.00 3.10 2.70 2.70 2.70 2.20 3.00 4.95 5.25 5.25 4.95 5.65 1.00 1.50 1.50 0.00 0.00 3.20 3.00 2.70 2.70 2.40 3.00 2.00 3.00 3.00 3.00 3.00 3.00 2.00 3.00 3.00 3.00 3.00 3.00 2.00 3.00 3.00 3.00 3.00 3.00 2.00 3.00 3.00 3.00 3.00 3.00 2.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 <tr< td=""><td>2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 7.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 8.80 7.70 8.06 8.58 8.51 8.51 8.51 0.00 1.20 1.00 0.00 8.00 8.00 7.00 7.00 3.10 2.70 2.70 2.20 3.00 3.00 4.95 5.55 5.65 5.65 1.00 1.50 1.50 1.50 0.00 0.00 0.00 3.00 3.20 3.00 2.70 2.70 2.40 3.00</td></tr<></td></td<>	2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 7.00 6.00 6.00 6.00 6.00 8.80 7.70 8.06 8.58 8.51 0.00 1.20 1.00 0.00 0.00 9.00 7.00 8.00 8.00 8.00 3.10 2.70 2.70 2.70 2.20 4.95 5.25 5.25 5.25 4.95 1.00 1.50 1.50 1.50 0.00 3.20 3.00 2.70 2.70 2.40 5.80 5.10 6.60 4.00 3.50 2.00 3.00 3.00 3.00 3.00 3.10 2.50 6.20 7.70 8.10 12.60 10.50 10.30 10.00 9.80 24.16 19.55 21.81 21.25 21.75 5.00 4.00 3.00 3.00 3.00 3.00 3.00 3.00	2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 7.00 6.00 6.00 6.00 6.00 6.00 8.58 8.51 8.51 0.00 1.20 1.00 0.00 0.00 0.00 9.00 3.10 2.70 2.70 2.70 2.20 3.00 4.95 5.25 5.25 4.95 5.65 1.00 1.50 1.50 0.00 0.00 3.20 3.00 2.70 2.70 2.40 3.00 2.00 3.00 3.00 3.00 3.00 3.00 2.00 3.00 3.00 3.00 3.00 3.00 2.00 3.00 3.00 3.00 3.00 3.00 2.00 3.00 3.00 3.00 3.00 3.00 2.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00 <tr< td=""><td>2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 7.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 8.80 7.70 8.06 8.58 8.51 8.51 8.51 0.00 1.20 1.00 0.00 8.00 8.00 7.00 7.00 3.10 2.70 2.70 2.20 3.00 3.00 4.95 5.55 5.65 5.65 1.00 1.50 1.50 1.50 0.00 0.00 0.00 3.00 3.20 3.00 2.70 2.70 2.40 3.00</td></tr<>	2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 7.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 8.80 7.70 8.06 8.58 8.51 8.51 8.51 0.00 1.20 1.00 0.00 8.00 8.00 7.00 7.00 3.10 2.70 2.70 2.20 3.00 3.00 4.95 5.55 5.65 5.65 1.00 1.50 1.50 1.50 0.00 0.00 0.00 3.00 3.20 3.00 2.70 2.70 2.40 3.00

* F.T.E.= Full Time Equivalent includes all staff regardless of funding source * FY10, FY11, FY12, FY13, FY14, and FY15 data as of October 31st of the given year

INITIAL SPACE SUMMARY

SECTION 3.1.3

3.1.3 - INITIAL SPACE SUMMARY

- O PROPOSED SPACE SUMMARY K-6 (360 STUDENTS)
- O PROPOSED SPACE SUMMARY K-6 (670 STUDENTS)
- 0 Proposed Space Summary 2-6 (750 students)
- 0 Exisiting Scaled Floor Plans
- 0 NARRATIVE EXPLANATION OF VARIATIONS FROM MSBA SPACE GUIDELINES

3.1.3 INITIAL SPACE SUMMARY

3.1.3 - INITIAL SPACE SUMMARY

As part of the Statement of Intent (SOI), there were several grade configurations identified that were required to be documented. Presently, the Town operates the Wildwood Elementary School as a K-6 school with a current enrollment of 432. The projected enrollment identified in the August 4, 2014 document for the entire K-6 student population tops out at 1010. On November 20, 2015 the District received an updated direction from the MSBA concerning an additional study enrollment recommendation whereby the District would also maintain two schools to serve its K-6 enrollment. The Study Enrollment Certification is included in this section and the various options outlined in section 3.1.6 accurately reflect those criteria. The following pages contain the detailed Initial Space Summaries for the various grade configurations that the MSBA has required the Town to explore and document.

As part of the grade reconfiguration study, the Town looked at several organizational variations that included Wildwood Elementary School, Fort River Elementary School and Crocker Farm Elementary School. The three study enrollments that the District is exploring include:

- 1. Three District Grades K-6 (360 students)
- 2. Two District Grades K-6 (670 students)
- 3. District Wide Enrollment Grades 2-6 (750 students)

For the K-6 (360 students), the Proposed Space Summary totals 68,080gsf. This is 5,800gsf larger than the MSBA Guideline of 62,280gsf. The differences can be attributed to the District's need to have 2 additional classrooms to accommodate the District's class size policy as noted in the Educational plan. Also, there is a very intensive Special Education component that increases the necessary rooms to 6,900nsf. This is an increase of 2,370nsf above the MSBA Guideline of 4,530nsf for this size elementary school.

For the K-6 (670 students), the Proposed Space Summary totals 109,150gsf. This is 12,000gsf larger than the MSBA Guideline of 97,150gsf. The differences can be attributed to the District's need to have 4 additional classrooms and 1 additional kindergarten room to accommodate District's class size policy as noted in the Educational plan. Also, there is a very intensive Special Education component that increases the necessary rooms to 11,550nsf. This is an increase of 4,000nsf above the MSBA Guideline of 7,550nsf for this size elementary school. In this option, the District would like to decrease the size of the Cafeteria from 5,025nsf to 3,800nsf because they plan to serve lunch in 3 waves rather than the MSBA Guideline 2 waves.

For the 2-6 (750 students), the Proposed Space Summary totals 122,714gsf. This is 13,964gsf larger than the MSBA Guideline of 108,750gsf. The differences can be attributed to the District's need to have 5 additional classrooms to accommodate the District's class size policy as noted in the Educational plan. Also, there is a very intensive Special Education component that increases the necessary rooms to 11,800nsf. This is an increase of 3,750sf above the MSBA Guideline of 8,050nsf for this size elementary school. In this option, the District would like to decrease the size of the Cafeteria from 5,625nsf to 4,000nsf because they plan to serve lunch in 3 waves rather than the MSBA Guideline 2 waves.



Proposed Space Summary- Elementary Schools

K-6 for 360									PROPOSE	D								
Wildwood Elem.	Ex	isting Cond	ditions	Ex	sting to R	Remain/F	Renovated		New			Total			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Gu			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROO NFA	MI 1 # 0	of RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals		ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			26,445				0			17,550			17,550			16	15,950	
(List classrooms of different sizes separately)	1 180	3	3 540					1 100	3	3 300			3 300	-	1 200	3	3 600	1 100 CE min 1 200 CE mov
General Classrooms - Grade 1-6	930	24	22,320					950	15	14,250			14,250		950	13	12,350	900 SF min - 1,000 SF max
Computer Room	585	1	585											-				
			2 756				0			6 000			6 000				4 520	
(List rooms of different sizes separately)			3,730				U			0,900			0,900				4,550	
Self-Contained SPED	1,023	1	1,023										0		950	3	2,850	8% of pop. in self-contained SPED
Self-Contained SPED	195	4	780										0					
Self-Contained SPED - toilet Resource Room	22 146	4	88 584					50 250	3	150 1,000			150 1,000	-	60 500	3	180 1,000	1/2 size Genl. Clrm.
Small Group Room / Reading	211	2	422					250	2	500			500		500	1	500	1/2 size Genl. Clrm.
ELL Room								500	2	1,000			1,000					(AING, ILC * 2 100ms)
OT/PT Room Speech Room								750 150	1 2	750 300			750 300	-				
School Psychologist	_							150	1	150			150					
								200	1	200			200					
ART & MUSIC Art Classroom - 25 seats	1.039	2	3,678 2.078				0	1.000	1	2,800 1.000			2,800 1.000		1.000	1	2,500 1,000	assumed schedule 2 times / week / student
Art Workroom w/ Storage & kiln	373	1	373					200	1	200			200		150	1	150	
Music Classroom / Large Group - 25-50 seats Music Practice / Ensemble	1,227	1	1,227					200	1 2	400			400	-	1,200	1 2	1,200	assumed schedule 2 times / week / student
			5 339				0			4 400			4 400				6 300	
Gymnasium	3,637	1	3,637					4,000	1	4,000			4,000		6,000	1	6,000	6000 SF Min. Size
Gym Storeroom Boys Lockers	118 733	2	236 733					250	1	250			250 0	-	150	1	150	
Girls Lockers Health Instructor's Office w/ Shower & Toilet	733	1	733					150	1	150			0		150	1	150	
								100		100			100		100		100	
MEDIA CENTER Media Center / Reading Room	4,904	1	5,686 4,904				0	2.600	1	3,000 2.600			3,000 2.600		2.290	1	2,290 2.290	
Media Center Office	391	1	391					200	1	200			200					
	391		391					200	1	200			200					
DINING & FOOD SERVICE Cafeteria / Dining	1 180	4	7,364 4 720				0	2 400	1	5,800 2,400	-		5,800 2,400	-	2 700	1	5,880 2,700	2 seatings - 15SF per seat
Stage	1,100	-	-					800	1	800			800		1,000	1	1,000	2 300kiiiga - 1301 poi 300k
Chair / Table / Equipment Storage Kitchen	1,256	1	- 1,256					200 1,200	1	200 1,200			200	-	320	1	320 1,660	1600 SF for first 300 + 1 SF/student Add'l
Cooler	65 65	1	65 65					150 150	1	150 150			150 150					
Dishwashing Room	260	1	260					150	1	150			150					
Dry Storage Kitchen Staff Toilet	190	1	223 190					300 50	1	300			300	-				
Staff Lunch Room	585	1	585					400	1	400			400		200	1	200	20 SF/Occupant
MEDICAL			453				0			530			530				510	
Medical Suite Toilet Nurses' Office / Waiting Room	37 416	1	37 416					2	75 180	150 180			150 180	-	60 250	1	60 250	
Examination Room / Resting	_		-					2	100	200			200		100	2	200	
ADMINISTRATION & GUIDANCE			3,236				0			2,075			2,075				2,075	
General Office / Waiting Room / Toilet Teachers' Mail and Time Room	1,120	1	1,120					300 100	1	300 100			300 100	-	330	1	330	
Duplicating Room	470		-					150	1	150			150		150	1	150	
Principal's Office w/ Conference Area	176	1	176					200	1	200			200	-	375	1	375	
Principal's Secretary / Waiting Assistant Principal's Office	149	1	- 149					125 120	1	125 120			125 120	-	125	1	125	
Supervisory / Spare Office	162	1	162					120	1	120			120		120	1	120	
Guidance Office	421	1 2	421 298					250 150	1	500 150			500	-	250 150	1	250	
Guidance Storeroom Teachers' Work Room	713	1	- 713					35 200	0	- 200			0 200	-	35 330	1	35 330	
Custodian's Office			1,865				0	120	1	1,745 120			1,745 120		150	1	1,960 150	
Custodian's Workshop Custodian's Storage	118	6	- 708					250 375	1	250 375			250 375		375 375	1	375 375	
Recycling Room / Trash	000	-	-					400	1	400			400	ļļ	400	1	400	
Storeroom	549	1	549					200	1	200			200		220	1	220	
Network / Telecom Room			-					200	1	200			200	-	200	1	200	
OTHER Delive Deserve	a.(-		3,377				0			1,200			1,200				0	
Janitors Closets	843 116	1 4	843 464		_					-	<u> </u>		0					
Student Toilets - Boys Student Toilets - Girls	140 140	4	560		_					-			0					
Transgender Toilets - Students	140		500						1	-			0					
I ransgender Toilets - Staff Staff Toilets	116	4	464		_					-			0					
Public Toilets Maker Space	243	2	486					1 200	1	-			0					
water opace								1,200	1	1,200			1,200					
Total Building Net Floor Area (NFA)			61,199				0			46.000			46.000				41.995	
Dropood Student Concerts / Forelland	1				_		,			,			,					
r roposed Student Capacity / Enrollment									-					ĿĿ			360	
Total Building Gross Floor Area (GFA) ²	<u> </u>		82,000]			<u> </u>				68,080				62,280	
Grossing factor (GFA/NFA)			1.34						1				1.48				1.48	

Individual Room Net Floor Area (NFA)

Ides 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.

Architect Certification I hereby certify that all of the information provided i of the Massachusetts School Building Authority to i	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 polit the best of my knowledge and belief. A true statement, made under the penalties of perjury.
Name of Architect Firm: J	ICJ Architecture
Name of Principal Architect: J	James E. LaPosta, Jr. FAIA
Signature of Principal Architect:	
Date: _	

Proposed Space Summary- Elementary Schools

(2) K-6 for 670								PROPOSE	D						
Wildwood Elem.	Ex	cisting Cond	ditions	Existi	ng to Remain	/Renovated		New			Total	MSBA Guidelines (refer to MSBA Educational Program & Space Standar			Guidelines gram & Space Standard Guidelines)
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS area totals	ROO NFA	M # OF RMS	area totals	Comments
CORE ACADEMIC SPACES			26,445			0			33,200		33,200		29	28,800	
(List classrooms of different sizes separately)	4.400		0.540				4 400		0.000		0.000	1.00		0.000	
General Classrooms - Grade 1-6	930	24	22,320				950	28	26,600		26,600	950	24	22,800	1,100 SF min - 1,300 SF max 900 SF min - 1,000 SF max
Computer Room	585	1	585												
	-														
SPECIAL EDUCATION			3,756			0			11,550		11,550			7,550	
(List rooms of different sizes separately) Self-Contained SPED	1 022	1	1.022									050	5	4 750	
Self-Contained SPED	859	1	859									950	5	4,750	8% of pop. in self-contained SPED
Self-Contained SPED	195	4	780								C				
Self-Contained SPED - toilet Resource Room	22	4	88 584				50 250	4	200		200	60 500	5	300	1/2 size Genl. Clrm
Small Group Room / Reading	211	2	422				250	4	1,000		1,000	500	2	1,000	1/2 size Genl. Clrm.
Self-Contained SPED							950	4	3,800		3,800				(AIMS, ILC - 2 rooms)
OT/PT Room							750	2	1,500		1,500				
Speech Room							150	4	600		600	-			
School Psychologist School Adjustment Counselor							150 200	2	300 400		400				
ART & MUSIC Art Classroom - 25 seats	1.039	2	3,678 2.078			0	1.000	2	5,200 2,000		2,000	1 00) 2	5,000	assumed schedule 2 times / week / student
Art Workroom w/ Storage & kiln	373	1	373				200	1	200		2,000	1,00	2	300	
Music Classroom / Large Group - 25-50 seats	1,227	1	1,227				1,200	2	2,400		2,400	1,20) 2	2,400	assumed schedule 2 times / week / student
			-				200	3	000		600	/5	4	300	
HEALTH & PHYSICAL EDUCATION			5,339			0			6,400		6,400			6,300	
Gymnasium Gym Storeroom	3,637	1	3,637				6,000 250	1	6,000		6,000	6,00) 1	6,000	6000 SF Min. Size
Boys Lockers	733	1	733				200		200		200	100		100	
Girls Lockers	733	1	733				150	1	150		150	150	1	150	
Health Instructor's Office w/ Shower & Tollet			-				150	1	150		150	150	1	150	
MEDIA CENTER			5,686			0			3,400		3,400			3,685	
Media Center / Reading Room	4,904	1	4,904				3,000	1	3,000		3,000	3,68	5 1	3,685	
Media Center Workroom	391	1	391				200	1	200		200				
DINING & FOOD SERVICE Cafeteria / Dining	1,180	4	7,364			0	3.800	1	7,600 3,800		7,600	5.02	5 1	8,686 5.025	2 seatings - 15SE per seat
Stage	.,		-				800	1	800		800	1,00	0 1	1,000	
Chair / Table / Equipment Storage	1 256	1	- 1 256				200	1	200		200	423	1	423	1000 SE for first 200 + 1 SE(student Add)
Cooler	65	1	65				1,600	1	1,000		1,000	1,97	, i	1,970	1600 SF for first 300 + 1 SF/student Add1
Freezer	65	1	65				150	1	150		150				
Dishwashing Room Dry Storage	260	1	260				150 300	1	150 300		300	-			
Kitchen Staff Toilet	190	1	190				50	1	50		50				
Staff Lunch Room	585	1	585				400	1	400		400	268	1	268	20 SF/Occupant
MEDICAL			453			0			630		630			610	
Medical Suite Toilet	37	1	37				2	75	150		150	60	1	60	
Nurses' Office / Waiting Room Examination Room / Resting	416	1	416				1	180	180		180	250	1	250 300	
ADMINISTRATION & GUIDANCE	1 1 20	1	3,236			0	275	2	2,825		2,825	495	1	2,655	
Teachers' Mail and Time Room	1,120	1	-				100	1	100		100	100	1	465	
Duplicating Room			-				150	1	150		150	150	1	150	
Records Room Principal's Office w/ Conference Area	176	1	176				110 200	1	110 400		110	375	1	375	
Principal's Secretary / Waiting	107		-				125	1	125		125	125	1	125	
Assistant Principal's Office	149	1	149				120	1	120		120	120	1	120	
Conference Room	421	1	421				225	2	450		450	250	1	250	
Guidance Office	149	2	298				150	2	300		300	150	2	300	
Teachers' Work Room	713	1	- 713				35 400	1	- 400		400	35	1	485	
CUSTODIAL & MAINTENANCE			1,865			0	120	1	1,745		1,745	150	1	2,270	
Custodian's Workshop			-				250	1	250		250	375	1	375	
Custodian's Storage	118	6	708				375	1	375		375	375	1	375	
Recycling Room / Trash Receiving and General Supply	608	1	- 608				400 200	1	400		400	400	1	400	
Storeroom	549	1	549				200	1	200		200	447	1	447	
Network / Telecom Room			-				200	1	200		200	200	1	200	
OTHER			3,377			0			1,200		1,200			0	
Boiler Room	843	1	843						-		0				
Janitors Closets Student Toilets - Boys	116	4	464						-		0				
Student Toilets - Girls	140	4	560						-		C				
Transgender Toilets - Students															
Staff Toilets	116	4	464				}	-	-		с С				
Public Toilets	243	2	486						-		0				
Maker Space	1	+]				1,200	1	1,200		1,200				
	1	1						1							
Total Building Net Floor Area (NFA)			61,199			0			73,750		73,750			65,556	
Proposed Student Capacity / Enrollment	1										+		_	670	
														070	
Total Building Gross Floor Area (GFA) ²			82,000								109,150			97,150	
Grossing factor (GEA/NEA)		+	1 3/					+			1 /0			1 /10	
GIUSSIIIY IACIUI (GFA/INFA)	1	1	1.34			+		1			1.48			1.48	

¹ Individual Room Net Floor Area (NFA)

udes 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.

Architect Certification I hereby certify that all of the information provided i of the Massachusetts School Building Authority to i	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 polit the best of my knowledge and belief. A true statement, made under the penalties of perjury.
Name of Architect Firm: J	ICJ Architecture
Name of Principal Architect: J	James E. LaPosta, Jr. FAIA
Signature of Principal Architect:	
Date: _	

Proposed Space Summary- Elementary Schools

2-6 for 750							PRO	OPOSED									
Wildwood Elem.	E)	kisting Cond	ditions	Existing to	o Remain/Ren	ovated		New			Total		MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guir				Guidelines ram & Space Standard Guidelines)
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals		ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			26,445			0			36,100			36,100			33	31,350	
(List classrooms of different sizes separately) General Classrooms - Grade 2-6	930	24	22.320				950	38	36,100			36,100	_	950	33	31.350	900 SF min - 1.000 SF max
Kindergartens	1,180	3	3,540									0					
Computer Room	585	1	585									0					
			3 756			0			11 800			11 800	_			8 050	
(List rooms of different sizes separately)			5,100						11,000			11,000				0,000	
Self-Contained SPED Self-Contained SPED	1,023	1	1,023									0		950	5	4,750	8% of pop. in self-contained SPED
Self-Contained SPED	195	4	780									0			_		
Resource Room	146	4	584				50 250	4 8	200			200 2,000		60 500	4	2,000	1/2 size Genl. Clrm.
Small Group Room / Reading Self-Contained SPED	211	2	422				250 950	4	1,000			1,000 3,800	_	500	2	1,000	1/2 size Genl. Clrm. (AIMS, II C - 2 rooms, Building Blocks)
ELL Room							500	4	2,000			2,000					
OT/PT Room Speech Room							750 150	2 4	1,500			1,500 600					
School Psychologist School Adjustment Counselor							150 200	2	300			300 400	_				
							200	2	400			400					
ART & MUSIC			3,678			0			5,400			5,400	_			5,075	
Art Classroom - 25 seats	1,039	2	2,078			-	1,000	2	2,000			2,000		1,000	2	2,000	assumed schedule 2 times / week / student
Music Classroom / Large Group - 25-50 seats	1,227	1	1,227				1,200	2	2,400			2,400		1,200	2	2,400	assumed schedule 2 times / week / student
Music Practice / Ensemble			-				200	4	800			800		75	5	375	
HEALTH & PHYSICAL EDUCATION			5,339			0			6,400			6,400		0.000		6,300	
Gymnasium Gym Storeroom	3,637	1	3,637				6,000 250	1	6,000 250			6,000 250		6,000 150	1	6,000	6000 SF Min. Size
Boys Lockers Girls lockers	733 733	1	733									0					
Health Instructor's Office w/ Shower & Toilet			-				150	1	150			150		150	1	150	
MEDIA CENTER			5,686			0			4,000			4,000	-			4,045	
Media Center / Reading Room	4,904	1	4,904				3,600	1	3,600			3,600		4,045	1	4,045	
Media Center Workroom	391	1	391				200	1	200			200					
DINING & FOOD SERVICE			7.364			0			8.600			8.600	-			9.412	
Cafeteria / Dining	1,180	4	4,720			-	4,000	1	4,000			4,000		5,625	1	5,625	2 seatings - 15SF per seat
Chair / Table / Equipment Storage			-				350	1	350			350		450	1	450	
Kitchen Cooler	1,256 65	1	1,256 65				1,800 200	1	1,800 200			1,800 200		2,050	1	2,050	1600 SF for first 300 + 1 SF/student Add'l
Freezer Disburghing Room	65	1	65				200	1	200			200	_				
Dry Storage	200	1	200				400	1	400			400					
Kitchen Staff toilet Staff Lunch Room	190 585	1	190 585				50 600	1	50 600			50 600		288	1	288	20 SF/Occupant
			150														
Medical Suite Toilet	37	1	453 37			U	2	75	150			650 150		60	1	610 60	
Nurses' Office / Waiting Room Examination Room / Resting	416	1	416				1	200	200			200		250 100	1	250 300	
							-								-		
ADMINISTRATION & GUIDANCE General Office / Waiting Room / Toilet	1,120	1	3,236 1,120			0	275	2	2,875 550			2,875 550	_	525	1	2,885 525	
Teachers' Mail and Time Room			-				100	1	100			100		100	1	100	
Records Room	176	1	176				110	1	110			110		110	1	110	
Principal's Office w/ Conference Area Principal's Secretary / Waiting	197	1	- 197				200 125	2	400			400 125		375 125	1	375 125	
Assistant Principal's Office Supervisory / Spare Office	149 162	1	149 162				120	1	120			120 120	_	120	1	120	
Conference Room	421	1	421				250	2	500			500		250	1	250	
Guidance Office Guidance Storeroom	149	2	- 298				35	0	-			300		35	3 1	450 35	
Teachers' Work Room	713	1	713				400	1	400			400		525	1	525	
CUSTODIAL & MAINTENANCE			1,865			0			2,145			2,145		455		2,350	
Custodian's Office Custodian's Workshop			-				120 300	1	120 300			120 300		150 375	1	150 375	
Custodian's Storage	118	6	708				425 400	1	425			425 400		375 400	1	375 400	
Receiving and General Supply	608	1	608				300	1	300			300		350	1	350	
Storeroom Network / Telecom Room	549	1	- 549				400 200	1	400 200			400 200		500 200	1	500 200	
			2 277			0			1 200			1 200	_			0	
Boiler Room	843	1	3,3 77 843			0			-			1,200				U	
Janitor's Closets Student toilets - Boys	116 140	4	464 560									0	F				
Student toilets -Girls	140	4	560						-			0					
Transgender toilets -Students													E				
Staff toilets Public toilets	116 243	4	464 486									0	F				
Maker Space							1,200	1	1,200			1,200					
													⊢				
Total Building Net Floor Area (NFA)	-	-	61,199			0			79,170			79,170	F			70,077	
Proposed Student Capacity / Enrollment	1						-						E			750	
Total Building Gross Floor Area (GFA) ²	-		82.000									122.714	⊢			108.750	
Crossing factor (CEA/NEA)			4.24									-,- · · ·				4 65	
	ł	+	1.34		+							1.55				1.55	

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.
² Total Building Gross Floor Area (GFA)	Includes the entire building gross square footage measured from the outside face of exterior walls
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 Architect Firm: JCJ Architecture
	Name of Principal Architect: James E. LaPosta, Jr., FAIA
	Signature of Principal Architect:
	Date: November 3, 2015



EVALUATION OF EXISITING CONDITIONS

SECTION 3.1.4

3.1.4 - Evaluation of Existing Conditions

- O ARCHITECTURAL
- o Structural
- o MEP
- o Site
- O GEOTECHNICAL REPORT
- O PHASE 1 REPORT
- 0 HAZARDOUS MATERIALS REPORT

JCJARCHITECTURE

3.1.4 EVALUATION OF EXISTING CONDITIONS

3.1.4 - EVALUATION OF EXISTING CONDITIONS

The Wildwood Elementary School, located at 71 Strong Street, Amherst, MA was built in 1970. The design team visited the building on several occasions. On September 1, 2015, representatives from the Architect, the Civil Engineer, the MEP Engineer and the Structural Engineer participated in a tour led by the Director of Facilities and Transportation Ron Bohonowicz. The objective of this tour was for the entire team to see the condition of the building in a comprehensive manner. So many of the systems are interrelated, the Architect understands the importance of all of the consultants seeing the building and sharing common observations prior to documenting each individual discipline. In the Town's Statement of Intent (SOI), the following items were noted:

"Both Fort River and Wildwood were built with open-environment classrooms at a time when this floor plan was the prevailing educational model. Since that time, it has been proven that this model does not provide an environment in which all students can learn successfully. We currently have a highly diverse student population which requires a significant level of differentiation and intervention. Forty percent of our students are income eligible, twenty-two percent are eligible for special education, and fourteen percent are English Language Learners. The open-environment includes three to four classroom spaces per unit which is noisy, and where learning is easily disrupted. This is true for all students and in particular for students with hearing impairments, those who are diagnosed with attentional deficits, and/or sensory disorders. At both schools, there are some classrooms through which students from other classes must pass in order to enter bathrooms and/or the hallway. This is very disruptive to instruction, whether it is a single student walking through or the full class of students moving to another activity, which happens multiple times per day. In addition, the building does not provide enough smaller non-classroom spaces for students who require small group and/or individual interventions based on their learning profiles."

The Wildwood Elementary School is a one story building covering approximately 82,000 square feet. The overall layout of the building is organized around a central connecting corridor with two separate looped corridors – one to the east and one to the west. The Main Entry is located to the north side of the building and leads directly into the main connecting corridor. The Main Administrative Offices are located about halfway down the main connecting corridor on the right (eastern side). The Cafeteria and associated Kitchen spaces are located on this (eastern) side of the building along with the primary mechanical spaces and designated delivery areas. The western corridor loop connects the classroom "quads", the Library, the Gymnasium and various small scale teaching spaces as well as teacher planning spaces. The original building was designed as an "open classroom" model that was reconfigured with temporary partitions and furniture soon after completion in an attempt to correct some inherent acoustical issues and general organizational missteps. As a result of this reconfiguration, the bathrooms can now only be accessed by passing through several active classrooms causing frequent distractions and daily disruptions. This has caused problems for many years and is one of several driving factors that pushed the Town to pursue this building project with the MSBA.

MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL - AMHERST, MA





MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL - AMHERST, MA



ARCHITECTURAL EXISTING CONDITIONS

Here are several categories of architectural features that will be evaluated as part of the Feasibility Phase to determine the overall scope of the renovation/addition options for the Wildwood site.

<u>Roof</u> – The roof is in relatively good condition. It is a white single-ply membrane with internal roof drains. There have been some repairs to the roof due to minor leaks over the lifespan of the roof. The roof was replaced in 2001 with a partially funded MSBA project. Any major renovation to this building should include reroofing the building in the scope with the understanding that some of the prorated cost of the 2001 roofing project grant may have to be forfeited back to the MSBA.





Exterior Walls – the exterior walls are typically a Concrete Masonry Unit (CMU) backup with a brick veneer. There are precast panels above most of the exterior windows and precast frames surrounding most of the exterior window jambs. Some minor cracks were noted in the brick veneer at several locations. Some more apparent cracking has noted at the Gym that has telescoped from the CMU backup through to the exterior brick veneer. Our structural engineer has also noted these conditions in the structural section of this report. It was also noted that some of the infill panels below windows that hold louvers for the unit ventilators in some spaces have been altered and repaired in an inconsistent way and should all be fully replaced in the event that the mechanical system is updated in the future. The material makeup of the existing exterior wall is an average value of R1.55. This will have to be carefully understood, analyzed and improved with any major renovation due to the current Energy Codes.





MSBA PROJECT NO. 201300080050 preliminary design program, wildwood elementary school - Amherst, ma

JCJARCHITECTURE

<u>Windows</u> – The majority of the windows are original to the building - they are single glazed aluminum framed windows with very little insulating value. In an effort to improve this condition, the Town has installed lexan storm windows over all of the exterior windows. On the fixed portions, the storm panel is attached with screws to the exterior. For the operable portions, the storm panel is attached with screws to the inside. As an additional note, many of the staff have commented on the general inadequate levels of natural light in many of the teaching spaces and a desire to introduce more appropriate levels natural light into all student occupied spaces.



<u>Exterior Doors</u> – Some of the exterior doors have been repaired and/or replaced. As part of their Capital Improvement Plan, the Town has done one or two sets a year over the last few years. The general concern over security protocols have driven some of the exterior doors to be replaced and wired with access control. There are a significant number of exterior doors that still need to be replaced and those remaining doors should be part of the scope if a substantial renovation project is undertaken at this building.



MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL - AMHERST, MA

JCJARCHITECTURE

Interior Walls – The interior walls are generally in good shape. They are typically painted CMU and have been wellmaintained over the years. At the Classroom areas, where there has been work done to correct the "open classroom" situation and the acoustical problems in the Learning Spaces, the demising partitions that were installed are typically gypsum board over metal studs. Some of these partitions are to the underside of roof deck and others are not. The inconsistency of the construction and the continuing problems with acoustics indicate that all of these partitions should be replaced. There are two existing 2-hour walls that are identified on the existing plans that should be maintained as part of any interior renovations to this facility.



Interior Doors – Most of the interior doors are original to the building. The doors are in fairly good condition but lack MAAB/ADA compliant hardware and many of the doors lack the proper clearances for MAAB/ADA compliant push/pull conditions. Any substantial alterations to this building will trigger a Code compliant solution including demolition of adjacent walls and the reworking of numerous entryways. A variety of wood doors and hollow metal doors are located throughout the building. The doors that are located in the two hour rated walls are not properly marked and will need to be tested/verified or fully replaced as part of any major renovation to the facility.



MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL - AMHERST, MA



<u>Floors</u> – The floors are a combination of vinyl composition tile (VCT) and vinyl asbestos tile (VAT). There is a wood floor in the gym and some carpeting in limited areas. As part of its Capital Improvement Plan, the Town has been replacing some of the carpet room by room due to the age of the material and the appropriateness of function. Any renovation will need to include abatement of the remaining VAT.

<u>Ceilings</u> – The ceilings throughout the building are suspended acoustical ceiling tiles. There are some signs of limited water leaks and some of the tiles have been replaced over the years. These leaks have mainly occurred in the roof and affected certain ceiling tiles – some having been replaced and others left in place with staining.



<u>MAAB/ADA</u> – The doors from the corridors to some of the student occupied rooms are recessed in narrow alcoves that are inaccessible. The door hardware is not MAAB/ADA compliant. The restrooms and locker rooms are not accessible and most of the fixtures located in these rooms are not MAAB/ADA compliant. The majority of the door hardware throughout the building is non-compliant. Existing water fountains are not MAAB/ADA compliant.

<u>Building Code</u> – The existing building is Type IIB construction. Even with the installation of an automatic sprinkler system and full credit for a building frontage increase, the maximum permitted foot print is 68,875 square feet. Thus, to renovate the building to MSBA Space Standards, the approved enrollments would require substantial upgrades to fire protection and possibly a variance for the overall allowable area of the building from the State Building Code Appeals Board. The building would also require substantial improvements to the exterior envelop in order to meet the current energy code (proposed 9th edition, 2015 IECC).

506.1	Permitted Area	2 story 14,4500	14,500 SF		
506.2	Frontage Increase	l = [F/p - 0.25]w/30	10,875 SF		
506.3	Sprinkler Increase	300% increase @1 story	45,500 SF		
		Total	68,875 SF		

Wildwood Elementary School

Amherst, Massachusetts

Structural Assessment

September 22, 2015

PURPOSE

The purpose of this report is to describe, in broad terms, the structure of the existing building; to comment on the condition of the existing building; and on the feasibility of renovation and expansion of the school.

SCOPE

- 1. Description of existing structure.
- 2. Comments on the existing condition.
- 3. Comments on the feasibility of renovation and expansion.

BASIS OF THE REPORT

This report is based on our visual observations during our site visit on September 1, 2015 and our review of the drawings titled "Elementary School, Amherst, Massachusetts", dated February 11, 1969, prepared by Alderman& MacNeish Architects and Engineers.

During our site visit, we did not remove any finishes or take measurements, so our understanding of the structure is limited to the available drawings and observations of the exposed structure and the exterior facade.

BUILDING DESCRIPTION

The school is located on Strong Street in Amherst, Massachusetts. The existing school was constructed in 1969. No major renovations or additions to the school have been constructed since the original construction.

The existing school is, essentially, a single story steel and masonry structure with some mezzanine level floors. The school structure is essentially rectangular in shape with no expansion joints.

The lowest level is a concrete slab on grade. The entire structure is supported on shallow, traditional reinforced concrete foundations. The mezzanine floors are reinforced concrete slabs supported on steel beams and girders. The typical roof is a metal deck spanning between structural steel joists supported on structural steel girders and columns. The infill, unreinforced masonry walls serve as the lateral load resisting system for the structure.

EXISTING CONDITIONS

Based on our observations, there are numerous issues with the school structure. We observed signs of water leaks at numerous locations.

We observed spalled concrete and exposed reinforcing at some locations in the exterior foundations, stairs and slabs. We observed cracks in the interior masonry walls and through the floor finishes at numerous locations. We observed numerous cracks in the exterior masonry façade. We observed that the exterior steel lintels were rusted at some locations. We did not observe any signs of foundation settlement. We did not observe or perceive any undue vibrations due to footfall on the supported floor slabs.

FEASIBILITY OF RENOVATION AND EXPANSION OF THE STRUCTURE

We observed that the existing classrooms are laid out in a very small module. Each classroom appears to be smaller than what would be required to meet the current area requirements of the state and MSBA. Any renovation scheme would require expansion of each classroom which would require demolition of every demising wall separating the classrooms. Any renovation scheme would require the addition of masonry shear walls.

Even though the building code allows modifications to the existing structure without requiring full compliance with code requirements for new construction, it may be cost prohibitive to make these modifications to the structure.

PRIMARY STRUCTURAL CODE ISSUES RELATED TO THE EXISTING STRUCTURE

If any repairs, renovations, additions or change of occupancy or use are made to the existing structure, a check for compliance with 780 CMR, Chapter 34 "Existing Structures" (Massachusetts Amendments to The International Existing Building Code 2009) of the Massachusetts Amendments to the International Building Code 2009 (IBC 2009) and reference code "International Existing Building Code 2009" (IEBC 2009) is required. The intent of the IEBC and the related Massachusetts Amendments to IEBC is to provide alternative approaches to alterations, repairs, additions and/or a change of occupancy or use without requiring full compliance with the code requirements for new construction.

The IEBC provides three compliance methods for the repair, alteration, change of use or additions to an existing structure. Compliance is required with only one of the three compliance alternatives. Once the compliance alternative is selected, the project will have to comply with all requirements of that particular method. The requirements from the three compliance alternatives cannot be applied in combination with each other.

The three compliance methods are as follows:

- 1. Prescription Compliance Method.
- 2. Work Area Compliance Method.
- 3. Performance Compliance Method.

Comment

Engineers Design Group, Inc.

The approach is to evaluate the compliance requirements for each of the three methods and select the method that would yield the most cost effective solution for the structural scope of the project. The selection of the compliance method may have to be re-evaluated after the impact of the selected method is understood and after analyzing the compliance requirements of the other disciplines, Architectural, Mechanical, Fire Protection, Electrical and Plumbing.

Since the existing building contains un-reinforced masonry wall structures, the anchorage of the walls to the floor and roof structure will have to be evaluated if the work area of the project exceeds 50 percent of the aggregate floor and roof area of the building.

Prescriptive Compliance Method

In this method, compliance with Chapter 3 of the IEBC is required. As part of the scope of this report, the extent of the compliance requirements identified are limited to the structural requirements of this chapter.

Additions

Based on the project scope, the following structural issues have to be addressed:

- All additions should comply with the code requirements for new construction in the IBC.
- For additions that are not structurally independent of an existing structure, the existing structure and its addition, acting as a single structure, shall meet the requirements of the code for new construction for resisting lateral loads, except for the existing lateral load carrying structural elements whose demand-capacity ratio is not increased by more than 10 percent, these elements can remain unaltered.
- Any existing gravity, load-carrying structural element for which an addition or its related alterations causes an increase in the design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.

Alterations

- Any existing gravity, load-carrying structural element for which an addition or its related alterations causes an increase in the design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.
- For alterations that would increase the design lateral loads or cause a structural irregularity or decrease the capacity of any lateral load carrying structural element, the structure of the altered building shall meet the requirements of the code for new construction, except for the existing lateral load carrying structural elements whose demand-capacity ratio is not increased by more than 10 percent, these elements can remain unaltered.

Work Area Compliance Method

In this method, compliance with Chapter 4 through 12 of the IEBC is required. As part of the scope of this report, the extent of the compliance requirements identified are limited to the structural requirements of these chapters.

In this method, the extent of alterations has to be classified into LEVELS OF WORK based on the scope and extent of the alterations to the existing structure. The LEVEL OF WORK can be classified into LEVEL 1, LEVEL 2 or LEVEL 3 Alterations. In addition, there are requirements that have to be satisfied for additions to the existing structure.

The extent of the renovations (includes Architectural, FP and MEP renovations) for this project will exceed 50 percent of the aggregate area of the building, thus the LEVEL OF WORK for this project would be classified as LEVEL 3 Alterations. This would require compliance with provision of Chapter 6, 7 and 8 of the IEBC. If the scope of the project includes new additions to the existing structure; this would trigger compliance with provisions in Chapter 10 of the IEBC.

Level 3 Alterations

- Any existing gravity, load-carrying structural element for which an alteration causes an increase in the design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.
- For alterations where more than 30 percent of the total floor area and roof areas of a building
 or structure have been or proposed to be involved in structural alterations within a 12 month
 period, the evaluation and analysis shall demonstrate that the altered building complies with
 the full design wind loads as per the code requirements for new construction and with reduced
 IBC level seismic forces.
- For alterations where not more than 30 percent of the total floor and roof areas of a building are involved in structural alterations within a 12 month period, the evaluation and analysis shall demonstrate that the altered building or structure complies with the loads at the time of the original construction or the most recent substantial alteration (more than 30 percent of total floor and roof area). If these alterations increase the seismic demand-capacity ratio on any structural element by more than 10 percent, that particular structural element shall comply with reduced IBC level seismic forces.
- Existing anchorage of all unreinforced masonry walls to the structure have to be evaluated.

Additions

- All additions shall comply with the requirements for the code for new construction in the IBC.
- Any existing gravity, load-carrying structural element for which an addition or its related alterations cause an increase in design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.

Wildwood Elementary School

Amherst, Massachusetts

For additions that are not structurally independent of any existing structures, the existing
structure and its additions, acting as a single structure, shall meet the requirements of the code
for new construction in the IBC for resisting wind loads and IBC Level Seismic Forces (may be
lower than loads from the Code for New Construction in the IBC), except for small additions
that would not increase the lateral force story shear in any story by more than 10 percent
cumulative. In this case, the existing lateral load resisting system can remain unaltered.

Performance Compliance Method

Following the requirements of this method for the alterations and additions may be onerous on the project because this method requires that the altered existing structure and the additions meet the requirements for the code for new construction in the IBC.

PARTICULAR REQUIREMENTS OF COMPLIANCE METHODS

For our project, in order to meet compliance with one of the two compliance methods "Prescriptive Compliance Method" or the "Work Area Compliance Method", we have to address the following:

Prescriptive Compliance Method

<u>Additions</u>

The proposed additions would be designed structurally independent of the existing structures, thus, would not impart any additional lateral loads on the existing structure.

If the proposed alterations are such that the alterations increase the design lateral loads on the existing building or cause any structural irregularity of decrease the lateral load carrying capacity of the building, the structure of the altered building shall meet the requirements of the Code for New Construction in the IBC.

If the proposed additions increase the design gravity load on portions of the existing roof members, these members would have to be reinforced and this incidental structural alteration of the existing structures would have to be accounted for in the scope of the alterations to the existing schools and would trigger requirements for alterations.

Alterations

Alterations that would increase the design gravity loads by more than 5 percent on any structural members would have to be reinforced.

If the proposed alterations of the structures increase the demand-capacity ratio of any lateral load resisting element by more than 10 percent, the structure of the altered building or structure shall meet the requirements for the code for new construction.

Work Area Compliance Method

Level 3 Alterations

If the proposed structural alterations of an existing structure are less than 30 percent of the total floor and roof areas of the existing structure, we have to demonstrate that the altered structure complies with the loads applicable at the time of the original construction and that the seismic demand-capacity ratio is not increased by more than 10 percent on any existing structural element. Those structural elements whose seismic demand-capacity ratio is increased by more than 10 percent shall comply with reduced IBC level seismic forces.

If the proposed structural alterations of an existing structure exceed 30 percent of the total floor and roof areas of an existing structure, we have to demonstrate that the altered structure complies with the IBC for wind loading and with reduced IBC level seismic forces.

Existing anchorage of all unreinforced masonry walls to the structure have to be evaluated. If the existing anchorage of the walls to the structure is deficient, the tops of the masonry walls will require new connections to the structure.

<u>Additions</u>

The proposed additions would be designed structurally independent of the existing structures, thus, they would not impart any additional lateral loads on the existing structures.

Comment

The compliance requirements of the two methods, in most respects, are very similar. The Prescriptive Compliance Method would require that the existing lateral load resisting systems meet the requirements of the code for new construction of the IBC, even for small increases of design lateral loads. The requirements in both methods will require anchorage of all existing masonry walls. Based on this, we would recommend the Work Area Compliance Method for the project.

SUMMARY

We observed numerous deficiencies in the existing structure. The majority of the observed deficiencies are related to cracks in the interior and exterior masonry walls. For the most part, the school structure appears to be performing well and all of the structural components that are visible, appear to be in sound condition. Minor repairs are required to interior and exterior masonry walls and steel lintels.

Due to the small size of the existing classrooms, any planned renovation would require expansion of all of the classrooms and this would require demolition of all of the existing demising walls, which in turn, would trigger addition of full height shear walls. The scope of the renovations would also trigger the requirement of clipping all of the existing masonry walls to the roof and floor structure. This would essentially require that the structure meet the requirements of the Code for New Construction.

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HVAC

Executive Summary:

The Wildwood Elementary School was built circa 1969 and for the most part all the equipment with the exception of the building management control system are all original to the building.

The piping system throughout the building is provided with a mix of new fiberglass insulation and original fiberglass insulation which still has asbestos insulation on the elbows. The school consists of unit ventilators for all the classroom spaces and the Café and there are indoor air handling units for the Administration area, Library, Gym, Teachers work room and Music classroom. The indoor air handling units are associated with duct distribution systems for the supply and return air. Exhaust air is provided throughout the building through the use of roof mounted exhaust fans. The buildings overall temperature control system is handled with through a district wide direct digital control system manufactured by American Energy Management (AEM). The existing Johnson pneumatic control system is still present within the building however its actual controllability is minimal if any and provides no direct control of any major pieces of equipment.

Overall the existing heating, ventilation and air conditioning equipment is functional however, there are several issues with some of the indoor air handling units. It does appear that the building has received average maintenance over the years however, some components are beginning to fail or show signs of possible future issues. All components have reached the end of their serviceable life due to their antiquated condition and considerations should be given to replacing all original equipment.

Cooling Plant:

The building is provided with a split air cooled chiller. The system consists of an indoor refrigerant chiller barrel which is located high within the boiler room, there is also an associated roof mounted air cooled condenser which is manufactured by Trane. The unit has a total cooling capacity of approximately 70 tons. This unit produces chilled water for the entire building except for the Gym which has no cooling.

The chilled water system utilizes a two pipe changeover system which allows the heating hot water piping to also be used for chilled water. This method reduces overall piping and allows the end user to only use one set of pipes instead of two. Since the system is two pipe changeover system typically called a dual temperature system, it utilizes one pump with a backup for its heating and cooling requirements. The dual temperature water system is provided with a centrifugal pump located in the boiler room. This pump is one of five pumps utilized in the buildings piping distribution system. The pump is manufactured by Bell & Gossett and is rated for 310 GPM at 95 feet of head pressure, there is also a backup pump with the same capacity. The building also utilizes secondary pumping which serves dedicated areas. Those areas are the Café, Receiving and Kitchen area and the domestic hot water. The café dual temperature pump has a capacity of 60 GPM at 60 feet of head.

At the point where the chilled water piping ties into the heating hot water piping, a three way value is provided for the summer/winter changeover process. This valve is controlled through AEM direct digital control system.

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The chiller plant functions but requires close attention and service to all its components, the system should be replaced in the near future. There is currently a refrigerant leak within the condenser circuit which requires the unit to work harder than it's designed to do and due to its antiquated nature it will soon fail. Also the indoor chiller barrel is located in an unserviceable location due to all the piping surrounding the barrel which makes tube removal nearly impossible. The refrigerant utilized in this system is R-22 which will be phased out in the near future and will no longer be obtainable.



Indoor Chiller Barrel



Outdoor Air Cooled Condenser

Heating Plant:

There are two (2) oil fired cast iron boilers manufactured by HB Smith, these boilers are original to the building and are antiquated. The boilers are model 450 Mills, each with seventeen cast iron sections and Ray Burner Company fuel oil burners which are equipped with propane pilots for firing the number two fuel oil. Each cast iron section is packed with rope packing which contains asbestos, the boiler insulation that wraps around the entire boiler also contains asbestos. Each boiler has a net capacity of 3,035 MBH. These two boilers are provided with dual low water cut-offs and all operating and safety controls. The boiler operates through the AEM direct digital control system which utilizes ASI controllers.

Number two fuel oil is circulated from the outdoor underground 10,000 gallon tank to each individual burner. The fuel oil pumpset is located within the boiler room and appears to be a duplex pumpset with dual strainers. The fuel oil piping is schedule 40 black steel and travels underground to the tank and is not insulated. There does not appear to have any heater associated with the system. Also the fuel oil system is provided with a tank leveling system which is manufactured by Veeder-Root, model TLS-300C.

Hot water system components consist of a hot water expansion tank which utilizes one horizontal style expansion tank which is not insulated. A breeching system that is constructed of black welded steel, both boiler flues combine into one and exit the building through a masonry chimney. The breeching system is not insulated. Combustion air is brought into the boiler room through a wall mounted louver which has one duct connected to it, the duct travels into the boiler room and terminates approximately 12" above the floor with no damper. This duct and method for combustion air is not code compliant. The boiler room is not ventilated nor is it heated.

The heating hot water piping itself is schedule 40 black steel and is insulated with fiberglass insulation. Overall the insulation is damaged in some cases it's missing. The piping system appears to be in fair

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condition however, a section of pipe should be cut to determine the interior condition of the piping system to ensure no scaling or corrosion is present. The heating hot water system shares its piping with the chilled water system, therefore it is a dual temperature piping system. The main system pump is dual temperature operation and is manufactured by Bell & Gossett and has a capacity of 310 GPM at 95 feet of head pressure, a backup pump is also provided with the same capacity. There is a dedicated hot water pump which is manufactured by Bell & Gossett and has a capacity of 140 GPM at 95 feet of head pressure, this pump serves all the heat only equipment such as the cabinet unit heaters and convectors. There is also secondary pump for the Kitchen/Receiving area which has a capacity of 20 GPM at 30 feet of head pressure. The other secondary pump is associated with domestic hot water, it has a capacity of 65 GPM with 15 feet of head pressure. All of these pumps are controlled through the direct digital control system and are equipped with standard on/off starters and relays.

Overall efficiency of the existing boiler plant is poor due to the fuel oil fired cast iron boilers being utilized. Considerations should be made to bring natural gas to the site so condensing boilers can be implemented. At a minimum if natural gas is not attainable then we would recommend replacing the current boilers with 85% efficient boilers with higher modulation rates than the existing burners. This would provide the highest efficiency rating possible and minimize the amount of fuel that is burned which would ultimately decrease operational costs.



Cast Iron Boilers



Fuel Oil Fired Burners



Typical Base Mounted Pump



Boiler Breeching

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Un-Insulated Expansion Tank



Fuel Oil Tank Level Monitor



Fuel Oil Pumpset



Underground Fuel Oil Tank



Typical Asbestos Elbows



Typical Non-Insulated Piping

Automatic Temperature Controls:

The building is still equipped with the original pneumatic controls which was manufactured by Johnson Controls. The air compressor appears to be original to the building however, it has received one new motor. The system is equipped with a refrigerant air dryer to help remove water from within the pneumatic lines. The pneumatic system controls certain equipment throughout the building such as fin tube radiation, convectors and unit heaters however, that's its main function. The overall building temperature controls is handled through a direct digital control (DDC), system.

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The DDC system was implemented throughout the district and is manufactured by American Energy Management (AEM). This DDC system utilizes ASI controllers and transducers which converts the original pneumatic air system to electric current through the use of the air pressure in the pneumatic lines. Throughout the building there are original Johnson Controls pneumatic thermostats as well as AEM digital thermostats. For the most part the AEM thermostats handles the day to day operation of all the unit ventilators and indoor air handling units. The other control function of the AEM system is the boilers. They currently have their own control panel however, AEM has interfaced into the panel and provided the necessary relays for on/off operation only. Actual burner modulation is still controlled through the boilers own control panel. The boiler plant is equipped with an automatic outdoor air reset control function which provides energy savings when the building load does not require such hot water due to a warmer outdoor air temperature.

The current control system functions well according to the facility but there is an issue with the current scheduling function. It appears that multiple schedules cannot be implemented into the program which causes confusion and overlapping of time frames. We would recommend contacting the manufacture AEM and have them re-program the schedule matrix to allow multiple scheduling. We also would recommend replacing all the pneumatic controls with a DDC system and integrate it with the current AEM system.



Original Pneumatic Air Compressor



Typical Pneumatic Thermostat



Original Pneumatic Control panel



DDC Control Graphic of Floor Plan
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Typical Snap Shot of AHU Graphics



Typical AEM Controllers and Transducers



Typical Snap Shot of UV Graphics



Typical AEM Thermostat

Administration Area, Teachers Work Room, Library, Music Room & Gym:

The areas mentioned above are each handled with an indoor air handling unit which is original to the building, these units are manufactured by Trane. The units consist of a supply fan, filter section and dual temperature hot/chilled water coil. There are also standalone centrifugal return air fans associated with the Gym and Library, one the return fans within the mechanical penthouse is currently non-operational, it appears the belt has been removed or in the process of being replaced.

All these units are connected to a galvanized sheet metal duct distribution system which delivers and returns the tempered air to and from the spaces. The ducted systems terminate within each room through the use of ceiling or wall mounted diffusers and registers. The unit delivers a mixture of outside air and return air which is then heated or cooled through the dual temperature hot/chilled water coil. The unit mounted dual temperature coils utilize pneumatic control valves to modulate the flow of hot water however those pneumatic valves are controlled with the AEM control system. The space mounted AEM thermostats activate the control valves and modulate them as needed to meet the space temperature set point.

Overall these air handling units are at the end of their serviceable life and in need of replacement.

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The Kitchen hood is equipped with a roof mounted upblast exhaust fan which communicates directly with the hood and is activated through a push to start button located in the kitchen.



Typical Indoor Air Handling Unit



Typical Ductwork



Typical Library Sidewall Supply Grilles



Typical Return Air Fan



Typical Ceiling Diffuser



Typical Library Return Grille

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Administration AHU



Kitchen Hood



Teachers Work Room AHU



AHU Condensers

Classrooms and Cafe:

Wall mounted vertical unit ventilators are provided in each classroom and the Café. These units provide outside air through the use of a through wall louver system which is ducted to the back of the unit ventilator. These outside air louvers have been modified over the years to help reduce the overall infiltration rate of water however, due to their close proximity to the ground it's clear that water or snow infiltration would be an issue. Also in some locations, vegetative growth is occurring directly in front of the louver which is not providing good air quality for the occupants. Over time certain outside air dampers have been closed due to these problematic issues. These current conditions are not healthy for the building occupants nor is it code compliant and should be corrected or modified.

We would recommend at a minimum that the vegetative growth within three feet of the intake be removed as well as any outside air dampers that are currently closed be opened to their minimum position to allow ventilation air into the associated spaces.

Within these unit ventilators is a supply fan, hot water coil, a filter rack and outside/return air dampers. The unit ventilators are manufactured by Trane and are provided with electric actuators within their cabinet for damper control. Each unit ventilator is controlled via the AEM wall mounted thermostat.

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Each classroom is provided with a ceiling mounted exhaust register which communicates to a roof mounted exhaust fan through a galvanized sheet metal duct distribution system.

Overall the unit ventilators are functioning however, they're in need of replacement as they have reached the end of their serviceable life and internal components are beginning to fail.



Typical Unit Ventilator



Typical Unit Ventilator Outside Air Louver



Typical Classroom Exhaust Register



Typical Unit Ventilator Condensate Drain

Exhaust Systems:

Throughout the building general exhaust is provided through the use of roof mounted exhaust fans. These fans are located in areas such as toilet rooms, storage rooms, custodial closets, mechanical spaces and electric rooms. Most of the fans are original while others appear to have been replaced within the last ten years. All the fans are associated with their own independent galvanized sheet metal duct distribution systems and all terminate within the spaces with ceiling or wall mounted grilles.

Overall the fans appear to be functioning however, the original exhaust fans appear to have reached the end of their serviceable life and are beginning to whine and become unbalanced.

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Typical Original Exhaust Fan



Typical Bathroom Exhaust Register



Newer Style Exhaust Fan



Typical Ceiling Exhaust Register

Common Areas:

The common areas such as corridors, vestibules, restrooms and lobbies are provided with supplemental heat through the use of wall/ceiling mounted unit heaters and fin tube radiation. Each component appears to have an original wall mounted pneumatic thermostat associated with it however, it's unclear as to whether or not the thermostat is functioning. The corridors do not appear to have any ventilation air provided which is not code compliant.

All of this equipment is original to the building and in need of replacement.



Typical Bathroom Fin Tube Radiation



Typical Corridor Fin Tube Radiation

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Typical Unit Heater



Music Classroom Fin Tube Radiation

Recommendations:

Provide a new high-efficiency roof mounted air cooled chiller with R410A refrigerant, digital scroll compressors and condenser fans with ECM motors.

Provide new gas fired high efficiency condensing boilers if natural gas is obtainable, if not provide new 85% efficient boilers with high modulating burners. Provide code compliant combustion air to the boiler room.

Provide new base mounted end suction pumps with premium efficiency motors and variable frequency drives.

Remove all asbestos associated with the existing piping insulation as well as any damaged or deteriorated insulation and replace with new fiberglass insulation. Insulate the existing expansion tank.

Correct current scheduling issue with existing DDC control system.

Remove and replace all existing pneumatic controls with DDC controls and integrate with existing AEM control system.

Remove and replace all existing indoor air handling units with new units, provide energy recovery wheels and premium efficiency motors and also clean all interior surfaces of existing ductwork.

Consider replacing all unit ventilators with new premium efficiency unit with ECM motors and DDC controls.

Correct/modify existing outside air louver obstructions and non-functioning outside air dampers.

Replace existing exhaust fans as needed.

Provide code required ventilation for all corridors through the use of ceiling mounted fan coil units with ducted outside air ductwork connections.

Replace all damaged fin tube, unit heaters and convectors along with their pneumatic controls.

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ELECTRICAL

Executive Summary:

The Wildwood Elementary School Electrical systems are generally beyond their serviceable life; however, have been maintained and most systems are in working order but do not meet some of the needs for today's learning requirements.

The existing Emergency Lighting System and Fire Alarm System is non-compliant with today's codes. Electrical distribution equipment is manufactured by FPE and is beyond its serviceable life.

Lighting has been upgraded to fluorescent type fixtures with electronic ballasts in most spaces; however, lighting controls is limited to line voltage switching for interior and timed schedule for exterior walkway and pole lighting.

Electrical Service:

The school is fed from a utility pole on Strong Street which then transitions to underground primary to a pad mounted transformer. The primary conductors and padmount transformer are owned by the local utility company, Western Massachusetts Electric Company a.k.a. WME Co. The school is secondary metered, the meter is located in the Janitor's Work Room adjacent to the main switchboard, Meter #50456163.



Utility Pole



Pad Mount Transformer



Utility Co. Meter

Electrical Distribution:

The electrical service is rated at 2,000 Amperes at 120/208V, 3 Phase, 4 Wire. The main switchboard is located in the Janitor's Work Room and consists of a main/C.T. section and two distribution sections. The distribution sections are rated at 1,600 Amperes. The switchboard is manufactured by FPE and is beyond its serviceable life. A circuit breaker serving the chiller recently failed and was replaced with a retrofit circuit breaker.

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Panelboards located throughout the building are of circuit breaker type and also manufactured by FPE. A number of panels are split buss panels. There are very few spare breakers for additional loads. There were no service receptacles or lights at rooftop equipment which is a code requirement.



Switchboard Name Plate



Switchboard Dist. Section 2



Split Buss Panel



Switchboard Dist. Section 1



Main Switchboard



Flush Mounted Panel



Replaced Breaker for Chiller



Panelboard

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Branch circuits and receptacles have been added over the years to accommodate school technology; however, there seems to be a lack of receptacles where some are needed. It was noted that kitchen receptacles and some receptacles are located within 6 ft. of a sink.



Kitchen Receptacles





Non-GFI Near Sink

Lighting:

In general, interior lighting consists of surface or recessed fluorescent fixtures with electronic ballasts. Light levels seem to be adequate in most spaces. Light fixtures are in fair condition. The Gymnasium consists of 2'x4' (3) lamp high efficiency high bays with wireguards. The Main Lobby contains decorative pendant globe fixtures. There is no Lighting Control System for interior lighting. All lights are controlled via line voltage switching.



Classroom Surface Mounted Ltg.



Kitchen Lighting



Recessed Classroom Lighting

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Cafeteria Lighting



Gym Lighting



Main Lobby Lighting



Light Switch

Exterior lighting consists of 30' poles in the Parking Area with HID lamps and 15' decorative poles at walkways. There are also building mounted flood lights. Walkway and Parking Lot lighting is controlled via a time clock. Lighting contactors are controlled via the Building Management System (BMS).



Parking Lot Lighting



Walkway Lighting



Building Mounted Floods

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Emergency Power System:

Emergency lighting is served by a normally off system.

Exit signs are in fair condition and are also fed from the generator via a transfer relay.

The generator is a diesel fired, interior mounted, Cummings Onan 12.5/KW/15.6 kVA @ .8PF, 120/208V, 3 Phase, Serial #1269134498. The generator is in poor condition, undersized for any other loads aside from lighting. The diesel tank is a single wall, interior mounted tank that requires manual filling. It is located in a corner of the Boiler Room.



Generator



Generator Name Plate



Diesel Tank for Generator



Exit Sign

The Life Safety Lighting System does not meet current codes.

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Fire Alarm System:

The fire alarm control panel is located in the Janitor's Work Room adjacent to the main switchboard. The FACP is a Silent Knight IFP-50. There are multiple code violations noted in the school with respect to fire alarm. The detection coverage is not adequate, the notification appliances and pull stations do not meet ADA requirements. Multiple exterior doors did not have pull stations within 5' of them. The system notification is horn/strobes which do not meet current code. A speaker/strobe with voice evacuation is required in E use groups. Fire alarm transmission is via a masterbox.



Master Box



FACP



Heat Detector



Notification Appliance



Knox Box

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Security System:

The school is equipped with an Intrusion System. The manufacturer of the Intrusion System is DSC. The system consists of keypads and door contacts on exterior doors. The system is integrated with the BMS System which disarms the Intrusion System on a schedule.

An Aiphone Video Intercom System is utilized at the Main Entry.



Video Intercom System



Intrusion Keypad



Door Contact



Intrusion Control Panel

Miscellaneous Systems:

There is no Lightning Protection System installed on the building.

There is no BDA System for Fire Department communication.

Wildwood Elementary School Amherst, MA Existing Conditions Systems Report J#745 003 00.00 L#49218/Page 8/September 22, 2015

Technology:

The building is equipped with a Bogen Multicom 2000 Paging System. The head end was upgraded; however, the existing speakers and wiring were reused. There is no separate exterior speaker zone; therefore, all of the announcements and bell tones are heard outside. This has been problematic for neighbors of the school.

The Central Clock System is a Simplex Time Control System and is obsolete. Secondary clocks do not seem to be working.

The building is wired with CAT5 cable to a single data rack in the Library. Data jacks have been added throughout the building and are generally installed in surface mounted plastic wiremold.

The existing telephone system is an NEC SV8100. This system is ideal for a school telephone system and can be utilized going forward.

There is six (6) strands of single mode and twelve (12) strands of multi-mode fiber optic cabling that terminates in the Middle School on one end and in the Wildwood Elementary School head end rack.

There is a Local Sound System in the Gymnasium. The amp/mixer is located in a mobile rack and plugs into audio outlets on the Gym wall. Speakers are ceiling mounted.



Paging System Head End



Clock System Head End



Phone Handset

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Phone System



Multi Mode Fiber





CAT5 Patch Panel



42 Single Mode Fiber

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PLUMBING

Executive Summary:

Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, storm drain piping, and LP gas. Municipal sewer and municipal water serve the Building.

The majority of the plumbing systems appear original to the building. The plumbing systems, while continuing to function, have served their useful life. The school plumbing systems could continue to be used with maintenance and replacement of failed components; however other non-dependent decisions will likely force the plumbing upgrade.

The plumbing fixtures are in fair condition. In general the fixtures do not meet current accessibility codes. In general, the fixtures appear to have served their useful life. Current Access Code requires accessible fixtures wherever plumbing is provided. In terms of the water conservation fixtures, their use is governed by the provisions of the Plumbing and Building Code. Essentially, the code does not require these fixtures to be upgraded, but where new fixtures are installed, as may be required by other codes or concerns, the new fixtures need to be water conserving type fixtures. All new high-efficiency fixtures are recommended.

Cast iron is used for sanitary and storm drainage. Rainwater from flat roof areas is collected by interior rain leaders which appear to discharge to a below grade drainage system. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the drainage piping can be reused where adequately sized for the intended new use.

Fixtures:

The water closets are floor mounted vitreous china with manual flush valves or wall hung vitreous china with manual flush valves.

Urinals are wall hung vitreous china with manual flush valves.

Lavatories are wall hung vitreous china with hot and cold water handle faucets. Lavatory faucets do not have mixing valves to prevent scalding.

Electric water coolers consist of wall hung cabinet style with stainless steel bowl.

Janitor's sink are floor mounted stone mop receptor with wall mounted faucets. Faucets are equipped with vacuum breakers.

Classroom sinks are stainless steel counter mounted with gooseneck faucet on left ledge. A bubbler with receptor is located on right side of counter.

Art classroom sinks are stainless steel counter mounted with gooseneck faucets. Sinks do not have sediment/plaster traps.

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Gym locker room showers have been abandoned. Area is used for storage.

Kitchen area fixtures are in fair to good condition. The 3-bowl pot washing sink is connected to an infloor grease interceptor. The dishwasher is new and its waste is connected to an in-floor grease interceptor.

In general exterior wall hydrants are in poor condition. One hydrant has been replaced with new.





Typical bathroom fixtures





Electric Water Coolers



Mop Receptor



Classroom sink

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New wall hydrant

Dishwasher

Pot washing sink

Water Systems:

The main domestic water service is located in the Basement Mechanical Room. The service is 4" in size and includes a compound water meter and pressure reducing valve.

Piping, where exposed, appears to be copper with sweat joints. The majority of the piping is insulated. In general piping looks to be original to the building. The majority of the shut off valves appear to be in poor condition.

There is a 1" reduced pressure backflow preventer for boiler water make-up supply.

Domestic hot water is generated by the heating boilers. The indirect water heater is a Turbomax 109 and has a tank volume of 119 gallons. Heater was manufactured in 2012 and is in good condition.

The domestic hot water system is circulated. There is a thermostatic mixing valve to control outlet temperature.



Main water service/meter



Indirect water heater



Typical domestic water piping

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Wildwood Elementary School Amherst, MA **Existing Conditions Systems Report** J#745 003 00.00 L#49189/Page 4/September 22, 2015

Gas:

There is a small above ground LP gas tank on the exterior of the building that supplies the heating boiler's pilot ignition. Kitchen cooking equipment is electric.

Natural gas is not supplied to the building. Natural gas is provided to the adjacent Middle School. The natural Gas Company currently has a moratorium on future natural gas connections. Further investigation is required with the Gas Company for potential of supplying natural gas to the site.

Drainage Systems:

Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper.

Roof is in good condition. Roof drains are in good condition.

In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use.



LP gas storage tank



Roof drain

Recommendations:

Provide new high-efficiency water conserving plumbing fixtures.

Provide new domestic water distribution systems.

Investigate delivery of natural gas to the building site.

Install new high-efficiency condensing hot water heater with thermostatic mixing valve and expansion tank if natural gas is made available.

Install kitchen hood suppression system with automatic gas valve interlocked with hood operation.

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FIRE PROTECTION

The Building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.148, s.26G requires that any existing building over 7,500 square feet that undergoes *major* alterations or modifications or building addition must be sprinklered.

The proposed scope of work needs to be reviewed to determine if project is a major alteration. If the work is considered a major alteration or a building addition is constructed, then an automatic sprinkler system is required for the entire existing building and additions.

A hydrant flow test will be required to evaluate water supply capacities.

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Wildwood Elementary School Amherst, MA Existing Conditions Systems Report J#745 003 00.00 L#49191/Page 1/September 22, 2015 *Revised November 24, 2015*

<u>CIVIL</u>

Site Conditions:

The Wildwood Elementary School is located on the south side of Strong Street, east of the intersection of East Pleasant Street, in the Town of Amherst, MA (Assessor's Map 11B, Lot 76). The site is currently developed as an elementary school with associated building, bituminous concrete parking, playground equipment and grass areas.

<u>Zoning:</u>

Lot 76 is located within the Neighborhood Residence ("R-N") zoning district. No Zoning Overlay Districts exist on the site as of June 2014. The following dimensions are required in the R-N district:

		Neighborhood Residence			
•	Minimum Lot Area	20,000 Square Feet			
•	Minimum Lot Frontage	120 Feet			
•	Minimum Front Yard Setback	20 Feet			
•	Minimum Rear Yard Setback	15 Feet			
•	Minimum Side Yard Setback	15 Feet			
•	Maximum Building Coverage	20 %			
•	Maximum Lot Coverage	30 %			
•	Maximum Height of Structures	35 Feet			
•	Maximum Floors	3 Stories			

Water Supply:

The existing building's domestic water is supplied by a single 3" cast iron service from the 8" asbestos concrete water main that enters the site from Strong Street.

The 8" asbestos concrete water main connects the municipal water mains on Strong Street and Chestnut Street. The Middle School building, located south of Wildwood Elementary School, is serviced by the same main.

The existing Elementary School does not have an automatic building sprinkler system.

Dependent on layout of a potential new school building, it is likely that portions of the asbestos concrete water main will need to be removed/relocated. Abatement of the exposed piping will be required.

Sewer System:

The building is connected to the municipal sanitary sewer system. Three 4" cast iron sanitary pipe discharges by gravity southwesterly from the west side of the building and connects to a 12" asbestos concrete pipe running southeasterly. A second 8" asbestos concrete pipe discharged southerly from the south side of the building and connected to the 12" asbestos concrete pipe. The 12" asbestos concrete pipe continues in a

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Wildwood Elementary School Amherst, MA Existing Conditions Systems Report J#745 003 00.00 L#49191/Page 2/September 22, 2015 *Revised November 24, 2015*

southerly direction, collected effluent from the Middle School prior to connecting to the sewer system in Chestnut Street.

The municipal sewer in Strong Street west of the Elementary School site is drained through the Elementary and Middle School site to Chestnut Street. Review with the Amherst Department of Public Works will be required to confirm.

Dependent on layout of a potential new school building, it is likely that portions of the asbestos concrete sewer service will need to be removed and relocated in advance of the school building construction. Abatement of the exposed piping will be required.

Drainage System:

Stormwater flows from the entry driveways and north parking lot discharge to catch basins located in the parking and driveway areas. The collector system discharges to a 30" Corrugated Metal Pipe (CMP) that flows in a southeasterly direction. In the area of the baseball field south of the Elementary School, the pipe transitions to 50" in size.

Stormwater flows from the western parking lot sheet flows into the grass to the south and is intercepted by a concrete swale which drains to a runoff control structure. That structure connects to the 30" drain pipe.

To the north and east of the building, groundwater interceptor drains collect groundwater in the hillside. The collected groundwater is discharged to the site drainage system.

Interior roof drains and building courtyard drains are collected by three 10" and one 12" drains within the building. All four pipes discharge to the exterior drainage system.

The municipal drainage collection system in Strong Street west of the Elementary School site as well as the pond to the northwest is drained through the Elementary and Middle School site to Chestnut Street. Dependent on layout of a potential new school building, the municipal drainage system may need to be relocated in advance of the school building construction.

The piping associated with the drainage from the pond is considered "Bank" per the Massachusetts Wetland Protection Bylaw upon disturbing of the pipe. Alteration/reconfiguration of the drainage piping on the School property will require the filing of a Notice of Intent with the Amherst Conservation Commission. Removal and disposal of existing piping connecting from the existing building, parking lot and associated school features to the municipal drainage conveying the pond runoff does not require Conservation Commission notification/filing, however new connections to the municipal drainage conveying the pond runoff does require the filing of a Notice of Intent with the Town of Amherst. The Amherst Conservation Commission may require the filing of a Wildlife Habitat Evaluation in conjunction with the Notice of Intent.

No means of recharge/infiltration, peak flow attenuation or water quality treatment as required by the MassDEP Stormwater Standards were noted as part of the existing stormwater system.

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Natural Gas Services:

No natural gas service is present on the site or on Strong Street.

Underground Fuel Tanks:

The building heating system is currently supplied by heating oil. The heating oil is stored in a 10,000 gallon underground tank located to the west of the School building.

The building is served by a diesel emergency generator. The diesel fuel is stored in a 280 gallon underground tank located to the west of the School building.

Soil Conditions & Testing:

The United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Soil Maps indicate the site is comprised of Paxton-Charlton-Urban land complex to the north and east and Amostown-Windsor silty substratum-Urban land complex soils to the south and west. The Paxton-Charlton-Urban land complex soil is classified as Hydrologic Soil Group 'C', which are capable of recharging 0.17 to 0.27 inches per hour. The Amostown-Windsor silty substratum-Urban land complex soil is classified as Hydrologic Soil Group 'C', which are capable of recharging 0.52 to 1.02 inches per hour. Per MassDEP Stormwater Standards, new stormwater systems need to recharge/infiltrate a prescribed volume of stormwater based on overall site impervious cover. During the design of the stormwater system, test pits will need to be completed to further classify onsite soils.

Wetland Resource Area:

The Massachusetts Geographic Information System (Mass GIS) DEP Wetlands Layer identifies a pond and associated "Shrub Swamp" on the north side of Strong Street, northeast of the property. These areas are approximately 70 feet away from the property line. Alterations of land within 100 feet of the limit of the resource areas will require the filing of a Notice of Intent with the Amherst Conservation Commission.

Natural Heritage & Endangered Species Program (NHESP):

The Massachusetts Geographic Information System (Mass GIS) indicates that the site is not located within an area of "Estimated Habitats or Rare Wildlife" or "Priority Habitat of Rare Species". The nearest published area is located approximately 1,500 feet to the east and is identified at Priority Habitat PH 1213. No filing with NHESP is expected.

MA DEP Water Supply Protection Area/Water Resources Protection:

The site is not located within a Water Supply Protection Area Zone II and Water Resource Protection area according to the Massachusetts Geographic Information system (MASS GIS).

The site is not located within the Amherst Aquifer Recharge Protection (ARP) or Watershed Protection (WP) Overlay Districts.

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Wildwood Elementary School Amherst, MA Existing Conditions Systems Report J#745 003 00.00 L#49191/Page 4/September 22, 2015 *Revised November 24, 2015*

Flood Zones:

The Federal Emergency Management Agency (FEMA), National Flood Insurance Program (NFIP), Flood Insurance Rate Map (FIRM) Community Panel 0005C, MAP 250156 005 C, effective date December 15, 1983 indicates that the site is located within "Zone C" areas of minimal flooding which has no limitations on site build out.

Copley Wolff Design Group

Wildwood Elementary School Amherst, MA Site Landscape Existing Conditions Report – November 24, 2015

Traffic Circulation, Parking and Loading

Wildwood Elementary is accessed from a single drive along Strong Street at the SW corner of the site. During the site visit, no major traffic issues were noted. The site visit did not occur during bus activity or pick-up/drop off events. Recommend an official traffic study be performed before or during early design phase.

Pedestrian access and routes within vehicular areas appeared secondary to vehicular traffic. Measures should be taken to enhance the presence of pedestrian routes.

The condition of the existing bituminous concrete paving is in a state of decline. Several locations contained substantial depressions, indicating base and subgrade degradation. Recommend new paving and base material.

Sidewalks and Other Pedestrian Connections

As previously stated, pedestrian circulation within the vehicular areas appeared secondary to vehicular traffic. Measures should be taken to enhance the presence of pedestrian routes.

The main sidewalk at the front of the school, connecting to the main lobby consists of both standard and bituminous concrete paving. Both are in a state of decline and we recommend new paving and base material.

The pedestrian routes around the south and east sides of the building consist of failing bituminous concrete paths and various informal desire lines within the lawn areas. There is also a bituminous concrete path connecting the school to the tennis courts and ball field at the regional middle school. The pedestrian connections from the NE side of the building to the play areas and play fields consist of failing bituminous concrete paving. We recommend implementing an organized, yet flexible system of pedestrian connections to the outdoor elements, as well as a loop around the entire site. The route of pedestrian flow should be encouraged, yet users should be allowed to travel across lawn and other informal areas during play activities.

There is a significant grade change from the Wildwood Elementary School to the Amherst Regional Middle School. Any future connections need to maintain a slope and material that meets current accessibility requirements.

Formal, Informal Play Areas, Sports and Recreation

There are two formal playground features along the east side of the building. The two playgrounds are separated by age group and located near the classrooms for the corresponding age group.

The playground for the older age group is located at the SE corner of the building and consists of a large multi-use play structure. The current structure contains significant play value; however, it is dated and likely does not meet current accessibility requirements. The play surface is loose mulch contained by a wood fence with a solid lower rail. We recommend the installation of an updated play structure that meets current IPEMA and accessibility regulations, as well as provides an accessible safety play surface.

Located adjacent to the playground for the older age group is a six seated swing set. The swing set should be replaced with a current product. The current mulch surface below the swing set is acceptable; however, the footprint should be expanded.

The playground for the younger age group is located at the NE corner of the building. There is a range of equipment including climbers, ladder features and a swing set. The surface is loose mulch contained by a composite curb product consisting of segments staked into the soil. We recommend the installation of updated play structures meeting current IPEMA and accessibility regulations. This are could also contain several universally accessible play features; possibly an accessible swing set. The play surface should be updated to an accessible safety play surface.

The formal playgrounds are separated and flanked by informal play fields. The fields were likely originally programed as soccer and soft/baseball fields. At the time of the site visit, the fields were acting as areas of passive, unorganized recreation. The field between the formal playgrounds contained movable soccer goals and the field at the east edge of the site contained a chain link backstop which is in a state of disrepair. We recommend any future program for recreational fields contain an informal field for passive use as well as a more formal, yet flexible field to be used for multiple sports such as soccer and soft/baseball.

The north side of the building contained two basketball courts. There was only one user for both courts at the time of the site visit. The bituminous concrete paving at the courts appeared to be in relatively good shape, likely due to very little vehicular traffic. The observed low use of the basketball courts should be considered when determining any updated program for outdoor recreational spaces.

Several areas within the site contained signs of a cross-country running program. Any updated program for outdoor recreational spaces should include this, as well as the consideration for a formal track.

Planting Areas

The majority of the planted areas within the site consist of a well-established lawn with various stands of deciduous canopy trees and a few stands of pine species. The overall health of the planting appeared to be good. There was some moderate soil compaction at heavily used pedestrian areas and at the perimeter of vehicular areas. Planting zones at or near the access to the formal playgrounds were heavily impacted. Bare soil and tree roots were the only visible features. A limited number of foundation plantings existed as a hedge between the main sidewalk and building near the main entry. An updated planting approach to the site should concentrate on what is successful and has tolerated the impact of many young users; the lawn and large trees. Foundation plantings can be enhanced at



key entry points, but should be limited. Planting adjacent to the play areas and along access to the play areas should be reduced as much as possible, as it will not with stand the constant impact from users. If possible, the location for any new building or site elements should take into account the existing, large shade trees on site. While renewable, these are valuable resources that will enhance the outdoor portion of the school.

There are raised planting beds likely used for gardening efforts at various locations throughout the site. The beds showed evidence of very little use. Should any future program include gardening, we recommend a consolidated location that has improved access to the building for water, tools, general observation, etc.

Site Furniture and Miscellaneous Elements

Recycling and trash collection exists at the southern corner of the employee parking area. The long distance from the building was likely a user decision, however, we recommend any site improvements include a method to secure and screen this area.

There are benches, bike racks and trash receptacles at various site locations. Any future site improvements should include a standard, matching site furniture set to be located in coordination with the future pedestrian circulation. The use of movable furniture or the purchase of additional stock should be considered to adjust to unexpected user circulation or activity.

The existing granite, memorial bench adjacent to the main entry should have an area of prominence in any future site improvements.



PRELIMINARY GEOTECHNICAL REPORT PROPOSED WILDWOOD ELEMENTARY SCHOOL AMHERST, MASSACHUSETTS LGCI Project No. 1534

November 3, 2015

Prepared for:

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Preliminary Geotechnical Report Proposed Wildwood Elementary School Amherst, Massachusetts LGCI Project No. 1534

1. PROJECT INFORMATION

1.1 Project Authorization

This report presents the results of subsurface explorations and a preliminary geotechnical evaluation performed by Lahlaf Geotechnical Consulting, Inc. (LGCI) for the proposed Wildwood Elementary School in Amherst, Massachusetts. We performed our services in general accordance with our proposal No. 14092 dated August 26, 2015; and the Standard Form of Agreement Between Architect and Consultant dated August 31, 2015 and signed by Mr. Jim LaPosta of JCJ Architecture, PC (JCJ)

1.2 Purpose and Scope of Services

The purpose of this study was to obtain subsurface information at the site and to provide preliminary foundation design and construction recommendations for the proposed Wildwood Elementary School. LGCI performed the following services:

- Marked the boring locations at the site and called Dig Safe Systems Inc. (Dig Safe) and the Town of Amherst for utility clearance.
- Engaged a drilling subcontractor to advance seven (7) borings at the site. Five (5) of the borings were performed within the proposed building footprint south of the existing school.
- Provided a geotechnical field engineer at the site to coordinate and observe the borings, describe the soil samples, and prepare field logs.
- Submitted three (3) soil samples for laboratory testing.
- Prepared this preliminary geotechnical report containing the results of our subsurface explorations and our preliminary recommendations for foundation design and construction.

Our scope does not include attending meetings, preparing specifications, performing contract document review, or providing construction services. LGCI would be pleased to perform these services when needed. Recommendations for stormwater management, erosion control, pavement design, and detailed cost or quantity estimates are not included in our scope of work.



LGCI did not perform environmental services for this project. LGCI did not perform an assessment to evaluate the presence or absence of hazardous or toxic materials above or below the ground surface at or around the site. Any statement about the color, odor, or the presence of suspicious materials included in our boring logs or report were made by LGCI for information only and to support our geotechnical services. No environmental recommendations and/or opinions are included in this report.

1.3 Site Description

Our understanding of the existing conditions is based on our field observations and on the following drawing:

• "Site Plan, Elementary School, Amherst, Massachusetts," (Site Plan) prepared by Alderman & MacNeish and dated February 11, 1969.

The Wildwood Elementary School is located at 71 Strong Street just east of the intersection with East Pleasant Street in Amherst, Massachusetts as shown in Figure 1. The site is occupied by the existing elementary school, parking lots north and west of the school, and athletic fields on the southern side of the school. The site is bordered by private properties on the eastern side. The existing building is one-story high and does not have a basement.

Based on the Site Plan, the existing grades range between about El. 319 feet and El. 323 feet in the athletic field on the southern side, and between about El. 323 feet and El. 331 feet in the paved areas on the northern side of the existing school. The existing school building has a finished floor elevation (FFE) at El. 325 feet.

The Site Plan also shows the grades at the site prior to the construction of the existing school. Based on these grades, we understand that cuts up to about 15 feet were performed on the northern side of the existing school, and fill up to 11 feet thick was placed in the athletic field on the southern side of the existing school to achieve the current grades. The thickness of the fill appears to increase across the athletic field in a westerly direction.

1.4 Project Description

Our understanding of the proposed construction is based on our discussions with JCJ and on the following conceptual plan:

• "New K-6 on Wildwood Site, Wildwood Elementary School, Amherst, Massachusetts," (Schematic Plan) prepared by JCJ and provided to us on August 21, 2015.

Based on the Schematic Plan, we understand that the new building is currently proposed in the athletic field on the southern side of the existing building. Details about the proposed building size, height, type, and whether it will contain a basement are not available at this time.



The proposed grades were not provided to us. However, assuming that the proposed school has an FFE similar to that of the existing school (i.e., El. 325 feet), additional fill will be needed in the existing athletic field to raise the grades.



2. SITE AND SUBSURFACE CONDITIONS

2.1 Surficial Geology

LGCI reviewed the surficial geological map titled "Surficial Geologic Map of the Mount Toby Quadrangle, Massachusetts" compiled by Janet R. Stone and Mary L. DiGiacomo-Cohen and published by the USGS in 2010.

The map indicates that the natural soils in the general vicinity of the site consist of thick till, comprised of a nonstratified, nonsorted matrix of sand, some silt, and little clay containing scattered pebbles, cobbles, and boulders. On the southern side of the athletic field, the materials consist of coarse deposits that include gravel, sand and gravel, and sand deposits. The surficial geologic map of the site is shown in Figure 2.

2.2 LGCI's Borings

LGCI marked the boring locations in the field in the presence of a representative of the Town of Amherst. We notified Dig Safe System, Inc. and the Town of Amherst for utility clearance prior to performing the explorations at the site.

LGCI engaged Seaboard Geotechnical & Environmental Drilling Services, Inc. (Seaboard) of Chicopee, Massachusetts to advance seven (7) borings at the site on October 6 and 7, 2015. Five (5) of the borings, borings B-1 to B-5, were advanced within the footprint of the proposed elementary school. The boring locations are shown in Figure 3.

An LGCI engineer observed and logged the borings in the field. The borings were advanced with drill rigs mounted on a truck-carrier (Mobile B-53) and a rubber-track carrier (Diedrich D-50). The borings were generally advanced using 4 ¹/₄ -inch (inside diameter) hollow stem augers. Upon completion, the boreholes were backfilled with the soil cuttings.

The drillers performed Standard Penetration Tests (SPT) and obtained split spoon samples with an automatic hammer typically at 2-foot or 5-foot intervals, as noted on the boring logs in general accordance with ASTM D-1586. Unless notified otherwise, we will dispose of the soil samples after three months.

The summary of LGCI's borings is shown in Table 1. Appendix A contains LGCI's boring logs.

2.3 Subsurface Conditions

The subsurface description in this report is based on a limited number of borings is intended to highlight the major soil strata encountered in the explorations. The subsurface conditions are known only at the actual boring locations. Variations may occur and should be expected between boring locations. The boring logs represent conditions that we observed at the time of our explorations and were edited, as appropriate, based on inspection of the soil samples in the



laboratory and on the results of laboratory tests. The strata boundaries shown in our boring logs are based on our interpretations and the actual transition may be gradual. Graphic soil symbols on the boring logs are for illustration only.

The ground surface elevations at the boring locations were interpolated from the Site Plan to the nearest $\frac{1}{2}$ foot.

The soil strata encountered in our borings were as follows, starting at the ground surface:

<u>Topsoil/Subsoil</u> – A layer of surficial organic soil (topsoil/subsoil) was encountered in the borings except in boring B-6, advanced in a paved driveway. This layer ranged in thickness between $\frac{1}{2}$ foot and 3 feet.

Existing Fill – Existing fill was noted in the borings beneath the asphalt or topsoil/subsoil layer. The existing fill was primarily comprised of sand with variable proportions of silt and gravel. The existing fill extended to depths ranging between 2.8 and 9 feet beneath the ground surface. Boring B-6 terminated within the existing fill at a depth of 4.3 feet. The standard penetration test (SPT) N-values in this layer ranged from 1 to 35 blows per foot (bpf), with most values lower than 20 bpf, indicating mostly very loose to medium dense fill.

<u>Buried Topsoil/Subsoil</u> – Organic soil was encountered in borings B-1, B-3 and B-5 below the existing fill. This layer, which ranged in thickness between 1.2 and 3.0 feet, and extended to depths of 4, 10, and 7.5 feet beneath the ground surface, respectively. It appears that this layer was buried during the filling operations as part of the construction of the existing school.

<u>Sand and Silt (Glacial Till)</u> – Glacial soils were encountered in borings B-1, B-2, B-4, B-5 and B-7. The soil samples in this layer were classified as poorly graded sand, well graded sand, or silty sand with up to 40 percent fines and up to 25 percent gravel. A few samples contained about 40 percent gravel, and in a few samples the fines content was higher and the samples were classified as sandy silt or silt with sand. The SPT N-values ranged between 6 bpf and refusal, with most values between 13 and 42 bpf, indicating mostly medium dense to dense material.

2.4 Groundwater

Groundwater was observed borings B-1, B-2, and B-5 at respective depths of approximately 9.2, 8.0, and 7.6 feet (El. 313.8, 316.5, and 314.5 feet) below the ground surface.

The groundwater levels measured during drilling are based on observations made during or shortly after the completion of the explorations and may not represent the actual groundwater level, as additional time may be required for the groundwater levels to stabilize. The groundwater levels presented in this report only represent the conditions encountered at the time and location of the explorations. Seasonal fluctuation should be anticipated.



2.5 Laboratory Test Data

LGCI submitted three samples (3) soil samples obtained from the borings for laboratory testing. The results are summarized in the tables below. The laboratory data sheets are included in Appendix B.

Boring	Sample No.	Stratum	Sample depth	Percent	Percent	Percent
No.			(ft.)	Gravel	Sand	Fines
B-2	S2 (Bot. 9")	Fill	2-4	10.1	53.3	36.6
B-4	S4	Fill	6-8	36.7	44.7	18.6
B-5	S3 (Bot. 10")	Fill	2.5-4.5	18.7	54.9	26.4


3. PRELMINARY EVALUATION AND RECOMMENDATIONS

3.1 General

Based on our observations of the borings, our review of the existing Wildwood Elementary School plans, the location of the proposed building footprint, and the results of our laboratory testing, there are a few issues that we would like to highlight for consideration and discussion.

- Existing fill The fill encountered in our borings ranged in thickness from approximately 2.8 to 9 feet, and the Site Plan indicates a fill thickness exceeding 10 feet in some areas of the proposed building footprint. The fill is not be suitable for support of proposed foundations.
- Buried Topsoil/Subsoil –Borings B-1, B-3 and B-5 encountered buried topsoil/subsoil below the existing fill, which may be an indication that the organic soils may not have been entirely removed before filling during the construction of the existing school. These soils not suitable for foundation support due to their relatively low strength and high compressibility.
- Due to the variability of the existing fill encountered in the preliminary borings and the presence of a buried topsoil/subsoil stratum, we recommend performing additional explorations, including test pits and borings to further explore the composition, the strength/compressibility, and the extent of the existing fill and organic soils during the design phase.
- Foundations As mentioned above, the existing fill and buried topsoil/subsoil are not suitable to support new foundations and floor slabs. These materials should be removed and replaced with Structural Fill or improved in place with a ground improvement system such as aggregate piers. These options are discussed in more details in Section 3.2.

3.2 Preliminary Foundation Recommendations

3.2.1 General

Based on the results of the borings, the subsurface conditions are not suitable to support shallow foundations due to the presence of existing fill. The existing fill should be improved by either of the following two options:

- 1) Remove and replace the existing fill below and 5 feet beyond the building footprint.
- 2) Improve the existing fill using ground improvement, such as aggregate piers.



3.2.2 Remove and Replace Option

Under this option, the existing fill and underlying unsuitable soils should be entirely removed within the proposed building footprint. The removal should extend at least 5 feet beyond the limits of the proposed building. Based on our borings and on the Site Plan, we anticipate that the depth of removal will range up to 11 feet beneath the existing ground surface, with the greatest thickness located on the western side of the proposed building footprint.

The project environmental engineer should be consulted regarding the characterization and the disposal of the existing fill. This option would require analytical tests to characterize the existing fill for disposal, and would also require soil management during excavation and disposal. Depending on the results of the analytical tests, this option may be too costly. Alternatively, we recommend supporting the proposed residential buildings on shallow foundations bearing on improved ground as described below.

3.2.3 Ground Improvement Options

In our opinion, due to the potential costs associated with fill excavation, disposal, and replacement, consideration should be given to improving the existing fill soils in place using aggregate piers (APs).

- APs are typically relatively short, stiff elements of compacted aggregate which improve the existing fill. These elements are typically installed by augering holes ranging from 20 inches to 36 inches in diameter. Aggregate (new crushed stone or recycled concrete) is then introduced into the hole and is generally compacted in one-foot lifts by repeated penetrations with the vibrator, which can be mounted to a crane or tracked carrier. The vibratory or ramming energy densifies the aggregate in the element; thus, producing high modulus aggregate piers. The installation of APs also densifies the surrounding soil depending on the type of soil. These high modulus elements reinforce the treatment zone and increase the composite friction angle and stiffness of the reinforced soil mass. The design of APs is typically verified with a modulus load test.
- APs are designed and installed by specialty contractors such as Hayward Baker, Inc. (HBI), and Geopier®. HBI uses a Vibroflot that uses deep vibration technology to create the aggregate piers. Geopier® uses a patented beveled tamper that rams each layer of aggregate using vertical impact ramming energy.
- While the AP installation generates far fewer spoils than complete removal and replacement, some spoils are created during the installation process. Where it is not desired to generate spoils during the improvement process, vertical displacement APs could be used. These are installed by driving a mandrel and hammer to the design depth, feeding the backfill material through the hollow mandrel, and compacting the backfill in one-foot lifts using the hammer; thus, generating no spoils. Vertical displacement APs are installed



with diameters ranging between 12 and 16 inches, and could be installed to depths of up to 35 feet.

- The ground improvement technologies described above are patented and the design is performed by the specialty contractors. We recommend that the project plans and specifications for ground improvement be performance-based, allowing a variety of ground improvement contractors the opportunity to bid the work. Specifications should indicate the required allowable bearing pressure for footings and slabs, and the allowable total and differential settlements for the structure. In addition, we recommend that the specifications require that the supporting design calculations be available for review by the design team. Ground improvement contractors should also be provided with grading plans and subsurface information associated with the proposed structure for use in preparing their bids.
- The work of the specialty contractor installing the APs should be coordinated with that of the site contractor who should perform pre-trenching for possible boulders, abandoned foundations, or other obstructions before the installation of the APs. While LGCI did not observe obstructions in the fill in our borings, based on the filling history of the site, the existing fill may include obstructions that need to be pre-trenched.
- Where the fill is underlain by soft organic soil, the APs will need to be grouted.

3.2.4 Footing Design

- For preliminary footing design, we recommend using a net allowable bearing pressure of 4 kips per square foot (ksf) for footings bearing on a minimum of 12 inches of compacted Structural Fill placed directly on top of the natural sand or directly on a subgrade improved with aggregate piers. The Structural Fill should extend a minimum of 12 inches outside the proposed foundation footprint. For example, a 4'W x 4'L footing would require a 6'W x 6'L pad of structural fill 12 inches thick.
- The subgrade of footings should be prepared in accordance with the recommendations in Section 4.1.
- All foundations should be designed in accordance with *The Commonwealth of Massachusetts State Building Code 780 CMR, Eighth Edition* (MSBC 8th 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.



- We recommend that wall footings have a minimum width of 2 feet, and that column footings have a minimum width of 3 feet. For foundations with a least lateral dimension smaller than 3 feet, the allowable bearing pressure should be reduced to 1/3 of the recommended allowable bearing pressure times the least dimension in feet.
- 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.

3.2.5 Settlement

In general, for footings designed using the allowable bearing pressure recommended above we anticipate that the settlement will be about 1 inch and that the differential settlement of the footings will be 3/4 inch or less over a distance of 25 feet. Total and differential settlements of these magnitudes are usually considered tolerable for the anticipated construction. However, the tolerance of the proposed structure to the predicted total and differential settlements should be assessed by the structural engineer. During the DD phase, LGCI will estimate the settlement using actual column loads provided to us by the project structural engineer.

3.3 Concrete Slab Considerations

- Floor slabs can be constructed as a slab-on-grade bearing on Structural Fill placed directly on top of the natural sand and silt or a subgrade improved with aggregate piers as discussed in Section 3.2.3. The subgrade of the slab 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. To reduce the potential for concrete curling and to protect the vapor barrier, a 3-inch layer of sand should be placed on the vapor barrier.
- For the design of the floor slab bearing on the materials described above, we recommend using a modulus of subgrade reaction, k_{s1} , of 86 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:

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 1 x 1 square foot area, and B = Width of area loaded, in feet.

- Please note that cracking of slab-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 for construction of all slab-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.
- Backfill in interior utility trenches should be properly compacted.
- In order for the movement of exterior slabs not to be transmitted to the building foundation or superstructure, exterior slabs such as approach slabs and sidewalks, should be isolated from the building superstructure.

3.4 Seismic Design Criteria

In accordance with Section 1613 of MSBC 8th Edition, and based on the boring data, the seismic criteria for the site are as follows:

•	Site Class:	D
•	Spectral Response Acceleration at short period (S _s):	0.23 g
•	Spectral Response Acceleration at 1 sec. (S_1) :	0.067g
•	Site Coefficient Fa (Table 1613.5.3(1)):	1.6
•	Site Coefficient Fv (Table 1613.5.3(2):	2.4
•	Adjusted spectral response S _{MS} :	0.368g
•	Adjusted spectral responses S _{M1} :	0.161g

Based on our observations during the site exploration and the results of the borings, the site soils are not susceptible to liquefaction during a seismic event.

3.5 Lateral Earth Pressures for Wall Design and Perimeter Drains

3.5.1 Lateral Earth Pressures

The planned school building may have below grade walls. These wall will be restricted from movement at the top and should be designed using at-rest pressures. We recommend using the following values for below grade wall design:

Coefficient of Active Earth Pressure, K _a :	0.31
Coefficient of At-Rest Earth Pressure, K _o :	0.47



Coefficient of Passive Earth Pressure, K _p :	3.25
Total Unit Weight, γ:	125 pcf

<u>Note</u>: These values are based on Rankine's equation using an internal friction angle for the backfill of 32 degrees and neglecting friction between the backfill and the wall. The design active and passive coefficient is based on a horizontal surface (non-sloping backfill) and a vertical wall face.

- Exterior walls of below ground spaces should be designed using the "at-rest" pressure coefficient.
- We recommend placing free draining material within the 3 feet immediately behind retaining walls. See Section 3.5.4 for additional recommendations regarding perimeter drains.
- Passive earth pressures should only be used at the toe of the wall where special measures or provisions are taken to prevent disturbance or future removal of the soil on the passive side of the wall, or in areas where the wall design includes a key.
- Where a permanent vertical uniform load will be applied on 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 construction surcharge of 100 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 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*, 8_{th} Edition, Section 1610, a lateral earthquake force equal to $0.100^{*}(S_s)^{*}(F_a)^{*}\gamma^{*}H^2$ should be included in the design of the wall (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), γ 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 8th Edition, Section 1610.2, a load factor of 1.43 shall 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 shall be included in the total static lateral soil pressure and their earthquake lateral force shall be computed and added to the force determined above.



3.5.3 Under-slab Drainage System

Based on the groundwater levels observed in the borings, we do not believe that an under-slab drainage system is required.

3.5.4 Perimeter Drains

- We recommend that free-draining material be placed within 2 feet of the exterior of walls of below ground spaces. 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 6-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.
- Groundwater collected by the wall drains could be discharged in a lower area if gravity flow is possible. Alternatively, it should be discharged into the street drains. A permit would be required for discharge into street drains.



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4. CONSTRUCTION CONSIDERATIONS

4.1 Subgrade Preparation

- Existing fill and unsuitable soils (topsoil/subsoil) should be removed from within an area extending at least 5 feet beyond the limits of the proposed building footprint unless ground improvement will be used at the site.
- 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. Care should be exercised during stripping to reduce the potential for disturbance of the exposed 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, before placing the required 12 inches of Structural Fill.
- Based on the borings, the subgrade of the footings may be in silty sand or sandy silt that is susceptible to disturbance under foot traffic. Therefore, we recommend using a minimum of about 12 inches of Structural fill at the bottom of the footings supported on natural soils. The structural fill should extend a minimum of 12 inches outside the proposed foundation footprint. For example, a 4'W x 4'L footing would require a 6'W x 6'L pad of structural fill 12 inches thick.
- 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.
- An LGCI geotechnical engineer or his 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 resulting excavation should be backfilled with Structural Fill.

4.2 Subgrade Protection

The onsite soils are anticipated to be 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 six inches of soil just before pouring concrete. Footing excavations should be backfilled as soon as possible after footing construction. Soil used as backfill should be free of frozen material, as should be the ground on which it is placed. Fill placement should be halted during freezing weather.



Some of the onsite soils will likely be sensitive to moisture content variations. The contractor should keep exposed subgrades properly drained and free of ponded water. This may be achieved by sloping the site topography adjacent to the construction to direct the water away from the excavation, by trenching and berming to collect the excess run-off, or by other means. If the subgrade soils are wet, machine or foot traffic should be reduced or eliminated to lessen disturbance of the subgrade.

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 D

01557).	with moisture	contents	within ± 2	percentage	points of	of optimu	um moisture	content
		••••••••		P • • • • • • • • • • • • • • • • • • •	P · · · · · · ·	or optimit		•••••••

Sieve Size Percent	Passing by Weight				
3 inches	100				
$1 \frac{1}{2}$ inch	80-100				
$\frac{1}{2}$ inch	50-100				
No. 4	30-85				
No. 20	15-60				
No. 60	5-35				
No. 200*	0-10				

* 0 – 5 Under sidewalks

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 ± 2 percentage points of 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

* 0 – 5 Under sidewalks

4.4 Reuse of Onsite Soils

The results of the grain-size analyses of the existing fill samples indicate that only one of the three samples tested would be acceptable for reuse as Ordinary Fill. Segregating suitable material from unsuitable material may prove very difficult due to the variability observed in the borings across the site and is likely impractical.

Onsite materials proposed for use as fill should first be stockpiled and tested for compliance with the applicable gradation specifications. Soils with more than 20 percent fines content 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 stockpiling, placement, and compaction of these soils.

4.5 Groundwater Control Procedures

Based on the groundwater levels encountered in our borings, we do not anticipate that major groundwater control procedures will be needed during excavations for footings. We expect that filtered sump pumps installed in pits located at least three feet below the bottom of the excavation may be sufficient to handle surface runoff that may enter the excavation.

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 excavations during construction. 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 pumps are no longer in use and the sump pump pits should be restored with suitable backfill.



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4.6 Temporary Excavations

All excavations to receive human traffic, including utility trenches, footing excavations, or others (i.e. underground storage tanks, etc.), should be constructed in accordance with the 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 registered in the Commonwealth of Massachusetts.

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 stability of the excavation sides and bottom.



5. RECOMMENDATIONS FOR FUTURE WORK

We recommend engaging LGCI to perform the following services:

- Perform additional explorations, including soil borings, test pits, and groundwater observations wells, and revise our recommendations if needed.
- Review the geotechnical aspects of the contract drawings and provide comments in a letter.
- Review the geotechnical aspects of contractor submittals.
- Provide a field representative during construction to observe the subgrades for footings, floor slabs, ground improvements, if applicable, and paved areas, and submit daily field reports documenting our observations and field recommendations.



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6. **REPORT LIMITATIONS**

Our preliminary analyses and recommendations are based on project information provided to us at the time of this report. If changes are made to the project, 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 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 JCJ Architecture PC for the specific application to the proposed Wildwood Elementary School in Amherst, Massachusetts as conceived at this time.



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7. REFERENCES

- The Commonwealth of Massachusetts (2010), "The Massachusetts State Building Code, Eighth Edition," comprised of the International Building Code (IBC-2009) and 780 CMR: Massachusetts Amendments to IBC-2009.
- 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 Amherst, MA topographic map from http://mapserver.mytopo.com.
- USGS (2010) "Surficial Geologic Map of the Mount Toby Quadrangle, Massachusetts" Compiled by Janet R. Stone and Mary L. DiGiacomo-Cohen.



Table 1 -Summary of LGCI BoringsWildwood Elementary SchoolAmherst, MassachusettsLGCI Project No. 1534

Boring No.	Ground Surface Elevation (ft.) ¹	Groundwater Depth / El. (ft.) ²	Bottom of Fill Depth / El. (ft.)	Bottom of Buried Topsoil/Subsoil Depth / El. (ft.)	Bottom of Boring Depth / El. (ft.) ³
B-1	323.0	9.2 / 313.8	2.7 / 320.3	4.0 / 319.0	21 / 302.0
B-2	324.5	8.0 / 316.5	3.0 / 321.5	- / -	21 / 303.5
B-3	320.5	- / -	7.0 / 313.5	10.0 / 310.5	10.5 / 310.0
B-4	322.5	- / -	9.0 / 313.5	- / -	21 / 301.5
B-5	322.0	7.5 / 314.5	5.0 / 317.0	7.5 / 314.5	36 / 286.0
B-6	323.0	- / -	4.3 / 318.7	- / -	4.3 / 318.7
B-7	330.5	- / -	4.0 / 326.5	- / -	10.8 / 319.7

1. Ground surface elevations interpolated to the nearest 1/2 foot from plan titled: "Site Plan, Elementary School, Amherst, Massachusetts," dated February 11, 1969.

School, Amherst, Massachusetts," prepared by Alderman & MacNeish and dated February 11, 1969.

2. Groundwater observed at the end of drilling unless noted otherwise in boring log.

3. Boring B-3 and B-7 encountered auger refusal at depths of 10.5 and 10.8 feet, respectively. Boring B-6 was abandoned at the request of the school.







Note

Figure based on Aerial photograph of site obtained from www.google.com/maps. Proposed building layout is based on preliminary building layout provided to us by JCJ Architecture, P.C. on August 21, 2015.

Legend

Approximate as-drilled location of borings advanced by Seaboard Drilling of Chicoppee, Massachusetts on October 6 and 7 and observed by LGCI.

Lahlaf Geotechnical Consulting, Inc.



Appendix A – Boring Logs



Proje	ct:	Propos	ed Wi	ildwoo	od Ele	menta	ary Sc	hool,	Am	herst, N	A
Clien	t:	JCJ Ar	chitec	ture, l	PC						LGCI Project No.: 1534
Drillir	ng Subco	ontractor	:	Seab	oard				Da	te Starte	ed: 10/7/2015
Drillir	ng Forem	nan:		Jeff N	litsch				Da	te Comp	leted: 10/7/2015
LGCI	Enginee	er:		Todd	Dwye	r			Lo	cation:	NE corner of proposed footprint
Grou	nd Surfa	ce El:		323 f	eet, se	e rem	ark 1		То	tal Depth	n: 21 feet
Grou	ndwater	Depth:		9.2 fe	et at e	end of	drilling)	Dri	ll Rig Ty	pe: Mobile B-53 truck mounted rig
									Dri	lling Met	hod: Hollow stem auger
Hamı	ner Wei	ght:	140 ll	os					Sp	lit Spoor	n Diameter: ID - 1.375", OD - 2"
Hamı	ner Type	Ð:	Safet	y with	wire ro	ope			Ro	ck Core	Barrel Size: N/A
Drop			30 ind	ches		•					
							I		Ş		
Depth	Sample	Sample	BI	lows pe	r 6 inch	es	Pen	Rec	mar	Strata	Sample Description
Scale	Depth (ft)	No	0-6	6-12	12-18	18-24	(in)	(in)	Re	Toposil	
	0-2	S1	3	5	14	31	24	16	4	Fill	S1 - Top 6": Organic SILT (OL), non-plastic, 15-20% fine sand,
									1		Bot. 10": Silty SAND (SM), fine to medium, 15-20% fines, 10-
	2-4	S2	19	21	13	14	24	14		-2.8"	15% fine gravel, brown-orange, moist
										Organic Silt	S2 - Top 10": Similar to S1, bottom 10 inches.
5ft	4-6	S3	16	6	8	16	24	6	1		fine sand, dark brown, moist
									1		S3 - Silty SAND (SM), fine to medium, 15-20% fines, 10-15%
	6-8	<u>\$4</u>	14	16	29	31	24	10	1	Silty	S4 - Top 2": Similar to S3
	0-0	04	14	10	25	01	27	10	1	Sand	Bot. 8": Silty SAND with gravel (SM), fine to medium, ~15%
									1		fines, 20-25% fine gravel, red brown, wet
									$\frac{1}{2}$		
10ft									4	~10.5'	
	10-12	S5	5	11	18	25	24	11	$\frac{1}{2}$		55 - Top 6": Silty SAND with gravel (SM), fine to medium, ~15% fines. 20-25% fine gravel, red brown, wet
									4		Mid. 4": SILT (ML), low plasticity, 10-15% fine sand, gray, moist
									1	Silt	Bot. 1": Silty SAND (SM), fine to medium, ~15% fines, ~10%
											ine gravel, red brown, wet
15ft											
	15-17	S6	11	17	18	15	24	10		~15.5'	S6 - Top 6": SILT with Sand (ML), low plasticity, ~15% fine sand, gray, wet
									1		Bot. 4": Silty SAND (SM), fine to medium, ~15% fines, red
									1	Silty Sand	brown, wet
									1		
204	10.21	87	15	24	22	20	24	20	1		
2011	19-21	51	15	24	32	30	24	20	4		S7 - Silty SAND (SM), fine to medium, ~15% fines, orange brown wet
									$\frac{1}{2}$	~21'	
									4		Pottom of boring at 21 foot Packfilled boroholo with drill
									4		cuttings.
									4		-

1. Ground surface elevations interpolated to the nearest 1/2 foot from plan titled: "Site Plan, Elementary School, Amherst, Massachusetts," prepared by Alderman & MacNeish and dated February 11, 1969.



Proje	ct:	Propos	ed Wi	Idwoo	od Ele	menta	ary Sci	h ool ,	Am	herst, N	A
Clien	t:	JCJ Arc	chitec	ture, I	РС						LGCI Project No.: 1534
Drillin	ig Subco	ntractor:		Seab	oard				Da	te Starte	ed: 10/7/2015
Drillir	g Forem	ian:		Jeff N	litsch				Da	te Comp	oleted: 10/7/2015
LGCI Engineer: Todd Dwyer										cation:	Eastern side of proposed footprint
Ground Surface El: 324.5 feet, see remark 1										tal Depti	n: 21 feet
Grou	ndwater	Depth:		8 feet	at en	d of dr	illing		Dri	ll Rig Ty	pe: Mobile B-53 truck mounted rig
									Dri	lling Me	thod: Hollow stem auger
Hamr	ner Weig	ght:	140 lk	os					Sp	lit Spoor	n Diameter: ID - 1.375", OD - 2"
Hamr	ner Type	e:	Safet	y with	wire ro	ре			Ro	ck Core	Barrel Size: N/A
Drop:			30 ind	ches							
							_	_	ķs		
Depth	Sample	Sample	B	ows pe	r 6 inch	es	Pen	Rec	emar	Strata	Sample Description
Scale	Depth (ft)	NO	0-6	6-12	12-18	18-24	(in)	(in)	Ř	Topsoil	
	0-2	S1	2	3	9	9	24	18	-		51 - Top 9": Organic Silt (OL), non-plastic, 15-20% fine sand, 0- 5% fine gravel, dark brown, moist
									-	Fill	Bot. 9": Silty SAND (SM), fine to medium, ~15% fines, 5-10%
	2-4	S2	8	23	32	37	24	12	-	~3.0' Silty	fine gravel, brown, moist (Fill) S2 - Top 3": Silty SAND (SM), fine to medium, ~15% fines, 5-
									4	Sand	10% fine gravel, brown, moist (Fill)
5ft										~5.5'	Bot. 9": Silty SAND with Gravel (SM), fine to medium, 35-40%
-	5-7	S3	4	6	7	13	24	18	2		S3 - Top 6": Silty SAND with Gravel (SM), fine to medium, 15-
									1	Silt	20% fines, 15-20% fine to coarse gravel, orange brown, moist
										with Sand	medium sand, <5% fine gravel, red brown, moist
									3		
10ft										~10'	
	10-12	S4	9	8	8	10	24	12			S4 - Silty SAND (SM), fine to coarse, 15-20% fines, 5-10% fine
											gravel, orange brown, wet
									1		
									1		
15ft									1	Silty	
	15-17	<u>85</u>	10	9	16	12	24	13		Sand	S5 - Similar to S4, 15-20% fine gravel, occasional silt seams
	10 17	00	10	<u> </u>	10	12	27	10	1		
									-		
	40.04	00	0	47	44	44	0.4	40	-		
20ft	19-21	50	0	17	14	11	24	16	-		S6 - Silty SAND (SM), fine to coarse, 15-20% fines, 5-10% fine
									-	~21'	graver, orange brown, wet
									-		Bottom of boring at 21 feet. Backfilled borehole with drill
									_		cuttings.
									-		

1. Ground surface elevations interpolated to the nearest 1/2 foot from plan titled: "Site Plan, Elementary School, Amherst, Massachusetts," prepared by Alderman

& MacNeish and dated February 11, 1969.

2 - Cobbles between 3-5 feet.

3 - Cave in at 8 feet during the removal of the augers.



Proje	ct:	Propos	ed Wi	Idwoo	od Ele	menta	ary Scl	hool,	Am	herst, M	A
Client	t:	JCJ Ar	chitec	ture, I	PC						LGCI Project No.: 1534
Drillin	ng Subco	ntractor	:	Seab	oard				Da	te Starte	d: 10/6/2015
Drillin	ng Forem	ian:		Jeff N	litsch				Da	te Comp	leted: 10/7/2015
LGCI Engineer: Todd Dwyer										cation:	SE corner of building footprint
Ground Surface EI: 320.5 feet, see remark 1										tal Depth	21 feet
Grou	ndwater	Depth:		Not e	ncoun	tered			Dri	ll Rig Ty	pe: Mobile B-53 truck mounted rig
									Dri	lling Met	hod: Hollow stem auger
Hamr	mer Weig	ght:	140 lk	os					Sp	lit Spoor	Diameter: ID - 1.375", OD - 2"
Hamr	mer Type	e:	Safet	y with	wire ro	оре			Ro	ck Core	Barrel Size: N/A
Drop:			30 ind	ches							
Depth	Sample	Sample	B	ows pe	r 6 inch	es	Pen	Rec	arks	Strata	Sample Description
Scale	Depth (ft)	No	0-6	6-12	12-18	18-24	(in)	(in)	Rem		F F
	~1	S1								Topsoil ~1'	S1 - Organic Silt (OL), slighty plastic, organic fines, 10-15% fine
										////	\ sand, ~10% fine gravel, dark brown, moist
	2-4	S2	4	2	6	5	24	8			S2 - Silty SAND (SM), fine to medium, 15-20% fines, 5-10% fine
											gravel, brown, moist
5ft	4-6	S3	2	3	6	12	24	11		Full	S3 - Similar to S2. moist to wet
	6-8	S4	7	4	5	13	24	10		~7.0'	S4 - Top 4": Silty SAND (SM), fine to medium, 15-20% fines, 5-
											10% fine gravel, brown, moist Bot. 6": Sandy Organic SILT (OL), non-plastic, 25-30% fine sand,
										Organic Silt	dark brown, moist
10ft										~10.0'	
	10-12	S5	30/0.5	5"			0.5	0.5	2	Boulder	S5 - Boulder
											Bottom of boring at 10.5 feet. Backfilled borehole with drill cuttings.
15ft											
ion											
20ft											
2011											

Remarks:

1. Ground surface elevations interpolated to the nearest 1/2 foot from plan titled: "Site Plan, Elementary School, Amherst, Massachusetts," prepared by Alderman

& MacNeish and dated February 11, 1969.

2 - Auger refusal, offset boring 5 feet northeast and encountered auger refusal at 10.5 feet.



Proje	ct:	Propos	ed Wi	ildwoo	d Ele	menta	ry Sc	hool,	Am	herst, N	A
Clien	t:	JCJ Ar	chitec	ture, F	PC O						LGCI Project No.: 1534
Drillir	ig Subco	ontractor	:	Seabo	bard				Da	te Starte	ed: 10/6/2015
Drillir	ig Forem	ian:		Jeff N	itsch				Da	te Comp	leted: 10/6/2015
LGCI	Enginee	er:		Todd	Dwye	r			Lo	cation:	Western corner of proposed footprint
Ground Surface EI: 322.5 feet, see remark 1										tal Deptł	n: 21 feet
Grou	ndwater	Depth:		Not er	ncoun	tered			Dri	ll Rig Ty	pe: Diedrich D-50 rubber track
									Dri	lling Met	hod: Hollow stem auger
Hami	ner Weig	ght:	140 II	os					Sp	lit Spoor	n Diameter: ID - 1.375", OD - 2"
Hami	ner Type	e:	Autor	natic					Ro	ck Core	Barrel Size: N/A
Drop			30 in	ches							
			1					1	ks		
Depth	Sample	Sample	В	ows per	6 inch	ies	Pen	Rec	emar	Strata	Sample Description
Scale	Depth (ft)	No	0-6	6-12	12-18	18-24	(in)	(in)	Å		
	0-2	S1	3	2	7	8	24	18	ł	Topsoil ~1.1'	S1 - Top 13": Organic SILT with Sand, non-plastic, 15-20% fine
									ļ		Bot. 5": Poorly graded SAND with Silt and Gravel (SP-SM), fine
	2-4	S2	5	4	4	2	24	12			to medium, 10-15% fines, 20-25% fine to coarse gravel, brown,
									ļ	En	S2 - Silty SAND (SM), fine to medium, 15-20% fines, 5-10% fine
5ft	4-6	S3	1	WOH	1	WOH	24	6			gravel, brown, moist
											S3 - Similar to S2
	6-8	S4	4	12	12	35	24	5			S4 - Silty SAND with gravel (SM), fine to medium, ~20% fines,
											35-40 % fine to coarse gravel, brown, moist
									1	~9'	
10ft	9-11	S5	6	9	18	13	24	11	2		S5 - Silty SAND with Gravel (SM), fine to medium, 15-20%
				-							fines, 35-40% fine to coarse gravel, gray brown, moist
										Silty Sand	
									ł		
									1		
	1110			-		_		10	1	~14'	CC Condu CIIT (NAL) low plasticity 25 400/ fire conductor fire
15ft	14-16	S6	4	3	3	1	24	16		Sandy	so - Sandy SILT (ML), low plasticity, 35-40% fine sand, <5% fine gravel, gray brown, moist
									ł	Silt	
										to	
									ļ		
										Silt with	
20ft	19-21	S7	7	9	16	56	24	14		Sand	S7 - SILT with Sand (ML), low plasticity, 20-25% fine sand, 10-
										~21'	15% fine gravel, gray, moist
											Bottom of boring at 21 feet. Backfilled borehole with drill
									1		cuttings.
									1		
									İ		

1. Ground surface elevations interpolated to the nearest 1/2 foot from plan titled: "Site Plan, Elementary School, Amherst, Massachusetts," prepared by Alderman & MacNeish and dated February 11, 1969.

2 - Gravel in the sampler tip.



Proje	ct:	Propos	ed Wi	Idwoo	od Ele	menta	ary Sc	hool,	Am	herst, N	IA
Client	t:	JCJ Ar	chitec	ture, l	PC				_		LGCI Project No.: 1534
Drillin	ig Subco	ntractor	:	Seab	oard				Da	te Starte	ed: 10/6/2015
Drillin	g Forem	ian:		Jeff N	litsch				Da	te Comp	oleted: 10/6/2015
LGCI	Enginee	er:		Todd	Dwye	r			Lo	cation:	Center of proposed footprint
Grou	nd Surfa	ce El:		322 fe	eet, se	e rem	ark 1		To	tal Depti	n: 36 feet
Grou	ndwater	Depth:		7.6 fe	et dur	ing dri	illing		Dri	ll Rig Ty	pe: Diedrich D-50 rubber track
						•	•		Dri	Iling Met	thod: Hollow stem auger
Hamr	ner Weig	ght:	140 lt	os					Sp	lit Spoor	n Diameter: ID - 1.375", OD - 2"
Hamr	ner Type):	Auton	natic					Ro	ck Core	Barrel Size: N/A
Drop:			30 inc	ches							
									Ş		
Depth	Sample	Sample	BI	ows pe	r 6 inch	es	Pen	Rec	mar	Strata	Sample Description
Scale	Depth (ft)	No	0-6	6-12	12-18	18-24	(in)	(in)	Ŗ		
	@1ft	S1							4	Topsoil	S1 - Topsoil, Organic SILT with Sand (OL), non plastic, fine to medium sand trace roots, dark brown
									4		
	@2ft	S2							4	~3'	S2 - Similar to S1
	2.5-4.5	S3	10	6	5	5	24	16	1	Fill	S3 - Top 6": Similar to S1
5ft										-5'	Bot. 10": Silty SAND with Gravel (SM), fine to medium, 25-30%
	4.5-6.5	S4	4	2	1	2	24	18		Organic	fines, ~20% fine to coarse gravel, brown, moist S4 - Top 6": Silty SAND (SM), fine to medium, 15-20% fines, 5-
-										Siit	10% fine gravel, brown, moist (fill)
	7-9	S5	3	4	9	11	24	12	1	~7.5'	Bot. 12": Organic SILT (OL), non-plastic to low plasticity, 10- 15% fine sand, dark brown, moist
									1		S5 - Top 7": Similar to S4, bottom 12 inches.
10ft	9-11	S6	6	11	9	8	24	17	1		Bot. 5": Poorly graded SAND with Silt (SP-SM), fine to medium,
	• • • •				-				1		S6 - Well-Graded SAND with Silt and Gravel (SW-SM), fine to
									1		coarse, 10-15% fines, 35-40% fine to coarse gravel, brown, wet
									+	Sand	
									+		
		07	10		40			10	┨		S7 Well Graded SAND (SWI) fine to coarse 25% fines ~10%
15ft	14-16	S7	10	21	19	14	24	18	4		fine gravel, brown, wet
									┦		
									4		
									ļ		
									1	~19'	
20ft	19-21	S8	14	13	16	16	24	16			S8 - SILT with Sand (ML), non-plastic to Low plasticity, 20-25%
									Ţ		ine to medium sanu, 5% ine gravel, gray, wet
									1	C:14	
									1	SIIT	
									1		
	24-26	S9	12	10	13	19	24	12	1		S9 - Similar to S8, 10% fine gravel

1. Ground surface elevations interpolated to the nearest 1/2 foot from plan titled: "Site Plan, Elementary School, Amherst, Massachusetts," prepared by Alderman & MacNeish and dated February 11, 1969.



Proje	ct:	Propos	ed Wi	ildwoo	od Ele	menta	ary Sc	hool,	I, Amherst, MA				
Clien	t:	JCJ Are	chitec	ture,	РС						LGCI Project No.: 1534		
Depth	Sample	Sample	B	lows pe	er 6 inches		Pen	Rec	Remarks	Strata	Sample Description		
Scale			0-0	0-12	12-10	10-24							
										Silt			
30 ft	29-31	S10	17	19	23	28	24	12		~29'	S10 - Poorly graded SAND (SP), fine to coarse, trace fines, ~5%		
										Sand	ine gravel, brown gray, wet		
35 ft	34-36	S11	19	25	38	90	24	18			S11 - Silty SAND (SM), fine, 15-20% fines, ~5% fine gravel, brown, moist		
											Bottom of boring at 36 feet. Backfilled borehole with drill cuttings.		
40 ft									•				
45 ft													
50 ft													



Proje	ct:	Propos	ed Wi	ildwoo	od Ele	menta	ary Sc	hool,	Am	herst, N	1A
Clien	t:	JCJ Ar	chitec	ture, l	PC						LGCI Project No.: 1534
Drillin	ig Subco	ontractor	:	Seab	oard				Da	te Starte	ed: 10/7/2015
Drillin	ig Forem	nan:		Jeff N	litsch				Date Completed:		bleted: 10/7/2015
LGCI	Enginee	er:		Todd	Dwye	r			Loo	cation:	Eastern end of northern driveway
Grou	nd Surfa	ce El:		323 f	eet, se	e rem	ark 1		Tot	tal Depth	h: 4.3 feet
Grou	ndwater	Depth:		Not e	ncoun	tered			Dri	ll Rig Ty	pe: Diedrich D-50 rubber track
									Dri	lling Met	thod: Hollow Stem Augers
Hamr	ner Weig	ght:	140 lk	os					Sp	lit Spoor	n Diameter: ID - 1.375", OD - 2"
Hamr	ner Type	e:	Autor	natic					Ro	ck Core	Barrel Size: N/A
Drop:			30 ind	ches							
Denth	0	Osmula	D		. 0 in ch		Der	Dee	rks	04	Occurred a Description
Depth	Sample	Sample	BI	lows pe		es	Pen (in)	Kec	ema	Strata	Sample Description
Scale			0-0	0-12	12-10	10-24	(11)	(11)	£	Asphalt	Drilled through 1.5" of Asphalt
	0.3-2.3	51	17	17	18	19	24	10		Eift	S1 - Poorly graded SAND with Silt and Gravel (SP-SM), fine to
				10					ł		medium, 10-15% fines, 35-40% fine gravel, dark brown to
	2.3-4.3	S2	13	12	17	22	24	12			S2 - Top 3": Similar to S1
										-4.3'	Bot. 9": Poorly graded GRAVEL with Sand (GP), fine, 0-5% fines,
5ft									2		25-30% fine sand, gray brown, moist
									ł		Bottom of boring at 4.3 feet. Backfilled borehole with drill
									-		cuttings.
									ļ		
									-		
10ft											
15ft									1		
									1		
									1		
									1		
									ł		
20#									ł		
2011											
									1		
									-		
									-		

1. Ground surface elevations interpolated to the nearest 1/2 foot from plan titled: "Site Plan, Elementary School, Amherst, Massachusetts," prepared by Alderman & MacNeish and dated February 11, 1969.

2 - Discontinued drilling at request of school principal due to noise and proximity to classrooms.



Proje	ct:	Propos	ed Wi	Idwoo	od Ele	menta	ary Sc	hool,	Am	herst, N	Α
Client	t:	JCJ Are	chitec	ture, F	PC						LGCI Project No.: 1534
Drillin	ig Subco	ntractor	:	Seabo	oard				Da	te Starte	d: 10/7/2015
Drilling Foreman: Jeff Nitsch					Da	te Comp	leted: 10/7/2015				
LGCI	Enginee	er:		Todd	Dwye	r			Loc	cation:	North of driveway, 5 ft off pavement
Grou	nd Surfa	ce El:		330.5	feet, s	see re	mark	1	Tot	al Depth	: 10.8 feet
Grou	ndwater	Depth:		Not e	ncoun	tered			Dri	ll Rig Ty	be: Mobile B-53 truck mounted rig
									Dri	lling Met	hod: Hollow stem auger
Hamr	ner Weig	ght:	140 lk	os					Spl	lit Spoor	Diameter: ID - 1.375", OD - 2"
Hamr	ner Type	e:	Safet	y with	wire ro	оре			Ro	ck Core	Barrel Size: N/A
Drop:			30 inc	ches		•					
									Ş		
Depth	Sample	Sample	BI	ows pe	r 6 inch	es	Pen	Rec	mar	Strata	Sample Description
Scale	Depth (ft)	No	0-6	6-12	12-18	18-24	(in)	(in)	Re		
	0-2	S1	3	2	2	3	24	8	ļ	Topsoil	S1 - Organic SILT(OL), ~15% fine sand, trace roots, brown, moist
									ļ		moist
	2-4	S2	4	4	4	6	24	9	ļ	Fill	S2 - Poorly graded GRAVEL with Sand (GP), fine, ~5% fines, 25-
									2	4	30% fine to medium sand, gray brown, moist (Fill)
5ft	4-6	S3	23	28	27	24	24	18			S3 - Silty SAND with Gravel (SM), fine to medium, 2530%
											fines, ~20% fine gravel, gray, moist
									Ī		
									Ī	Silty Sand	
									ł		
10#	0	S 1	30/0"				24	0	ł		S4 - No recoverv
TOIL	10	07	20/0	50/2"			24	0	1	~10'	S5 - Silty SAND (SM) fine to medium, 20-25% fines, 15% coarse
	10	- 55	30	50/3			9	4	1		gravel, gray-brown, moist (cobble in sampler tip)
									+		Bottom of boring at 10.8 feet due to refusal. Backfilled
									ł		borehole with drill cuttings.
									ł		
15ft											
									ļ		
20ft]		
									1		
									t		
									t		
									ł		
									ł		

1. Ground surface elevations interpolated to the nearest 1/2 foot from plan titled: "Site Plan, Elementary School, Amherst, Massachusetts," prepared by Alderman & MacNeish and dated February 11, 1969.

2 - Offset boring 5' southeast to avoid old trench filled with 3/4" crushed stone.

Appendix B – Laboratory Test Results



	Client:	Lahlaf Geo	Lahlaf Geotechnical Consulting								
	Project:	Proposed V	Wildwood Elem	entary School							
	Location:	Amherst, I	MA			Project No:	GTX-303840				
1	Boring ID: B-2			Sample Type:	jar	Tested By:	jbr				
	Sample ID:	Sample ID: S2, Bottom 9 inches			10/16/15	Checked By:	emm				
	Depth :	2-4 ft		Test Id:	349927						
	Test Comm	ent:									
	Visual Description: Moist, reddish brown silty sand										
Sample Comment:											



Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	93		
0.5 in	12.50	93		
0.375 in	9.50	91		
#4	4.75	90		
#10	2.00	85		
#20	0.85	78		
#40	0.42	69		
#60	0.25	58		
#100	0.15	47		
#200	0.075	37		

<u>Cc</u>	<u>pefficients</u>					
D ₈₅ =2.0521 mm	$D_{30} = N/A$					
D ₆₀ =0.2737 mm	$D_{15} = N/A$					
D ₅₀ =0.1722 mm	$D_{10} = N/A$					
C _u =N/A	C _c =N/A					
Classification						

<u>ASTM</u>	N/A	Classific

AASHTO Silty Soils (A-4 (0))

Sample/Test Description Sand/Gravel Particle Shape : ROUNDED Sand/Gravel Hardness : HARD



	Client:	Lahlaf Geotechnical Consulting								
	Project:	Proposed	Wildwood Elem	entary School						
	Location:	Amherst,	MA			Project No:	GTX-303840			
9	Boring ID:	B-4		Sample Type:	jar	Tested By:	jbr			
	Sample ID:	S4		Test Date:	10/16/15	Checked By:	emm			
	Depth :	6-8 ft		Test Id:	349928					
	Test Comm	ent:								
	Visual Desc	ription:	Moist, brown s	silty sand with	gravel					
	Sample Cor	nment:								
D۰	articla	Cizo	Analy	$cic - \Lambda Q$	стм г	ノインン				



Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1.5 in	37.50	100		
1 in	25.00	75		
0.75 in	19.00	75		
0.5 in	12.50	75		
0.375 in	9.50	71		
#4	4.75	63		
#10	2.00	58		
#20	0.85	52		
#40	0.42	43		
#60	0.25	38		
#100	0.15	24		
#200	0.075	19		

	fficients				
D ₈₅ =29.4	571 mm	D ₃₀ =0.1858 mm			
$D_{60} = 2.86$	96 mm	$D_{15} = N/A$			
D ₅₀ =0.73	96 mm	$D_{10} = N/A$			
C _u =N/A		C _c =N/A			
	01				
<u>ASTM</u>	N/A	sincation			
<u>AASHTO</u>	Stone Fragr (A-1-b (0))	nents, Gravel and Sand			
	Sample/Te	est Description			
Sand/Gra	vel Particle S	hape : ROUNDED			
Sand/Gravel Hardness : HARD					



	Client:	Lahlaf Geotechnical Consulting								
	Project:	Proposed V	Wildwood Elem	entary School						
	Location:	Amherst, I	MA			Project No:	GTX-303840			
9	Boring ID: B-5			Sample Type:	jar	Tested By:	jbr			
	Sample ID:	S3, Bottor	n 10 inches	Test Date:	10/16/15	Checked By:	emm			
	Depth :	2.5-4.5 ft		Test Id:	349929					
	Test Comm	ent:								
	Visual Desc	ription:	Moist, brown	silty sand with	gravel					
	Sample Co	mment:								



Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
	25.00	100		
0.75 in	19.00	95		
0.5 in	12.50	92		
0.375 in	9.50	90		
#4	4.75	81		
#10	2.00	74		
#20	0.85	65		
#40	0.42	54		
#60	0.25	44		
#100	0.15	35		
#200	0.075	26		

Coefficients			
D ₈₅ =6.3441 mm	D ₃₀ =0.1018 mm		
D ₆₀ =0.6286 mm	$D_{15} = N/A$		
D ₅₀ =0.3446 mm	$D_{10} = N/A$		
C _u =N/A	C _c =N/A		
ASTM N/A	<u>Classification</u>		

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description Sand/Gravel Particle Shape : ANGULAR Sand/Gravel Hardness : HARD

1506 Providence Highway - Suite 30 Norwood, MA 02062-4647

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PHASE I-ENVIRONMENTAL SITE ASSESSMENT

Lord Associates, Inc.

Environmental Consulting & Licensed Site Professional Services

Wildwood School 71 Strong Street Amherst, Massachusetts

Prepared for:

Mr. Ammar Dieb Universal Environmental Consultants 12 Brewster Road Framingham, MA 01702-6218

Prepared by:

Lord Associates, Inc. 1506 Providence Highway, Suite 30 Norwood, Massachusetts 02062

Project # 2321

October 20, 2015

1506 Providence Highway - Suite 30 Norwood, MA 02062-4647

Lord Associates, Inc.

Environmental Consulting & Licensed Site Professional Services

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October 20, 2015

Mr. Ammar Dieb Universal Environmental Consultants 12 Brewster Road Framingham, MA 01702-6218

RE: Phase I Environmental Site Assessment Wildwood School 71 Strong Street Amherst, Massachusetts

Dear Mr. Dieb:

Lord Associates, Inc. has completed a Phase I Environmental Site Assessment of the referenced property (the "Site"). Environmental investigations were completed with consideration to standard industry practice, the ASTM E-1527 site assessment standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", applicable regulations as defined by Chapter 21E of the Massachusetts General Laws, and the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000). The purpose of this assessment was to identify "Recognized Environmental Conditions" as defined in ASTM E-1527-13, and to determine if additional investigation is warranted.

This assessment has identified one Recognized Environmental Condition (REC) in connection with the Site, as follows:

• One 10,000-gallon fuel oil UST is located on the Site. The tank is constructed of fiberglass and is approximately 17 years old.

Please refer to the attached report for specific details and findings of our assessment. We appreciate the opportunity to have provided our professional environmental consulting and analytical services.

Sincerely, *LORD ASSOCIATES, INC.*

Ralph J. Tella

Ralph Tella, CHMM, LSP President

Enc.: Phase I ESA

Nathaniel L. Finsness Senior Project Manager

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Phase I Environmental Site Assessment 71 Strong Street Amherst, Massachusetts October 20, 2015

1.0 INTRODUCTION

1.1 Purpose

Lord Associates, Inc. (LAI) has completed a Phase I Environmental Site Assessment for the Wildwood School located at 71 Strong Street in Amherst, Massachusetts (the "Site"). The purpose of this assessment was to identify "Recognized Environmental Conditions" as defined in ASTM standard E1527-13 (the Standard), and to determine if additional investigation is warranted.

Recognized Environmental Conditions are defined as the presence or likely presence of any hazardous substances or petroleum products on the property under conditions that indicate an existing release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term Recognized Environmental Conditions is not intended to include *de minimis* conditions which generally do not present a material risk of harm to public health or the environment, and that generally would not be the subject of a notification and/or enforcement action if brought to the attention of appropriate governmental agencies.

The Phase I consisted of a Site reconnaissance and an assessment of the Site and surrounding properties for visual and/or olfactory evidence of the use, storage, and/or release of oil and/or hazardous material. The Phase I also included a review of federal, state, and local agency files regarding the history of the Site and surrounding area relative to the use, storage and/or release of oil and/or hazardous material.

Please note that an investigation for the presence of mold, asbestos and PCBs in building materials, lead-based paint, indoor air quality, or regulatory compliance is beyond the scope of work described by ASTM E 1527-13, therefore LAI did not explore those conditions.

1.2 Significant Assumptions

Factual information regarding operations, conditions, and other data provided by the Client, site contacts, third parties, and governmental agencies are assumed to be correct and complete.

1.3 Special Terms and Conditions

The Phase I ESA was conducted by LAI on behalf of the client consistent with the agreed upon Scope of Work and LAI Standard Terms and Conditions. No other special terms and conditions were established in connection with these services.
2.0 SCOPE OF SERVICES

This assessment was performed following standard industry practice and with consideration to the ASTM E-1527-13 site assessment standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The investigation included completion of the following tasks:

- 1. A field investigation was performed including a visual surficial inspection of the Site and abutting properties; and
- 2. The following agencies were contacted to inquire of past ownership, complaints, or violations concerning environmental issues at the Site and vicinity.
 - > The Massachusetts Department of Environmental Protection (MADEP)
 - > The Amherst Tax Assessor's Office
 - ➢ The Amherst Town Clerk's Office
 - > The Amherst Health Department
 - The Amherst Building Department
 - > The Amherst Water Department
 - The Amherst Conservation Commission
 - > The Amherst Fire Prevention Office
 - Environmental Data Resources, Inc. (EDR)
 - Sanborn Fire Insurance Maps

3.0 SITE DESCRIPTION

3.1 Site Location and Parcel Legal Description

Information provided indicates that the Site consists of a single lot totaling approximately 14.34 acres of land located on the south side of Strong Street in Amherst, Massachusetts. A Site Location Map is included as **Figure 1**. The Site is designated as Map 11B, Lot 76 with the municipal Tax Assessor's Office. A Plot Plan is included as **Figure 2** and a Site Plan depicting pertinent Site features is included as **Figure 3**.

Information provided indicates the Site longitude and latitude are approximately - 72.514000° west and 42.388300° north, respectively. Universal Transverse Mercatur (UTM) coordinates are approximately 4,695,670 meters north by 704,639 meters east.

3.2 Site and Vicinity General Characteristics

The Site is located on the south side of Strong Street in Amherst, Massachusetts. The Site is occupied by one single-story municipal elementary school. The Site and surrounding properties are serviced by municipal water and sewer. Neighboring properties include residential properties to the east and west, a cemetery to the north, and the municipal middle school to the south.

3.3 Current Property Use

The Site is occupied by one single-story school building which is occupied by the Wildwood elementary school.

3.4 Description of Improvements

The Site is occupied by one three-story school building, built in 1976. The building is approximately 108,000 square feet in size and comprises roughly 17% of the total surface area of the Site. The Site building is located centrally on the Site. Paved parking lots and grassed fields surround the building.

A detailed Site description is presented in **Section 4.0**.

3.4.1 Wastewater

Wastewater generated on-Site is discharged to the municipal sewer system. No information pertaining to storm water handling and/or management was encountered during this assessment. No oil/water separators or storm drains were observed in the building. One floor drain was observed in the boiler room, routed to the municipal sewer system.

3.4.2 Water Supply

Water is supplied by the Town of Amherst, which was connected at the time of initial construction, circa 1976.

3.4.3 Wells

No potable, irrigation, injection, dry, groundwater monitoring or abandoned wells were observed or identified from the interviews or records reviewed.

3.4.4 Heating/Cooling System

The school is heated by two boilers located in the southwest corner of the building. Domestic water is heated indirectly by the boilers. A propane AST is located outside the building in this area, used to fire pilots for the boilers. Natural gas is not available to the Site.

3.4.5 Solid Waste Disposal

Solid waste dumpsters were observed on the west side and south side of the Site; no staining was observed in the vicinity of the dumpsters. There were no areas of solid waste disposal, mounds or depressions, or areas apparently filled or graded by non-natural causes suggesting solid waste disposal observed.

3.4.6 Storage Tanks

One 10,000-gallon fuel oil UST is located on the Site, to the west exterior of the boiler room. Based on information reviewed, this tank was installed during initial construction, circa 1976 and is constructed of single-walled steel. No evidence of other current or historical USTs or ASTs was identified during the inspection.

3.4.7 Transformers, Hydraulic Equipment and Other Potential Evidence of the Potential Use of Polychlorinated Biphenyls

Polychlorinated Biphenyls (PCBs) can be found in hydraulic-oil filled electrical equipment (such as motors and pumps), capacitors or transformers, building materials and fluorescent light ballasts manufactured prior to July 2, 1979.

LAI observed fluorescent light fixtures throughout the Site. The age of the fixtures could not be determined. However, it is not likely that the light ballasts were manufactured prior to 1979, as the average life span for the fluorescent fixtures is less than 15 years. Additionally, any light ballast manufactured after 1979 must be labeled "No PCB". Note that electric light ballasts that contained PCBs had less than 1.5 ounces of PCB. The reportable quantity requiring notification to the MADEP of a release is one pound. Therefore the risk presented by PCB-containing ballasts is relatively low.

Sampling for building materials is beyond the scope of ASTM E-1527. No other evidence of the potential use of polychlorinated biphenyls (PCBs) was observed on the Site during the inspections.

3.5 Current Uses of Adjoining Properties

Residential properties surround the Site to the south, east and west. In addition, town offices exists to the northeast, the town ice rink to the northwest and a church to the south. No bulk fuel storage was observed on adjacent properties. The table below summarizes current abutting land usage.

Usage	Orientation
Strong Street with Wildwood Cemetery beyond	North
Amherst Middle School	South
Residential	East
Residential	West

<u>Table 1</u> Area Land Usage

4.0 USER PROVIDED INFORMATION

A summary of user provided information is provided below.

4.1 User Questionnaire

A User Questionnaire was provided to the user (Client) to assist the user and LAI in gathering information from the user that may be material to identifying RECs. LAI did not receive a response to the User Questionnaire that was provided to the user. Furthermore, the user did not provide any of the information requested in the questionnaire and required by Section 6 of the ASTM Standard E 1527-13. The lack of or inability to obtain this information represents a data gap. However, based on the findings of this report, the absence of this information is not considered a *significant* data gap.

4.2 Title Records

LAI did not review the property title.

4.3 Environmental Liens, Activity and Use Limitations

The owner has no knowledge of environmental liens, and the agency check revealed no listing for an Activity and Use Limitation in connection with the Site.

4.4 Specialized Knowledge

No specialized knowledge of Recognized Environmental Conditions was provided to LAI by the owner or client.

4.5 Commonly Known or Reasonably Ascertainable Information

No commonly known or reasonably ascertainable information regarding Recognized Environmental Conditions was provided to LAI by the owner or client.

4.6 Valuation Reduction for Environmental Issues

No information regarding the sale price of the Site in comparison to the expected value of the property was provided to LAI by the owner or client.

4.7 Owner, Maintenance Supervisor, and Occupant Information

According to the Assessor's Department, the current owner of the property is the Town of Amherst School Department.

LAI conducted an interview with Mr. Kevin Seaman, Maintenance Specialist for the School Department. Mr. Seaman provided information regarding the history of the Site and operations at the Site. According to Mr. Seaman the Site was undeveloped land prior to construction of the school in 1976.

Lord Associates, Inc.

4.8 Reason for Performing Phase I Study

A Phase I ESA is being conducted in connection with the renovation of the property.

5.0 **RECORDS REVIEWS**

A review of federal, state and local regulatory agency files was conducted in accordance with ASTM E-1527-13 standards to identify the use, generation, storage, treatment, disposal and/or release of oil and/or hazardous materials that may potentially impact the Site.

5.1 Municipal Offices

5.1.1 Assessor's Office

Lord Associates, Inc. visited the municipal Assessor's Office to review historical ownership information for the Site. This data was reviewed for the purposes of land use determination and should not be relied upon as a complete chain-of-title. The following table offers a summary of ownership information obtained at the assessor's office for the Site.

Grantee	Date of Acquisition	Book/Page
Town of Amherst School Department	6/15/1965	1464/123
W D Cowles Inc.	No reference	1213/346

Table 2 Chain of Title

5.1.2 Health Department

LAI made inquiries at the municipal Board of Health (BOH). No records of environmental concern were on file for the Site.

5.1.3 Building Department

A review of files was requested at the municipal Building Department to obtain information on historical building alterations. No records of environmental concern were on file for the Site.

5.1.4 Water Department

Water is supplied by the municipal Water Department; a connection date was not readily available.

5.1.5 Conservation Commission

A review of files was requested at the municipal Conservation Commission regarding environmental violations. No records of environmental concern were on file for the Site.

5.1.6 Clerk's Office

A review of files was requested at the municipal Clerk's Office regarding environmental violations. No records of environmental concern were on file for the Site.

5.1.7 Fire Prevention

LAI requested a review of information regarding the storage of hazardous materials at the Site from the municipal Fire Prevention Office. Information reviewed at the Amherst Fire Department included a permit dated September 13, 1982 for one 10,000-gallon steel UST. A second permit (#30-69) indicates that a previous permit was dated in 1969, but no specific date was available on the permit.

No records regarding update to this UST system were provided, however, Kevin Seaman of the Amherst School Department stated this UST was removed circa 1998 and replaced with one single-wall fiberglass UST of the same volume. He further stated that no evidence of soil contamination was observed at the time of UST replacement.

5.2 Sanborn/Historical Map Review

Sanborn Fire Insurance Maps were reviewed for the Site and vicinity. Sanborn Maps usually show property use and underground commercial fuel storage for the purposes of insurance companies. Sanborn Maps were not available due to the rural nature of the area.

5.3 Historical Aerial Photograph Review

Aerial photographs from 1938, 1963, 1971, 1978, 1995, 2001 and 2005 were reviewed through the Historic Aerials website (<u>www.historicaerials.com</u>) and a current 2013 aerial photograph was reviewed from Google Earth. The following table summarizes the aerial photographs review.

Aerial	Site Description		Area Description
Year		Direction	Description
1938	The Site appears as agricultural	North	Agricultural land
	the southern portion of the Site.	South	Agricultural and residential properties
			Agricultural and residential properties
		West	Agricultural and residential properties
1963 1071	The Site appears as developed	North	Town offices
19/1	southern portion of the Site and athletic fields to the north,	South	Residential homes
		East	Residential homes
	east and west.		Residential homes
1978	The aerial photographs differ	North	Town offices
2001	photographs in that: The Site	South	Residential homes
2005	building appears with an addition to the porth and is	East	Residential homes
2013	similar to the current configuration.	West	Residential homes

<u>Table 3</u> Aerial Photographs

5.4 Radius Search for Properties of Environmental Concern

A radius search was conducted of federal and state-listed sites of potential environmental concern as outlined in ASTM E-1527 guidelines. The search was performed using software developed by Environmental Risk Information Service (ERIS) report. The Site is listed on the FINDS/FRS, Historical Spill, UST and LUST database. The Site is identified on the US AIRS and FINDS databases; in compliance and with no violations. The Site is also listed with a historical spill, information in the database indicates that a release of an unknown amount of gasoline from a pipe/hose/line to soil at the Site occurred on January 8, 1990. The spill has a "case closed" regulatory status. The Response Action Outcome report (RAO) associated with the LUST is reviewed in Section 5.5.

Listed sites identified within the designated ASTM search radii are summarized in the following table. The ERIS report is included in **Appendix B**.

<u>Table 4</u> Properties of Potential Environmental Concern

NPL (1 mi.)	RCRIS TSDF (1 mi.)	CERCLIS (0.5 mi.)	Landfill (0.5 mi.)	STATE SITES (0.5 mi.)	LUST & SPILLS (0.25 mile)	ERNS (Site/ Abutter	RCRIS (Site/ Abutter	UST (Site/ Abutter
NI	NI	NI	NI	FORMER HAWTHORNE RES 235 EAST PLEASANT ST SHWS LAST Higher 0.213 mi SW Kerosene release at residence 11/15/2013 1-19275/RAO	NI	NI	NI	WILDWOOD CEMETERY 70 STRONG ST UST Higher 0.004 mi N

Notes:

N=north, S=south, W=west, E=east

Elev. Diff: = Difference in elevation from Site in feet

NPL = National Priorities List

RCRIS = Resource Conservation and Recovery Information System

TSDF = Treatment Storage & Disposal Facilities

ERNS = Environmental Response Notification System

NI = None Identified

NFA – LSP Opinion of No Further Action

RAO = Closed in accordance with MADEP Regulations

TierII = Listed with MADEP due to oil or hazardous material in soil/groundwater (not closed)

DPS = Downgradient Property Status (contamination is from an upgradient source)

UST = Underground Storage Tank

LAST – Leaking AST

 $\mathbf{F} = \mathbf{Final}$

AUL = Activity and Use Limitation

Miles adjusted= depicts the actual distance

5.5 Massachusetts Department of Environmental Protection Review

Those properties shown in bold in the preceding table were reviewed and are summarized as follows:

WILDWOOD CEMETERY 70 STRONG ST North Abutter

One 550-gallon gasoline UST was removed in 1999. The tank was installed in 1987 and constructed of single-walled steel without cathodic protection or leak detection. No information of soil impact was available in EDR files.

5.6 **Previous Reports**

No previous reports were made available through sources cited in this assessment.

5.7 Physical Setting Sources

LAI reviewed information provided by the United States Geological Survey (USGS) in connection with physiographic conditions, soil and bedrock types. LAI also reviewed the MassGIS Resource Map for the area, and located natural resources during the Site Reconnaissance. According to the USGS Quadrangle Topographical Map, the elevation of the Site is approximately 340 feet above mean sea level. Topography of the Site vicinity is sloped down to the south. The direction of groundwater flow in the vicinity is estimated to the south.

Review of the MassGIS Bureau of Waste Site Cleanup Priority Resources Maps published by the MADEP, indicated the Site is not located in a potential aquifer area. Review of the National Wetlands Inventory from the U.S fish and Wildlife Service, indicated that no wetlands are located at the Site or adjacent properties.

The Soil Survey of Hampshire County indicates that soil in the vicinity of the Site is classified as Paxton-Charlton-Urban land complex with 3-15 percent slopes.

5.8 Historical Use Information

Research regarding historical land usage of the Site and surrounding properties was conducted using data obtained from historical maps, parties familiar with the Site, and municipal officials. Based on information gathered through the course of this assessment, the following history of the Site has been prepared:

Historical information indicates that the Site is occupied by the Wildwood Elementary School. The building was constructed in approximately 1976 on previously undeveloped land.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

On September 29, 2015, LAI personnel conducted on-Site inspections, which consisted of a visual examination of the Site and portions of adjacent properties and interviews with Site personnel. Areas were examined for surficial indications of releases of oil and/or hazardous materials (OHM). Approximately three feet of snow covered the ground at the time of the inspection. Snow removal had taken place on most of the paved surfaces.

LAI was accompanied by Mr. Kevin Seaman, Maintenance Specialist for the School Department, during the inspection. A Site Plan depicting significant features observed is included as **Figure 3** and photographs are included in **Appendix A** of this report.

6.2 Interior Inspection

The Site is located at the south side of Strong Street in Amherst, Massachusetts. The Site is occupied by the Wildwood Elementary School, a single-story school building, which was constructed in 1976. The boiler room is located in the southwest corner of the building, housing two oil-fired boilers, a compressor, generator, evaporation tank and chillers. A Veeder-Root monitoring and leak detection system associated with the UST was observed in the boiler room. One floor drain was observed in the boiler room, leading to the municipal sewer system, according to Mr. Seaman.

The balance of the building is occupied by classrooms, offices, kitchen and dining areas, a gymnasium, and a small maintenance shop. No evidence of a significant surface release of OHM was observed through the course of our inspection. LAI did not inspect the roof.

6.3 Exterior Inspection

The Site building is located on the eastern portion of the Site. Paved parking lots and driveways exist on the south, east, and west sides of the building. Grass exists on the northern side of the building. Athletic fields exist on the western portion of the Site. One 10,000-gallon fuel oil UST is located to the west of the boiler room, installed in 1976. One 100-gallon propane AST is also located outside the boiler room, fueling the boiler pilots.

Solid waste dumpsters were observed on the west side Site; no staining was observed in the vicinity of the dumpsters.

There were no areas of solid waste disposal, mounds or depressions, or areas apparently filled or graded by non-natural causes suggesting solid waste disposal observed.

7.0 INTERVIEWS

LAI interviewed the Mr. Kevin Seaman, Maintenance Specialist for the School Department in connection with property conditions and the potential for Recognized Environmental Conditions.

Mr. Seaman accompanied our personnel during the inspection. He was interviewed and questioned of any knowledge regarding environmental conditions or releases at the Site.

8.0 SUMMARY OF FINDINGS AND CONCLUSION

8.1 Findings

Lord Associates, Inc. has completed a Phase I Environmental Site Assessment of the Site. This assessment was performed with consideration to standard industry practice and the ASTM E-1527-13 site assessment standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". Our findings are presented below:

- 1. Information provided indicates that the Site consists of a single lot totaling approximately 14.34 acres of land located on the south side of Strong Street in Amherst, Massachusetts. The Site is designated as Map 11B, Lot 76 with the municipal Tax Assessor's Office.
- 2. The Site is occupied by one single-story municipal elementary school. The Site and surrounding properties are serviced by municipal water and sewer. Neighboring properties include residential properties to the east and west, a cemetery to the north, and the municipal middle school to the south. The building is approximately 108,000 square feet in size and comprises roughly 17% of the total surface area of the Site. The Site building is located centrally on the Site. Paved parking lots and grassed fields surround the building.
- 3. Lord Associates, Inc. conducted an inspection of the Site consisting of a visual examination of the Site, immediate surrounding features, and abutting properties. The building is heated by fuel oil stored in one 10,000-gallon fiberglass UST to the southwest exterior of the building. This UST was installed circa 1998 and is fitted with a Veeder Root leak detection system.
- 4. Municipal file reviews were performed. No evidence of current or historical aboveground fuel oil tanks (ASTs) were identified during the inspection. A 10,000-gallon fuel oil UST was listed with the Fire Department, but their records had not been updated to reflect UST replacement in 1998.
- 5. Information listed in the EDR database report indicates that one 550-gallon gasoline UST was formerly located at the Wildwood Cemetery, located across Strong Street to the north, but this tank was removed in 1989. No other significant properties of environmental concern were identified in the vicinity of the Site.

Lord Associates, Inc.

6. Historical information indicates that the Site has been occupied by the Wildwood Elementary School since original construction in 1976. The Site was undeveloped prior to the school.

8.2 Conclusions

This assessment has identified one Recognized Environmental Condition (REC) in connection with the Site, as follows:

• One 10,000-gallon fuel oil UST is located on the Site. The tank is constructed of fiberglass and is approximately 17 years old.

Any exceptions to, or deletions from, ASTM Practice E1527 are described in **Section 9** of this report. Please note that an investigation for the presence of mold, asbestos and PCBs in building materials, lead-based paint, indoor air quality, or regulatory compliance is beyond the scope of work described by ASTM E 1527-13, therefore LAI did not explore those conditions.

9.0 **RESTRICTIVE CONDITIONS**

9.1 Limitations & Deviations

LAI recognizes the following limitations and/or deviations from the Standard with respect to this Phase I Environmental Site Assessment:

- LAI did not interview past owners of the Site;
- LAI did not interview owners of neighboring property;
- LAI did not review Title Records for the Site; and
- LAI did not conduct an evaluation of the purchase price of the Site compared to the fair market value.

9.2 Significance of Data Gaps

As described above, the deviations from the Standard constitute data gaps. However, it is our opinion that these data gaps do not raise reasonable concerns that would affect the ability to identify conditions indicative of a release or threatened release or Recognized Environmental Conditions (RECs) based upon other information collected during the course of the Phase I Environmental Site Assessment.

- Although the past owner and owners of neighboring property were not interviewed, site and surrounding area history does not indicate prior use involving oil and/or hazardous materials.
- In Massachusetts, all environmental liens and Activity and Use Limitations are identified on the MADEP sites database, which has been searched.
- Based on Site History, there is no reasonable indication that property value has been affected due to environmental concerns.

10.0 LIMITATIONS

No warranty, whether expressed or implied, is given with respect to this report or any opinions expressed herein. It is expressly understood that this report and the opinions expressed herein are based upon Site conditions, as they existed only at the time of assessment. Nothing in this report constitutes a legal opinion or legal service, and should not be relied upon as such.

The data reported and the findings, observations, and opinions expressed in the report are limited by the Scope of Work. The Scope of Work was performed based on budgetary, time, and other constraints imposed by the Client, and the agencies and persons reviewed.

In preparing this report, Lord Associates, Inc. has relied upon and presumed accurate certain information about the Site and adjacent properties provided by governmental agencies, the client and others identified in the report. Except as otherwise stated in the report, Lord Associates, Inc. has not attempted to verify the accuracy or completeness of any such information.

This report has been prepared on behalf of and for the exclusive use of the client, and those immediate entities involved with the proximate financing of this project, solely for use in the environmental evaluation of the Site. Any reuse or reliance on this report by any other third party shall be done only with the written consent of LAI.

11.0 SIGNATURES AND ENVIRONMENTAL PROFESSIONAL STATEMENT

LAI declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312. LAI has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. LAI has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

This report is dated this February 24, 2015 and is signed by individuals who are duly authorized to do so.

Ragh J. Tella

Ralph Tella, CHMM, LSP President

Cathan I pussees

Nathaniel L. Finsness Senior Project Manager

APPENDIX A









LORD ASSOCIATES, INC.	REFERENCE :		FIGURE 4: AERIAL MAP
1506 Providence Highway, Suite 30 Norwood, MA 02062-4647 (781) 255-5554	GOOGLE MAPS	NORTH	71 STRONG STREET AMHERST, MASSACHUSETTS



FIGURE 5: MADEP MAP



Wooded Swamp Coniferous Wooded Swamp Deciduous Wooded Swamp Mixed

LORD ASSOCIATES, INC.

1506 Providence Highway, Suite 30 Norwood, MA 02062-4647 (781) 255-5554

REFERENCE:

MAGIS MAPS

NORTH

FIGURE 5: WETLANDS MAP

71 STRONG STREET AMHERST, MASSACHUSETTS

			G
Hamps Part (hire County, Massachusett MA609)	s, Cent	ral 🛞
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	0.5	1.2%
404B	Charlton fine sandy loam, 3 to 8 percent slopes, stony	4.4	12.1%
404C	Charlton fine sandy loam, 8 to 15 percent slopes, stony	1.8	4.8%
405C	Charlton fine sandy loam, 8 to 15 percent slopes	0.9	2.5%
406D	Charlton fine sandy loam, 15 to 25 percent slopes, very stony	2.7	7.5%
741A	Amostown-Windsor silty substratum-Urban land complex, 0 to 3 percent slopes	9.8	26.6%
747C	Paxton-Charlton-Urban land complex, 3 to 15 percent slopes	16.6	45.3%
Totals fo	or Area of Interest	36.7	100.0%



NORTH

LORD ASSOCIATES, INC.

1506 Providence Highway, Suite 30 Norwood, MA 02062-4647 (781) 255-5554 **REFERENCE:**

FIGURE 6: SOIL SURVEY MAP

71 STRONG STREET AMHERST, MASSACHUSETTS

USGS MAPS

Lord Associates, Inc.

PHOTOGRAPHIC RECORD

Project #: 2321



Photo Site view from northeast #1:



Photo Southwest corner; UST under van #3:



Photo View from north #2:



Photo South side of school #4:

Lord Associates, Inc.

PHOTOGRAPHIC RECORD

Project #: 2321



Photo West side of school #5:



Photo UST pad shown #7:



Photo East side of school #6:



Photo Boiler room #8:

APPENDIX C

Wildwood School

71 Strong Street Amherst, MA 01002

Inquiry Number: 4421598.1 September 25, 2015

Certified Sanborn® Map Report



6 Armstrong Road, 4th Floor Shelton, Connecticut 06484 Toll Free: 800.352.0050 www.edrnet.com

Certified Sanborn® Map Report

Site Name:

Wildwood School 71 Strong Street Amherst, MA 01002

EDR Inquiry # 4421598.1

Client Name:

Lord Associates, Inc. 1506 Providence Highway Norwood, MA 02062

Contact: Nat Finsness

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Lord Associates, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name:	Wildwood School
Address:	71 Strong Street
City, State, Zip:	Amherst, MA 01002
Cross Street:	
P.O. #	NA
Project:	2321
Certification #	A490-432B-9ED0

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results Certification # A490-432B-9ED0

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

Library of Congress
University Publications of America
EDR Private Collection

The Sanborn Library LLC Since 1866™

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9/25/15

Wildwood School

71 Strong Street Amherst, MA 01002

Inquiry Number: 4421598.3s September 25, 2015

EDR FIRST REPORT

A Search of ASTM E1527-13 §8.2.1 Databases



edrnet.com 800.352.0050

Table of Contents

This report includes a search of reasonably available environmental records to assist the professional in compliance with Section 8.2.1 Standard Federal, State, and Tribal Environmental Record Source of ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-13). Additional environmental records sources may be available for your property.

Target Site:	71 STRONG STREET
	AMHERST, MA 01002

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	72.514000	72.5140000 - 72° 30' 50.40"	Easting:	704639.8
Latitude:	42.388300	42.3883000 - 42° 23' 17.88"	Northing:	4695670.0
Elevation:	337 ft. above sea level		Zone:	Zone 18
SECTION			P	AGE
Search Summar	y			ES-1
Sites Sorted by	Distance			ES-3
Sites Sorted by	Database			ES-4
1 Mile Map				2
0.25 Mile Map				3
Mapped Sites Su	ummary			4
Orphan Summar	ſ y			OR-1
Records Search	ed/Data Currency Tracking			GR-1
USGS 7.5 Minute	e Topographic Map			TM-1

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TARGET SITE:	71 STRONG STREET
	AMHERST, MA 01002

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	Orphan	TOTALS
Fodoral NPI sito list										
		00/00/0045	1 000	0	0	0	0	0	0	0
	NPL Bronocod NDI	03/26/2015	1.000	0	0	0	0	0	0	0
		10/15/1001	1.000 TD	0	0	0	0	0	0	0
	INFE LIEINS	10/13/1991	IF	0	-	-	-	-	0	0
Federal Delisted NPL site list										
	Delisted NPL	03/26/2015	1.000	0	0	0	0	0	0	0
Federal CERCLIS list										
	FEDERAL FACILITY	03/26/2015	0.500	0	0	0	0	-	0	0
	CERCUS	10/25/2013	0.500	0	0	0	0 0	-	0	0
	OLIVOLIO	10/20/2010	0.000	Ū	0	Ũ	Ū		0	0
Federal CERCLIS NFR	RAP site List									
	CERC-NFRAP	10/25/2013	0.500	0	0	0	0	-	0	0
Federal RCRA CORRA	ACTS facilities list									
	CORRACTS	06/09/2015	1.000	0	0	0	0	0	0	0
Fodoral PCPA non-CC	APPACTS TSD facilities	list								
rederal RCKA Holl-CC	DARACIS ISD lacinities		0 500	•	0	•	0		0	0
	RCRA-ISDF	06/09/2015	0.500	0	0	0	0	-	0	0
Federal RCRA genera	tors list									
	RCRA-LQG	06/09/2015	0.250	0	0	0	-	-	0	0
	RCRA-SQG	06/09/2015	0.250	0	0	0	-	-	0	0
	RCRA-CESQG	06/09/2015	0.250	0	0	0	-	-	0	0
Federal institutional c	ontrols / enaineerina co	ontrols reaistr	ies							
		05/28/2015	0 500	0	0	0	0	-	0	0
	US ENG CONTROLS	06/09/2015	0.500	0	0	0	0	-	0	0
	US INST CONTROL	06/09/2015	0.500	0	0	0	0	-	0	0
Federal ERNS list										
	ERNS	06/22/2015	TP	0	-	-	-	-	0	0
State- and tribal - equ	ivalent CERCLIS									
	SHWS	06/30/2015	1.000	0	0	1	0	22	7	30
State and tribal landfil	ll and/or solid waste die	nosal sita list	5							
				0	0	^	~		0	0
	SVVF/LF	01/29/2015	0.500	U	U	U	U	-	U	U

TARGET SITE:71 STRONG STREETAMHERST, MA 01002

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	Orphan	TOTALS
State and tribal leaking storage tank lists										
	LAST	06/30/2015	0.500	0	0	1	0	-	0	1
	LUST	06/30/2015	0.500	0	0	0	0	-	0	0
	INDIAN LUST	02/03/2015	0.500	0	0	0	0	-	0	0
State and tribal regist	tered storage tank lists									
etate and theat region		04/04/0040	0.050	0	0	0			0	0
		01/01/2010	0.250	0	0	0	-	-	0	0
	USI	07/13/2015	0.250	0	1	0	-	-	0	1
	ASI	10/22/2009	0.250	0	0	0	-	-	0	0
	INDIAN US I	02/03/2015	0.250	0	0	0	-	-	0	0
State and tribal institu	utional control / enginee	ering control re	gistries							
	INST CONTROL	06/30/2015	0.500	0	0	0	0	-	0	0
Ctata and tribal walking										
State and tribal volun	tary cleanup sites									
	INDIAN VCP	09/29/2014	0.500	0	0	0	0	-	0	0
State and tribal Brownfields sites										
	BROWNFIELDS	11/01/2014	0.500	0	0	0	0	-	0	0
			0.000	č	÷	÷	•		•	-
	- Totals			0	1	2	0	22	7	32

Sites Sorted by Distance

TARGET PROPERTY ADDRESS:

71 STRONG STREET

AMHERST, MA 01002

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft, mi.) DIRECTION
1	WILDWOOD CEMETERY	70 STRONG ST	UST	Higher	21, 0.004, NNW
2	FORMER HAWTHORNE RES	235 EAST PLEASANT ST	SHWS, LAST	Higher	1126, 0.213, SW
3	NO LOCATION AID	99 EAST PLEASANT ST	SHWS	Lower	2732, 0.517, SSW
4	UNIV OF MASSACHUSETT	ENV HEALTH NORTH 414	SHWS	Lower	2828, 0.536, West
5	TRIANGLEPRAY & E PLE	TRIANGLE ST	SHWS	Lower	3072, 0.582, SSW
6	CONSTRUCTION SITE	650 NORTH PLEASANT S	SHWS	Lower	3381, 0.640, WNW
A7	NO LOCATION AID	168 NORTH PLEASANT S	SHWS	Lower	3616, 0.685, SSW
8	UNIV OF MASSACHUSETT	112 EASTMAN LANE	SHWS	Lower	3646, 0.690, NNW
9	GETTY PROP #6202	203 TRIANGLE ST	SHWS	Lower	3665, 0.694, South
A10	EXXON MOBIL OIL CORP	161 NORTH PLEASANT S	SHWS	Lower	3669, 0.695, SSW
11	POLE #4	33 KELLOGG AVE	SHWS	Lower	4060, 0.769, SSW
12	POLE #78/49	OFF COMMONWEALTH AVE	SHWS	Lower	4112, 0.779, West
13	COMMERCIAL PROPERTY	103 NORTH PLEASANT S	SHWS	Lower	4125, 0.781, SSW
14	UMASS CRAMPTON HALL/	256 SUNSET AVE	SHWS	Lower	4288, 0.812, WSW
B15	LERDERLE LOW RISE	NORTH PLEASANT AND G	SHWS	Lower	4303, 0.815, NW
B16	UMASS PVTA BUS DEPOT	255 GOVERNORS DR	SHWS	Lower	4308, 0.816, NW
17	RESIDENCE	237 SUNSET AVENUE	SHWS	Lower	4335, 0.821, WSW
18	POWER PLANT PUMP HOU	CAMPUS CENTER WAY SE	SHWS	Lower	4623, 0.876, West
19	NO LOCATION AID	40-50 MAIN ST	SHWS	Lower	4785, 0.906, SSW
20	CONCRETE PAD IN FRON	630 MASSACHUSETTS AV	SHWS	Lower	4836, 0.916, WSW
21	ACROSS FROM TOWN HAL	BOLTWOOD AVE	SHWS	Lower	4937, 0.935, SSW
22	FORMER POWER PLANT -	40 CAMPUS CENTER SER	SHWS	Lower	4971, 0.941, West
23	UMASS PHYSICAL PLNT	2 CAMPUS CENTERWAY	SHWS	Lower	5016, 0.950, WNW
24	LORD JEFFERY INN	30 BOLTWOOD AVENUE	SHWS	Lower	5118, 0.969, SSW

Sites Sorted by Database

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

SURROUNDING SITES: SEARCH RESULTS

State- and tribal - equivalent CERCLIS

SHWS: Reportable Releases Database

Site	Address	Direction / Distance	Map ID	Page
FORMER HAWTHORNE RES Release Tracking Number / Current Status:	235 EAST PLEASANT ST 1-0019275 / RAO	SW (0.213 mi. / 1126 ft.)	2	4
NO LOCATION AID Release Tracking Number / Current Status:	99 EAST PLEASANT ST : 1-0014063 / RAO	SSW (0.517 mi. / 2732 ft.)	3	5
UNIV OF MASSACHUSETT Release Tracking Number / Current Status:	ENV HEALTH NORTH 414 1-0000016 / RAO	W (0.536 mi. / 2828 ft.)	4	5
TRIANGLEPRAY & E PLE Release Tracking Number / Current Status:	TRIANGLE ST : 1-0000649 / RAO	SSW (0.582 mi. / 3072 ft.)	5	5
CONSTRUCTION SITE Release Tracking Number / Current Status:	650 NORTH PLEASANT S 1-0018665 / RAO	WNW (0.640 mi. / 3381 ft.)	6	6
NO LOCATION AID Release Tracking Number / Current Status:	168 NORTH PLEASANT S 1-0013052 / RAO	SSW (0.685 mi. / 3616 ft.)	A7	6
UNIV OF MASSACHUSETT Release Tracking Number / Current Status:	112 EASTMAN LANE 1-0019533 / UNCLSS	NNW (0.690 mi. / 3646 ft.)	8	7
GETTY PROP #6202 Release Tracking Number / Current Status:	203 TRIANGLE ST 1-0000895 / RAO	S (0.694 mi. / 3665 ft.)	9	7
EXXON MOBIL OIL CORP Release Tracking Number / Current Status:	161 NORTH PLEASANT S 1-0016838 / RAO	SSW (0.695 mi. / 3669 ft.)	A10	8
POLE #4 Release Tracking Number / Current Status:	33 KELLOGG AVE 1-0015809 / RAO	SSW (0.769 mi. / 4060 ft.)	11	8
POLE #78/49 Release Tracking Number / Current Status:	OFF COMMONWEALTH AVE 1-0011619 / RAO	W (0.779 mi. / 4112 ft.)	12	9
COMMERCIAL PROPERTY Release Tracking Number / Current Status:	103 NORTH PLEASANT S 1-0018965 / TIERII	SSW (0.781 mi. / 4125 ft.)	13	9
UMASS CRAMPTON HALL/ Release Tracking Number / Current Status:	256 SUNSET AVE 1-0018343 / RAO	WSW (0.812 mi. / 4288 ft.)	14	10
LERDERLE LOW RISE Release Tracking Number / Current Status:	NORTH PLEASANT AND G 1-0016269 / RAO	NW (0.815 mi. / 4303 ft.)	B15	10
UMASS PVTA BUS DEPOT Release Tracking Number / Current Status:	255 GOVERNORS DR : 1-0016496 / RAO	NW (0.816 mi. / 4308 ft.)	B16	11
RESIDENCE Release Tracking Number / Current Status:	237 SUNSET AVENUE 1-0019693 / PSNC	WSW (0.821 mi. / 4335 ft.)) 17	11
POWER PLANT PUMP HOU Release Tracking Number / Current Status:	CAMPUS CENTER WAY SE 1-0010724 / RAO	W (0.876 mi. / 4623 ft.)	18	12

Sites Sorted by Database

Site	Address	Direction / Distance	Map ID	Page
NO LOCATION AID Release Tracking Number / Current Status	40-50 MAIN ST s: 1-0014556 / RAO	SSW (0.906 mi. / 4785 ft.)	19	12
CONCRETE PAD IN FRON Release Tracking Number / Current Status	630 MASSACHUSETTS AV s: 1-0010195 / RAO	WSW (0.916 mi. / 4836 ft.)	20	13
ACROSS FROM TOWN HAL Release Tracking Number / Current Status	BOLTWOOD AVE s: 1-0013943 / RAO	SSW (0.935 mi. / 4937 ft.)	21	13
FORMER POWER PLANT - Release Tracking Number / Current Status	40 CAMPUS CENTER SER s: 1-0018584 / TIERII	W (0.941 mi. / 4971 ft.)	22	14
UMASS PHYSICAL PLNT Release Tracking Number / Current Status	2 CAMPUS CENTERWAY s: 1-0000943 / RAO	WNW (0.950 mi. / 5016 ft.)23	14
LORD JEFFERY INN Release Tracking Number / Current Status Release Tracking Number / Current Status	30 BOLTWOOD AVENUE s: 1-0011214 / RAO s: 1-0018042 / RAO	SSW (0.969 mi. / 5118 ft.)	24	15

State and tribal leaking storage tank lists

LAST: Leaking Aboveground Storage Tank Sites

Site	Address	Direction / Distance	Map ID	Page
FORMER HAWTHORNE RES	235 EAST PLEASANT ST	SW (0.213 mi. / 1126 ft.)	2	4
Release Tracking Number / Current Status	: 1-0019275 / RAO			

State and tribal registered storage tank lists

UST: Summary Listing of all the Tanks Registered in the State of Massachusetts

Site	Address	Direction / Distance	Map ID	Page
WILDWOOD CEMETERY Tank Status: Removed Facility Id: 166	70 STRONG ST	NNW (0.004 mi. / 21 ft.)	1	4

1.00 Mile Map

71 STRONG STREET AMHERST, MA 01002



Black Rings Represent Qtr. Mile Radius

- * Target Property (Latitude: 42.3883 Longitude: 72.514)
- High or Equal Elevation Sites
- Low Elevation Sites
- National Priority List Sites

0.250 Mile Map

71 STRONG STREET AMHERST, MA 01002



Black Rings Represent Qtr. Mile Radius

- * Target Property (Latitude: 42.3883 Longitude: 72.514)
- High or Equal Elevation Sites
- Low Elevation Sites
- National Priority List Sites
| | | | UST | | | | |
|-------------------|--|--|--|------------|-----|---------|---|
| EDR ID: | U003000293 | DIST/DIR: | 0.004 NNW | ELEVATION: | 338 | MAP ID: | 1 |
| NAME:
ADDRESS: | WILDWOOD CEMETERY
70 STRONG ST
AMHERST, MA 01002
HAMPSHIRE | | | | | | |
| <u>Click h</u> | bere for full text details
UST
Facility Id: 166
Tank Status: Removed | | | | | | |
| | | | SHWS, LAST | г | | | |
| EDR ID: | S114965439 | DIST/DIR: | 0.213 SW | ELEVATION: | 350 | MAP ID: | 2 |
| NAME:
ADDRESS: | FORMER HAWTHORNE
235 EAST PLEASANT ST
AMHERST, MA 01002 | RES | | | | | |
| <u>Click h</u> | nere for full text details
SHWS
Release Tracking Numbe
Click here to access
LAST
Release Tracking Numbe | er / Current Sta
s the MA DEP
er / Current Sta | tus: 1-0019275 / RAC
site for this facility
tus: 1-0019275 / RAC | | | | |

			SHWS				
EDR ID:	S105198853	DIST/DIR:	0.517 SSW	ELEVATION:	290	MAP ID:	3
NAME: ADDRESS:	NO LOCATION AID 99 EAST PLEASANT ST AMHERST, MA						
<u>Click h</u>	t <mark>ere for full text details</mark> SHWS Release Tracking Numbe Click here to acces	er / Current Sta	atus: 1-0014063 / RAO site for this facility				
			SHWS				
EDR ID:	S100828060	DIST/DIR:	0.536 West	ELEVATION:	250	MAP ID:	4
NAME: ADDRESS:	UNIV OF MASSACHUSE ENV HEALTH NORTH 41 AMHERST, MA 01002	TT 4					
<u>Click h</u>	ere for full text details SHWS Release Tracking Numbe Click here to acces	er / Current Sta	atus: 1-0000016 / RAO site for this facility				
			SHWS				
EDR ID:	S100040405	DIST/DIR:	0.582 SSW	ELEVATION:	286	MAP ID:	5
NAME: ADDRESS:	TRIANGLEPRAY & E PLI TRIANGLE ST AMHERST, MA 01002	E					
<u>Click h</u>	ere for full text details					- Conti	nued on next page -

			SHWS				
EDR ID:	S100040405	DIST/DIR:	0.582 SSW	ELEVATION:	286	MAP ID:	5
NAME: ADDRESS:	TRIANGLEPRAY & E PLE TRIANGLE ST AMHERST, MA 01002						
	SHWS Release Tracking Number Click here to access	r / Current Sta	tus: 1-0000649 / RAO site for this facility				
			SHWS				
EDR ID:	S111739368	DIST/DIR:	0.640 WNW	ELEVATION:	232	MAP ID:	6
NAME: ADDRESS:	CONSTRUCTION SITE 650 NORTH PLEASANT S AMHERST, MA 01003	3					
<u>Click h</u>	ere for full text details SHWS Release Tracking Number Click here to access	r / Current Sta	tus: 1-0018665 / RAO site for this facility				
			SHWS				
EDR ID: NAME: ADDRESS:	S104000270 NO LOCATION AID 168 NORTH PLEASANT S AMHERST, MA	DIST/DIR:	0.685 SSW	ELEVATION:	282	MAP ID:	A7
<u>Click h</u>	ere for full text details					- Conti	nued on next page -

			SHW	S			
EDR ID:	S104000270	DIST/DIR:	0.685 SSW	ELEVATION:	282	MAP ID:	A7
NAME: ADDRESS:	NO LOCATION AID 168 NORTH PLEASANT AMHERST, MA	S					
	SHWS Release Tracking Numb Click here to acce	er / Current Sta ss the MA DEP	tus: 1-0013052 / site for this facility	RAO			
			3000	5			
EDR ID:	S110173717	DIST/DIR:	0.690 NNW	ELEVATION:	306	MAP ID:	8
NAME: ADDRESS:	UNIV OF MASSACHUSE 112 EASTMAN LANE AMHERST, MA 01003	TT					
<u>Click h</u>	nere for full text details SHWS Release Tracking Numb Click here to acces	er / Current Sta ss the MA DEP	tus: 1-0019533 / site for this facility	UNCLSS			
			SHWS	S			
EDR ID:	U000223267	DIST/DIR:	0.694 South	ELEVATION:	313	MAP ID:	9
NAME: ADDRESS:	GETTY PROP #6202 203 TRIANGLE ST AMHERST, MA 01002 HAMPSHIRE						
<u>Click h</u>	nere for full text details					- Contin	ued on next page -

			SHWS				
EDR ID:	U000223267	DIST/DIR:	0.694 South	ELEVATION:	313	MAP ID:	9
NAME: ADDRESS:	GETTY PROP #6202 203 TRIANGLE ST AMHERST, MA 01002 HAMPSHIRE						
	SHWS Release Tracking Numbe Click here to access	r / Current Sta	tus: 1-0000895 / RAO site for this facility				
			SHWS				
EDR ID:	S101041623	DIST/DIR:	0.695 SSW	ELEVATION:	282	MAP ID:	A10
NAME: ADDRESS:	EXXON MOBIL OIL CORI 161 NORTH PLEASANT S AMHERST, MA 01002	5					
<u>Click h</u>	<mark>ere for full text details</mark> SHWS Release Tracking Numbe Click here to access	r / Current Sta	tus: 1-0016838 / RAO site for this facility				
			SHWS				
EDR ID: NAME: ADDRESS:	S106953840 POLE #4 33 KELLOGG AVE AMHERST, MA	DIST/DIR:	0.769 SSW	ELEVATION:	291	MAP ID:	11
<u>Click h</u>	ere for full text details					- Conti	nued on next page -

			SHWS				
EDR ID:	S106953840	DIST/DIR:	0.769 SSW	ELEVATION:	291	MAP ID:	11
NAME: ADDRESS:	POLE #4 33 KELLOGG AVE AMHERST, MA						
	SHWS Release Tracking Numbe	r / Current Sta	itus: 1-0015809 / RAO				
			SHWS				
EDR ID:	S101021851	DIST/DIR:	0.779 West	ELEVATION:	232	MAP ID:	12
NAME: ADDRESS:	POLE #78/49 OFF COMMONWEALTH AMHERST, MA 01002 HAMPSHIRE	AVE					
<u>Click h</u>	ere for full text details SHWS Release Tracking Numbe Click here to acces	r / Current Sta	tus: 1-0011619 / RAO site for this facility				
			SHWS				
EDR ID:	S112288242	DIST/DIR:	0.781 SSW	ELEVATION:	293	MAP ID:	13
NAME: ADDRESS:	COMMERCIAL PROPER 103 NORTH PLEASANT AMHERST, MA 01002	ΓΥ S					
<u>Click h</u>	ere for full text details					- Contir	nued on next page -

			SHWS				
EDR ID:	S112288242	DIST/DIR:	0.781 SSW	ELEVATION:	293	MAP ID:	13
NAME: ADDRESS:	COMMERCIAL PROPER 103 NORTH PLEASANT AMHERST, MA 01002	TY S					
	SHWS Release Tracking Numbe Click here to acces	er / Current Sta	tus: 1-0018965 / TIERII site for this facility				
			SHWS				
EDR ID:	S111085853	DIST/DIR:	0.812 WSW	ELEVATION:	220	MAP ID:	14
NAME: ADDRESS:	UMASS CRAMPTON HA 256 SUNSET AVE AMHERST, MA 01003	LL/					
<u>Click h</u>	ere for full text details SHWS Release Tracking Numbe Click here to acces	er / Current Sta	itus: 1-0018343 / RAO site for this facility				
			SHWS				
EDR ID: NAME: ADDRESS:	S108034399 LERDERLE LOW RISE NORTH PLEASANT AND AMHERST, MA	DIST/DIR:	0.815 NW	ELEVATION:	236	MAP ID:	B15
<u>Click h</u>	ere for full text details					- Conti	nued on next page -

			SHWS				
EDR ID:	S108034399	DIST/DIR:	0.815 NW	ELEVATION:	236	MAP ID:	B15
NAME: ADDRESS:	LERDERLE LOW RISE NORTH PLEASANT AND AMHERST, MA	G					
	SHWS Release Tracking Numbe Click here to acces	r / Current Sta	itus: 1-0016269 / RAO site for this facility				
			SHWS				
EDR ID:	S108348225	DIST/DIR:	0.816 NW	ELEVATION:	236	MAP ID:	B16
NAME: ADDRESS:	UMASS PVTA BUS DEPO 255 GOVERNORS DR AMHERST, MA 01003	Τ					
<u>Click h</u>	ere for full text details SHWS Release Tracking Numbe Click here to acces	er / Current Sta	itus: 1-0016496 / RAO site for this facility				
			SHWS				
EDR ID:	S117964657	DIST/DIR:	0.821 WSW	ELEVATION:	229	MAP ID:	17
NAME: ADDRESS:	RESIDENCE 237 SUNSET AVENUE AMHERST, MA						
<u>Click h</u>	ere for full text details					- Conti	nued on next page -

			SHWS				
EDR ID:	S117964657	DIST/DIR:	0.821 WSW	ELEVATION:	229	MAP ID:	17
NAME: ADDRESS:	RESIDENCE 237 SUNSET AVENUE AMHERST, MA						
	SHWS Release Tracking Numb Click here to acces	er / Current Sta	itus: 1-0019693 / PSNC				
[
			SHWS				
EDR ID:	S102083454	DIST/DIR:	0.876 West	ELEVATION:	189	MAP ID:	18
NAME: ADDRESS:	POWER PLANT PUMP H CAMPUS CENTER WAY AMHERST, MA 01003	iou Se					
<u>Click h</u>	ere for full text details SHWS Release Tracking Numb Click here to acces	er / Current Sta	itus: 1-0010724 / RAO site for this facility				
			SHWS				
EDR ID: NAME: ADDRESS:	S106953796 NO LOCATION AID 40-50 MAIN ST AMHERST, MA	DIST/DIR:	0.906 SSW	ELEVATION:	301	MAP ID:	19
<u>Click h</u>	ere for full text details					- Conti	nued on next page -

			SHWS				
EDR ID:	S106953796	DIST/DIR:	0.906 SSW	ELEVATION:	301	MAP ID:	19
NAME:	NO LOCATION AID						
ADDRESS:	40-50 MAIN ST						
	AMHERST, MA						
	SHWS Release Tracking Numb	er / Current Sta	itus: 1-0014556 / RAO				
	Click here to acces	ss the MA DEP	site for this facility				
			SHWS				
EDR ID:	S103545206	DIST/DIR:	0.916 WSW	ELEVATION:	175	MAP ID:	20
NAME:	CONCRETE PAD IN FRO	ON					
ADDRESS:	630 MASSACHUSETTS	AV					
	AMHERST, MA 01003						
Click h	ere for full text details SHWS Release Tracking Numb Click here to acces	er / Current Sta	itus: 1-0010195 / RAO site for this facility				
			SHWS				
EDR ID:	S105124777	DIST/DIR:	0.935 SSW	ELEVATION:	302	MAP ID:	21
NAME:	ACROSS FROM TOWN	HAL					
ADDRESS:	BOLTWOOD AVE						
	AMHERST, MA 01002						
<u>Click h</u>	ere for full text details					- Contine	ued on next page -

			SHWS				
EDR ID:	S105124777	DIST/DIR:	0.935 SSW	ELEVATION:	302	MAP ID:	21
NAME: ADDRESS:	ACROSS FROM TOWN H BOLTWOOD AVE AMHERST, MA 01002	IAL					
	SHWS Release Tracking Numbe	r / Current Sta	tus: 1-0013943 / RAO				
	Click here to access	s the MA DEP	site for this facility				
			SHWS				
EDR ID:	S111411726	DIST/DIR:	0.941 West	ELEVATION:	186	MAP ID:	22
NAME: ADDRESS:	FORMER POWER PLANT 40 CAMPUS CENTER SE AMHERST, MA 01003	۲- R					
<u>Click h</u>	ere for full text details SHWS Release Tracking Numbe Click here to access	r / Current Sta s the MA DEP	tus: 1-0018584 / TIERII site for this facility				
			SHWS				
EDR ID: NAME: ADDRESS:	S100360542 UMASS PHYSICAL PLNT 2 CAMPUS CENTERWAY AMHERST, MA 01002	DIST/DIR:	0.950 WNW	ELEVATION:	196	MAP ID:	23
<u>Click h</u>	ere for full text details					- Conti	nued on next page -

			SHWS				
EDR ID:	S100360542	DIST/DIR:	0.950 WNW	ELEVATION:	196	MAP ID:	23
NAME:	UMASS PHYSICAL PLNT						
ADDRESS:	2 CAMPUS CENTERWAY						
	AMHERST, MA 01002						
	SHWS Release Tracking Number Click here to access	r / Current Sta	itus: 1-0000943 / RAC site for this facility)			
[
			SHWS				
EDR ID:	S102083773	DIST/DIR:	0.969 SSW	ELEVATION:	298	MAP ID:	24
NAME:	LORD JEFFERY INN						
ADDRESS:	30 BOLTWOOD AVENUE						
	AMHERST, MA 01002						
<u> </u>	ere for full text details						
	SHWS Release Tracking Number Release Tracking Number	r / Current Sta r / Current Sta	itus: 1-0011214 / RAC itus: 1-0018042 / RAC)			
	Click here to access	the MA DEP	site for this facility				

Count: 7 records.		ORPHAN SUMMARY		
City	EDR ID	Site Name	Site Address	Zip Database(s)
AMHERST	S113411575	CORNER OF THATCHER AND CLARK HILL	CLARK HILL ROAD	SHWS
AMHERST	S108034425	N PLEASANT ST NEW DORM CONSTRUCTIO	EASTMAN LN	01003 SHWS
AMHERST	S109546226	PIERPONT DORMITORY	FEARING ST	SHWS
AMHERST	S110526346	UMASS SOUTHWEST RESIDENTIAL AREA	MASS AVE. AND UNIVERSITY DR.	01003 SHWS
AMHERST	S105124794	UMASS CHILLED WATER PUMPHOUSE	MASSACHUSETTS AVE	SHWS
AMHERST	S111989410	MELVILLE RESIDENCE HALL	MASSACHUSETTS AVENUE	01003 SHWS
AMHERST	S105198704	JONES PATTERSON	EAST PLEASANT ST	01002 SHWS

TC4421598.3s Page 4

RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Gov Date	Arvl. Date	Active Date	Last EDR Contact	
MA	AST	Aboveground Storage Tank Database	10/22/2009	10/28/2009	11/06/2009	07/20/2015	
ΜA	BROWNFIELDS	Completed Brownfields Covenants Listing	11/01/2014	11/06/2014	11/10/2014	08/07/2015	
MΑ	BROWNFIELDS 2	Potential Brownfields Listing	12/17/2014	05/06/2015	05/11/2015	08/07/2015	
MΑ	INST CONTROL	Sites With Activity and Use Limitation	06/30/2015	07/14/2015	08/04/2015	07/14/2015	
MA	LAST	Leaking Aboveground Storage Tank Sites	06/30/2015	07/14/2015	08/04/2015	07/14/2015	
MΑ	LF PROFILES	Landfill Profiles Listing	06/26/2012	11/21/2014	12/17/2014	07/10/2015	
MA	LUST	Leaking Underground Storage Tank Listing	06/30/2015	07/14/2015	08/04/2015	07/14/2015	
ΜA	SHWS	Site Transition List	06/30/2015	07/14/2015	08/04/2015	07/14/2015	
MA	SWF/LF	Solid Waste Facility Database/Transfer Stations	01/29/2015	04/09/2015	04/21/2015	07/10/2015	
MΑ	UST	Summary Listing of all the Tanks Registered in the State of	07/13/2015	07/21/2015	08/04/2015	07/21/2015	
SU	BRS	Biennial Reporting System	12/31/2011	02/26/2013	04/19/2013	05/29/2015	
SU	CERCLIS	Comprehensive Environmental Response, Compensation, and Liab	10/25/2013	11/11/2013	02/13/2014	05/29/2015	
SU	CERCLIS-NFRAP	CERCLIS No Further Remedial Action Planned	10/25/2013	11/11/2013	02/13/2014	05/29/2015	
SU	CORRACTS	Corrective Action Report	06/09/2015	06/26/2015	09/16/2015	06/26/2015	
SU	Delisted NPL	National Priority List Deletions	03/26/2015	04/08/2015	06/22/2015	07/09/2015	
SU	ERNS	Emergency Response Notification System	06/22/2015	06/26/2015	09/16/2015	06/26/2015	
SU	FEDERAL FACILITY	Federal Facility Site Information listing	03/26/2015	04/08/2015	06/11/2015	07/10/2015	
SU	FEDLAND	Federal and Indian Lands	12/31/2005	02/06/2006	01/11/2007	07/14/2015	
SU	FEMA UST	Underground Storage Tank Listing	01/01/2010	02/16/2010	04/12/2010	07/10/2015	
SU	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	02/03/2015	04/30/2015	06/22/2015	07/31/2015	
SU	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	02/03/2015	02/12/2015	03/13/2015	07/22/2015	
SU	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	09/30/2014	03/03/2015	03/13/2015	07/22/2015	
SU	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	04/30/2015	05/29/2015	06/22/2015	07/22/2015	
SU	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	03/17/2015	05/01/2015	06/22/2015	07/22/2015	
SU	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	03/30/2015	04/28/2015	06/22/2015	07/22/2015	
SU	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	04/30/2015	05/05/2015	06/22/2015	07/22/2015	
SU	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	01/08/2015	01/08/2015	02/09/2015	07/31/2015	
SU	INDIAN UST R1	Underground Storage Tanks on Indian Land	02/03/2015	04/30/2015	06/22/2015	07/31/2015	
SU	INDIAN UST R10	Underground Storage Tanks on Indian Land	05/06/2015	05/19/2015	06/22/2015	07/22/2015	
SU	INDIAN UST R4	Underground Storage Tanks on Indian Land	09/30/2014	03/03/2015	03/13/2015	07/22/2015	
SU	INDIAN UST R5	Underground Storage Tanks on Indian Land	04/30/2015	05/26/2015	06/22/2015	07/22/2015	
SU	INDIAN UST R6	Underground Storage Tanks on Indian Land	03/17/2015	05/01/2015	06/22/2015	07/22/2015	
SU	INDIAN UST R7	Underground Storage Tanks on Indian Land	09/23/2014	11/25/2014	01/29/2015	07/22/2015	
SU	INDIAN UST R8	Underground Storage Tanks on Indian Land	04/30/2015	05/05/2015	06/22/2015	07/22/2015	
SU	INDIAN UST R9	Underground Storage Tanks on Indian Land	12/14/2014	02/13/2015	03/13/2015	07/31/2015	
SU	INDIAN VCP R1	Voluntary Cleanup Priority Listing	09/29/2014	10/01/2014	11/06/2014	06/26/2015	
SU	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	03/20/2008	04/22/2008	05/19/2008	04/20/2009	
SU	LUCIS	Land Use Control Information System	05/28/2015	05/29/2015	06/11/2015	08/12/2015	
SU	NPL	National Priority List	03/26/2015	04/08/2015	06/22/2015	07/09/2015	
SU	NPL LIENS	Federal Superfund Liens	10/15/1991	02/02/1994	03/30/1994	08/15/2011	
SU	PRP	Potentially Responsible Parties	10/25/2013	10/17/2014	10/20/2014	05/14/2015	
SU	Proposed NPL	Proposed National Priority List Sites	03/26/2015	04/08/2015	06/22/2015	07/09/2015	
SU	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	06/09/2015	06/26/2015	09/16/2015	06/26/2015	
SU	RCRA-LQG	RCRA - Large Quantity Generators	06/09/2015	06/26/2015	09/16/2015	06/26/2015	
SU	RCRA-SQG	RCRA - Small Quantity Generators	06/09/2015	06/26/2015	09/16/2015	06/26/2015	
SU	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	06/09/2015	06/26/2015	09/16/2015	06/26/2015	
SU	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (07/22/2015	07/24/2015	09/02/2015	06/22/2015	

RECORDS SEARCHED / DATA CURRENCY TRACKING

s	Acronym	Full Name	Gov Date	Arvl. Date	Active Date	Last EDR Contact
SU	US AIRS MINOR	Air Facility System Data	07/22/2015	07/24/2015	09/02/2015	06/22/2015
SU	US ENG CONTROLS	Engineering Controls Sites List	06/09/2015	06/26/2015	09/02/2015	08/31/2015
SU	US INST CONTROL	Sites with Institutional Controls	06/09/2015	06/26/2015	09/02/2015	08/31/2015

STREET AND ADDRESS INFORMATION

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USGS 7.5 Minute Topographic Map

71 STRONG STREET AMHERST, MA 01002



Map Image Position: TP Map Reference Code & Name: 5642742 Mount Toby Map State(s): MA Version Date: 2012 Map Image Position: NE Map Reference Code & Name: 5642718 Shutesbury Map State(s): MA Version Date: 2012

Map Image Position: SE Map Reference Code & Name: 5642686 Belchertown Map State(s): MA Version Date: 2012

APPENDIX B

WILDWOOD SCHOOL

2015-2016



							ea:14.34 AC	Total Land Ar	AC Parcel 1	Jnits: 14.34	otal Card Land U	T		
329,4	al Land Value:	Tot												
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		% Complete	Heat/Ac Split	02	Heat/AC
		External Obsinc Cost Trend Factor			Foundation
		Functional ObsInc		99	Total Baths
	3 7	Year Remodeled		5	Total Rooms
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	34,463,556	Replace Cost	Oil Hot Water	05 02	Heating Fuel Heating Type
	319.11	Adj. Base Rate:	Concr Aby Grad	04	Interior Floor 1 Interior Floor 2
	MARKET VALUATION	COCT/	Drywall/Sheet	5	Interior Wall 7
			Rolled Compos	22	Roof Cover
	LOC		Flat	01	Roof Structure
BAS[108000]	cription Percentage	Code Des	Brick/Masonry	20	Exterior Wall 1
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Bldg Name: 1 of 1 Sec #: 1 of 1 Card 1 of 1 Print Date: 12/05/2014 11:23	MAP ID:11B//76// Bldg #:	Account #	STRONG ST	cation: 71 2205	Property Lo Vision ID:

88-82 THE COMMONWEALTH OF MASSACHUSETTS	TRRM	In accordance with provisions of Chapter 148, General Laws, and amendments thereto and Regulations made under authority thereof. Name Wildwood Elen. School Name Industrial Combustion Inc. (INSTALLER) Address Strong St. Address Bloomfield, Ct. STORAGE	Name Forced Draft. Type of Tank Steel round Manufacturer Ray Burner Co. Capacity 0,000 gals. (or) Size Model No. or Size PAEOP-1114. Location Underground. Type Gun Mass. Approval No. 651	Permit issued.7/1.3,6.2. expires	THE COMMONWEALTH OF MASSACHUSETTS	FIRE DEPARTMENT FIRE DEPARTMENT FIRE PREVENTION DIVISION	Th accordance with provisions of Chapter 148, General Laws, and amendments thereto and Regulations made under authority thereof. Name Author Conversion Concentration Charles (INSTALLER) Address Address Address Address Address Address	Rame STORAGE STORAGE STORAGE Manufacturer The Contraction of Tank STORAGE STORAGE Model No	Permit issued expreval No	

FINAL REPORT FOR HAZARDOUS MATERIALS IDENTIFICATION STUDY AT THE WILDWOOD ELEMENTARY SCHOOL AMHERST, MASSACHUSETTS

PROJECT NO: 215 348.00

Survey Dates: September 28 & 30, 2015

CONDUCTED BY:

UNIVERSAL ENVIRONMENTAL CONSULTANTS 12 Brewster Road Framingham, MA 01702



October 6, 2015

Mr. Douglas Roberts, Principal JCJ Architecture 38 Prospect Street Hartford, CT 06103

Reference: <u>Report for Hazardous Materials Identification Study</u> Wildwood Elementary School, Amherst, MA

Dear Mr. Roberts:

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 Wildwood Elementary School, Amherst, MA.

Phase I Environmental Site Assessment Report will be submitted under a separate cover.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

Ammar M. Dieb President

UEC:\215 348\Report.DOC

Enclosure

1.0 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 fifteen years of experience.

UEC was contracted by JCJ Architecture to conduct the following services at the Wildwood Elementary School, Amherst, Massachusetts:

- Asbestos Containing Materials (ACM) determination inspection and sampling;
- Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures inspection;
- PCB's 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. <u>A</u> <u>comprehensive survey per the Environmental Protection Agency (EPA) NESHAP regulation would be required prior to any renovation or demolition activities</u>.

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 Asbestos Identification Laboratory, Woburn, MA.

Airborne mold samples were analyzed by an EPA approved laboratory EMSL, Woburn, MA.

Radon samples were analyzed by an EPA licensed laboratory AccuStar, Medway, MA.

Samples results are attached.

2.0 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 contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than 1 percent 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 and accessible ACM were found during this survey. However, hidden ACM may be found during the renovation and demolition activities.

Number of Samples Collected:

Seventy seven (77) bulk samples were collected from materials suspected of containing asbestos, including:

Type and Location of Suspect Material

- 1. 2' x 4' Suspended acoustical tile at kitchen
- 2. 2' x 4' Suspended acoustical tile at kitchen
- 3. 2' x 4' Suspended acoustical tile at room F-3
- 4. 2' x 4' Suspended acoustical tile at room D-3
- 5. Smooth ceiling plaster at hallway
- 6. Smooth ceiling plaster at men's room
- 7. Smooth ceiling plaster at men's room
- 8. Textured ceiling plaster at boiler room
- 9. Textured ceiling plaster at boiler room
- 10. Textured ceiling plaster at boiler room
- 11. Textured ceiling plaster at gymnasium mechanical room
- 12. Textured ceiling plaster at gymnasium mechanical room
- 13. Brown cove base glue at gymnasium
- 14. Brown cove base glue at gymnasium
- 15. Tar paper under hardwood at gymnasium
- 16. Tar paper under hardwood at gymnasium
- 17. Black damproofing under gymnasium floor
- 18. Black damproofing under gymnasium floor
- 19. Grey sink coating at office
- 20. Grey sink coating at room B
- 21. Vertical caulking between block/block at hallway
- 22. Vertical caulking between block/block at hallway
- 23. Interior window glazing caulking at hallway by room A
- 24. Interior window glazing caulking at office
- 25. Interior door glass glazing caulking at room D-3
- 26. Interior door glass glazing caulking at room H-3
- 27. Cardboard packing on vertical column behind block
- 28. Cardboard packing on vertical column behind block
- 29. Brown glue for fiberglass duct insulation at gymnasium mechanical room
- 30. Brown glue for fiberglass duct insulation at gymnasium mechanical room
- 31. 12" x 12" Old green vinyl floor tile at ELL room
- 32. 12" x 12" Old green vinyl floor tile at art room
- 33. Black mastic on old green 12" x 12" vinyl floor tile at ELL room
- 34. Black mastic on old green 12" x 12" vinyl floor tile at art room
- 35. 12" x 12" Beige vinyl floor tile at music room
- 36. 12" x 12" Beige vinyl floor tile at music room
- 37. 12" x 12" Dark blue vinyl floor tile at room H-1
- 38. 12" x 12" Dark blue vinyl floor tile at room H-1
- 39. 12" x 12" Light blue vinyl floor tile at computer lab
- 40. 12" x 12" Light blue vinyl floor tile at computer lab
- 41. 12" x 12" Grey vinyl floor tile at library office
- 42. 12" x 12" Grey vinyl floor tile at room B
- 43. 12" x 12" Purple vinyl floor tile at nurse's room
- 44. 12" x 12" Purple vinyl floor tile at nurse's room
- 45. 12" x 12" White vinyl floor tile at cafeteria
- 46. 12" x 12" White vinyl floor tile at hallway
- 47. 12" x 12" Blue accent vinyl floor tile at cafeteria
- 48. 12" x 12" Blue accent vinyl floor tile at hallway
- 49. 12" x 12" Yellow accent vinyl floor tile at cafeteria
- 50. 12" x 12" Yellow accent vinyl floor tile at hallway
- 51. 12" x 12" Red accent vinyl floor tile at cafeteria
- 52. 12" x 12" Red accent vinyl floor tile at hallway
- 53. 12" x 12" Green accent vinyl floor tile at cafeteria

- 54. 12" x 12" Green accent vinyl floor tile at hallway
- 55. Boiler rib packing at boiler room
- 56. Boiler rib packing at boiler room
- 57. Boiler rib packing at boiler room
- 58. Hard joint insulation on fiberglass pipe at boiler room
- 59. Hard joint insulation on fiberglass pipe at boiler room
- 60. Hard joint insulation on fiberglass pipe at boiler room
- 61. Boiler exhaust insulation at boiler room
- 62. Boiler exhaust insulation at boiler room
- 63. Boiler exhaust insulation at boiler room
- 64. Exterior vertical caulking
- 65. Exterior vertical caulking
- 66. Exterior unit vent caulking
- 67. Exterior unit vent caulking
- 68. Exterior door framing caulking
- 69. Exterior door framing caulking
- 70. Interior glazing caulking for exterior windows
- 71. Interior glazing caulking for exterior windows
- 72. Exterior window glazing caulking
- 73. Exterior window glazing caulking
- 74. Exterior window framing caulking
- 75. Exterior window framing caulking
- 76. Exterior window framing caulking
- 77. Exterior window framing caulking

Sample Results:

Type and Location of Suspect Material

- 1. 2' x 4' Suspended acoustical tile at kitchen
- 2. 2' x 4' Suspended acoustical tile at kitchen
- 3. 2' x 4' Suspended acoustical tile at room F-3
- 4. 2' x 4' Suspended acoustical tile at room D-3
- 5. Smooth ceiling plaster at hallway
- 6. Smooth ceiling plaster at men's room
- 7. Smooth ceiling plaster at men's room
- 8. Textured ceiling plaster at boiler room
- 9. Textured ceiling plaster at boiler room
- 10. Textured ceiling plaster at boiler room
- 11. Textured ceiling plaster at gymnasium mechanical room
- 12. Textured ceiling plaster at gymnasium mechanical room
- 13. Brown cove base glue at gymnasium
- 14. Brown cove base glue at gymnasium
- 15. Tan paper under hardwood at gymnasium
- 16. Tan paper under hardwood at gymnasium
- 17. Black damproofing under gymnasium floor
- 18. Black damproofing under gymnasium floor
- 19. Grey sink coating at office
- 20. Grey sink coating at room B
- 21. Vertical caulking block-block at hallway
- 22. Vertical caulking block-block at hallway
- 23. Interior window glazing caulking at hallway by room A
- 24. Interior window glazing caulking at office
- 25. Interior door glass glazing caulking at room D-3
- 26. Interior door glass glazing caulking at room H-3

Sample Result

2% Asbestos 2% Asbestos No Asbestos Detected 5% Asbestos 5% Asbestos 5% Asbestos 3% Asbestos No Asbestos Detected No Asbestos Detected 2% Asbestos 2% Asbestos 2% Asbestos 2% Asbestos 27. Cardboard packing on vertical column behind block 28. Cardboard packing on vertical column behind block 29. Brown glue for fiberglass duct insulation at gymnasium mechanical room 30. Brown glue for fiberglass duct insulation at gymnasium mechanical room 31. 12" x 12" Old green vinyl floor tile at ELL room 32. 12" x 12" Old green vinyl floor tile at art room 33. Black mastic on old green 12" x 12" vinyl floor tile at ELL room 34. Black mastic on old green 12" x 12" vinyl floor tile at art room 35. 12" x 12" Beige vinyl floor tile at music room 36. 12" x 12" Beige vinyl floor tile at music room 37. 12" x 12" Dark blue vinyl floor tile at room H-1 38. 12" x 12" Dark blue vinyl floor tile at room H-1 39. 12" x 12" Light blue vinyl floor tile at computer lab 40. 12" x 12" Light blue vinyl floor tile at computer lab 41. 12" x 12" Grey vinyl floor tile at library office 42. 12" x 12" Grey vinyl floor tile at room B 43. 12" x 12" Purple vinyl floor tile at nurse's room 44. 12" x 12" Purple vinyl floor tile at nurse's room 45. 12" x 12" White vinyl floor tile at cafeteria 46. 12" x 12" White vinvl floor tile at hallway 47. 12" x 12" Blue accent vinyl floor tile at cafeteria 48. 12" x 12" Blue accent vinyl floor tile at hallway 49. 12" x 12" Yellow accent vinyl floor tile at cafeteria 50. 12" x 12" Yellow accent vinyl floor tile at hallway 51. 12" x 12" Red accent vinyl floor tile at cafeteria 52. 12" x 12" Red accent vinyl floor tile at hallway 53. 12" x 12" Green accent vinyl floor tile at cafeteria 54. 12" x 12" Green accent vinyl floor tile at hallway 55. Boiler rib packing at boiler room 56. Boiler rib packing at boiler room 57. Boiler rib packing at boiler room 58. Hard joint insulation on fiberglass pipe at boiler room 59. Hard joint insulation on fiberglass pipe at boiler room 60. Hard joint insulation on fiberglass pipe at boiler room 61. Boiler exhaust insulation at boiler room 62. Boiler exhaust insulation at boiler room 63. Boiler exhaust insulation at boiler room 64. Exterior vertical caulking 65. Exterior vertical caulking 66. Exterior unit vent caulking 67. Exterior unit vent caulking 68. Exterior door framing caulking 69. Exterior door framing caulking 70. Interior window glazing caulking for exterior windows 71. Interior window glazing caulking for exterior windows 72. Exterior window glazing caulking 73. Exterior window glazing caulking 74. Exterior window framing caulking 75. Exterior window framing caulking 76. Exterior window framing caulking 77. Exterior window framing caulking

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.

No Asbestos Detected No Asbestos Detected 20% Asbestos 20% Asbestos 2% Asbestos 2% Asbestos 5% Asbestos 5% Asbestos No Asbestos Detected 15% Asbestos 3% Asbestos 5% Asbestos No Asbestos Detected 70% Asbestos 70% Asbestos 70% Asbestos No Asbestos Detected 10% Asbestos 10% Asbestos 2% Asbestos 2% Asbestos No Asbestos Detected No Asbestos Detected No Asbestos Detected No Asbestos Detected Refer to the AHERA Management Plan for condition of ACM.

- 1. 2' x 4' Suspended acoustical tiles was found to contain asbestos.
- 2. Black damproofing under gymnasium floor was found to contain asbestos.
- 3. Grey sink coating was found to contain asbestos.
- 4. Interior window glazing caulking was found to contain asbestos.
- 5. Interior door glass glazing was found to contain asbestos.
- 6. Brown glue for fiberglass duct insulation at gymnasium mechanical room was found to contain asbestos.
- 7. 12" x 12" Old green vinyl floor tile and mastic was found to contain asbestos.
- 8. Boiler rib packing at boiler room was found to contain asbestos.
- 9. Hard joint insulation was found to contain asbestos.
- 10. Boiler exhaust insulation at boiler room was found to contain asbestos.
- 11. Exterior window glazing caulking at inside and outside of exterior windows was found to contain asbestos.
- 12. Glue holding blackboard was assumed to contain asbestos.
- 13. Panels at ceiling of gymnasium divider wall were assumed to be asbestos (transite).
- 14. Underground sewer pipes were assumed to contain asbestos.
- 15. Damproofing on exterior and foundation walls at the original building was assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle. A non-traditional abatement plan would have to be prepared and submitted to the DEP for approval.
- 16. Thru-wall flashing was assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle. A non-traditional abatement plan would have to be prepared and submitted to the DEP for approval.
- 17. Roofing was assumed to contain asbestos. However, roofing does not have to be removed by a licensed asbestos abatement contractor. Roofing material does not have to be removed by a licensed asbestos contractor. However, the General Contractor must comply with OSHA regulation during demolition and with state regulations for proper disposal. A non-traditional abatement plan would have to be prepared and submitted to the DEP for approval.
- 18. 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 mentioned equipments should be disposed in an EPA approved landfill as part of the demolition project.

PCB's in Caulking:

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 nonflammable, 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.

Observations and Conclusions:

Building materials and caulking were assumed to contain PCB's.

Lead Based Paint (LBP):

Observations and Conclusions

LBP was assumed to exit on painted surfaces. 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. In the event of discrepancies, the most protective requirements prevail. 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 in the school.

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).¹

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.

Lab ID #	Location	Total Mold Counts/M ³	Pollen	Insect Fragment	Hyphal Fragments
131505776-0001	Room H-1	4,830	ND	ND	20
131505776-0002	Room F-1	5,134	ND	ND	20
131505776-0003	Main Office	2,150	ND	ND	7
131505776-0004	Room D-3	3,407	ND	ND	7
131505776-0005	Staff Workroom	2,000	ND	ND	20
131505776-0006	Outside	11,704	10	ND	7

AIRBORNE MOLD and PARTICULATE

AIRBORNE MOLD and PARTICULATE

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Lab ID #	Location	Skin Fragment Density (SFD)	Fibrous Particulates (FP)	Total Background Particulate (TBP)
131505776-0001	Room H-1	2	1	1

¹ Zefon International Inc. <www.zefon.com>

Lab ID #	Location	Skin Fragment Density (SFD)	Fibrous Particulates (FP)	Total Background Particulate (TBP)
131505776-0002	Room F-1	1	1	1
131505776-0003	Main Office	2	1	1
131505776-0004	Room D-3	2	1	1
131505776-0005	Staff Workroom	2	1	1
131505776-0006	Outside	1	1	1

Legend:

ND - Not Detected

Observations:

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.

The indoor airborne mold spore concentrations were lower than the outside sample. Based on comparisons with historical data from projects of similar type, building utilization, geographic location and season, the indoor airborne levels are considered low. Indoor mold spore counts in early fall summer are typically in the 5,000-10,000-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 glaning.

Radon:

Number of Samples Collected

Six (6) air samples were collected at the following locations:

Sample Number and Location of Material

- 1. First floor boiler room
- 2. First floor custodian room H-1
- 3. First floor custodian room C-1
- 4. First floor custodian room D-3
- 5. First floor gymnasium storage hallway
- 6. First floor custodian room G-3

Sar	nple Number and Location of Material	Sample Result
1.	First floor boiler room	<0.4 pCi/L
2.	First floor custodian room H-1	0.4 pCi/L
3.	First floor custodian room C-1	0.4 pCi/L
4.	First floor custodian room D-3	0.5 pCi/L
5.	First floor gymnasium storage hallway	0.4 pCi/L
6.	First floor custodian room G-3	0.5 pCi/L

Observations and Conclusions:

The measured radon concentrations of the samples were found to be lower than the EPA guideline of 4 picoCuris of radon per liter of air (pCi/L). No further action is required.

3.0 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 projects.

Location	Material Ap	proximate Quantity	Cost Estimate (\$)
Throughout the Building	2' x 4' Suspended Acoustical Ceiling Tiles Grey Sink Coating Interior Windows Interior Door Hard Joint Insulation Blackboards Miscellaneous Hazardous Materials and Hidde	56,000 SF 35 Total 30 Total 40 Total 80 Total 60 Total n ACM Unknown	$\begin{array}{c} 224,000.00\\ 3,500.00\\ 6,000.00\\ 6,000.00\\ 2,400.00\\ 12,000.00\\ 50,000.00\end{array}$
Two Rooms	Old Green 12" x 12" Vinyl floor tiles and mastic	c 2,000 SF	10,000.00
Gymnasium	Paper under Hardwood Flooring Brown Glue on Fiberglass Insulated Duct	3,800 SF 3,000 SF	38,000.00 15,000.00
Boiler	Boilers Boiler Exhaust Insulation Hard Joint insulation	2 Total 100 SF 100 EA	12,500.00 2,500.00 2,000.00
Exterior	Roofing Materials Windows Doors Unit Vents Transite Sewer Pipes Thru-Wall Flashing Damproofing on Foundation Walls	Unknown 150 Total 30 Total 30 Total Unknown ¹ Unknown ¹	35,000.00 30,000.00 4,500.00 3,000.00 50,000.00 25,000.00 175,000.00
PCB's Remediation ² Estimated costs for PCB's To Estimated costs for NESHAF Estimated costs for Design,	esting and Abatement Plans Services ² P Inspection and Testing Services Construction Monitoring and Air Sampling Service	es	80,000.00 25,000.00 7,500.00 81,500.00
4		TOTAL:	\$ 900,000.00

¹: Part of total demolition.

²: Should results exceed EPA limit.

4.0 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 method 600/M4-82-020.

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, Medway, MA.

Inspected By:

an Berotto

Jason Becotte Asbestos Inspector (AI-034963)

5.0 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.

Asbestos Identification Laboratory



165 New Boston St., Ste 271 Woburn, MA 01801 781-932-9600

Web: www.asbestosidentificationlab.com Email: mikemanning@asbestosidentificationlab.com



8921

October 05, 2015

Ammar Dieb Universal Environmental Consultants 12 Brewster Road Framingham, MA 01702

Project Number: Project Name: Wildwood School, Amherst, MA

Date Sampled: 2015-09-30 Work Received: 2015-10-01

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysys of the samples from your office for the above referenced project

The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations Department of Health Certification: AAL-121

Thank you Ammar Dieb for your business.

Michael Thank

Michael Manning **Owner/Director**

Ammar Dieb Universal Environmental Consultants 12 Brewster Road Framingham, MA 01702

Project Name: Wildwood School, Amherst, MA

 Date Sampled:
 2015-09-30

 Work Received:
 2015-10-01

Project Number:

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

FieldID		Material	Location	Color	Non-Asbestos % Asbestos %		
	LabID						
1		2x4 SAT Holes	Kitchen	gray	Mineral Wool 90 Detected Non-Fibrous 8 Chrysotile 2		
2	95155	2x4 SAT Holes	Kitchen	gray	Mineral Wool 90 Detected		
	05156			0 /	Non-Fibrous 8 Chrysotile 2		
3	95120	2x4 SAT Holes	Room F-3	gray	Mineral Wool 95 None Detected		
	95157				Non-Fibrous 5		
4		2x4 SAT Holes	Room D-3	gray	Mineral Wool 95 None Detected Non-Fibrous 5		
	95158	Creath Cailing Director		white	New Ellevine 100 News Detected		
5 6		Smooth Ceiling Plaster	нап	white	Non-Fibrous 100 None Detected		
	95159	Creath Cailing Director	Mania Daam	white	New Tiller 100 Noro Detected		
			Men's Room	white	Non-Fibrous 100 None Decected		
7	95160	Smooth Cailing Director	Man'a Daam	white	Ner Eibrerg 100 Noro Detected		
			Men's Room	white	Non-Fibrous 100 None Decected		
8	95161	Textured Ceiling Plaster	Boiler Boom	drav	Non Fibroug 100 None Detected		
				gray	Non-Fibrous 100 None Decected		
9	95162	Textured Ceiling Plaster	Boiler Room	white	Non-Fibrous 100 None Detected		
			Doller Room	WIIIte	Non Fibrous Too None Decected		
10	95163	Textured Ceiling Plaster	Boiler Room	white	Non-Fibrous 100 None Detected		
				Winto	Non Tibroab Too too Deceeda		
11	95164	Textured Ceiling Plaster	Gym Mechanical Room	white	Non-Fibrous 100 None Detected		
			Cym moonainioai riccom				
12	95165	Textured Ceiling Plaster	Gvm Mechanical Room	grav	Non-Fibrous 100 None Detected		
			-,	5 - 7			
13	95166	Brown Cove Base Glue	Gym	brown	Non-Fibrous 100 None Detected		
	05167		-				
14	10105	Brown Cove Base Glue	Gym	brown	Non-Fibrous 100 None Detected		
	95169						
	QQTCK						

FieldID		Material	Location	Color	Non-Asbestos	% Asbestos %	Asbestos %	
	LabID							
15		Tan Paper Under H/W	Gym	tan	Cellulose	98 None Detecte	ed	
	95169				Non-Fibrous	Z		
16		Tan Paper Under H/W	Gym	tan	Cellulose	98 None Detecte	ed	
	05170				Non-Fibrous	2		
17	95170	Black DP Under Gvm	Gvm	black	Non-Fibrous	95 Detected		
		— Floor	- /			Chrysotile	5	
18	95171	Diagle DD Linder Over	<u>Our</u>	blook	Nara Dilanana			
			Gym	DIACK	Non-Fibrous	Chrysotile	5	
	95172							
19		Grey Sink Coating	Office	gray	Non-Fibrous	95 Detected	5	
	95173						5	
20		Grey Sink Coating	Room B	gray	Non-Fibrous	97 Detected		
	05174					Chrysotile	3	
21	95174	Vertical Caulk Block-Block	Hallwav	grav	Non-Fibrous	100 None Detecte	ed	
				5 - 5				
	95175				Nara Dilanana	100 None Detects		
			Hallway	gray	Non-Fibrous	100 None Derecte	a	
	95176							
23		Interior Window Glaze	Hallway by Room A	gray	Non-Fibrous	98 Detected	2	
	95177						-	
24		Interior Window Glaze	Office	gray	Non-Fibrous	98 Detected		
	05179	_				Chrysotile	2	
25	95178	Interior Door Glass Glaze	Room D-3	tan	Non-Fibrous	98 Detected		
						Chrysotile	2	
	95179	Interior Deer Class Class		ton	New Fibrers			
26				lan	NON-FIDrous	Chrysotile	2	
	95180							
27		Cardboard Packing	On Vertical Column Behind	black	Cellulose	95 None Detecte	ed	
	95181		DIOCK		NOII-FIDLOUS	5		
28		Cardboard Packing	On Vertical Column Behind	black	Cellulose	95 None Detecte	ed	
	95182		Block		Non-Fibrous	5		
29	99102	Brown Glue for FG Duct	Gym Mechanical Room	brown	Non-Fibrous	80 Detected		
		— Ins				Chrysotile	20	
30	95183	Brown Clue for EG Duct	Gym Mechanical Room	brown	Non-Fibroug	80 Detected		
			Gym Mechanical Room	biowii	NOII-FIDLOUS	Chrysotile	20	
	95184							
31		Old Green 12x12 VFT	ELL	green	Non-Fibrous	98 Detected	2	
	95185						-	
32		Old Green 12x12 VFT	Art	green	Non-Fibrous	98 Detected		
	0510 <i>6</i>					Chrysotile	2	
Mon	day 05 Octo	ber				Page 2 of 5		
FieldID		Material	Location	Color	Non-Asbestos	s % Asbestos %		
---------	-------------	-------------------------	----------------	--------	--------------	-------------------		
	LabID							
33		Black Mastic	On Sample 31	black	Non-Fibrous	95 Detected		
	95187					chrysocite 5		
34		Black Mastic	On Sample 32	black	Non-Fibrous	95 Detected		
	95188							
35		Beige 12x12 VFT	Music Room	tan	Non-Fibrous	100 None Detected		
	95189							
36		Beige 12x12 VFT	Music Room	tan	Non-Fibrous	100 None Detected		
	95190							
37		Dark Blue 12x12 VFT	Room H-1	blue	Non-Fibrous	100 None Detected		
	95191							
38		Dark Blue 12x12 VFT	Room H-1	blue	Non-Fibrous	100 None Detected		
	95192							
39		Light Blue 12x12 VFT	Computer Lab	gray	Non-Fibrous	100 None Detected		
	95193							
40		Light Blue 12x12 VFT	Computer Lab	gray	Non-Fibrous	100 None Detected		
	95194							
41		Grey 12x12 VFT	Library Office	gray	Non-Fibrous	100 None Detected		
	95195							
42		Grey 12x12 VFT	Room B	gray	Non-Fibrous	100 None Detected		
	95196							
43		Purple 12x12 VFT	Nurse	purple	Non-Fibrous	100 None Detected		
	95197							
44		Purple 12x12 VFT	Nurse	purple	Non-Fibrous	100 None Detected		
	95198							
45		White 12x12 VFT	Cafe	tan	Non-Fibrous	100 None Detected		
	95199							
46		White 12x12 VFT	Hallway	tan	Non-Fibrous	100 None Detected		
	95200							
47	20200	Blue Accent 12x12 VFT	Cafe	blue	Non-Fibrous	100 None Detected		
	95201							
48		Blue Accent 12x12 VFT	Hallway	blue	Non-Fibrous	100 None Detected		
	95202							
49	20202	Yellow Accent 12x12 VFT	Cafe	yellow	Non-Fibrous	100 None Detected		
	95203							
50		Yellow Accent 12x12 VFT	Hallway	yellow	Non-Fibrous	100 None Detected		
	95204							
Mon	day 05 Octo	ber				Page 3 of 5		

FieldID		Material	Location	Color	Non-Asbestos	% Asbestos %		
	LabID							
51		Red Accent 12x12 VFT	Cafe	red	Non-Fibrous	100 None Detected		
	95205							
52		Red Accent 12x12 VFT	Hallway	red	Non-Fibrous	100 None Detected		
	95206							
53	20200	Green Accent 12x12 VFT	Cafe	green	Non-Fibrous	100 None Detected		
	05007							
54	95207	Green Accent 12x12 VFT	Hallway	areen	Non-Fibrous	100 None Detected		
				9				
55	95208	Poilor Pib Dooking	Poilor Poom	arov	Fiberraleaa	40 None Detected		
			Doller Room	gray	Mineral Wool	40 None Decected 40		
	95209				Non-Fibrous	20		
56		Boiler Rib Packing	Boiler Room	gray	Fiberglass	40 None Detected		
	05210				Mineral Wool Non-Fibrous	40 20		
57	95210	Boiler Rib Packing	Boiler Room	multi	Non-Fibrous	85 Detected		
						Chrysotile 15		
58	95211		Boiler Boom	arav	Minoral Wool	02 Detected		
			Doller Room	gray	Non-Fibrous	5 Chrysotile 3		
	95212							
59		HJ on FG Pipe	Boiler Room	gray	Mineral Wool Non-Fibrous	90 Detected 5 Chrysotile 5		
	95213					-		
60		HJ on FG Pipe	Boiler Room	gray	Fiberglass	35 None Detected		
	95214				Non-Fibrous	35		
61	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Boiler Exhaust Insulation	Boiler Room	gray	Non-Fibrous	30 Detected		
	05015					Chrysotile 70		
62	95215	Boiler Exhaust Insulation	Boiler Room	arav	Non-Fibrous	30 Detected		
				9,		Chrysotile 70		
63	95216	Poilor Exhaust Insulation	Poilor Poom	arov	Non Eibroug	28 Detected		
			Boller Room	yray	Non-Fibrous	Chrysotile 70		
	95217					Amosite 2		
64		Exterior Vertical Caulk	Exterior Brick-Brick	gray	Non-Fibrous	100 None Detected		
	95218							
65		Exterior Vertical Caulk	Exterior Brick-Brick	gray	Non-Fibrous	100 None Detected		
	95219							
66		Exterior Vent Caulk	Exterior Unit Vent Grill	gray	Non-Fibrous	100 None Detected		
	95220							
67	99220	Exterior Vent Caulk	Exterior Unit Vent Grill	gray	Non-Fibrous	100 None Detected		
				. ,				
68	95221	Exterior Door Frame Coul	k Exterior Door	arev	Non-Fibrouc	100 None Detected		
				yıay	NOIL-LIDLORS	TAA NOITE DECECCED		
	95222							

FieldID		Material	Location	Color	Non-Asbestos % Asbestos %				
	LabID								
69		Exterior Door Frame Caulk	Exterior Door	gray	Non-Fibrous	100 None Detected			
	95223								
70		Exterior Window Glaze	Inside of Exterior Windows	gray	Non-Fibrous	90 Detected Chrysotile 10			
	95224					•			
71		Exterior Window Glaze	Inside of Exterior Windows	gray	Non-Fibrous	90 Detected Chrysotile 10			
	95225								
72		Exterior Window Glaze	Outside of Exterior Windows	gray	Non-Fibrous	98 Detected Chrysotile 2			
	95226								
73		Exterior Window Glaze	Outside of Exterior Windows	gray	Non-Fibrous	98 Detected Chrysotile 2			
	95227								
74		Exterior Window Caulk	Exterior Window Frame	gray	Non-Fibrous	100 None Detected			
	95228								
75		Exterior Window Caulk	Exterior Window Frame	gray	Non-Fibrous	100 None Detected			
	95229								
76		Exterior Window Caulk	Exterior Window Frame	gray	Non-Fibrous	100 None Detected			
	95230								
77		Exterior Window Caulk	Exterior Window Frame	gray	Non-Fibrous	100 None Detected			
	95231								
Mond	ay 05 October	Michael M.	End of Report			Page 5 of 5			
Analy	zed by:	- /	Batch: 8921						

CHAIN OF CUSTODY

Universal Environmental Consultants

12 Brewster Road

Framingham, MA 01702

Tel: (508) 628-5486 - Fax: (508) 628-5488

adieb@uec-env.com

PLM 72-hour TAT

Town/City: Anherst , MA Building Name Wildwood School

Sample	Result	Description of Material Sample Location
l		2x4 SAT Heles Kitchen
2		
3		Room F-3
4		Kan D-3
2		Smooth ceiling Plaster Hall
6		mens Room
7		Mens Room
8		Textured Ceiling Plaster Boiler rown
. 9		
10		
11		Gyn mechanical room
12		
13		Brown covebase glue gym
14		
15		Tan Paper under H/W
16		
17		Black DP under gym Floor
18		
19	· ·	Grey sink coating office
20		1 Room B
Denerte	Jon Ja	-son Berotter Date: 9-30-15 Due Date:
керопе	и ву:	a, ha into 10/01/15
Receive	d By:	<u>Date:</u> Date:

CHAIN OF CUSTODY PLM Fultants 72-hour TAT

Universal Environmental Consultants					
12 Brewster Road					
Framingham, MA 01702					
Tel: (508) 628-5486 - Fax: (508) 628-5488					

adieb@uec-env.com

Town/City: Anherst, MA Building Name Wildwood School

Sample	Result	Description of Material	Sample Location
21		vertical caulk Block-Block	Hall very
22			Hallwey
23		Interior window glaze	Hallway by room A
24		1	office
.25		Interior Door glass glaze	Ram D-3
26			Ran H-3
27		Card board packing	on verticated column behind Block
28			1
29		Brown glue for FG duct Ins.	byn mechanical room
30			
3(· ·	Old Green 12×12 VFT	ELL
32			Art
33	1	Black mastic	on sample 31
34			on sample 32
35		Beige 12x12 VFt	Music room
36			
37		Dark Blue 12x12 VFT	Rown H-1
38			
39		Light Blue 12x12 VFT	Computer lab
40			
L	J	ason Berotte Din 9-3.	0-15 Due Date:
Reporte	ed By:		
Rocoivo	d Bv:	Date:	

CHAIN OF CUSTODY

Universal Environmental Consultants 12 Brewster Road Framingham, MA 01702 Tel: (508) 628-5486 - Fax: (508) 628-5488 adieb@uec-env.com PLM 72-hour TAT

Town/City: <u>Anherst</u> , MA Building Name <u>Wildwood</u> School						
Sample Re	sult Description of Material	Sample Location				
41	Grey 12×12 vFT	Library office				
42	1	Roon - B				
43	Purple 12×12VFT	NURSE				
44						
45	white 12x12VFT	Cafe				
46		Hallney				
47	Blue Accent 12×12 VFT	cafe				
48	1	Hallway				
49	Yellow Accent 12x12 VFT	cufe				
SO		Hallung				
51	Red Accent 12×12 VFT	Cafe				
52		Halling				
53	Green Accent 12x12 VFT	Cafe				
54		Halling				
55	Boiler Rib Packing	Boiler rown				
56						
57						
58	HJ on FG pipe					
59						
60						
Reported By	y: Jason Becotte Date: 9	- 30 - 15 Due Date:				

Received By: -

-- Date: -

CHAIN OF CUSTODY

Universal Environmental Consultants 12 Brewster Road

Framingham, MA 01702

Tel: (508) 628-5486 - Fax: (508) 628-5488

adieb@uec-env.com

PLM 72-hour TAT

Town/City: ----- Kit MA Building Name ------ Building Name

Sample	Result	Description of Material Sample Location
61		Boiler exhaust Insulation Boiler rown
62		
63		
69		Exterior verticul caulk exterior Brick-brick
65		
66		exterior vent cauke exterior unit vent grill
67		
68	· · · · · · · ·	Exterior Door France Caulk Exterior devor
. 69		
70		exterior window gloze Inside of exterior windows
71		
72		outside of exterior windows
73		
74		exterior winden carlk exterior winden France
75		
76		
77		
	J.C.	son Berotte 9-30-15 Due Date:
Reported	з ву:	
Received	1 Bv [.]	Date:

BUILDING	G/SITE													
		NAME:	1.1	diu	ood s	cherel			ITY:	An	her	57		
	WORK	AREA:					_	ST	ATE:	M	A	-		
							-							
Analysis	s to the pation	Turna	round Ti	me(x)	学校学校的主义	44.5.5		S	pecifi	c Projec	t Notes	**************************************	· jinste (*44j)	N P MAR
Туре	6-8 Hr	12 Hr	24 Hr	48 Hr	72 hr									
EM / AHERA				· ·										
TEM / Dust														
TEM / Bulk														-
PLM							5.e.					÷.,		
Mold				X										
Other:								A 1 - 1 W 112 W2A 1 B-						
SAMPLE ID	MA	TERIAL D	ESCRIPTI	ON	和《日》 为《八派物学》	SAMPL	E LOCATIO	N	NERGEN (7-3	START	STOP	TIME	LIMIN	VOLU
1	218	9666	53		Ron	h H −1	L .			1249	1259	10	15.	150
2	218	966	51		Acm	F-	1			1251	1301	10	15	021
3.	218	966	89		Mais	offic	e			1300	1310	10	15	150
4	218	966	17		D-3	1			-	1302	1312	10	15	150
S	218	96 6	ol		Staf.	fluer	Krown	2		1B)/	1321	10	15	150
6	218	96 103	35		atsi	Je.				1314	1324	10	15	ISO
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FLINOLIISHE	D BY	Sert	0		/ >0	ATE/TIME	RECEIVED	IN LAB BY	UU	ULI	012	015	D	ATE/TIN
									1	/	1 9.	30		



Bipolaris++ = Bipolaris/Drechslera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut

No discernable field blank was submitted with this group of samples.

Sealy

Sean Ryan, Microbiolgy Technical Manager or Other Approved Signatory

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. EMSL maintains liability limited to cost of analysis. 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. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted

Samples analyzed by EMSL Analytical, Inc. Woburn, MA AIHA-LAP, LLC --EMLAP Accredited #180179

Initial report from: 10/05/2015 11:25:19

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com Test Report SPVER3-7.30.4 Printed: 10/05/2015 11:25:19AM

EN	EMS 7 Const Phone/F http://w	L Analyti itution Way, S Fax: (781) 93 ww.EMSL.co	Cal, Inc. Suite 107 Wob 3-8411 / (781) <u>m</u> / <u>bostonlab@</u>	urn, MA 01 933-8412 <u>⊉emsl.com</u>	801		Or Cu Cu Pro	der ID: stomer ID: stomer PO: oject ID:	1315057 UEC63	776
Attn: Proj:	Ammar Dieb Universal Environ 12 Brewster Roac Framingham, MA Wildwood School,	mental Consi 01702 Amherst, MA	ultants	Ph Fa Cc Re An	ione: ix: ollected: eceived: ialyzed:	(508) 628- (508) 628- 09/30/2019 10/01/2019 10/05/2019	5486 5488 5 5 5			
	Test Report: Air- Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy ab Sample Number: 131505776-0004 131505776-0005 Client Sample ID: 4-21896617 5-21896601 Volume (L): 150 150 Sample Location: D-3 Staff Workroom				opy (Methods	EMSL 05-TP-	003, ASTM D73 131505776-0006 6-21896635 150 Outside	91)	
	Spore Types	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total
	Alternaria	1*	7*	0.2	1	20	1	1*	7*	0.1
	Ascospores	9	200	5.9	4	90	4.5	101	2200	18.8
As	pergillus/Penicillium	3	70	2.1	6	100	5	15	330	2.8
	Basidiospores	121	2640	77.5	63	1400	70	414	9030	77.2
	Bipolaris++	-	-	-	-	-	-	-	-	-
	Chaetomium	-	-	-	-	-	-	-	-	-
	Cladosporium	1	20	0.6	3	70	3.5	-	-	-
	Curvularia	1	20	0.6	2	40	2	1*	7*	0.1
	Epicoccum	-	-	-	-	-	-	2*	10*	0.1
-			-	-	-	-	-	-	-	-
	Fusarium	-								
	Fusarium Ganoderma	- 1	20	0.6	-	-	-	2	40	0.3
	Fusarium Ganoderma Myxomycetes++	- 1 18	20 390	0.6 11.4	- 11	- 240	- 12	2 1	40 20	0.3 0.2
	Fusarium Ganoderma Myxomycetes++ Pithomyces	- 1 18 3*	20 390 20*	0.6 11.4 0.6	- 11 2	- 240 40	- 12 2	2 1 -	40 20 -	0.3 0.2 -
	Fusarium Ganoderma Myxomycetes++ Pithomyces Rust	- 1 18 3* -	20 390 20*	0.6 11.4 0.6 -	- 11 2 -	- 240 40 -	- 12 2 -	2 1 - 1	40 20 - 20	0.3 0.2 - 0.2
	Fusarium Ganoderma Myxomycetes++ Pithomyces Rust Scopulariopsis	- 1 18 3* - -	20 390 20* -	0.6 11.4 0.6 -	- 11 2 -	- 240 40 -	- 12 2 -	2 1 - 1 -	40 20 - 20 -	0.3 0.2 - 0.2 -
	Fusarium Ganoderma Myxomycetes++ Pithomyces Rust Scopulariopsis Stachybotrys	- 1 18 3* - -	20 390 20* - -	0.6 11.4 0.6 - -	- 11 2 - - -	- 240 40 - - -	- 12 2 - -	2 1 - 1 - -	40 20 - 20 - -	0.3 0.2 - 0.2 - -

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Bipolaris++ = Bipolaris/Drechslera/Exserohilum	
Myxomycetes++ = Myxomycetes/Periconia/Smut	

No discernable field blank was submitted with this group of samples.

Ulocladium

Botrytis

Pollen

Pestalotia

Polythrincium

Hyphal Fragment

Insect Fragment

Analyt. Sensitivity 600x

Analyt. Sensitivity 300x Skin Fragments (1-4)

Fibrous Particulate (1-4)

Background (1-5)

Total Fungi

Unidentifiable Spores Zygomycetes -

1

159

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Sean Ryan, Microbiolgy Technical Manager or Other Approved Signatory

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. EMSL maintains liability limited to cost of analysis. 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. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA AIHA-LAP, LLC --EMLAP Accredited #180179

Initial report from: 10/05/2015 11:25:19

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com Test Report SPVER3-7.30.4 Printed: 10/05/2015 11:25:19AM



NELAC NY 11769 NRPP 101193 AL NRSB ARL0017

Property Tested:

Universal Environmental Consultant	Wildwood Elementary			
12 Brewster Road	71 Stropng Street			
Framingham MA 01702	Amherst MA 01002			

Log Number	Device Number	Test Exposu	re Duration:	Area Tested	Result (pCi/L)
1843640	3068933	09/28/2015 10:35 am	09/30/2015 11:12 am	First Floor Boiler Room	< 0.4
1843641	3068953	09/28/2015 10:56 am	09/30/2015 11:18 am	First Floor Custodian H1	0.4
1843642	3068922	09/28/2015 10:58 am	09/30/2015 11:23 am	First Floor Custodian C1	0.4
1843643	3068943	09/28/2015 11:00 am	09/30/2015 11:21 am	First Floor Custodian D3	0.5
1843644	3068923	09/28/2015 11:01 am	09/30/2015 11:22 am	First Floor Gym Storage Hallway	0.4
1843645	3068963	09/28/2015 11:03 am	09/30/2015 11:20 am	First Floor Custodian G3	0.5

Comment: Devices placed in boiler areas do not comply with EPA 402-R-92-004 testing protocol. Universal Environmental Consultant was emailed a copy of this report.

Test Performed By: Jason Becotte

Distributed by: Universal Environmental Consultant

Date Received: 09/30/2015 Date Logged: 09/30/2015 Date Analyzed: 10/01/2015 Date Reported: 10/01/2015

(aroly) K. Aller

Disclaimer:

Carolyn K. Allen, President, AccuStar Labs The 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. 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.

Report Reviewed By: _____ Report Approved By: ____

Liquid Scintillation

EPA Method #402-R-92-004

NRPP Device Code 8088 NRSB Device Code 12193

SITE DEVELOPMENT REQUIREMENTS

SECTION 3.1.5

3.1.5 - Site Development Requirements

- 0 WILDWOOD ELEMENTARY SCHOOL NARRATIVE
- O WILDWOOD SITE PLAN
- 0 Fort River Elementary School Narrative
- O FORT RIVER SITE PLAN
- O GRAVEL PIT NARRATIVE
- O GRAVEL PIT SITE PLAN

3.1.5 SITE DEVELOPMENT REQUIREMENTS

3.1.5 - SITE DEVELOPMENT REQUIREMENTS

The Site Development Requirements for the PDP Submission to MSBA are intended to help in the Site Selection process. This section describes a variety of options that were explored with Town staff, the Designer and the OPM. In an early review meeting, over 20 potential sites were discussed and through several iterations of discussions and data gathering efforts, the list was greatly narrowed to the ones that are now being submitted with the PDP. The existing Wildwood site was evaluated along with 2 adjacent parcels (the Hawthorne parcel to the west and the Regional School District ballfield to the south) that the Town wanted to explore for potential. The existing Fort River site was evaluated along with the adjacent parcel to the south. Due to wetlands issues and conservation restrictions, that adjacent parcel was eventually deemed unusable for a building pad and the options that were explored reflect that determination. The Gravel Pit site was recently purchased by the Town and the evaluation revealed that although the site was quite large and seemed somewhat promising, the lack of access to public utilities and the issues presented by the adjacent railway eliminated this site from further consideration. There were also several privately owned parcels that the Town identified – these parcels were initially discussed but since the Town had possession of several other viable parcels, they felt that it would not be economically feasible to purchase land for the purposes of this school building project.

WILDWOOD SITE

Wildwood Elementary School is located at 74 Strong Street in Amherst, MA. The only vehicular access to the site is from Strong Street through a driveway that is shared with the adjacent daycare center. There is pedestrian access from the adjacent Middle School. There are two primary parking areas on site. The lot to the north of the school building provides approximately 64 spaces for visitor and staff parking – this lot also accommodates all of the buses in a dedicated lane along the north face of the building. The lot to the west of the school building accommodates approximately 50 spaces for the staff – this lot also accommodates the pickup/dropoff area designated for parents in the morning and the afternoon.

The Wildwood site is presently zoned RN (Residential – Neighborhood). In this zone, educational facilities are allowed by use and the current school building is an approved entity. The zoning setbacks and limitations are as follows:

- Minimum Frontage 120 feet
- Front Yard Setback 20 feet
- Side Yard Setback 15 feet
- Rear Yard Setback 15 feet
- Maximum Building Coverage 20%
- Maximum Lot Coverage 30%
- Maximum Floors 3
- Maximum Height 35 feet
- Minimum Lot Area 20,000 square feet

The Wildwood site has been previously graded to accommodate the original school building and associated play areas. There is a 30 foot grade change to the northeast of the building (up to Strong Street) and a 15 foot grade change between the Wildwood play areas and the Middle School playfields. Some of these topographical challenges directly affect accessibility requirements and will need to be considered in the design of various options for this site.

MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL - AMHERST, MA

JCJARCHITECTURE

There are no wetlands located on the Wildwood School property but there are, however, wetlands associated with parcel 11B-188 (former Hawthorne property) which is under consideration for either a potential new building or possibly supplemental play areas. The wetlands setbacks in this area will greatly limit the buildable area on that parcel.

Emergency vehicle access is achieved through the main entry to the site along Strong Street. Topographical constraints will likely limit any other potential vehicular access to the site.

Safety and security requirements on the existing Wildwood site involve good sightlines to the vehicular ingress/egress points and clear areas around the entire perimeter of the building. The low plantings around the building help to minimize the areas of concealment and maximize the safety lighting around the perimeter and at exterior door locations.

The utilities on the Wildwood site have been documented and taken into consideration for several of the options that the Designer is investigating. Power, water and telephone come in from Strong Street. There are some regulatory issues associated with the drainage pipes that follow the entry drive, cut across the downslope between the play area/MS play fields and along the edge of the existing tennis courts. These issues are detailed further in the civil section of the existing conditions narrative.

There are two paved basketball courts adjacent to the northeast corner of the building (near the Gym). There are two playscapes located at the south side of the building that were built by parent volunteers through local fundraising efforts. There is also an open playfield in this general area of the site that is used for recess and for limited gym classes.





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- Property Lines
- Easements
- Adjacent Towns Parcel
- Basemap

··· Trails

- Streets Local Roads Major Roads State Routes

- State Routes
 MassDOT Roads
 Limited Access Highwa
 Multi-lane Hwy, not limi
 Other Numbered High
 Major Road, Collector
 Minor Road, Arterial
 Ramo

- Ramp

Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, NAD83, Feet; Vertical Datum: NAVD88, FT Planimetric & topographic basemap compiled at 1^{*}=40' scale from April, 2009 Aerial Photography. Parcels compiled to match the basemap; revisions are ongoing.

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1" = 150 ft



November 15, 2015





1B 2A 2B 3A 3B 2C 2D 3C 3I 5A 5B 6A 10B 11A 11B 12A 12⁷ 14D 15C 17A 17B 18A 1 19D 20C 20D 2A 22B 23A 23B 24A 24 8A 28B 29A 29B 28C 28D 29C 20 30C 30

📂 Pond; River

Planimetric basemap features compiled at 1"=40' scale from April 13, 2009 Aerial Photography.

Parcels compiled through a "best-fit" methodology to match the basemap; revisions are ongoing.

Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, Datum NAD83, Feet

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Production Date: Jun 12, 2014

0	75	150	300			
			Feet			
1 inch = 150 feet						

11B







× FPC Boundary Elevatio FPC Stream Setbacks → 25' Setback → 50' Setback Zone Overlay Design Review Board J Municipal Parking Distri Zoning R-LD: Low Density Res R-F: Fraternity Residen R-O: Outlying Residen R-N: Neighborhood Re R-VC: Village Center R R-G: General Residenc B-VC: Village Center B B-L: Limited Business B-N: Neighborhood Bu B-G: General Business OP: Office Park COM: Commercial PRP: Professional & R LI: Light Industrial ED: Educational FPC: Flood-Prone Con

> Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, NAD83, Feet; Vertical Datum: NAVD88, FT Planimetric & topographic basemap compiled at 1"=40' scale from April, 2009 Aerial Photography. Parcels compiled to match the basemap; revisions are ongoing.

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November 15, 2015





Property Map

Adjacent Towns Parcel

Basemap

Rivers and Streams

- Streams Major Culverts
- Hydro Connector Headwalls, Floodwalls

Conservation Map

- Major Trails Metacomet and Monad
 K.C. Trail

Robert Frost Trail

 Norwottuck Rail Trail Local and Literary Trail Literary Trail Local Trail State Trail

Conservation Areas

- Chapter Lands
- Chapter 61 (Forest) Chapter 61A (Agricultur

Chapter 61B (Recreati

APR Land

Subdivision Open Spac

Conservation Restrictio

Recreation Areas & Sc

Cemeteries & Private

Private Land Trusts

MA Dept. of Conservati

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Amherst College Hampshire College UMass

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- Elevation Contours
- Intermediate _ Index
- Basemap 2009

Street Trees

- Existing
 PTL (Planned Tree Loc
- ATL (Approved Tree Lo
 NPT (Newly Planted Tr
- Removed Stump
- Trails

→ Rail Lines

- Fences
- Fence Guardrail along road
- Hedge
- Walls Retaining wall
- Sitting Wall
- Stone wall
- Wall

Structures

- Building Outbuilding or Misc. Deck, Porch, Stairs
- Mobile home, Trailer
- Swimming Pool
- Building Ruins
- Foundation or Construc
- Water storage tank
- Sketched Structure
- Cemetery
- Rivers and Streams
- Streams
- Major Culverts
- Hydro Connector
- Headwalls, Floodwalls

- Landcover Brush & Scrub Vegetati
- Tree & Forest Vegetati
- Cultivated field Gravel pile
- Quarry Misc Impervious Surfac
- Parking Parking Paved Parking Unpaved
- Driveways Paved Driveway
- Unpaved Driveway
- Sidewalks
- Transportation
 Paved Roadway
- Unpaved Roadway
- Bridges Bridge Decking & Struc
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November 16, 2015

amherstma.gov/maps

Property Map Property Lines — Property Line

Hydrographic Property

Right of Way Line
 Town Boundary







Property Map

- Property Lines Property Line Hydrographic Property Right of Way Line Town Boundary

- Lot Lines --- Former Property Line
- Subdivision Lot Line
- Easements
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Topography

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November 16, 2015

FORT RIVER SITE

Fort River Elementary School is located at 70 South East Street in Amherst, MA. The only vehicular access to the site is from South East Street through a looped driveway that provides two separate access points. There is also pedestrian access from the northeast corner of the school building leading further northeast out to Main Street. There are two primary parking areas on site. The lot to the west of the school building provides approximately 96 spaces for visitor and staff parking – this lot also accommodates all of the buses in a dedicated lane along the west face of the building. The lot to the south of the school building accommodates approximately 58 spaces for the staff – this lot also accommodates the pickup/dropoff area designated for parents in the morning and the afternoon.

The Fort River site is presently zoned RVC (Residential – Village Center). In this zone, educational facilities are allowed by use and the current school building is an approved entity. The zoning setbacks and limitations are as follows:

- Minimum Frontage 120 feet
- Front Yard Setback 15 feet
- Side Yard Setback 15 feet
- Rear Yard Setback 15 feet
- Maximum Building Coverage 25%
- Maximum Lot Coverage 40%
- Maximum Floors 3
- Maximum Height 35 feet
- Minimum Lot Area 15,000 square feet

Also, approximately 100 feet to the east of the existing school building, on the Fort River site is a FPC zone. This is designated a Flood Prone Conservation zone and has some additional restrictions and considerations. Building in this zone requires special permitting and carries more restrictive setbacks and limitations.

- Minimum Frontage 200 feet
- Front Yard Setback 40 feet
- Side Yard Setback 20 feet
- Rear Yard Setback 20 feet
- Maximum Building Coverage 10%
- Maximum Lot Coverage 15%
- Maximum Floors 1
- Maximum Height 20 feet
- Minimum Lot Area 80,000 square feet

The Fort River site is relatively flat but is known to have some water issues. Some of these hydrological challenges directly affect accessibility requirements and will need to be carefully considered in the design of various options for this site.

There are wetlands located on the Fort River School property as well as a substantial area that is zoned FPC (Flood Prone Conservation). The 100 year flood plain extends from the Fort River across the south side of the building, actually touching the southeast corner of the existing parking lot. The FPC, the flood plain restrictions and the wetlands setbacks required in this area will greatly limit the buildable area on the site.

Emergency vehicle access is achieved through the main entry to the site along South East Street. Wetland constraints will likely limit any other potential vehicular access to the site.

MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL - AMHERST, MA



Safety and security requirements on the existing Fort River site involve good sightlines to the vehicular ingress/egress points and clear areas around the entire perimeter of the building. The low plantings around the building help to minimize the areas of concealment and maximize the safety lighting around the perimeter and at exterior door locations.

The utilities on the Fort River site have been documented and taken into consideration for several of the options that the Designer is investigating. Power, water and gas come in from South East Street. There are some regulatory issues associated with the drainage pipes that follow the entry drive from north to south. These issues are detailed further in the civil section of the existing conditions narrative. There is also a pump station located on the west side of the entry loop that serves the school and will be described in more detail in the civil narrative portion of this report.

There are two full-size and 4 half-size paved basketball courts adjacent to the north end of the building (near the Gym). There are two playscapes – one is located at the southeast corner of the building and one is located at the northeast corner of the building. There is also an open playfield to the east of the building that is used for recess and for limited gym classes. There are also several softball fields (one is illuminated) and a small walking track.



MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL - AMHERST, MA

JCJARCHITECTURE



MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL - AMHERST, MA

JCJARCHITECTURE





Property Map

- Property Lines
- Easements

Adjacent Towns Parcel

Basemap

··· Trails

- Streets Local Roads Major Roads State Routes

- State Routes
 MassDOT Roads
 Limited Access Highwa
 Multi-lane Hwy, not limi
 Other Numbered High
 Major Road, Collector
 Minor Road, Arterial
 Ramo

- Ramp

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November 15, 2015







Utility Poles

Control Points

Documents

- Scanned Documents
- Water Service Sewer Service
- Water Gate
- Record Plan
- Linen Plan
- Fiche Plan
- Drainage Service
 Site Plan
- Deed
- Subdivision Plan
- Easement Plan Electrical Card
- As-Built-Plan
- Drainage System
- Catch Basins
- Drain Manholes
- Stormwater Outfalls
- Culverts
- Drain Lines
- Active Missing
- Abandoned

Sanitary Sewer System

- Sewer Manholes
- Private Town of Amherst
- Sewer Lines
- + Active
- -- Missing
- Abandoned
- Sewer Force Mains

Pump Stations

- Pump Station Residential Pump
- Commercial Pump

Water Distribution System

- Water Gates
- Main Line Gate Sprinkler Gate
- Blowoff
- × Abandoned Gate
- Meter Pit

- + Fire Hydrants
- Water Lines
- TOA Water Line
 Missing TOA Water Ln
 UM/AC/HC Water Ln

- Hydrant Line - TOA Raw Water Ln
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- Foundation or Constru
 Water storage tank
- Sketched Structure
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- Streams Major Culverts
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- Dams
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- Retention ponds/Flood
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- Forested Wetland
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- Driveways Driveway Paved Driveway Unpaved
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- Paved street polygons Unpaved street polygo
- Bridges Bridge decking and str
- Foot Bridge Rail Bridge
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Institutional Lands Amherst College

Hampshire College

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MassGIS Layers

NHESP Priority Habitat

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- Robert Frost Trail
- Norwottuck Rail Trail
- Local and Literary Trail
- Literary Trail
 Local Trail
 State Trail
- Conservation Areas

- Chapter Lands Chapter 61 (Forest) Chapter 61A (Agricultur Chapter 61B (Recreati
- APR Land
- Subdivision Open Spac
- Conservation Restrictio
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- Transportation
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November 16, 2015
PRELIMINARY DESIGN PROGRAM, DECEMBER 2015

GRAVEL PIT SITE

The Gravel Pit site is located at 531 Pulpit Hill Road in Amherst, MA. Vehicular access to the site is from Pulpit Hill Road from the north and from State Street (unpaved portion) to the south. There is a dirt access road, an existing building and an existing cell tower located on the site. The east side of the parcel is bounded by a railroad. To the west and south, Puffers/Factory Hollow Pond and Cushman Brook are in the Flood Prone Conservation Zone and any development adjacent to that delineation would greatly restrict development due to the Conservation requirements. The topography is quite severe in portions of the site – providing over 70' of grade change between certain areas of the site. The site provides no direct access to public utilities – neither water nor sewer.

The Gravel Pit site is presently zoned RO (Residential – Outlying). In this zone, educational facilities are allowed by use and a new school building would be an approved entity. The zoning setbacks and limitations are as follows:

- Minimum Frontage 150 feet
- Front Yard Setback 25 feet
- Side Yard Setback 25 feet
- Rear Yard Setback 25 feet
- Maximum Building Coverage 15%
- Maximum Lot Coverage 25%
- Maximum Floors 21/2
- Maximum Height 35 feet
- Minimum Lot Area 30,000 square feet

The Gravel Pit site has been previously disturbed due to past mining operations and associated activities.







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- Unpaved Roadway
- Bridges Bridge Decking & Struc Foot Bridge Rail Bridge

Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, NAD83, Feet; Vertical Datum: NAVD88, FT Planimetric & topographic basemap compiled at 1"=40' scale from April, 2009 Aerial Photography. Parcels compiled to match the basemap; revisions are ongoing.

The information depicted on this map is for planning purposes only. It may not be adequate for legal boundary definition, regulatory interpretation, or property conveyance purposes. Utility structures & underground utility locations are approximate & require field verification.

The Town of Amherst makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of these data, & does not assume any liability associated with the use or misuse of these data.

1" = 150 ft



November 16, 2015

JOSLIN, LESSER + ASSOCIATES, INC.

WILDWOOD ELEMENTARY SCHOOL - AMHERST, MA

ALTERNATIVE SITE SELECTION MATRIX

- Favorable
- Feasible
- O Neutral
- Not feasible
- O Unfavorable
- Not available

CR	ITERIA	1	2	3	4	5
		Existing Wildwood Site	Fort River Site (70 South East Street)	East Pleasant Street (Hawthorne)	531 Pulpits Hill Road (Ruxton Gravel Pit)	Alternate Private Site
SIT	E					
1	Size of site (acres)					
2	Publicly owned	Y	Y	Y	Y	Ν
3	Privately owned	N	N	Ν	N	Y
4	Legal restrictions	Θ	Ο	Θ	Ο	
5	Site acquisition	•	Ο	۲	0	
6	Within walking distance to District center	۲	Ο	Ο	0	
7	Minimizes busing	۲	۲	Θ	Ο	
8	Identity with ARPS	•	•	Ο	0	
9	Optimizes parking and play capacity	•	•	Ο	Ο	
10	Optimizes access	●	•	Θ	Ο	
11	Feasibility of future expansion	•	Ο	0	0	
12	Traffic impact on neighborhood					
CO	ST	-	ī			
1	Site acquisition cost	●	•	0	0	
2	Minimizes phasing logistics	Ο	Ο	•	Ο	
3	Minimizes busing	۲	۲	Ο	•	
4	Utilities/Infrastruction costs	•	•	0	0	
5	Subsurface or topography costs	●	•	0	0	
6	Additional site costs: wetlands, remediation, etc.	●	Ο	\odot	0	
7	Reduces need for swing space/busing	Ο	Ο			
REC	CREATIONAL IMPACT					
1	Minimizes recreational impact					



PRELIMINARY EVALUATION OF ALTERNATIVES

SECTION 3.1.6

3.1.6 - Preliminary Evaluation of Alternatives

- O WILDWOOD NARRATIVE
- о Ортіон W1
- о Ортіон W2
- о Ортіон Шз
- O Option W4
- O Option W5
- о Ортіон W6
- 0 Fort River Narrative
- о Ортіон FR1
- о Ортіон FR2

3.1.6 PRELIMINARY EVALUATION OF ALTERNATIVES

3.1.6 - PRELIMINARY EVALUATION OF ALTERNATIVES

After documenting the Educational Program, the Initial Space Summary, evaluating the Existing Conditions and Site Development Requirements, the Designer has developed a series of preliminary options for the sites that have been moved forward for consideration by the School Building Committee per their motion and vote at the December 3, 2015 meeting. These Options were developed with the Building Committee's consideration and comment. As part of this process, School Assignment practices were analyzed and discussed. The tuition agreements with other school districts were discussed as were the various alternative educational opportunities that are partially accounting for a number of students going outside of the Amherst system. A Code Upgrade option was discussed for the Wildwood building and due to the factors listed in the SOI concerning the configuration of the "open classroom" model as well as the location of the student bathrooms on the outside walls, it became evident that the significant components identified in the SOI would not be able to be corrected through this path and the delivery of the District's Educational Program would not be achieved through a Code Upgrade project. Various renovation/addition options were also discussed and due to the potential for extended construction schedules that these options would require because of the phasing of construction, the options were not pursued further. These renovation/addition options were, however, priced out in a preliminary fashion and have been included in the Summary of Preliminary Design Pricing for Evaluations of Options.

For the options evaluated as *unfavorable* due to the requirement to provide swing space during construction, a multiple phased construction was discussed allowing for the occupancy of the existing school during construction; thereby, negating the need for swing space. The construction phasing would include a first phase of construction where the building support and common area spaces with the academic spaces for up to 360 to 400 students would be built, followed by the demolition of the existing facility and concluding with a second phase of construction where the balance of the academic spaces would be built. The potential impacts of this construction phasing strategy will be explored during future submissions.

WILDWOOD NARRATIVE

After documenting the Educational Program, the Initial Space Summary, evaluating the Existing Conditions and Site Development Requirements, the Designer has developed a series of preliminary options at the Wildwood site.

Option W1 studies a full renovation to the existing K-6 building on the Wildwood site. This would entail a full renovation of the existing 82,000gsf building to accommodate a K-6 (360).

Option W2 studies a K-6 (360) Option as a new building located just to the southeast of the existing Wildwood Elementary School. This option would allow for the students to remain in the existing building while construction of the new school occurs. After completion of the new building, the parking and playfields could be reworked and replaced in-kind in the general area of the existing building footprint. This Option assumes that the new school would be a two story, 66,304sf building with a footprint of approximately 44,000sf (remainder of the square footage would be second floor classroom space). This option fits into the open area, does not impact the adjacent topography, and does not interfere with any of the primary utilities on site.

MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL, – AMHERST, MA



PRELIMINARY DESIGN PROGRAM, DECEMBER 2015

Option W3 studies a 2-6 (750) Option as a new building located in the same area as the existing Wildwood Elementary School. This Option assumes that the new school would be a two story, 120,854sf building with a footprint of approximately 80,000sf (remainder of the square footage would be second floor classroom space). This option would allow both the pedestrian and vehicular circulation to be reworked on site and all of the play areas to be updated. This Option will require relocation of the students to swing space through the duration of the construction.

Option W4 studies a 2-6 (750) Option as a new building located on the adjacent Regional School District land. This parcel is owned by the Region and would necessitate a lease agreement in order to build a new school in this area of the site. This option would allow for the students to remain in the existing building while construction of the new school occurs. After completion of the new building, the parking and playfields could be reworked and replaced in-kind in the general area of the existing building footprint. This Option assumes that the new school would be a two story, 120,854sf building with a footprint of approximately 80,000sf (remainder of the square footage would be second floor classroom space). There is a 15 foot grade change at the existing slope that would potentially allow the new two story building to egress to grade at both the upper level and the lower level. Also, there is a piped drainage watercourse that runs diagonally across the slope (under the proposed building location) that would need to be relocated and would necessitate a rigorous regulatory process.

Option W5 studies a K-6 (670) Option as a new building located in the same area as the existing Wildwood Elementary School. This Option assumes that the new school would be a two story, 109,150sf building with a footprint of approximately 72,000sf (remainder of the square footage would be second floor classroom space). This option would allow both the pedestrian and vehicular circulation to be reworked on site and all of the play areas to be updated. This Option will require relocation of the students to swing space through the duration of the construction.

Option W6 studies a K-6 (670) Option as a new building located on the adjacent Regional School District land. This parcel is owned by the Region and would necessitate a lease agreement in order to build a new school in this area of the site. This option would allow for the students to remain in the existing building while construction of the new school occurs. After completion of the new building, the parking and playfields could be reworked and replaced in-kind in the general area of the existing building footprint. This Option assumes that the new school would be a two story, 109,150sf building with a footprint of approximately 72,000sf (remainder of the square footage would be second floor classroom space). There is a 15 foot grade change at the existing slope that would potentially allow the new two story building to egress to grade at both the upper level and the lower level. Also, there is a piped drainage watercourse that runs diagonally across the slope (under the proposed building location) that would need to be relocated and would necessitate a rigorous regulatory process.

MSBA PROJECT NO. 201300080050 PRELIMINARY DESIGN PROGRAM, WILDWOOD ELEMENTARY SCHOOL, - AMHERST, MA

JCJARCHITECTURE

OPTION W1 – WILDWOOD RENOVATION



ортіо**н w2 – wildwood (360 к-6**)



JCJARCHITECTURE NOVEMBER 17TH, 2015

ортіои **w**3 – wildwood (750 2-6)



JCJARCHITECTURE NOVEMBER 1714, 2015

ортіо**м w4 – wildwood (750 2-6**)



ортіои w5 – wildwood (670 к-6)



JCJARCHITECTURE NOVEMBER 1714, 2015

ортіо**н w6 – wildwood (670 к-6**)



JCJARCHITECTURE NOVEMBER 1714, 2015

PRELIMINARY DESIGN PROGRAM, DECEMBER 2015

3.1.6 - FORT RIVER NARRATIVE

After documenting the Educational Program, the Initial Space Summary, evaluating the Existing Conditions and Site Development Requirements, the Designer has developed a series of preliminary options for the Fort River site.

Option FR1 studies a 2-6 (750) Option as a new building located in the same area as the existing Fort River Elementary School. This Option assumes that the new school would be a two story, 120,854sf building with a footprint of approximately 80,000sf (remainder of the square footage would be second floor classroom space). This option would allow both the pedestrian and vehicular circulation to be reworked on site and all of the play areas to be updated. Since the proposed size of this new building is larger than the existing, the pump station located just to the west of the parking area will likely need to be upgraded as part of this project. This Option will require relocation of the students to swing space through the duration of the construction.

Option FR2 studies a K-6 (670) Option as a new building located in the same area as the existing Fort River Elementary School. This Option assumes that the new school would be a two story, 109,150 sf building with a footprint of approximately 72,000sf (remainder of the square footage would be second floor classroom space). This option would allow both the pedestrian and vehicular circulation to be reworked on site and all of the play areas to be updated. Since the proposed size of this new building is larger than the existing, the pump station located just to the west of the parking area will likely need to be upgraded as part of this project. This Option will require relocation of the students to swing space through the duration of the construction.

OPTION FR1 – NEW FORT RIVER (750 2-6)



JCJARCHITECTURE NOVEMBER 1714, 2015

OPTION FR2 – NEW FORT RIVER (670 k-6)



JCJARCHITECTURE NOVEMBER 1714, 2015

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AMHERST ELEMENTARY SCHOOL - Amherst, MA

Options and Criteria Evaluation Matrix

	Favorable O		Unfavorable	Costs: \$0, \$, \$\$, \$\$\$							
		Wildwo	od K-6		Grade Reconf	iguration 2-6			Wildwood+Fe	ort River K-6	
	Note: All design options will meet current building codes.	W1	W2		W3	W4	FR1		W5	W6	FR2
		Renovation K-6	New Construction K-6	Renovation + addition	New Construction Grades 2-6 (Wildwood	Full Demo + New Construction (Adjacent Site)	Full Demo + New Construction (Fort River	Renovation + addition	Full Demo + New Construction (Wildwood	Full Demo + New Construction (Adjacent site)	Full Demo + New Construction (Fort River
	Criteria				Building)		Building)		Building		Building)
B	uilding and Site Facts										
1	1 Student enrollment population	360	360	750	750	750	750	670	670	670	670
2	2 Size of site (acres)	14.34	14.34	14.34	14.34	14.34	11.46	14.34	14.34	22.53	11.46
m	3 Site acquisition legal issues	z	z	z	z	z	z	Z	z	٨	z
.											
ŭ	ost and Schedule										
-	1 Relative capital cost	0	•	⊚	•	•	•	0	•	•	•
2	2 Allows students to move in to new school 2019	0	•	0	0	•	0	0	•	•	•
	Accommodates transition (swing space)	0	•	0	0	•	0	0	0	•	0
ŝ											
ы	ducational										
-	1 Meets educational program for all students	0	•	⊚	•	•	•	0	•	•	•
2	2 Provides flexibility for future growth	•	•	0	•	•	0	0	•	•	0
m	3 Provides flexibility for educational innovations	•	•	•	•	•	•	•	•	•	•
4	4 Optimizes configuration and adjacency of teaching spaces	۲	•	0	•	•	•	0	•	•	•
S	ommunity										
-	1 Provides accessibility to community used space	⊚	•	⊚	•	•	•	0	•	•	•
I	Redistricting required	•	•	0	0	0	0	•	•	•	•
2	2 Accommodates community program needs	0	•	0	•	•	•	۲	•	•	•
ŝ	3										
B	uilding										
-	1 Allows for a contextually sensitive design	⊚	•	⊚	•	•	•	⊚	•	•	•
2	2 Allows efficient attainment of Green School/Stretch Code requirements	0	•	0	•	•	•	0	•	•	•
e	3 Addresses all building deficiencies	0	•	0	•	•	•	۲	•	•	•
4	4										
ŝ	2										
9	5										
Si	te										
-	1 Maximizes efficient utilization of site	•	•	•	•	•	•	•	•	•	•
2	2 Involves additional site costs	•	•	•	•	0	•	•	•		•
e	3 Optimizes safety and efficiency of on site drop off	•	•	•	•	•	•	•	•	•	•
4	4 Swing space not required	•	•	•	0	•	0	•	0	•	0
ŝ	5 Maintains neighborhood schools	•	•	0	0	0	0	0	0	0	0
9	6 Improves off site traffic impact	•	•	•	•	•	•	•	•	•	•
7	7 Improves pedestrian safety and access	•	•	•	•	•	•	•	•	•	•

	4		
	K-6, 360 Students	K-6 with Wings, 670 Students	Unified District Grades 2-6 with Wings, 750 Students
High Quality Classrooms with Acoustic Privacy	62% of students	100% of students	100% of students
ADA Compliant Classrooms	62% of students	100% of students	100% of students
SE-Specialized Programs	BB & AIMS would likely move to either CF or WW	BB, AIMS, & ILC all in same K-6 building	BB, AIMS, & ILC all in new building; early childhood programs will need to be developed at CF
ELL Newcomer Program	Not feasible	Feasible at new building, not at CF	Feasible in all schools
Transportation	No additional cost	\$0-\$110,000 a year based on whether redistricting occurs	\$220,000 a year
Operational Savings (totals include increases to transportation)	\$0 (and additional costs to maintain Fort River)	\$400,000-\$500,000 a year (depending on redistricting/transportation)	\$475,000 a year
Zoning	Does not address inequity based on specialized programs or apartment complexes	Partially addresses inequity based on specialized programs but not apartment complexes	Addresses inequities based on special programs and apartment complexes
Redistricting	Some students currently in WW & CF would attend FR	Redistricting makes geographic & financial sense but is not required	All students are redistricted into the 2 town-wide schools
Class Size Equity	Does not address large variances between classes by grades level & school	Partially addresses variances in new school but not at CF	Addresses the variances in class size at all schools
Transitions	None for K-6	None for K-6	Adds one transition in K-6
Peer Mentoring	Possible across 7 grade levels	Possible across 7 grade levels	Possible across 5 grade levels
Teacher Collaboration	Same as current model	Additional collaboration	Additional collaboration

opportunities for all staff

opportunities for staff at new school; not at CF

Same as current model

Teacher Collaboration

Implications of Enrollment Options **2015**

Preliminary Design Pricing Summary

	Wildwo	od K-6		Grade Reconf	iguration 2-6		Wildwood + Fort River K-6			
	Option W1:	Option W2:		Option W3:	Option W4:	Option FR1:		Option W5:	Option W6:	Option FR2:
Option (Description)	Renovation K-6	New Construction southeast of Wildwood	Renovation + Addition	New Construction on Wildwood building	New Construction on MS ballfield	New Construction on Fort River building	Renovation + Addition	New Construction Two Distrist Schools on Wildwood building	New Construction Two Distrist Schools on MS ballfield	New Construction Two Distrist Schools on Fort River building
Student Enrollment	360	360	360	750	750	750	670	670	670	670
Total Gross Square Feet	82,000	68,080	122,714	122,714	122,714	122,714	109,150	109,150	109,150	109,150
Estimated Total Construction (cost/sf)	\$27,060,000 \$330.00/sf	\$25,530,000 \$375.00/sf	\$42,328,000 \$345.00/sf	\$46,018,000 \$375.00/sf	\$47,000,000 \$383.00/sf	\$46,018,000 \$375.00/sf	\$37,242,000 \$341.00/sf	\$40,932,000 \$375.00/sf	\$41,805,000 \$383.00/sf	\$40,932,000 \$375.00/sf
Estimated Total Project Costs	\$33,825,000	\$31,912,500	\$52,910,000	\$57,522,500	\$58,750,000	\$57,522,500	\$46,552,500	\$51,165,000	\$52,256,250	\$51,165,000

LOCAL ACTIONS AND APPROVAL CERTIFICATION

SECTION 3.1.7

3.1.7 - LOCAL ACTIONS AND APPROVAL CERTIFICATION

3.1.7 LOCAL ACTIONS AND APPROVAL CERTIFICATIONS



THE PUBLIC SCHOOLS OF AMHERST, MASSACHUSETTS

OFFICE OF THE SUPERINTENDENT 170 CHESTNUT STREET AMHERST, MA 01002 413-362-1810 (PHONE) 413-549-6108 (FAX)

December 4, 2015

Ms. Diane Sullivan Senior Capital Program Manager 40 Broad Street Boston, Massachusetts 02109

Dear Ms. Sullivan:

The Town of Amherst Wildwood Elementary School Building Committee ("WSBC") has completed its review of the Feasibility Study Preliminary Design Program for Wildwood Elementary school project (the "Project"), and on December 3th, 2015 the WSBC voted to approve and authorize the Owner's Project Manager to submit the Feasibility Study related materials to the MSBA for its consideration. A copy of the SBC meeting minutes, which includes 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 District to conduct a Feasibility Study on October 10, 2014, the WSBC held six (6) meetings regarding the Project, and the Amherst School Committee held three (3) meetings in which the Project was presented and discussed. All meetings were in compliance with the state Open Meeting Law. These meetings include:

Meeting Date	Time	Group	Location	Торіс
4/8/2015	3:30PM	Wildwood School Building Committee	Amherst Middle School , PD Center	Introduction of JLA, Overview of Project Schedule, Designer Selection Process and Next Steps
7/22/2015	2:00PM	Wildwood School Building Committee	Amherst Middle School , PD Center	Introduction of JCJ, Schedule Overview and Communications Protocol
9/15/2015	4:00PM	Wildwood School Building Committee	Amherst Middle School , PD Center	Proposed Schedule, Communication Protocol and Construction Delivery Method
9/21/2015	6:00PM	Amherst School Committee	Amherst High School Library	Project Update, Schedule and Process Review
10/15/2015	4:00PM	Wildwood School Building Committee	Amherst Middle School , PD Center	Visioning Workshop Update, Site Assessment Update

10/20/2015	6:00PM	Amherst School Committee	Amherst High School Library	Education Plan Review
11/17/2015	4:00PM	Wildwood School Building Committee	Amherst Middle School , Library	Review of Existing Conditions Report, Concept Diagrams and Site Assessment Update
11/17/2015	6:00PM	Amherst School Committee	Amherst High School Library	Education Plan Review
12/3/2015	4:00PM	Wildwood School Building Committee	Amherst Middle School , PD Center	Review of Updated Concepts, Approve Submittal of PDP to MSBA

In addition to the WSBC and School Committee meetings listed above, the District held two (2) community meetings, including one in conjunction with the School Committee which was posted in compliance with the state Open Meeting Law, at which the Project was discussed. Each meeting included ample time to receive comments from the public.

Meeting Date	Time	Group	Location	Торіс
9/29/2015	3:30PM and 7:00PM	Community Meeting	Middle School Auditorium	Introduction of Project Team and Schedule, Review of Educational Program
10/26/2015	3:30PM and 7:00PM	Community Meeting + School Committee	High School Auditorium	Review of Educational Program

The presentation materials for each meeting, meeting minutes, and summary materials related to the Project are available locally for public review at: http://wildwood.projects.joslinlesser.com/

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 Michael Morris, Assistant Superintendent of Schools and Chair of the Wildwood School Building Committee.

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 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 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:By:By:Title: Chief Executive OfficerTitle: Superintendent of
SchoolsTitle: Chair of the School
CommitteeDate:Date:Date:

APPENDIX

SECTION 3.1.8

3.1.8 - Appendix

0	Statement of Intent
0	MSBA BOARD ACTION LETTER
0	Design Enrollment Certification le
0	Scaled Floor Plans – existing
0	Project Schedule
0	Project Directory
0	Meeting Minutes

3.1.8 APPENDIX

Massachusetts School Building Authority

Next Steps to Finalize Submission of your FY 2013 Statement of Interest

Thank you for submitting your FY 2013 Statement of Interest (SOI) to the MSBA electronically. **Please note, the District's submission is not yet complete**. The District is required to print and mail a hard copy of the SOI to the MSBA along with the required supporting documentation, which is described below.

Each SOI has two Certification pages that must be signed by the Superintendent, the School Committee Chair, and the Chief Executive Officer*. Please make sure that **both** certifications contained in the SOI have been signed and dated by each of the specified parties and that the hardcopy SOI is submitted to the MSBA with **original signatures**.

SIGNATURES: Each SOI has two (2) Certification pages that must be signed by the District.

In some Districts, two of the required signatures may be that of the same person. If this is the case, please have that person sign in both locations. Please do not leave any of the signature lines blank or submit photocopied signatures, as your SOI will be incomplete.

*Local chief executive officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated as the chief executive office under the provisions of a local charter.

VOTES: Each SOI must be submitted with the proper vote documentation. This means that (1) the required governing bodies have voted to submit each SOI, (2) the specific vote language required by the MSBA has been used, and (3) the District has submitted a record of the vote in the format required by the MSBA.

- School Committee Vote: Submittal of all SOIs must be approved by a vote of the School Committee.
 - For documentation of the vote of the School Committee, Minutes of the School Committee meeting at which the vote was taken must be submitted with the original signature of the Committee Chairperson. The Minutes must contain the actual text of the vote taken which should be substantially the same as the MSBA's SOI vote language.
- **Municipal Body Vote:** SOIs that are submitted by cities and towns must be approved by a vote of the appropriate municipal body (e.g., City Council/ Aldermen/Board of Selectmen) in addition to a vote of the School Committee.
 - Regional School Districts do not need to submit a vote of the municipal body.
 - For the vote of the municipal governing body, a copy of the text of the vote, which shall be substantially the same as the MSBA's SOI vote language, must be submitted with a certification of the City/Town Clerk that the vote was taken and duly recorded, and the date of the vote must be provided.

CLOSED SCHOOLS: Districts that have reported closed school information must download the report from the "Closed School" tab, which can be found on the District Main page. Please print this report, which then must be signed by the Superintendent, the School Committee Chair, and the Chief Executive Officer. A signed report, with original signatures must be included with the District's hard copy SOI submittal. If a District submits multiple SOIs, only one copy of the Closed School information is required.

ADDITIONAL DOCUMENTATION FOR SOI PRIORITIES #1 AND #3: If a District selects Priority #1 and/or Priority #3, the District is required to submit additional documentation with its SOI.

• If a District selects Priority #1, Replacement or renovation of a building which is structurally unsound or otherwise in

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Statement of Interest
a condition seriously jeopardizing the health and safety of the school children, where no alternative exists, the MSBA requires a hard copy of the engineering or other report detailing the nature and severity of the problem and a written professional opinion of how imminent the system failure is likely to manifest itself. The District also must submit photographs of the problematic building area or system to the MSBA.

• If a District selects Priority #3, Prevention of a loss of accreditation, the MSBA requires the full accreditation report (s) and any supporting correspondence between the District and the accrediting entity.

ADDITIONAL INFORMATION: In addition to the information required with the SOI hard copy submittal, the District may also provide any reports, pictures, or other information they feel will give the MSBA a better understanding of the issues identified at a facility.

If you have any questions about the SOI process please contact Brian McLaughin at 617-720-4466 or Brian.McLaughlin@massschoolbuildings.org.

Massachusetts School Building Authority

School District	Amherst
District Contact	Ronald Bohonowicz TEL: (413) 362-1855
Name of School	Wildwood Elementary
Submission Date	3/19/2013

SOI CERTIFICATION

To be eligible to submit a Statement of Interest (SOI), a district must certify the following:

- b The district hereby acknowledges and agrees that this SOI is NOT an application for funding and that submission of this SOI in no way commits the MSBA to accept an application, approve an application, provide a grant or any other type of funding, or places any other obligation on the MSBA.
- ⊨ The district hereby acknowledges that no district shall have any entitlement to funds from the MSBA, pursuant to M.G.L. c. 70B or the provisions of 963 CMR 2.00.
- b The district hereby acknowledges that the provisions of 963 CMR 2.00 shall apply to the district and all projects for which the district is seeking and/or receiving funds for any portion of a municipally-owned or regionally-owned school facility from the MSBA pursuant to M.G.L. c. 70B.
- ➡ The district hereby acknowledges that this SOI is for one existing municipally-owned or regionally-owned public school facility in the district that is currently used or will be used to educate public PreK-12 students and that the facility for which the SOI is being submitted does not serve a solely early childhood or Pre-K student population.
- After the district completes and submits this SOI electronically, the district must sign the required certifications and submit one signed original hard copy of the SOI to the MSBA, with all of the required documentation described under the "Vote" tab, on or before the deadline.
- b The district will schedule and hold a meeting at which the School Committee will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is required for cities, towns, and regional school districts.
- Prior to the submission of the hard copy of the SOI, the district will schedule and hold a meeting at which the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is not required for regional school districts.
- On or before the SOI deadline, the district will submit the minutes of the meeting at which the School Committee votes to authorize the Superintendent to submit this SOI. The District will use the MSBA's vote template and the vote will specifically reference the school and the priorities for which the SOI is being submitted. The minutes will be signed by the School Committee Chair. This is required for cities, towns, and regional school districts.
- b The district has arranged with the City/Town Clerk to certify the vote of the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body to authorize the Superintendent to submit this SOI. The district will use the MSBA's vote template and submit the full text of this vote, which will specifically reference the school and the priorities for which the SOI is being submitted, to the MSBA on or before the SOI deadline. This is not required for regional school districts.
- **b** The district hereby acknowledges that this SOI submission will not be complete until the MSBA has received all of the required vote documentation and certification signatures in a format acceptable to the MSBA.

Chief Executive Officer *	School Committee Chair	Superintendent of Schools	
(print name)	(print name)	(print name)	
(signature)	(signature)	(signature)	
Date	Date	Date	

* Local chief executive officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter.

Massachusetts School Building Authority

School District A	Amherst
District Contact	Ronald Bohonowicz TEL: (413) 362-1855
Name of School	Wildwood Elementary
Submission Date	3/19/2013

Note

Hard copies to come by mail. See memo below.

To Whom It May Concern:

I am writing in full support of the Amherst School District's application for MSBA funding for the Fort River and Wildwood Elementary Schools. It is essential that renovations be made to both of these schools in order to provide the best educational experience for all of our students.

Both Fort River and Wildwood were built with open-environment classrooms at a time when this floor plan was the prevailing educational model. Since that time, it has been proven that this model does not provide an environment in which all students can learn successfully. We currently have a highly diverse student population which requires a significant level of differentiation and intervention. Forty percent of our students are income eligible, twenty-two percent are eligible for special education, and fourteen percent are English Language Learners. The open-environment includes three to four classroom spaces per unit which is noisy, and where learning is easily disrupted. This is true for all students, and in particular for students with hearing impairments, those who are diagnosed with attentional deficits, and/or sensory disorders. At both schools, there are some classrooms through which students from other classes must pass in order to enter bathrooms and/or the hallway. This is very disruptive to instruction, whether it is a single student walking through or the full class of students moving to another activity, which happens multiple times per day. In addition, the building does not provide enough smaller non-classroom spaces for students who require small group and/or individual interventions based on their learning profiles.

I request that you give the applications for Fort River and Wildwood Schools your strongest consideration so these buildings can be brought up to the educational standards known to work best for students.

Sincerely,

Maria Geryk Superintendent of Schools

The following Priorities have been included in the Statement of Interest:

- 1. B Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children, where no alternative exists.
- 2. **b** Elimination of existing severe overcrowding.
- 3. \in Prevention of the loss of accreditation.

- 4. B Prevention of severe overcrowding expected to result from increased enrollments.
- 5. B Replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility.
- 6. 6 Short term enrollment growth.
- 7. B Replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.
- 8. E Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts.

SOI Vote Requirement

b I acknowledge that I have reviewed the MSBA's vote requirements for submitting an SOI which are set forth in the Vote Tab of this SOI. I understand that the MSBA requires votes from specific parties/governing bodies, in a specific format using the language provided by the MSBA. Further, I understand that the MSBA requires certified and signed vote documentation to be submitted with the SOI. I acknowledge that my SOI will not be considered complete and, therefore, will not be reviewed by the MSBA unless the required accompanying vote documentation is submitted to the satisfaction of the MSBA.

Potential Project Scope: Renovation/ Addition

Is this SOI the District Priority SOI? YES

School name of the District Priority SOI: 2013 Wildwood Elementary

District Goal for School: Please explain the educational goals of any potential project at this school

Moving toward standards-based curriculum and assessment. Facilities which allow adequate service and inclusion of special education students

District's Proposed Schedule: What is the District's proposed schedule to achieve the goal(s) stated above?

The district has as part of it's goals to increase testing scores through improved integration of curriculum K-12, math is a key focus at this point in time. This should all evolve over this coming year.

Is this part of a larger facilities plan? NO

If "YES", please provide the following:

- Facilities Plan Date:
- Planning Firm:

Please provide an overview of the plan including as much detail as necessary to describe the plan, its goals and how the school facility that is the subject of this SOI fits into that plan:

Please provide the current student to teacher ratios at the school facility that is the subject of this SOI: 10 students per teacher

Please provide the originally planned student to teacher ratios at the school facility that is the subject of this SOI: 1 students per teacher

Does the District have a Master Educational Plan that includes facility goals for this building and all school buildings in District? YES

If "YES", please provide the author and date of the District's Master Educational Plan.

We have a Master Ed plan.

Is there overcrowding at the school facility? YES

If "YES", please describe in detail, including specific examples of the overcrowding.

Limited space for dedicated delivery of special education services, confidential meetings, Occupational Therapy and

Physical Therapy

Student tutoring and instruction takes place in storage areas and teacher workrooms

Has the district had any recent teacher layoffs or reductions? YES

If "YES", how many teaching positions were affected? 12

At which schools in the district? All

Please describe the types of teacher positions that were eliminated (e.g., art, math, science, physical education, etc.).

There were reductions due to decreased class sizes and corresponding reductions in "specials" such as computer, instrumental and classroom music. A full-time librarian was also cut from the budget.

Has the district had any recent staff layoffs or reductions? YES

If "YES", how many staff positions were affected? 20

- At which schools in the district? All
- Please describe the types of staff positions that were eliminated (e.g., guidance, administrative, maintenance, etc.).

Assist Superintendent of curriculum, Administrators / Secretaries, Special Ed Teachers ,IT Administrator, Business office staff,Teachers

Please provide a description of the program modifications as a consequence of these teacher and/or staff reductions, including the impact on district class sizes and curriculum.

Reductions in teaching staff have resulted in larger class sizes, and therefore, less time for individualized instruction; drastically reduced offerings in art, music, and physical education; and less access to technology instruction and integration. Cuts to intervention teacher positions and outreach positions, many of the most vulnerable students and families have access to greatly reduced levels of support. The threshold for students to access intervention supports in math and language arts has been raised. Reductions to librarians' schedules, library paras' and deep cuts significantly impacted the library program. Likewise, supply budgets slashed over the past five years, making it difficult to purchase materials to implement academic programming such as Reading Workshop. Increased teaching loads with fewer resources, teachers and paras' have very limited access to professional development.

Please provide a detailed description of your most recent budget approval process including a description of any budget reductions and the impact of those reductions on the district's school facilities, class sizes, and educational program.

There is a calendar and targets in place for budgeting. All district leaders submit budgets and then the group reviews each others. Cuts are made in combination with the town departments to hit targets. Mandatory programs have priority. Once a budget is close it goes to all school committees to be voted. Usually school committee is involved enough in the process to know if the budget is on target.

BRIEF BUILDING HISTORY: Please provide a detailed description of when the original building was built, and the date(s) and project scopes(s) of any additions and renovations (maximum of 5000 characters).

The building was built in 1970, not a lot has been renovated other than ordinary maintenance. The roof was replaced in 1996. Much of the interior is the same carpet and flooring. This school also has mold as an issue. There is a lot of ground water on the site. In 2010 some of the carpet was removed and replaced with VCT to improve air quality.

Both Fort River and Wildwood were built with open-environment classrooms at a time when this floor plan was the prevailing educational model. Since that time, it has been proven that this model does not provide an environment in which all students can learn successfully. We currently have a highly diverse student population which requires a significant level of differentiation and intervention. Forty percent of our students are income eligible, twenty-two percent are eligible for special education, and fourteen percent are English Language Learners. The open-environment includes three to four classroom spaces per unit which is noisy, and where learning is easily disrupted. This is true for all students, and in particular for students with hearing impairments, those who are diagnosed with attentional deficits, and/or sensory disorders. At both schools, there are some classrooms through which students from other classes must pass in order to enter bathrooms and/or the hallway. This is very disruptive to instruction, whether it is a single student walking through or the full class of students moving to another activity, which happens multiple times per day. In addition, the building does not provide enough smaller non-classroom spaces for students who require small group and/or individual interventions based on their learning profiles.

Main office is centrally located in the building allow the public to enter into the main hallways. Major security problem. Classrooms are lacking secure areas in the event of intruders.

TOTAL BUILDING SQUARE FOOTAGE: Please provide the original building square footage PLUS the square footage of any additions.

108000

SITE DESCRIPTION: Please provide a detailed description of the current site and any known existing conditions that would impact a potential project at the site. Please note whether there are any other buildings, public or private, that share this current site with the school facility. What is the use(s) of this building(s)? (maximum of 5000 characters).

The site cut into the side of a hill and is wet which contributes to the amount of mositure and mold. The parking lot is in need of paving. The sidewalks have frost heaves. In some areas the sidewalks slope back into the building causing water and ice problems. This past year collapsing drainage pipes had to be repaired.

ADDRESS OF FACILITY: Please type address, including number, street name and city/town, if available, or describe the location of the site. (Maximum of 300 characters)

71 Strong Street Amherst MA 01002

BUILDING ENVELOPE: Please provide a detailed description of the building envelope, types of construction materials used, and any known problems or existing conditions (maximum of 5000 characters).

Block / Brick enclosure with a rubber membrane roof. Single pane windows with some storm windows made out of lexan. Exterior doors are metal frames doors and some have safety glass. Many of the doors are rusted out at the bottoms due to years of New England weather and are not energy efficient. The roof is approximately 13 yrs old and leaks are occurring more frequently. There are some stress cracks in the block walls from water damage.

Has there been a Major Repair or Replacement of the EXTERIOR WALLS ? NO

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Year of Last Major Repair or Replacement: 1970

Description of Last Major Repair or Replacement:

None

Has there been a Major Repair or Replacement of the ROOF? YES

Year of Last Major Repair or Replacement: 1996

Type Of ROOF: EPDM

Description of Last Major Repair or Replacement:

Entire roof was replaced with a rubber membrane roof. Some of the roof drains were plugged with tar during the process and now have to be repaired.

Has there been a Major Repair or Replacement of the WINDOWS? NO

Year of Last Major Repair or Replacement: 1970

Type Of WINDOWS: Single Pane

Description of Last Major Repair or Replacement:

None

MECHANICAL and ELECTRICAL SYSTEMS: Please provide a detailed description of the current mechanical and electrical systems and any known problems or existing conditions (maximum of 5000 characters).

The HVAC system is fueled by electric and #2 fuel oil. It is obsolete and not energy efficient. Single source of fuel. Repairs are difficult due to the age of the equipment. Parts are not readily accessible. The system still has asbestos on parts of the equipment. There is an asbestos plan. There are some pneumatics still in operation. Alarm systems are old and not up to date but do meet code. Many areas converted from storage to teaching space cannot hear or see signals. Plumbing system has no shut offs and when we have to do repairs we have to shut the building down. Waste pipes are deteriorating. Much of the electrical system is FPE equipment which is obsolete. All the classrooms have unit ventilators which bring outside air from ground level adding to the poor air quality. There has been energy lighting retrofits done to the school.

Has there been a Major Repair or Replacement of the BOILERS? NO
Year of Last Major Repair or Replacement: 1970
Description of Last Major Repair or Replacement: None
Has there been a Major Repair or Replacement of the HVAC SYSTEM ? NO
Year of Last Major Repair or Replacement: 1970
Description of Last Major Repair or Replacement: None
Has there been a Major Repair or Replacement of the ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM? NO
Year of Last Major Repair or Replacement: 1970
Description of Last Major Repair or Replacement of the ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM? NO
Year of Last Major Repair or Replacement: 1970
Description of Last Major Repair or Replacement: 1970

None

BUILDING INTERIOR: Please provide a detailed description of the current building interior including a description of the flooring systems, finishes, ceilings, lighting, etc. (maximum of 5000 characters).

The building is VCT and carpet. The school has a history of mold and health issues. It continues to be under the direction of an occupational hygienist. During the summer heat is run to control the dew point not to create moisture. The building is closed for use in the summer. Many of the rooms have dividers made out of cabinets, partitions, curtains and equipment. Large classrooms from the 70's have been split up into smaller rooms. The original design was open classroms which are currently divided by panels and furniture creating a single classroom. Ceilings are dropped 2 X 4 panels.

PROGRAMS and **OPERATIONS**: Please provide a detailed description of the current programs offered and indicate whether there are program components that cannot be offered due to facility constraints, operational constraints, etc. (maximum of 5000 characters).

Wildwood School offers a comprehensive K-6 academic program with a full complement of arts, media, physical education, and enrichment. The academic core is taught in the classrooms with 3 classrooms per grade-level offering all subjects and it is standards-based, largely aligned across the grade levels and geared towards excellence for all students. The level of academic achievement is severely impacted by the negative side-effects of the open-classroom "quad" set up of the building. The arts program includes a productive art room, a music teacher along with visiting instrumental, band, orchestra and chorus teachers. These programs, along with the physical education program, integrate themes from the classroom into their curriculum. However much of the instruction for the performing arts is conducted in storage spaces or in temporary spaces such as the cafeteria. Assemblies and performances take place in the gym, interrupting instruction and compromising the quality of the performance because of poor acoustics & sightlines. The school is in it's third year of a federal language grant, funding a K-6 Chinese Language Program. There is a strong relationship between the schools language arts team and Columbia Teacher's College Reading and Writing Program but the lack of dedicated teacher workspace or adequate meeting space makes the collaboration and teamwork for such a project challenging.

There is a significant district population of special needs students who are housed at the school and included to the maximum extent possible. Poor sidewalks and entryways are a problem of access for these students and the cluttered setup of classroom spaces which rely on dividers does not lend itself to accessibility. District programs housed at the site include the Intensive Learning Center and AIMS; one is in a converted exercise room with loud fans and echoing high ceilings. There are a wide range of support services associated with those programs and the school population as a whole. These support programs include everything from Occupational Therapy, Physical Therapy, Reading Recovery, Math Intervention, Speech Services. The district's cluster of students whose first language is Chinese is located at the school along with the requisite English Language Learner staff and support space. Given the increased noise level, hearing accurately is difficult for these students who are trying to learn English.

CORE EDUCATIONAL SPACES: Please provide a detailed description of the Core Educational Spaces within the facility, a description of the number and sizes (in square feet) of classrooms, a description of science rooms/labs including ages and most recent updates, and a description of the media center/library (maximum of 5000 characters).

- 3 Kidengarden Rooms Avg Sq. Ft. (1,216) ea
- 22 Classrooms Avg Sq. Ft. (1,117) ea
- 1 Library Avg Sq. Ft. (4,480)
- 1- Art Room Avg Sq. Ft. (1,024)
- 1- Comuter Lab Avg Sq. Ft. (1,176) converted from exercise room
- 2- Special Ed (840)
- 1- Music Room Avg Sq. Ft. (1,280) converted from lunch room

CAPACITY and UTILIZATION: Please provide a detailed description of the current capacity and utilization of the school facility. If the school is overcrowded, please describe steps taken by the administration to address capacity issues. Please also describe in detail any spaces that have been converted from their intended use to be used as classroom space (maximum of 5000 characters).

Exercise rooms have been converted to Music classrooms. Teacher work areas have been converted into computer labs. The cafe is used for OP / PT room. Meeting rooms have been converted into one on one space for student instruction.

MAINTENANCE and CAPITAL REPAIR: Please provide a detailed description of the district's current maintenance practices, its capital repair program, and the maintenance program in place at the facility that is the subject of this SOI. Please include specific examples of capital repair projects undertaken in the past, including any override or debt exclusion votes that were necessary (maximum of 5000 characters).

There is a capital process in the town in which all town enities compete for the same funds. There are annual maintenances processess and contracts in place for the mechanical systems. Monies are set aside for asbestos abatement.

Question 1: Please provide a detailed description of the perceived health and safety problem(s) below. Attach copies of orders or citations from state and/or local building and/or health officials.

Health Issues:

1) **Asthma:** Pioneer Valley residents, particularly in the Town of Amherst, suffer from a higher rate of Asthma than the Massachusetts average. The Massachusetts 2004 average was 9.2%, and the Amherst Wildwood School average was 14.1%. In light of these statistics, it is important to remove known triggers from the learning environment, including mold growth and poor ventilation, both of which are chronic problems at Wildwood School.

o **Mold Growth:** For the previous 7 years, this building has been under the consultation of Occu-Health, Inc., industrial hygienists that have advised the school district on how to combat mold. **In the summer months, the heat is set at 90 degrees, so that condensation does not encourage mold spore growth.** Most of the building lacks air conditioning, which would help this problem through de-humidification.

o **Compromised Fresh Air Intakes:** Air intakes on unit ventilators (Univents) are at ground level, increasing the intake of mold, pollen, dirt, leaves, insects, and vehicle fumes. Ventilation in rooms adjacent to the bus drop off area is turned off completely twice a day while the busses are loading and unloading to reduce the intake of diesel fumes into the classrooms.

2) **Poor Ventilation:** Air exchange and temperatures are uneven throughout the building, because of the division of large 4000 sq foot classrooms into three and four smaller classrooms by the use of temporary walls, partitions, and furniture. The introduction of these walls and other impediments in the space has severely compromised the original HVAC system's capability to refresh the air. Supply and return vents are insufficient and improperly placed to be effective.

3) Asbestos: The building has asbestos materials throughout. It does have an AHERA plan.

4) **Nutrition:** The kitchen equipment is old and continuously in need of repair. We have obtained the last two available repair parts in the country for our steamers. Habitual equipment failures have deprived the cafeteria staff of the tools they need to both prepare nutritious meals and sanitize soiled dishes.

5) **Day Light:** Interior classrooms suffer from the absence of adequate daylight.

Safety Issues:

1) **Trip and Fall Hazards:** Paving on exterior walkways is uneven and has settled over time, causing water to pool near wheel chair access door ways. The pooled water freezes in the winter and causes very slippery conditions. Sidewalks are uneven to the point that wheelchairs can tip over. Some of the students with electric wheelchairs are very young and severely handicapped, so negotiating their wheel chairs on uneven pavement is difficult, dangerous, and sometimes nearly impossible.

2) **Dangerous Pedestrian and Vehicle Interaction:** Cars, buses and students share the parking lot, which has created an unsafe environment for students.

3) **Blocked Egress:** Some of the exterior doors have "frozen up" during the winter months preventing their use as a means of safe egress from the building.

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Emergency Issues:

1) **Fire Alarm System:** Fire alarm horns and strobes are located in limited areas and need to be supplemented. Because of space requirements, closets have been transformed into teaching space that is not protected by the existing fire alarm equipment.

2) **Communication Systems:** The existing phone, clocks and public address systems were installed in 1970 and utilize ageing vacuum tube technology. In each divided "quad" (formerly one large classroom), two phones are shared between four classrooms, and are not readily accessible to all classrooms in the event of an emergency. Numerous "dead zones" exist in the building where announcements cannot be heard. Successful communication is critical for "Lock Down" or "Shelter in Place" types of emergencies.

Security:

1) **Building Security:** Many of the exterior doors do not close completely after use, creating a point of entry for potential perpetrators. The main office is approximately one hundred feet away from the main door, and classrooms and hallways located between the main entrance and the office are particularly vulnerable. There is a dire need to install access control throughout the building, and to update and expand the largely obsolete burglary intrusion alarm system. Major security issue.

2) **Emergency Generator:** The back up generator was installed in 1970. It is too small for the increased demands of the school. In the event of a power outage, phone service could be lost, heating is at risk, and emergency lights might not be operational.

3) **Emergency Lighting:** The emergency lighting system is inadequate and does not provide a safe means of egress in the event of a power outage. Numerous areas within the school building lack emergency lighting fixtures, including non day-lighted restrooms, and other interior spaces. This problem is particularly vexing and dangerous for young children, and the many special needs children attending the school.

Educational Suitability:

1) **Noise Infiltration:** Original large classrooms (quads) have been split into four smaller classrooms using partial walls and by creatively placing furniture. Significant and distracting noise bleed between classrooms is a chronic and debilitating acoustical problem that impacts the suitability of the learning environment. Additional disruptive activities include the need for students to walk through other active classrooms in order to utilize the bathrooms and to reach the exit.

2) **Inadequate Wiring:** Increased technology requires more power, but the temporary walls are not suitable for mounting power receptacles without violating the national electrical code. There is an extensive use of extension cords throughout the building, creating a possible shock and fire hazard.

3) **ADA Compliance:** Much of the infrastructure needs updating to current standards. The following items should be added: automatic handicap doors and accessible door hardware, restroom toilets, sinks, faucets, and water coolers. The overall building accessibility for wheelchairs, restroom changing areas, countertop clearances for wheelchairs, and the lunchroom must be improved.

Name of School Wildwood Elementary

Priority 1

Question 2: Please describe the measures the district has taken to mitigate the problem(s) described above.

- 1) Air handlers have been programmed to shut off intake air when buses load and unload.
- 2) Aggressive cleaning with HEPA vacuum cleaners to combat mold.
- 3) Heat runs all summer to dehumidify the space so mold will not grow.
- 4) Soft materials are used in the Quad class rooms to reduce echoing and control noise.
- 5) Teachers consistently remind students to be quiet.
- 6) Air filters are on a preventative maintenance schedule to be changed twice a year or as needed if in a higher traffic area.
- 7) Portable HEPA filters run in offices and teaching spaces without ventilation.
- 8) Fire alarm equipment has been added to the system.
- 9) Some carpet was replaced in 2001 and 2011.

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

Impact on Educational Program

Noise Infiltration

The impact of noise infiltration from one instructional space to another is extremely detrimental to student learning in that it adds distractions, limits teacher planning and hurts achievement of students with disabilities related to concentration and attention.

One example of distraction is traffic through classrooms. Entire classes file through other classrooms to get to and from other subjects, lunch, etc. Students must walk through other classrooms during instruction times to access the bathrooms and loud noises can penetrate out of the bathroom. Finally, sinks are located in the space between classrooms and thus students must partially enter the adjoining classroom to get a drink or wash their hands.

Another example of distraction is noise leaking from an adjoining classroom, for example, one class may be engaged in a lively discussion while another is trying to conduct a silent reading session. Attempts to mitigate this include coordinated teacher planning so silent/noisy times coincide, but this limits teacher flexibility to change or alter plans.

Finally, the noise infiltration has a disproportionately negative effect on the students with attention, sensory, or concentration disabilities. Given that the site has a high number of students with severe autism, who are included in these regular ed "quad" classroom settings, this has implications for the entire district. Inclusion of these students is a priority of the school and of the district and noise infiltration can prevent full delivery of their educational services.

Inadequate Wiring

Classroom set-up for technology is planned around location of outlets and permanent walls. These outlets are also in the natural path of the unfortunate flow of traffic through the classrooms, further limiting the location of computers and technology.

Trip and Fall Hazards

Access for the severely disabled students at our school is an inclusion issue; the need to use different entrances and points of access can be alienating and have very real consequences for membership in the learning community and subsequence efficacy of instruction.

Asthma and poor ventilation

Student and teacher absences are elevated due to severe allergic and asthmatic reactions, especially on Mondays. Any missed school do to this is a blow to the learning in our building.

Natural light

More than half the instructional spaces in the building lack natural light. Lack of a natural light source has a detrimental effect on learning and thinking.

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Name of School Wildwood Elementary

Please also provide the following:

In the space below, please tell us about the report from an independent source that is not under the direct control of the school district or the city/town, stating that the facility is structurally unsound or jeopardizes the health and safety of the students. The entirety of this report should be submitted in hard copy along with the hard copy of the district's SOI.

Please note that the MSBA will accept an official report from a city or town department/employee, if the person preparing the report is a licensed building inspector, architect, or engineer. For example, a report from the district, city, or town maintenance or janitorial department would not meet this requirement.

Name of Firm that performed the Study/Report (maximum of 50 characters).:

Bates Associates

Date of Study/Report: 1/1/2005

Synopsis of Study/Report (maximum of 1500 characters).:

The sysyems are old and not efficient. Recent break downs have been costly to repair due to obsolete equipment. We use the heat to combat the mold in the building over the summer months. The report stated the burner equipment is old an not very energy efficient.

Is the perceived Health and Safety problem related to asbestos?: NO

If "YES", please describe the location in the facility, if it is currently fiable, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters).:

Is the perceived Health and Safety problem related to an electrical condition?: NO

If "YES", please describe the electrical condition, any imminent threat, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters).:

Is the perceived Health and Safety problem related to a structural condition?: NO

If "YES", please describe the structural condition, any imminent threat, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters).:

Is the perceived Health and Safety problem related to the building envelope?: NO

If "YES", please describe the building envelope condition, any imminent threat, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters).:

Is the perceived Health and Safety problem related to the roof?: NO

If "YES", please describe the roof condition, any imminent threat, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters).:

Is the perceived Health and Safety problem related to accessibility?: NO

If "YES", please describe the areas that lack accessibility and the mitigation efforts that the district has undertaken to date. In addition, please submit to the MSBA copies of any federally-required ADA Self-Evaluation Plan and Transition Plan (maximum of 2000 characters).:

Question 1: Please describe the existing conditions that constitute severe overcrowding.

Overall Design Problems:

The original "quad" style classroom design (originally designed for a different teaching approach no longer in use) combined several classes into one large classroom, with generous circulation space because of the absence of partitions. The original 6 quads have each been split into 4 smaller traditional classrooms with the introduction of partial partitions. This necessary change contributes significantly to the overcrowding of the school. While there is ample GROSS square footage in the building, the NET USEABLE square footage is extremely diminished due to this required change in use. In addition, furniture has been arranged to abate noise, further limiting the net usable square footage. Significant space in each classroom is allocated for necessary circulation patterns between the original restrooms (interior to the original quads) locations and main hallways. Students must pass through active classrooms to use the restrooms and to exit to the common hallway for transitioning and for access to students' coat hooks and personal belongings. Additional space is also occupied by necessary in-classroom storage.

District Programs at Wildwood that Contribute to Overcrowding:

Of the three elementary schools in Amherst, Wildwood School is designated as the school that houses four district programs for the Amherst Public Schools. Children from across the district are enrolled in these programs and teachers from across the district have access to the resources from these programs. The additional staffing, instructional space, work space, and storage space needed to accommodate these programs significantly contributes to Wildwood's overcrowding. These programs include:

1) Intensive Special Needs Program

2) District Autism Programs

Students in these two programs utilize accessory equipment and instructional assistants which require additional space in a classroom. We have reduced the amount of students in some classrooms by as much as 33% to accommodate this extra hardware and staff. This exacerbates overcrowding in the other classes.

Accommodating these two specialized programs in former classrooms and in quad spaces reduces the number of classrooms available. These programs established in spaces adjacent to classrooms for typical needs students results in special needs students being distracted by the everyday teaching occurring in the adjacent class rooms. The partitions cannot seal one space from another because of original air circulation patterns. If students act out in the classroom, Staff in these programs do not have access to a discrete (sound controlled) space to refocus the attention of students when their significant behavioral and emotional needs require this accommodation.

These specialized programs significantly increase the numbers of students requiring Occupational / Physical Therapy and Adaptive Physical Education. These instructional aspects of special education and regular education students are conducted in the hallway due to the lack of private rooms.

3) Chinese Heritage Magnet School: Any student of Chinese heritage in the school district has the choice to attend Wildwood resulting in an increased enrollment.

4) District Assistive Technology Center: This center provides workspace and a meeting place for servicing students and for district teachers to use and access assistive technology. The center also includes a bank of adaptive computers for use with students and for teachers to use in the design of differentiated teaching materials. The center maintains all the assistive technology resources available in the district.

5) District Science Resource Center: This center provides a small workspace and meeting place for district teachers to access and design curriculum. The center houses all of the district science kits and resource materials.

Other Instructional Programs Contributing to Wildwood's Overcrowding:

Three separate spaces are required to accommodate the needs of our Limited English Proficient students who receive educational services in our Sheltered English Immersion Programs.

Instructional Space Impacts:

The use of instructional space for political voting displaces instructional programs as much as 10% of the school year.

The original exercise rooms have been converted to special needs space.

There is a lack of space for after school programs and their materials. Currently, after school materials are stored in the cafeteria.

Question 2: Please describe the measures the School District has taken to mitigate the problem(s) described above.

Pre-school students have been concentrated in a single school in the district as they cannot be accommodated at the others, including Wildwood.

The school district has severely limited open enrollment and parent choice of student options.

Neighborhood school students are transferring to buses at remote locations to be transported to another school in the district due to over crowding in particular grades.

Storage has been consolidated within classrooms and the cafeteria so that the original closets could be converted into teaching and special needs space.

District Student Services were moved out of the schools and housed in a portable building offsite, which creates less interaction with students and staff.

The Craft Room, Close Circuit TV Studio, and Exercise Rooms are no longer available, since they have been converted into classroom space.

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

The most severe impact of overcrowding is felt in the lack of space to deliver specialized services to our students with special needs and in the lack of space to offer our rich performing arts programs. A number of students recieving speech, Occupational Therapy or Physical Therapy must work. The change in wall plans has affected the HVAC effectiveness. Student and teacher absences are elevated due to allergic and asthmatic reactions, especially on Mondays. Any missed school due to this is a blow to the learning in our building.

The ability for children to focus is limited and academic progress is also limited. The quad is used by many teachers conducting different activities- a loud one may be next to a quiet one. The portable dividers are not adequate to contain either noise or the through-traffic.

Please also provide the following:

Cafeteria Seating Capacity: 216

Number of lunch seatings per day:

Are modular units currently present on-site and being used for classroom space?: NO

3

If "YES", indicate the number of years that the modular units have been in use:

Number of Modular Units:

Classroom count in Modular Units:

Seating Capacity of Modular classrooms:

What was the original anticipated useful life in years of the modular units when they were installed?:

Have non-traditional classroom spaces been converted to be used for classroom space?: YES

If "YES", indicate the number of non-traditional classroom spaces in use:

Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used (maximum of 1000 characters).:

Exercise Room to Special Ed.

Teacher Work Area to Computer Room

Cafe to Music when not in use for serving

Meeting Room to one on one instructional space

Please explain any recent changes to the district's educational program, school assignment polices, grade configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 5000 characters).:

Moving to Standards-based curriclum and assessment

What are the district's current class size policies (maximum of 500 characters)?:

We have recommeded class teacher ratio Elementrary Low 20's, Middle School Mid 20's and High School 20's.

Question 1: Please describe the conditions within the community and School District that are expected to result in increased enrollment.

As part of the Five Colleges Inc. area there is anticipation that the student enrollment will increase. The Chancellor of the University of Massachusetts has a plan to hire additional faculty members in the next five years, and both Hampshire College and Amherst College have similar plans for expansion. This associated increased enrollment could mean as much as an additional class per grade.

Mark's Meadow School building is owned by the University of Massachusetts. The school district closed Mark's Meadow in 2009. 200 students and several staff have been split up between the three other Amherst schools. This has created a crowding situation.

Question 2: Please describe the measures the School District has taken or is planning to take in the immediate future to mitigate the problem(s) described above.

Working with the community to understand housing development plans

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

All aspects of the educational program would be affected by additional enrollment/overcrowding. This includes elimination of arts specialist's spaces to make room for more classrooms, less dedicated appropriate space for delivery of special education, and probable encroachment into library and technology instructional areas. If we do not have dedicated spaces, the quality of educational program goes down.

Please also provide the following:

Cafeteria Seating Capacity: 216

Number of lunch seatings per day:

Are modular units currently present on-site and being used for classroom space?: NO

3

If "YES", indicate the number of years that the modular units have been in use: Number of Modular Units:

Number of Modular Units:

Classroom count in Modular Units: Seating Capacity of Modular classrooms:

Seating Capacity of Modular classrooms:

What was the original anticipated useful life in years of the modular units when they were installed?:

Have non-traditional classroom spaces been converted to be used for classroom space?: YES

If "YES", indicate the number of non-traditional classroom spaces in use: 4

Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used (maximum of 1000 characters).:

Exercise Room to Special Ed.

Teacher Work Area to Computer Room

Cafe to Music when not in use for serving

Meeting Room to one on one instructional space

Please explain any recent changes to the district's educational program, school assignment polices, grade configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 5000 characters). :

Moving to Standards-based curriclum and assessment

What are the district's current class size policies (maximum of 500 characters)?:

We have recommeded class teacher ratio Elementrary Low 20's, Middle School Mid 20's and High School 20's.

Question 1: Please provide a detailed description of the issues surrounding the school facility systems (e.g., roof, windows, boilers, HVAC system, and/or electrical service and distribution system) that you are indicating require repair or replacement. Please describe all deficiencies to all systems in sufficient detail to explain the problem.

Energy Conservation:

- 1. Bales Energy Associates performed an Energy Audit in December 2005. Some findings included:
 - Antiquated Heating and Cooling Equipment is inefficient and 1970-era technology.
 - Inefficient Hydronic Circulating Motors and pumps are not energy efficient.
 - Deficient Lighting Systems lack occupancy sensors and energy efficient fluorescent lamps.
 - Failing Steam Boilers have low efficiencies because of outdated and worn out equipment.
 - Archaic Pneumatic Controls should be replaced with a new energy management system.
- 2. Move and Replace First Set of Entry Doors closer to entrance to create an airlock/heating buffer zone.
- 3. Replace Exterior Doors and Doorjambs: doors are not weather-tight.
- 4. Replace Single Pane Windows and Caulking: window-sills and frames are not insulated.
- 5. Install Window Shades for energy savings and for "Shelter in Place" security.
- 6. Lower Heating Sensors closer to the height of the average child to account for difference in heating temperatures at the adult level vs. the classroom floor.
- 7. **Update Plumbing** infrastructure with **low-flow water consumption devices**. The schools are part of the permit issued by the state that allows a quantity of water to be drawn from the ground. The EPA asks the town every year to conserve water consumption.

Energy Production and Environmentally Sustainable Materials:

- 1) The district would like to consider the following implementation of 'Green' materials and technology:
- o Sustainable Flooring Materials
 - o Solar Powered walkway lighting
 - LED Exit Lights
 - Dual energy source steam boilers
 - o Skylights for natural light in class rooms and hallways
 - Double action toilet conversions
 - Solar power for energy use
 - Low-E windows
 - Geothermal heat recovery

With the above changes it has been estimated that the school could recognize up to 15% reduction in energy consumption.

Question 2: Please describe the measures the district has already taken to mitigate the problem/issues described in Question 1 above.

- 1) A limited energy management system (needs updating) was installed.
- 2) Some lighting conversions have been made.
- 3) Some motion sensors have been installed.
- 4) Preventative maintenance of all equipment and filters is done regularly.

Question 3: Please provide a detailed explanation of the impact of the problem/issues described in Question 1 above on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

This is largely a budget issue in which extra expenditures on energy, fuel utilities, will grow and take away from funding that could be spent on educating children. Comfort level, quality and source of light, (and clean fresh air) all improve the quality of learning that takes place inside that space.

Question 4: Please describe how addressing the school facility systems you identified in Question 1 above will extend the useful life of the facility that is the subject of this SOI and how it will improve your district's educational program.

They will enable us to continue to keep school open at a economical operating cost. If any of these system fail we could be shuting school for a long period of time. Much of the above equipment has reached its end of useful life and is obsolete or new technology has past it by. Energy is a major concern. We can see dollors being wasted due to lack of erergy efficient buildings.

Please also provide the following:

Have the systems identified above been examined by an engineer or other trained building professional?: YES If "YES", please provide the name of the individual and his/her professional affiliation (maximum of 250 characters)::

Bates Associates **The date of the inspection::** 1/1/2005 **A summary of the findings (maximum of 5000 characters)::**

Question 1: Please describe the conditions within the community and district that are expected to result in increased enrollment.

(District made no comment in the space provided)

Question 2: Please describe the measures the district has taken or is planning to take in the immediate future to mitigate the problem(s) described above.

In the event of a sharp increase in enrollment, the possible options could be: portable class rooms, student out placement, cooperative agreements with large meeting areas such as local churches, community center, and other town buildings.

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

Increased enrollment leading to capacity/crowding issues will affect teacher-student ratios, class sizes and quality of instructional space. All educational programs would be affected in such a case, individual attention to students would decrease, and enrichments to the curriculum such as art, music, library, and computers would suffer. Level of professional community could decline with the use of portable classrooms.

Question 4: Please provide a detailed explanation addressing the reason(s) why the district believes that enrollment growth is only short term. Please include estimates of when this short term growth is expected to begin and end, and explain the district's current plan for accommodating this growth.

None

Please also provide the following:

Cafeteria seating capacity: 216

Number of lunch seatings per day: 3

Are modular units currently present on-site and being used for classroom space?: NO

If "YES", indicate the number of years that the modular units have been in use:

Number of modular units:

Classroom count in modular units:

Seating capacity of modular classrooms:

What was the original anticipated useful life in years of the modular units when they were installed?:

Have non-traditional classroom spaces been converted to be used for classroom space?: YES

If "YES", indicate the number of non-traditional classroom spaces in use:

Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used (maximum of 1000 characters).:

Exercise Room to Special Ed.

Teacher Work Area to Computer Room

Cafe to Music when not in use for serving

Meeting Room to one on one instructional space

Please explain any recent changes to the district's educational program, school assignment polices, grade configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 1000 characters).:

Moving to Standards-based curriclum and assessment

What are the district's current class size policies (maximum of 500 characters)?:

We have recommeded class teacher ratio Elementrary Low 20's, Middle School Mid 20's and High School 20's.

Question 1: Please provide a detailed description of the programs not currently available due to facility constraints, the state or local requirement for such programs, and the facility limitations precluding the programs from being offered.

Major Obsolescence & Compromised Learning Environment:

Chronic classroom-to-classroom **sound bleed**, **poor air** and heat circulation, **insufficient electrical power**, and **lack of sufficient storage space** continually plague the converted "quad" classrooms and compromise the schools primary educational programs. The original large quad classrooms were split into 4 traditional smaller classrooms with the introduction of temporary style partial (openings remain for air circulation) partitions that do not seal out sound transmission from one space to another. Some classroom adjacencies are particularly difficult because of the **distracting and debilitating noise**. The partitions **cannot support the required electrical wiring**, barring the use of computers and other electronic devices in some classrooms. Existing heating and cooling vents were located to handle a large open space, so the **partitions prevent fresh air distribution** and exacerbate **asthma and mold related illnesses**. And, out of necessity, most teachers store all related educational materials within the classroom, **diminishing the space available to students** for day-to-day activities.

Intensive Special Needs and District Autism Programs:

Space for students with special needs and accessory equipment is vastly different than what is required for a typical classroom. These programs require various size rooms ranging from fifty square feet (time out room) to one thousand square feet (class room). Educators in this area require substantially more room to implement effective instruction. Occupational / Physical Therapy and Adaptive Physical Education is a large part of these programs, and therapeutic sessions are oftentimes forced to convene in the hallway.

Additional Instructional Programs with Inadequate Space:

Instrumental Music: Scheduling conflicts with cafeteria & small group instructional spaces.

Special Education: Some programs are handled in the public hallways.

Library: The library is open to the corridors limiting its functionality (noise and traffic distractions).

Speech & Language Therapy: Lack of self contained private space.

Health Room: Too small for the proper care for students (changing area for special needs students) on a daily basis.

IEP Meeting: Lacks required space.

Meeting Space: No space for private conversations with parents.

Occupational Therapy: Currently takes place in common hallways.

After School Programs: Lack of appropriate space.

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Storage: Books in computer closets.

Programs with Space Currently Unavailable:

Performance, Drama & Assembly: The existing gym has lighting and acoustical problems and lacks a stage.

Parent / Community Space: For building relationships with parents and the community.

Science Lab

Question 2: Please describe the measures the district has taken or is planning to take in the immediate future to mitigate the problem(s) described above.

The school has expended resources to divide and utilize the existing building's open architectural design to best fit today's requirements (The former program requirements and teaching approach [combined large classrooms that included several grades of students] offered in 1970 are vastly different than the traditional classroom approach of today). Spaces have been constructed with temporary partitions, furniture, soft materials, and all possible electrical upgrades permitted within the current electrical code. Spaces originally designed for one purpose have been altered to accommodate changing uses. Closets, library space, former locker rooms, and numerous other spaces have been converted into program specific space to help mitigate these problems.

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

As has been stated throughout, the lack of dedicated, quiet instructional spaces with a minimum of noise and interruption is critical to successful learning. The dividers, partitions and "curtains" that currently divide up the site's "quad" classrooms are not sufficient to dampen noise or lessen distractions from adjoining rooms and through traffic. As a result, the current set-up is not conducive to learning and for some of our students with disabilities, is actually harmful. These children are not able to focus with visual, social, or aural distractions and their learning is severely curtailed by such a setting.

For example, we have a highly active and participatory Chinese language program and delivery of lessons is often group chanting or high energy games. When such a class is being conducted on the other side of a curtain from a reading workshop, the time is virtually lost.

Name of School Wildwood Elementary

Vote

Vote of Municipal Governing Body YES: <u>5</u> NO: <u>0</u> Date: <u>3/18/2013</u>

Vote of School Committee YES: $\underline{4}$ NO: $\underline{0}$ Date: $\underline{3/12/2013}$

Vote of Regional School Committee YES: NO: Date:

REQUIRED FORM OF VOTE TO SUBMIT AN SOI

REQUIRED VOTES

If a City or Town, a vote in the following form is required from both the City Council/Board of Aldermen **OR** the Board of Selectmen/equivalent governing body **AND** the School Committee.

If a regional school district, a vote in the following form is required from the Regional School Committee only. FORM OF VOTE Please use the text below to prepare your City's, Town's or District's required vote(s).

FORM OF VOTE

Please use the text below to prepare your City's, Town's or District's required vote(s).

Resolved: Having convened in an open meeting on	_, the
	[City Council/Board of Aldermen,
Board of Selectmen/Equivalent Governing Body/School Committee] of	[City/Town], in
accordance with its charter, by-laws, and ordinances, has voted to author	rize the Superintendent to submit
to the Massachusetts School Building Authority the Statement of Interest	dated for the
[Name of School] located at	
	[Address] which
describes and explains the following deficiencies and the priority category	y(s) for which an application
may be submitted to the Massachusetts School Building Authority in the	future
; [In:	sert a description of the priority(s) checked off
on the Statement of Interest Form and a brief description of the deficiency described therein for each prior	ity]; and hereby further
specifically acknowledges that by submitting this Statement of Interest Fo	orm, the Massachusetts School
Building Authority in no way guarantees the acceptance or the approval o	f an application, the awarding of
a grant or any other funding commitment from the Massachusetts School	Building Authority, or commits

the City/Town/Regional School District to filing an application for funding with the Massachusetts School Building Authority.

CERTIFICATIONS

The undersigned hereby certifies that, to the best of his/her knowledge, information and belief, the statements and information contained in this statement of Interest and attached hereto are true and accurate and that this Statement of Interest has been prepared under the direction of the district school committee and the undersigned is duly authorized to submit this Statement of Interest to the Massachusetts School Building Authority. The undersigned also hereby acknowledges and agrees to provide the Massachusetts School Building Authority, upon request by the Authority, any additional information relating to this Statement of Interest that may be required by the Authority.

Chief Executive Officer *	School Committee Chair	Superintendent of Schools	
(print name)	(print name)	(print name)	
(signature)	(signature)	(signature)	
Date	Date	Date	

* Local chief executive officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter.
Massachusetts School Building Authority

Steven Grossman *Chairman, State Treasurer* John K. McCarthy Executive Director

October 10, 2014

Mr. John Musante, Town Manager Amherst Town Hall 4 Boltwood Avenue Amherst, MA 01002

Re: Town of Amherst, Wildwood Elementary School

Dear Mr. Musante,

Enclosed for your records, please find an original, fully-executed Feasibility Study Agreement and Exhibits A-C for the Wildwood Elementary School Project in the Town of Amherst (the "District").

Also, attached for your convenience, please find instructions for entering project budgets in the Massachusetts School Building Authority (the "MSBA") ProPay System, and the Feasibility Study Agreement Budget Revision Request Form. Please note the MSBA will not process reimbursement requests until the District has entered the budget and the budget has been accepted by the MSBA.

Please feel free to contact me if you have any questions.

Kindest regards,

Nathaniel Thomas Project Coordinator

Cc: Legislative Delegation

 Aaron Hayden, Chair, Amherst Board of Selectmen
 Katherine Appy, Chair, Amherst School Committee
 Maria Geryk, Superintendent, Amherst Public Schools
 Ron Bohonowicz, Director of Facilities and Maintenance, Amherst Public
 Schools
 File: 10.2 Letters (Region 1)

MASSACHUSETTS SCHOOL BUILDING AUTHORITY FEASIBILITY STUDY AGREEMENT

This Feasibility Study Agreement, dated the 9^{+h} day of <u>October</u>, 2014 (the "Agreement") is between the Massachusetts School Building Authority (the "Authority"), a public instrumentality of the Commonwealth of Massachusetts established by Chapter 70B of the Massachusetts General Laws and Chapters 208 & 210 of the Acts of 2004 of the Commonwealth, in each case as amended from time to time, and the Town of Amherst (the "District").

WHEREAS, the District submitted a Statement of Interest to the Authority for the Wildwood Elementary School (hereinafter "School"), and the District prioritized this Statement of Interest as its priority to receive any potential funding from the Authority:

WHEREAS, the Board of Directors of the Authority voted to invite the District to the MSBA's Eligibility Period and the District has completed all applicable preliminary requirements to the satisfaction of the MSBA;

WHEREAS, on September 24, 2014, the Board of Directors of the Authority shall have voted to authorize the Parties to enter into this Agreement upon the terms and conditions stated herein.

WHEREAS, the Feasibility Study is one step in the multi-step process of the Authority's grant program for school building construction and renovation projects, and the invitation to collaborate on conducting and/or reviewing a Feasibility Study is not approval of a project or any funding by the Authority, except as expressly provided in this Agreement;

WHEREAS, the Authority's grant program for school building renovation and construction projects is a non-entitlement, discretionary program based on need, as determined by the Authority;

WHEREAS, the District has submitted a signed Initial Compliance Certification, as described in 963 CMR 2.02, 2.03 & 2.10(2), in the form prescribed by the Authority, and it has been accepted by the Authority;

WHEREAS, the District has formed a School Building Committee to monitor the Feasibility Study and advise the District during the study;

WHEREAS, the Authority may reimburse the District for a portion of eligible, approved costs incurred in connection with the Feasibility Study undertaken by the District for the School under certain terms and conditions, hereinafter provided, and subject to the provisions of M.G.L. c. 70B, 963 CMR 2.00 *et seq.* and all applicable policies and guidelines of the Authority.

NOW THEREFORE, in consideration of the promises and the agreements, provisions and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Authority and the District (together, the "Parties") agree as follows:

SECTION 1 DEFINITIONS

1.1 Capitalized terms not specifically defined in this Definitions section shall have the meanings ascribed to them in either M.G.L. c. 70B or 963 CMR 2.00 *et seq*.

"Budget" shall mean a complete and full enumeration of all costs, including both hard costs and soft costs, so-called, that the District reasonably estimates, to the best of its knowledge and belief, will be incurred in connection with the planning, development, and the completion of the Feasibility Study, which Budget shall be approved by the Authority and attached hereto as **Exhibit A**, as it may be updated from time to time.

"Design Contract" shall mean the standard design contract developed and prescribed by the Authority, as it may be amended by the Authority from time to time that shall be executed by the District and the Designer for design services related to the Proposed Project.

"Designer" shall mean the individual, corporation, partnership, sole proprietorship, joint stock company, joint venture, or other entity engaged in the practice of architecture, landscape architecture, or engineering that meets the requirements of M.G.L. c. 7C, § 44 and has been procured and contracted by the District to conduct a Feasibility Study, in accordance with the provisions of Sections 2.1(a)(i) and 2.1(a)(ii) of this Agreement.

"Excusable Delay" shall mean a delay of the Feasibility Study that either (a) is solely because of a natural event, such as flood, storms, or lightning, that is not preventable by any human agency, or (b) is reasonably determined by the Authority to be excusable.

"Feasibility Study" shall mean a study as described in 963 CMR 2.10(8) and in any applicable policies and guidelines of the Authority and, in relation to a Major Reconstruction Project or Repair Project, as described in M.G.L. c. 70B, 963 CMR 2.00 *et seq.* and any applicable policies and guidelines of the Authority, shall also include an engineering study, in a format prescribed by or otherwise acceptable to the Authority, to investigate potential options and solutions, including cost estimates, for the deficiencies and issues identified in the Statement of Interest or as otherwise determined by the Authority.

"Owner's Project Manager" shall mean the individual corporation, partnership, sole proprietorship, joint stock company, joint venture, or other entity under contract with, designated, or assigned by the District and approved by the Authority, to fully and completely manage and coordinate administration of the Project to completion. The Owner's Project Manager must meet the qualifications set forth in M.G.L. c. 149, § 44A ¹/₂, 963 CMR 2.00 *et seq.*, and all applicable policies and guidelines of the Authority.

"Scope" shall mean the scope of the Feasibility Study as described in 963 CMR 2.10(8) and any applicable policies and guidelines of the Authority or as otherwise determined in writing by the Authority and as more fully described in **Exhibit B** attached hereto, as it may be updated from time to time as mutually agreed upon by the District and the Authority.

"Schedule" shall mean the schedule for the Feasibility Study, which schedule shall be updated from time to time and approved by the Authority.

"School" shall mean the Wildwood Elementary School located in the District.

"Statement of Interest" shall mean the Statement of Interest, as defined in 963 CMR 2.09 and all applicable policies and guidelines of the Authority, submitted to the Authority by the District for the School.

SECTION 2

FEASIBILITY STUDY

Subject to the terms and conditions of this Agreement, and in reliance on the representations, warranties and covenants contained herein, the Parties hereby agree as follows:

2.1 <u>Feasibility Study.</u>

The Parties hereby agree that the District shall undertake a Feasibility (a.) Study to investigate potential options and solutions, including cost estimates, to the School's deficiencies and issues as identified in the Statement of Interest or as otherwise determined by the Authority and in accordance with the Scope, Budget, and Schedule approved by the Authority. The adequacy, sufficiency and/or acceptability of a Feasibility Study or a Prior Study, as defined in Section 2.1(c) of this Agreement, for the purposes of the Authority's grant program shall be determined by the Authority within its sole discretion. Any determination by the Authority that a Feasibility Study or Prior Study is adequate, sufficient or acceptable for the Authority's purposes shall not be construed as a certification or approval by the Authority of the studies, plans, drawings, designs, cost estimates, specifications or any other information or materials contained therein. The District, its officials, employees and agents are and shall remain responsible for the Feasibility Study and/or Prior Study and the building designs, site plans, drawings, cost estimates, specifications and other materials and information relative thereto that the District submits to the Authority. The Authority's review of the Feasibility Study and/or

Prior Study and any studies, plans, drawings, designs, cost estimates, specifications or any other information or materials contained therein or related thereto is solely for the purpose of determining whether they meet the provisions of this Agreement and the Authority's regulations, standards, policies, guidelines and other requirements and whether the District will be eligible for potential funding from the Authority for the Proposed Project. Approval of a Proposed Project shall only be determined by a vote of the Authority's Board in accordance with 963 CMR 2.00 *et seq.* and the applicable policies and guidelines of the Authority.

(i.)

The District shall procure a Designer to conduct the Feasibility Study pursuant to the provisions of M.G.L. c. 7C, § 44 through 58, 963 CMR 2.10(8), 963 CMR 2.12, and any other applicable laws and regulations; provided, however, that if the estimated construction cost of the Proposed Project is determined to be more than five million dollars (\$5,000,000), then the District shall select the Feasibility Study Designer using the Authority's Designer Selection Panel in accordance with 963 CMR 2.00 et seq. and all applicable policies and guidelines of the Authority. The District shall not use a Designer who was procured by the District prior to July 1, 2007, to conduct the Feasibility Study, unless the Designer is acceptable to the Authority. It is further provided that, if said Designer who was procured by the District prior to July 1, 2007, is unacceptable to the Authority, the District shall conduct a new procurement for a Feasibility Study Designer pursuant to the applicable provisions of M.G.L. c. 7C, § 44 through 58, 963 CMR 2.10(8), 963 CMR 2.12, and any rules, regulations, policies and guidelines of the Authority.

 (ii.) The District shall use the Authority's Design Contract to contract with the Designer for the Feasibility Study. The District shall monitor the performance of the Designer and shall require the Designer to fully comply with all provisions of the Design Contract, including, but not limited to, all provisions affecting the interests of the Authority.

(iii.) If, at any time, the construction cost of the Proposed Project is estimated to be more than one million five

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hundred thousand dollars (\$1,500,000), or if the construction cost of the Proposed Project is estimated to be equal to or less than one million five hundred thousand dollars (\$1,500,000) and the Authority so requires, at any time, as a condition to qualify for funding by the Authority, the District shall procure and maintain under contract, or otherwise assign, an Owner's Project Manager, pursuant to M.G.L. c. 149, § 44A 1/2, 963 CMR 2.00, et seq. and any applicable policies and guidelines of the Authority. The selection of an Owner's Project Manager shall be subject to the review and approval of the Authority as required by M.G.L. 70B, 963 CMR 2.00, et seq., and any applicable policies and guidelines of the Authority. Any costs associated with an Owner's Project Manager who is not approved by the Authority shall not be eligible for reimbursement.

- (iv.) Where applicable, the District shall use the Authority's model request for services and standard contract to procure and contract with any Owner's Project Manager for the Proposed Project, including the Feasibility Study stage of the Proposed Project. The District shall monitor the performance of the Owner's Project Manager and shall require the Owner's Project Manager to fully comply with all provisions of the contract between the District and the Owner's Project Manager including, but not limited to, all provisions affecting the interests of the Authority.
- (b.) Subject to the satisfaction of or compliance with, as reasonably determined by the Authority, : all of the terms and conditions of this Agreement, the applicable provisions of M.G.L. c. 70B, Chapters 208 and 210 of the Acts of 2004, and 963 CMR 2.00 *et seq.* and any other rule, regulation, policy or guideline of the Authority, and further subject to the Authority's approval of the Scope, Budget and Schedule and the District's approval, authorization and appropriation for the Feasibility Study using forms prescribed by or otherwise acceptable to the Authority, the Authority hereby agrees to pay to the District an amount that shall under no circumstances exceed the lesser of (i) 68.30 % of the eligible, approved costs of the Feasibility Study, as determined by the Authority, or (ii) dollars \$683,000.00. The Parties hereby acknowledge and agree that\$683,000.00 is the maximum amount of funding that the District may receive from the Authority for the Feasibility Study, and that the final

amount of eligible Feasibility Study costs approved by the Authority may equal an amount less than \$683,000.00, as determined by an audit or audits conducted by the Authority. Any costs and expenditures that are determined by the Authority to be either in excess of the \$683,000.00 or ineligible for payment by the Authority shall be the sole responsibility of the District. The reimbursement rate set forth above, and as more fully described in the Reimbursement Rate Summary, attached hereto as **Exhibit** "C", is the rate at which the District may be reimbursed for the eligible, approved costs of the Feasibility Study.

In the event that the Authority reasonably determines that the Feasibility Study is not in accordance or compliance with the Scope, Schedule, Budget, all of the terms and conditions of this Agreement, the provisions of M.G.L. c. 70B, Chapters 208 and 210 of the Acts of 2004, 963 CMR 2.00 et seq. and any other rule, regulation, policy or guideline of the Authority, or is delayed (other than an Excusable Delay) or is not duly authorized, approved and funded by the District in accordance with applicable law and as required by the Authority, then the Authority may temporarily and/or permanently withhold payments to the District for any eligible, approved costs of the Feasibility Study, provided that the Authority shall not unreasonably withhold any such payments and further provided that the Authority shall give written notice to the District of any such withholding. Notwithstanding the foregoing, failure by the Authority to provide such written notice timely shall not create or result in any entitlement to payment for the District. In the event that the Authority either temporarily or permanently withholds payment for the Feasibility Study, the District hereby agrees and acknowledges that the Authority shall have no liability for any such withholding of payment or any loss that may occur as a result of any such withholding of payment.

The District shall not be eligible to receive any funding for the Authority's share of the eligible, approved Feasibility Study costs, or any portion thereof, unless and until the Authority has approved the Scope, Budget, and Schedule. The Authority shall reimburse the District only for costs incurred by the District in connection with the Feasibility Study that are timely submitted to the Authority, eligible for reimbursement pursuant to Authority policies, procedures, and guidelines, and audited and approved by the Authority.

(c) Notwithstanding the provisions of Section 2.1(a) above, in the event that the District commenced a feasibility study unilaterally or without the prior written acknowledgement and concurrence of the Authority in connection with the deficiencies and issues identified in the Statement of Interest or as otherwise determined by the Authority (hereinafter "Prior Study"), and, after review, the Authority has determined in writing that the Prior Study is adequate and meets the needs of the Authority, in whole or in part, the District may submit to the Authority requests for reimbursement of costs

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related to the Prior Study subject to the provisions of Section 2.1 (b), Section 4 and any other applicable provisions of this Agreement. The District acknowledges and agrees that any costs incurred by the District in relation to the Prior Study may not be eligible for reimbursement. In the event that any such costs are determined to be eligible, approved costs by the Authority, they shall be subject to the provisional reimbursement rate set forth in Section 2.1(b) of this Agreement and shall be subject to audit by the Authority. The District further acknowledges and agrees that, notwithstanding a determination by the Authority that the Prior Study is adequate and meets the Authority's needs, in whole or in part, the Authority may require the District to conduct a new or supplemental Feasibility Study, in accordance with, and as described in, the Budget, Scope and Schedule. The District further acknowledges and agrees that costs incurred in connection with a Prior Study that (i) does not meet the needs of the Authority, in whole or in part, as determined by the Authority, or (ii) was conducted after September 22, 2006, shall not be eligible for reimbursement.

2.2 <u>Term of Agreement.</u>

This Agreement shall terminate upon (1) approval of a Project Scope and Budget Agreement for the Proposed Project by the Authority's Board and (2) execution of said Project Scope and Budget Agreement by the Authority and the District or it shall terminate on January 30, 2017, whichever occurs sooner.

SECTION 3

COVENANTS

The District covenants and agrees that as long as this Agreement is in effect, the District shall and shall cause its employees, officers, agents, and representatives to perform and comply with all covenants of this Agreement.

3.1 The District hereby agrees that it shall make available for inspection by, and submit to, the Authority any and all information and documentation related to the Feasibility Study, including, but not limited to budget information, progress reports, and draft copies that may be requested by the Authority, promptly and in no event later than the deadline stated in any such request.

3.2 The District hereby agrees that it shall work with the Authority in developing the Scope, Budget and Schedule for the Feasibility Study and it acknowledges and agrees that the Authority's funding for the Feasibility Study is subject to the Authority's approval of the Scope, Budget and Schedule.

3.3 The District hereby acknowledges and agrees that the Authority shall not provide any amounts in excess of the amount determined under Section 2.1(b) of this Agreement. 3.4 The District hereby acknowledges and agrees that the Authority may, in its sole discretion, determine that certain costs incurred by the District in connection with the Feasibility Study are not eligible for reimbursement by the Authority, pursuant to any applicable provisions of M.G.L. c. 70B, 963 CMR 2.00 et seq., including, but not limited to, sections 2.10 & 2.16(5), and any other policies and guidelines of the Authority.

3.5 The District shall comply with all provisions of this Agreement; the provisions of all other agreements between the Authority and the District that relate to the Feasibility Study; the provisions of M.G.L. c. 70B, 963 CMR 2.00 *et seq.*, and all policies and guidelines of the Authority; and all provisions of law applicable to the Feasibility Study, this Agreement, and any other agreements and documents related to the Feasibility Study, and shall take all action necessary to fulfill its obligations under this Agreement.

3.6 The District hereby acknowledges and agrees that the Authority shall not be required or obligated to make any payment for any eligible Feasibility Study costs while an Event of Default, as defined in section 8 of this Agreement, shall have occurred.

3.7 The District shall, and shall cause any Owner's Project Manager and Designer and their employees, subconsultants and agents to, keep adequate records of the Feasibility Study and make all Feasibility Study records and the Feasibility Study site(s) available to the Authority or representatives of the Authority for review during the course of the Feasibility Study.

3.8 The District hereby acknowledges and agrees that the duties of any Owner's Project Manager hired by and/or assigned to the Proposed Project by the District shall include, but not be limited to, fully and completely managing and coordinating on behalf of the District the administration of the Feasibility Study to completion. Any Owner's Project Manager hired by and/or assigned to the Proposed Project by the District shall be responsible for overseeing, tracking, and managing the Budget and Schedule. In the event that an Owner's Project Manager is not required for the Proposed Project, the District shall have the aforesaid duties and responsibilities in addition to any others imposed by M.G.L. c. 70B, 963 CMR, et seq., the policies and guidelines of the Authority, and any other applicable provisions of law.

3.9 The District hereby agrees that the Authority shall have free access to, and open communication with, any Owner's Project Manager hired by and/or assigned to the Proposed Project by the District and that the Authority shall have full and complete access to all information and documentation relating to the Proposed Project to the same extent that the District has such access. The District agrees that it shall require any such Owner's Project Manager to fully cooperate with the Authority in all matters related to the Proposed Project; to promptly communicate, transmit, and/or make available for inspection and copying any and all information and documentation requested by the Authority; to fully, accurately and promptly complete all forms and writings requested by the Authority; and to give complete, accurate, and prompt responses to any and all questions, inquiries and requests for information posed by the Authority. The District agrees that it shall not in any way, directly or indirectly, limit, obstruct, censor, hinder or

otherwise interfere with the free flow of communication and information between the Owner's Project Manager and the Authority in all matters related to the Proposed Project and as provided herein; that it shall not suffer the same to occur by the act or omission of any other person or entity; and that it shall not retaliate against the Owner's Project Manager for communicating information to the Authority as provided herein. The District agrees to execute, deliver and/or communicate to the Owner's Project Manager any and all authorizations, approvals, waivers, agreements, directives, and actions that are necessary to fulfill its obligations under this paragraph. The District further agrees that the Authority shall bear no liability whatsoever arising out of the Authority's knowledge or receipt of information communicated to the Authority by the Owner's Project Manager and that the District shall remain responsible for the management and completion of the Proposed Project.

3.10 The District hereby acknowledges and agrees that the duties of the Designer shall include, but not be limited to, those described in this Agreement, including, but not limited to, the Scope attached hereto as Exhibit B; 963 CMR 2.10(8); any applicable rules, regulations, policies and guidelines of the Authority; and any standard scope of services and the Design Contract prescribed by the Authority.

3.11 The District hereby acknowledges and agrees that neither the District nor any of its employees, officials, agents, consultants or contractors shall submit any false or intentionally misleading information or documentation to the Authority in connection with this Feasibility Study Agreement or the Feasibility Study, and further acknowledges and agrees that the submission of any such information or documentation may cause the Authority to suspend, revoke or terminate any and all payments otherwise due to the District and/or recover any previous payments made to the District, and the District may be ineligible for any funding from the Authority. The District hereby further agrees that it shall have a continuing obligation to update and notify the Authority in writing when it knows or has any reason to know that any information or documentation submitted to the Authority contains false, misleading or incorrect information.

3.12 The District hereby acknowledges and agrees that the Authority shall bear no responsibility or liability of any sort for the results of any Feasibility Study, environmental assessment, geotechnical site testing, any necessary site remediation, clean-up, or other site remediation services.

3.13 The District hereby acknowledges and agrees that it shall provide a final Feasibility Study report to the Authority, which shall be in a format that is prescribed by or otherwise acceptable to the Authority.

3.14 The District hereby acknowledges and agrees that the Authority's grant program is a non-entitlement, discretionary program based on need, and the Feasibility Study may not result in a school construction, renovation or repair project that is eligible for funding by the Authority.

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3.15 The District shall not combine, consolidate, or conjoin in any way the procurement, pre-qualification or selection of an Owner's Project Manager or Designer for the Proposed Project with the procurement, pre-qualification or selection of an Owner's Project Manager or Designer for any other construction, repair or renovation project without the express prior written approval of a duly authorized representative of the Authority. Any costs incurred by the District that relate to, or arise out of, the use of a combined, consolidated or conjoined procurement, pre-qualification or selection process as proscribed above, including, but not limited to, the preparation of bid documents, requests for services, and requests for qualifications, without the express prior written approval of a duly authority shall not be eligible for reimbursement.

SECTION 4 PAYMENTS AND AUDIT

4.1 Subject to the terms and conditions of the Agreement, the Authority shall reimburse the District for eligible, approved costs incurred in connection with the Feasibility Study in accordance with the following:

Using the Authority's Pro-Pay system, the District shall submit (a) requests for reimbursement on a monthly basis to the Authority in a format prescribed by the Authority. Each monthly request for reimbursement shall be approved locally by a duly authorized representative of the District, shall be in a form acceptable to the Authority, shall include reasonable detail, including, but not limited to (1) the amount of funding requested, (2) the nature of the materials or property or services received, (3) the total value of the work performed and materials furnished by the Owner's Project Manager, if any, the Designer, and each consultant, subconsultant or vendor to date, and (4) the value of the work completed during the Feasibility Study. The District agrees that each request for reimbursement shall be accompanied by the invoices for each of the amounts requisitioned and any other supporting documentation and information substantiating the District's request for reimbursement, as the Authority may request, in a form satisfactory to the Authority.

(b) Each request for reimbursement shall include a written certification signed by a duly authorized representative of the District stating that: (1) such request for reimbursement is solely for Feasibility Study costs, (2) the obligations itemized in the request for reimbursement have not been the basis for a prior request for reimbursement submitted by the District that has been paid or rejected by the Authority, (3) the reimbursement requested is due for work actually and properly performed or materials or property actually supplied prior to the date of the requisition, (4) the reimbursement requested is for costs that already have been duly paid by the District, and (5) such reimbursement requested is within the Budget approved by the Authority.

(c) The Authority shall review all requests for reimbursement properly submitted pursuant to this Agreement as soon as reasonably possible. The Authority shall not consider requests for reimbursement that are not, as reasonably determined by the Authority, (1) timely and properly submitted, (2) in accordance with the most recent Budget approved by the Authority, and (3) for eligible Feasibility Study costs incurred by the District. The District understands and agrees that no reimbursement shall be made by the Authority unless the District has complied with all of the terms and conditions of this Agreement, the applicable provisions of M.G.L. c. 70B, chapters 208 and 210 of the Acts of 2004, 963 CMR 2.00 *et seq.*, and all policies and guidelines of the Authority.

(d) After receipt from the District of a timely and properly submitted request for reimbursement pursuant to this Agreement, the Authority shall make payment to the District of the Authority's share of approved, eligible Feasibility Study costs, subject to the terms and conditions of this Agreement. The District hereby agrees and acknowledges that the amount of approved, eligible Feasibility Study costs reimbursed by the Authority may be subject to change, pending audit, including but not limited to an audit pursuant to Section 4.2 of this Agreement and the final close-out audit pursuant to Section 4.3 of this Agreement.

4.2 The Authority may review and perform a preliminary audit on each request for reimbursement submitted pursuant to this Agreement to ensure that only eligible costs of the Feasibility Study are approved and paid by the Authority. Any such preliminary audits shall be conducted in accordance with 963 CMR 2.16 and other policies and guidelines of the Authority. In the event that the Authority determines that an item contained in a request for reimbursement submitted by the District pursuant to this Agreement is not eligible for reimbursement by the Authority, the Authority shall adjust a subsequent reimbursement to the District to account for the ineligible costs. The District hereby acknowledges and agrees that each audit conducted pursuant to this Section 4.2 is preliminary, and the Authority may further adjust and alter the results of a preliminary audit after it conducts subsequent audits or a final close-out audit of the Feasibility Study.

4.3 The District hereby acknowledges and agrees that a final, close-out audit of the Feasibility Study by the Authority shall include an audit of all requests for reimbursement submitted and all reimbursements made by the Authority. The final, close-out audit shall be conducted in accordance with 963 CMR 2.16 and any other applicable regulations, policies and guidelines of the Authority. The District shall make all documents and materials requested by the Authority or its representatives available in a timely manner. The District further acknowledges and agrees that the final, close-out audit of the Feasibility Study may not occur until such time as the Authority conducts its final, close-

out audit of the project that may result from the Feasibility Study, should the District be approved for any such project. Any adjustments applicable as a result of the final, closeout audit may be made in the final amount of the Total Facilities Grant, as determined by the Authority.

SECTION 5

REPRESENTATIONS AND WARRANTIES

The District hereby warrants and represents that each of the following statements is true, correct and complete:

5.1 The District is validly organized and existing under and by virtue of the laws of the Commonwealth, has full power and authority to own its properties and carry on its business as now conducted, and has full power and authority to execute, deliver and perform its obligations under this Agreement and all other documents related to the Feasibility Study.

5.2 The District is duly authorized to execute and deliver this Agreement and has taken all necessary steps to authorize the execution and delivery of this Agreement, to undertake the Feasibility Study and to perform and consummate all transactions contemplated by this Agreement.

5.3 The undersigned has the full legal authority to execute this Agreement on behalf of the District and to bind the District to its provisions.

5.4 This Agreement does not and will not, to any material extent, conflict with, or result in violation of any applicable provisions of law, including, but not limited to, any statute, charter, by-law, ordinance, rule or regulation, or any judgment, order, rule or regulation of any court or other agency of government.

5.5 The District has all requisite legal power and authority to own and operate the School that is the subject of the Feasibility Study and to undertake and oversee the Feasibility Study or, in the case of a school facility that is leased by the District, the District has all of the requisite legal power and authority to control and operate the School that is the subject of the Feasibility Study and to undertake and oversee the Feasibility Study pursuant to a lease which assures that the District has exclusive jurisdiction and control of the School and the land upon which it is situated for the anticipated useful life of the Proposed Project.

5.6 No information furnished by or on behalf of the District to the Authority in this Agreement, the Budget, the Initial Compliance Certification, or any other document, certificate or written statement furnished to the Authority in connection with the Feasibility Study contains any untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements contained in this Agreement or therein not misleading in light of the circumstances in which the same were made.

5.7 The District has duly obtained all necessary votes, resolutions, authorizations, appropriations and local approvals, in accordance with formats prescribed by or otherwise acceptable to the Authority, and has taken all actions necessary or required by law to enable it to enter into this Agreement and to fund and perform its obligations hereunder, in accordance with the Authority's guidelines, regulations, policies and standards. This Agreement constitutes a valid and binding obligation of the District, enforceable in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, moratorium, reorganization or other laws heretofore or hereafter enacted and general equity principles.

5.8 No litigation before or by any court, public board or body is pending or threatened against the District or the Authority seeking to restrain or enjoin the execution and delivery of this Agreement or the Feasibility Study, or contesting or affecting the validity of this Agreement or the power of the District to pay its share of the Feasibility Study.

5.9 The District has implemented policies and procedures to prevent and eliminate fraud, waste and abuse of public funds in connection with the Feasibility Study and any future construction or renovation projects that may be forthcoming as a result of the Feasibility Study.

5.10 The District has submitted all audit materials requested by the Authority in connection with any project for which the District has received or anticipates receiving funding from the Authority.

5.11 All meetings of all public bodies in the District that relate in any way to the Proposed Project, including, but not limited to, the meetings of the District's school building committee, have been conducted, and shall be conducted, in compliance with the provisions of G.L. c. 30A, §§ 18 - 25, 940 CMR 29.00 *et seq.*, the so-called Open Meeting Law, and all other applicable law.

SECTION 6 INSURANCE

- 6.1 The District shall obtain and maintain all insurance required by law and insurance of such types and limits and upon such terms and conditions as may be required by, or as may be acceptable to, the Authority.
- 6.2 The District shall require by contractual obligation, and shall also ensure by the exercise of due diligence, that any Designer hired by the District in connection with the Feasibility Study obtain and maintain, at a minimum, insurance of such types and limits and upon such terms and conditions as may be required by law and as may be prescribed by the Authority in the Design Contract between the Designer and the District.
- 6.3 Except where the Owner's Project Manager is an existing employee of the District, the District shall require by contractual obligation, and shall also ensure by the exercise of due diligence, that any Owner's Project Manager hired by the District

obtain and maintain, at a minimum, insurance of such types and limits and upon such terms and conditions as may be required by law and as may be prescribed by the Authority in its standard contract for Owner's Project Manager services which is incorporated by reference herein.

SECTION 7

COMPLIANCE WITH CONTRACT DOCUMENTS, PROJECT PERMITS AND OTHER APPLICABLE LAW

7.1 The District shall take all reasonable actions designed to ensure that the Feasibility Study complies with all applicable contract documents, building codes, laws, rules and regulations and to ensure that all necessary project permits have been obtained. Notwithstanding any right of approval or review held or exercised by the Authority in connection with this Agreement or the Feasibility Study, the District shall be responsible for the successful performance and completion of the Feasibility Study in accordance with this Agreement, the Design Contract, design documents and project permits, if any, and for the economical and efficient operation and administration of the Feasibility Study.

SECTION 8 DEFAULTS AND REMEDIES

8.1 The occurrence of any of the following events shall constitute, and is herein defined to be, an Event of Default under this Agreement:

(a) If the District shall fail to perform and observe any covenant, agreement or condition on its part provided in this Agreement and such failure shall continue for a period of thirty (30) days after written notice thereof shall be given to the District by the Authority; provided if such failure cannot be remedied within such thirty (30) day period, it shall not constitute an Event of Default hereunder if corrective action satisfactory to the Authority, as determined by the Authority in writing, is instituted by the District within such period and diligently pursued until the failure is remedied. Any forbearance or failure of the Authority in giving such written notice shall not amount to any waiver of the Authority's rights under this Agreement as to the same or subsequent breaches and shall not preclude the Authority from pursuing any of its rights or remedies provided under this Agreement or as otherwise provided by law.

(b) If any representation or warranty made by the District in this Agreement or in any other agreement entered into by the District with the Authority shall prove to have been incorrect or to be misleading in any material respect.

8.2 If any Event of Default hereunder shall occur and be continuing, the Authority may proceed to protect its rights under this Agreement, and may: (a) terminate this Agreement, (b) permanently withhold or temporarily suspend payment of any eligible, approved costs to the District, (c) recover any payments of eligible,

approved costs previously made to the District, and/or (d) exercise any other right or remedy upon such default as may be granted to the Authority under this Agreement or under any other applicable provision of law.

8.3 No remedy conferred upon or reserved to the Authority is intended to be exclusive and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity. No delay or omission to exercise any right, remedy or power accruing upon any Event of Default shall impair any such right, remedy or power or shall be construed to be a waiver thereof, but any such right, remedy or power may be exercised from time to time and as often as the Authority may deem expedient.

SECTION 9 OTHER TERMS

- 9.1 <u>Governing Law.</u> This Agreement shall be governed by, construed, and enforced in accordance with, the laws of the Commonwealth of Massachusetts.
- 9.2 <u>Venue.</u> Any civil action brought against the Authority by the District, or any person or entity claiming by, through or under it, that arises out of the provisions of this Agreement, shall only be brought in the Superior Court for Suffolk County, Massachusetts. The District, for itself and for any person or entity claiming by, through or under it, hereby waives any defenses that it may have as to the venue to which it has agreed herein, including, but not limited to, any claim that this venue is improper or that the forum is inconvenient. The District for itself and for any person or entity claiming by, through or under it, hereby waives all rights, if any, to a jury trial in any such civil action that may arise out of the provisions of this Agreement.
- 9.3 Indemnification of the Authority by the District. To the fullest extent permitted by law, the District shall indemnify and hold harmless the Authority and its officers, agents and employees from and against any and all claims, actions, damages, liabilities, injuries, costs, fees, expenses, or losses, including, without limitation, reasonable attorney's fees and costs of investigation and litigation, whatsoever which may be incurred by, or for which liability may be asserted against, the Authority or any of its officers, agents or employees arising out of any activities undertaken by, for, or on behalf of the District in the execution or implementation of this Agreement or with respect to the Feasibility Study, including, but not limited to, the performance of any contract or obligation directly or indirectly related to the Feasibility Study. Such obligation shall not be construed to negate or abridge any other obligation of indemnification running to the Authority which would otherwise exist.

- 9.4 <u>Members, Employees Not Liable</u>. No member or employee of the Authority shall be charged or held personally or contractually liable by or to the District under any term or provision of this Agreement or because of any breach thereof or because of its execution or attempted execution.
- 9.5 <u>Assignability</u>. The District shall not assign any interest, in whole or in part, in this Agreement and shall not transfer any interest in the same, whether by assignment or novation, without the prior written approval of the Authority.

9.6 Payment Not A Waiver.

The Authority's payment(s) to the District under this Agreement or its review, approval or acceptance of any actions by the District under this Agreement shall not operate as a waiver of any rights under this Agreement and the District shall remain liable to the Authority for all damages incurred by the Authority as a result of the District's failure to perform in accordance with the terms and conditions of this Agreement.

The rights and remedies of the Authority provided for under this Agreement are in addition to any other rights or remedies provided by law. The Authority may assert a right to recover damages by any appropriate means, including, but not limited to, set-off, suit, withholding, recoupment, or counterclaim either during or after performance of this Agreement.

9.7 <u>Notices</u>. Any notices required or permitted to be given by either of the Parties hereunder shall be given in writing and shall be delivered to the addressee (a) inhand (b) by certified mail, postage prepaid, return receipt requested; (c) by a commercial overnight courier that guarantees next day delivery and provides a receipt, and such notices shall be addressed as follows:

If to the Authority:

Massachusetts School Building Authority 40 Broad Street, Suite 500 Boston, MA 02109 Attention: Director of Capital Planning

If to the District:

Amherst Public Schools 170 Chestnut Street Amherst, MA, 01002 Attention: Director of Facilities and Maintenance

or to such other address or addressee as the District and the Authority may from time to time specify in writing. Any notice shall be effective only upon receipt, which for any notice given by facsimile shall mean notice that has been received by the party to whom it is sent as evidenced by a confirmation slip that bears the time and date of receipt.

9.8 <u>Severability</u>. If any provisions of this Agreement shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such provision shall not affect any of the remaining provisions of this Agreement, and this Agreement shall be construed and enforced as if such invalid or unenforceable provision had not been contained herein.

9.9 <u>Counterparts</u>. This Agreement may be executed in one or more counterparts, any of which shall be regarded for all purposes as an original and all of which constitute but one and the same instrument. Each party agrees that it will execute any and all documents or other instruments, and take such other actions as may be necessary to give effect to the terms of this Agreement.

9.10 <u>No Waiver</u>. No waiver by either party of any term or conditions of this Agreement shall be deemed or construed as a waiver of any other terms or conditions, nor shall a waiver of any breach be deemed to constitute a waiver of any subsequent breach, whether of the same or of a different section, subsection, paragraph, clause, phrase, or other provision of this Agreement.

9.11 <u>Integration</u>. This Agreement merges and supersedes all prior negotiations, representations, and agreements between the Parties hereto relating to the Feasibility Study and constitutes the entire agreement between the Parties hereto with respect to the Feasibility Study and the Authority's funding of a portion of the eligible, approved costs of the Feasibility Study.

9.12 <u>Amendments</u>. This Feasibility Study Agreement may be amended only through a written amendment signed by duly authorized representatives of the District and the Authority.

[SIGNATURES FOLLOW]

MASSACHUSETTS SCHOOL BUILDING AUTHORITY By,

Mila ohn K. McCarthy Executive Director

TOWN OF AMHERST By,

1 cert

John Musante NAME (type or print)

Town Manager TITLE (type or print)

Maria Geryk

Superintendent

EXHIBIT A

FEASIBILITY STUDY BUDGET

Town of Amherst Wildwood School

The total Budget for the Feasibility Study conducted pursuant to this Agreement, which is attached hereto and incorporated by reference herein, shall be no more than <u>1,000,000</u> based upon the following estimates:

Owner's Project Manager:	\$225,000
Designer:	\$ 675,000
Environmental and Site Testing:	\$
Other:	\$50,000

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EXHIBIT B

SCOPE OF THE FEASIBILITY STUDY

Town of Amherst Wildwood Elementary School

The Scope of the Feasibility Study conducted under this Agreement, which is attached hereto and incorporated by reference herein, shall consist of the development of a feasibility study/schematic design for evaluation of a renovation of the existing school, a renovation of and addition to the existing school and/or new construction for the Wildwood Elementary School in the Town of Amherst (the "District"). Pursuant to the Massachusetts School Building Authority's (the "MSBA") regulations, 963 CMR 2.06, the space allowance for the potential project shall meet all applicable MSBA regulations and guidelines.

The Feasibility Study shall contain all information required by 963 CMR 2.10(8) and any other applicable rules, regulations, policies, guidelines and directives of the MSBA including, but not limited to, a final design program, space summary, budget statement for preferred educational objectives, and a proposed total project budget. The feasibility study for this Proposed Project may examine an option to locate grades K-6 at the Wildwood Elementary School, which for purposes of the design shall be based on no more than a total of 360 students. The Feasibility Study will also examine an option to locate the District-wide enrollment for grades 2-6 at the Wildwood Elementary School, which for purposes of the design shall be based on no more than a total of 750 students. The District will prepare and submit to the MSBA the educational space template for both options for review and acceptance. Upon acceptance of the educational space summary, the District will commence with the evaluation of alternatives. The Schematic Designs that are developed pursuant to this Agreement shall be based upon the final design program which shall be subject to the written approval of the MSBA. The Schematic Design shall include, but not be limited to, the information required by the MSBA's Feasibility Study Guidelines, including, but not limited to, a site development plan, environmental assessment, geotechnical assessment, geotechnical analysis, code analysis, utility analysis, schematic building floor plans, schematic exterior building elevations, narrative building systems descriptions, MA-CHPS scorecard or LEED for Schools checklist, outline specifications, cost estimates, project schedule and proposed total project budget.

In conducting the Feasibility Study and developing the Schematic Design, the District shall, in a sufficient and timely manner as determined by the MSBA, initiate such notification procedures, undertake such review processes, and obtain such determinations and approvals as may be required by 963 CMR 2.03(2)(h) & (i), including, but not limited to, such procedures, reviews, determinations, and approvals as may be required by the Massachusetts Historical Commission ("MHC") and/or the Massachusetts Environmental Policy Act ("MEPA"). At its earliest opportunity, the District shall seek a written determination from MHC as to whether MHC intends to undertake a review of the Proposed Project.

The District shall be responsible for conducting such geotechnical evaluations, site investigations, soils explorations and environmental assessments as are reasonable and necessary to determine whether any significant environmental, geotechnical or other physical conditions exist that may have an impact upon eventual construction on the proposed site. The MSBA may require the District to fully fund certain environmental or geotechnical site testing beyond initial investigatory costs. The MSBA shall bear no responsibility or liability of any sort for the results of any geotechnical evaluations or site testing, soils explorations, environmental assessments, nor for any site remediation, clean-up, or other site remediation services.

The development of the Schematic Design shall be subject to continuing review by the MSBA in accordance with the provisions of this Agreement, the Schedule of Deliverables contained herein, the MSBA's Feasibility Study guidelines and any other applicable rule, regulation, policy, guideline or directive of the MSBA. The District shall be responsible for submitting to the MSBA all documentation that is required to complete the Feasibility Study and Schematic Design and to support the preparation of a Project Scope and Budget Agreement.

Exhibit C

Calendar Year 2014

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Amherst

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Wildwood Elementary

MSBA Reimbursement Rate Calculation	<u>on</u>
Base Points	31.00
Income Factor	9.47
Property Wealth Factor	23.58
Poverty Factor	4.25
Subtotal: Reimbursement Rate Before Incentives	68.30
Incentive Points Maintenance (0-2)	-
CM @ Risk (0-1)	-
Newly Formed Regional District (0-6)	-
Major Reconstruction or Reno/Reuse (0-5)	-
Overlay Zoning 40R & 40S (0-1)	-
Overlay Zoning 100 units or 50% of units for 1, 2 or 3 family structures (0-0.5)	-
Energy Efficiency - "Green Schools" (0 or 2)	-
Model Schools (5)	-
Total Incentive Points	-
MSBA Reimbursement Rate	68.30

Massachusetts School Building Authority

Steven Grossman Chairman, State Treasurer John K. McCarthy Executive Director

August 4, 2014

Ms. Maria Geryk, Superintendent Amherst Public Schools 170 Chestnut Street Amherst MA, 01002

Re: Town of Amherst, Wildwood Elementary School

Dear Superintendent Geryk:

I would like to thank you for continuing to work with the Massachusetts School Building Authority (the "MSBA") towards the most educationally appropriate and cost effective solution for the proposed project related to the Statement of Interest filed for the Wildwood Elementary School. This letter is a follow up to previous correspondence regarding the enrollment projection for the proposed project at the Wildwood Elementary School in the Town of Amherst (the "District"), and in particular, to our telephone conference on July 10, 2014 and your letter dated July 10, 2014 clarifying the study enrollment grade configurations for this proposed project. As discussed, the next critical step is for the MSBA and the District to agree on an enrollment for this proposed project.

The Wildwood Elementary School is one of three schools that serve the District's K-6 enrollment. The MSBA understands that the District would like the feasibility study to examine maintaining three schools to serve the District's K-6 enrollment. The MSBA further understands that, due to declining enrollments, the District is interested in studying the potential of consolidating facilities and would like the feasibility study to also examine creating a lower elementary school at the Crocker Farms Elementary School, potentially serving grades PK-1 and an upper elementary school at the Wildwood Elementary School, potentially serving grades 2-6. With this proposed configuration, closure of the Fort River Elementary School is anticipated. The MSBA understands that any potential work associated with grade reconfiguration of the Crocker Farms Elementary School or closure of the Fort River Elementary School will be addressed outside of this project.

A detailed explanation of the MSBA's base enrollment projection of 975 students in grades K-6 for the Amherst Public Schools has been provided through previous correspondence dated July 3, 2014.

Page 2

August 4, 2014

Amherst Updated Enrollment Letter

As a result of further analysis performed by the MSBA on the base enrollment projection and further discussion with the District, the following adjustments have been made to the base enrollment projection:

Construction-Induced Enrollment.

- In order to adjust for fluctuations to the out-of-district enrollment patterns of the District's residents over time, the MSBA has made an adjustment to the base enrollment projection.
- In order to make this adjustment, the MSBA adjusted the grade to grade survival ratios for K-6 by a total of 3.3% throughout a four year period in the projection.
- This adjustment added approximately 35 students to the average K-6 enrollment, as compared to the projection without this adjustment.

As a result of analysis on the base enrollment projection, the adjustment to the base projection described above, and based on the historical enrollment trends of the District, the MSBA recommends a district-wide K-6 study enrollment of 1,010 students for Amherst Public Schools.

In order to recommend a study enrollment for an appropriately sized project for the Wildwood Elementary School, the MSBA performed a preliminary capacity analysis of the Crocker Farms Elementary School and the Fort River Elementary School. As a result of the analysis on the base enrollment forecast, the historical enrollment trends of the District, and the capacity analysis, the MSBA recommends study enrollments for the Wildwood Elementary School project as follows:

• Grades K-6: 360 students

Grades 2-6: 750 students

As stated previously, the grades 2-6 study enrollment assumes that the District will take the existing Fort River Elementary School off-line. The MSBA's study enrollment recommendations assume full utilization of all remaining school facilities. Accordingly, as part of the Feasibility Study, the District will be required to determine the enrollment capacity of each existing facility anticipated to remain in service. If the grades 2-6 configuration has been determined to be the Preferred Solution, the District will also be required to demonstrate in the Preferred Schematic Report that any consolidation and/or reconfiguration proposed as the District's Preferred Solution has been approved by the School Committee and necessary District officials. Further, the MSBA will also require a written plan from the District describing the process for determining local support for potential grade reconfiguration and school closures.

The MSBA believes that these study enrollments position the District to efficiently meet space capacity needs throughout future enrollment variations. Please sign and return the attached updated certification within 21 calendar days to confirm agreement on these study enrollments. If the District feels that the recommended study enrollments do not meet the needs of the District, please respond to this letter via e-mail to Ben Masi, and propose three meeting/conference call times for which the District will be available to further discuss enrollment.

Page 3 August 4, 2014 Amherst Updated Enrollment Letter

If you have any questions, please do not hesitate to contact me or Ben Masi (Ben.Masi@MassSchoolBuildings.org) at 617-720-4466.

Sincerely,

Mary Pichetti Director of Capital Planning

Cc: Legislative Delegation
 Aaron Hayden, Chair, Amherst Board of Selectmen
 John Musante, Amherst Town Manager
 Katherine Appy, Chair, Amherst School Committee
 Ron Bohonowicz, Director of Facilities and Maintenance, Amherst Public Schools
 File: 1.2 Enrollment Projections (Region 1)

MASSACHUSETTS SCHOOL BUILDING AUTHORITY TOWN OF AMHERST WILDWOOD ELEMENTARY SCHOOL STUDY 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 the Wildwood Elementary School, The Town of Amherst (the "District") hereby acknowledges and agrees that the design of preliminary options which may be evaluated as part of the feasibility study for the proposed project at the Wildwood Elementary School shall be based in accordance with the following:

Enrollment for Grades K-6	District-Wide Enrollment for Grades 2-6
360 students	750 students

The space allowance for each alternative evaluated shall assume no more than the enrollments as detailed in the table above. The Town of Amherst acknowledges and agrees that it has no right or entitlement to any particular study enrollment, square feet per student space allowance, or total square footage referenced in the table above for the preliminary options, and further acknowledges and agrees that it shall not bring any or action, legal or equitable, against the MSBA, or any of its officers or employees, for the purpose of obtaining an increase in the study enrollment of the Wildwood Elementary School that it has acknowledged and agreed herein. The Town of Amherst further acknowledges and agrees that the study enrollment presented herein is only applicable to the evaluation of preliminary options conducted as part of the feasibility study for the proposed Wildwood Elementary School project. Upon receipt of the District's recommendation of a Preferred Schematic Report for the proposed Wildwood Elementary School project. Upon receipt of the District's recommendation of a Preferred Schematic Report for the proposed Wildwood Elementary School project. Upon receipt of the District's neuron school project. Upon receipt of the District's recommendation of a Preferred Schematic Report for the proposed Wildwood Elementary School project. Upon receipt of the MSBA shall forward a Design Enrollment Certification with a design enrollment specific to the recommended and approved Preferred Schematic Design, which shall supersede this certification.

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

Chief Executive Officer

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Duly Authorized Representative of School Committee

Date

Superintendent of Schools

Date

Date

Massachusetts School Building Authority

Deborah B. Goldberg Chairman, State Treasurer John K. McCarthy Executive Director

November 20, 2015

Ms. Maria Geryk, Superintendent Amherst Public Schools 170 Chestnut Street Amherst MA, 01002

Re: Town of Amherst, Wildwood Elementary School

Dear Superintendent Geryk:

I would like to thank you and your team again for continuing to work with the Massachusetts School Building Authority (the "MSBA") towards the most educationally appropriate and cost effective solution for the proposed project related to the Statement of Interest filed for the Wildwood Elementary School. A detailed explanation of the MSBA's base enrollment projection and adjustments for the Town of Amherst (the "District") has been provided through previous correspondence. This letter is a follow up to previous correspondence regarding the enrollment projection for the proposed Wildwood Elementary School project, and in particular, to your letter dated November 5, 2015 requesting an additional study enrollment recommendation for a potential project whereby the District would maintain two schools to serve its K-6 enrollment. Closure of the Fort River Elementary School is anticipated with the proposed two-school configuration.

The MSBA's enrollment letter to the District dated August 4, 2014 identified a district-wide K-6 projected enrollment of 1,010 students. Based on further discussions with the District, the MSBA understands that the District intends to re-purpose two classrooms at the Crocker Farm Elementary School to provide more educationally-appropriate spaces for existing programs including Title 1 and English Language Learners.

Based on further discussions with the District, and a review of the current use and proposed repurposing of the educational spaces in the Crocker Farm Elementary School, the capacity of the Crocker Farm Elementary School for the purposes of this analysis for grades K-6 is 340 students (17 classrooms at 20 students per classroom). Subtracting 340 students from the district-wide average projection of 1,010 students leaves a recommended enrollment of 670 students in grades K-6 for the Wildwood Elementary School. Page 2 November 20, 2015 Amherst Enrollment Letter

As a result of the analysis on the base enrollment forecast, the historical enrollment trends of the District, and the updated capacity analysis, the MSBA recommends study enrollments for the proposed Wildwood Elementary School project as follows:

- Three District K-6 elementary schools Wildwood Elementary School: 360 students
- Two District K-6 elementary schools Wildwood Elementary School: 670 students
- District-wide Grades 2-6 in the Wildwood Elementary School: 750 students

The two-school K-6 study enrollment and the District-wide grades 2-6 study enrollment assumes that the District will take the existing Fort River Elementary School off-line. As previously stated, the MSBA's study enrollment recommendations assume full utilization of all remaining school facilities. Accordingly, as part of the Feasibility Study, the District will be required to determine the enrollment capacity of each existing facility anticipated to remain in service and provide an educational program for each grade configuration included in the Preliminary Design Program. Additionally, the District will be required to demonstrate in the Preferred Schematic Report that any consolidation and/or reconfiguration proposed as the District's Preferred Solution has been approved by the School Committee and necessary local officials. Further, the MSBA will also require a written plan from the District describing the process for determining local support for potential grade reconfiguration and school closures. Upon approval of the District's Preferred Solution, the MSBA will forward a design enrollment certification that is specific to the grade configuration associated with the approved Preferred Solution.

Please sign and return the attached study enrollment certification within 21 calendar days to confirm agreement on these enrollment figures.

If you have any questions, please do not hesitate to contact me or Katie Loeffler (Katie.Loeffler@MassSchoolBuildings.org) at 617-720-4466.

Sincerely,

Mary Pichetti Diregtor of Capital Planning

Cc: Legislative Delegation Alisa Brewer, Chair, Amherst Select Board David Ziomek, Amherst Interim Town Manager Katherine Appy, Chair, Amherst School Committee Michael Morris, Assistant Superintendent, Amherst Public Schools Ron Bohonowicz, Director of Facilities and Maintenance, Amherst Public Schools Thomas Murphy, Owner's Project Manager, Joslin, Lesser + Associates, Inc. James LaPosta, Designer, JCJ Architecture File: 1.2 Enrollment Projections (Region 1)

MASSACHUSETTS SCHOOL BUILDING AUTHORITY TOWN OF AMHERST WILDWOOD ELEMENTARY SCHOOL STUDY 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 the Wildwood Elementary School, the Town of Amherst hereby acknowledges and agrees that the design of preliminary options which may be evaluated as part of the feasibility study for the proposed project at the Wildwood Elementary School shall be based in accordance with the following:

Enrollment for	Enrollment for	District Wide Enrollment for
Three District Grades K-6	Two District Grades K-6	Grades 2-6
360 students	670 Students	750 students

The space allowance for each alternative evaluated shall assume no more than the enrollments as detailed in the table above. The Town of Amherst 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 a school serving the number of students in accordance with the table above. The Town of Amherst acknowledges and agrees that it has no right or entitlement to any particular study enrollment, square feet per student space allowance, or total square footage referenced in the table above for the preliminary options, and further acknowledges and agrees that it shall not bring any or action, legal or equitable, against the MSBA, or any of its officers or employees, for the purpose of obtaining an increase in the study enrollment of the Wildwood Elementary School that it has acknowledged and agreed herein. The Town of Amherst further acknowledges and agrees that the study enrollment presented herein is only applicable to the evaluation of preliminary options conducted as part of the feasibility study for the proposed Wildwood Elementary School project. Upon approval of a Preferred Schematic Design for the proposed Wildwood Elementary School project, and subject to the MSBA's review of such recommendation, the MSBA shall forward a Design Enrollment Certification with a design enrollment specific to the recommended Preferred Schematic Design, which shall supersede this certification.

The undersigned, for themselves and the Town of Amherst, hereby certify that that they have read and understand the contents of this Study 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 Amherst and to bind the Town of Amherst to its terms.

Chief Executive Officer

Duly Authorized Representative of School Committee

Date

Date

Superintendent of Schools



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Project Schedule





Affiliation/Title	Email	Business Phone
SBC		
Amherst School Committee Chair	AppyK@arps.org	617-755-8973
Classroom Teacher at Crocker Farm Elementary	BartoliniA@arps.org	413-362-1600
Director of Facilities	BohonowiczR@arps.org	413-362-1855
Assistant Comptroller	<u>BowserH@amherstma.gov</u>	413-259-3002
Administrative Assistant to the Assistant Superintendent	FigueroaS@arps.org	413-362-1810
Superintendent	GerykM@arps.org	413-362-1823
Assistant Principal of ARHS	KentL@arps.org	413-362-1783
Principal and Director of Diversity and Equity	HallM@arps.org	413-362-1810
Director of Finance for the Amherst Public Schools	ManganoS@arps.org	413-362-1812
Director of Human Resources	mazurk@arps.org	413-362-1803
Director of Public Works	<u>mooringg@amherstma.gov</u>	413-259-3050
Assistant Superintendent	MorrisM@arps.org	413-362-1831
Senior Facilities Planner	LPavlova@cp.umass.edu	413-577-1720
Director of Finance for the Town of Amherst	PoolerS@amherstma.gov	413-259-3002
Business Consultant	RhodesAmherst@aol.com	413-253-7147
Crocker Farm Parent	Narayan.Sampath75@gmail.com	781-308-6075
Classroom Teacher	SheehanT@arps.org	413-362-1200
Fort River Parent	BasilStew@comcast.net	413-687-4255
Reading Intervention Teacher at Wildwood	WillisS@arps.org	413-362-1400
Principal	<u>YaffeN@arps.org</u>	413-362-1400
Interim Town Manager	ZiomekD@amherstma.gov	413-259-3002
	Affiliation/Title SBC Amherst School Committee Chair Amherst School Committee Chair Classroom Teacher at Crocker Farm Elementary Director of Facilities Assistant Comptroller Administrative Assistant to the Assistant Superintendent Superintendent Superintendent Sistant Principal of ARHS Director of Finance for the Amherst Public Schools Director of Human Resources Director of Human Resources Director of Finance for the Town of Amherst Senior Facilities Planner Senior Facilities Planner Senior Facilities Planner Director of Finance for the Town of Amherst Business Consultant Crocker Farm Parent Crocker Farm Parent Fort River Parent Fort	Affiliation/TitleEmailSBCSPCSBCAppvK@arps.orgSBCAppvK@arps.orgClassroom Teacher at Crocker Farm ElementaryBantolini@arps.orgDirector of FacilitiesBononowiczR@arps.orgClassroom Teacher at ComptileBononowiczR@arps.orgClassroom Teacher at ComptileBononowiczR@arps.orgClassroom Teacher at ComptileBononowiczR@arps.orgClassroom Teacher at ComptileBononowiczR@arps.orgClassroom Teacher at ComptileBononowiczR@arps.orgAsistant Principal of ARHSKentL@arps.orgSuperintendentGerykM@arps.orgDirector of Finance for the Amherst Public SchoolsManganos.orgDirector of Human ResourcesManganos.orgDirector of FinanceDirector of Diversity and EquityDirector of FinanceDirector of Public SchoolsDirector of Public SchoolsDirector of Public SchoolsDirector of FinanceDirector of Public SchoolsDirec

	Owner's Project Manager - Joslin, Lesser + Associates/NV5		
Tom Murphy	Project Manager	Thomas.Murphy@NV5.com	617-744-3123
Timothy Baker	Assistant Project Manager	tim.baker@NV5.com	617-744-3122
Jeff Luxenberg	Project Executive	Jeffery.Luxenberg@nv5.com	617-744-3118
	Site Representative		



	Design Team - JCJ Architecture, PC		
James E. LaPosta, Jr.	Principal in Charge	jlaposta@jcj.com	860-240-9326
Douglas K. Roberts	Project Manager	droberts@jcj.com	860-240-9395
James Hoagland	Project Architect	<u>jhoagland@jcj.com</u>	860-240-9343
Emily E. Czarnecki	Senior Interior Designer	eczarnecki@jcj.com	860-240-9342

	Subconsultants		
Christopher M. Garci	Fire Protection and Plumbing Engineer	chris garcia@g-g-d.com	508-998-5700
Dominick B. Puniello	HVAC Engineer	<u>dom puniello@g-g-d.com</u>	508-998-5700
Carlos G. DeSousa	Electrical and Lighting Engineer	carlos desousa@g-g-d.com	508-998-5700
David M. Pereira	Data / Communications Engineer	<u>david pereira@g-g-d.com</u>	508-998-5700



Wildwood School Building Committee Meeting Minutes

April 8, 2015

I. Call to order

Mike Morris called to order the regular meeting of the Wildwood School Building Committee at 3:38 p.m. on April 8, 2015 at the Wildwood Conference Room.

II. Roll call

Mike Morris conducted a roll call. The following persons were present: Mike Morris, Katherine Appy, Dave Ziomek, John Musante, Irv Rhodes, Anna Bartolini, Tom Murphy, Jeff Luxenberg, Ludmilla Pavlova, Sandy Pooler, Holly Bowser, Maria Geryk and Sasha Figueroa.

III. Agenda

Mike Morris reviewed the agenda and the topics for discussion were to update the Committee on the outcome of the MSBA panel on April 6th, and to introduce the OPMs from Joslin, Lesser, & Associates, Tom Murphy and Jeff Luxenberg.

A. Updates

- 1. The panel with the MSBA yielded positive outcomes. The Committee was complimented on their organization and teamwork. Holly and Sasha were recognized for organizing packets that were submitted to the MSBA.
- 2. During the last meeting there was discussion on expanding the Wildwood School Building Committee. Ana Bartolini, first grade teacher at Crocker Farm, was welcomed into the committee. Other schools had also been notified that the Committee was accepting new members.
- 3. Mike introduced the Committee to the OPMs from Joslin, Lesser.

B. Joslin, Lesser & Associates

- 1. Jeff Luxenberg went over the overall process as well as the impending designer selection process which will be the next step in the building process.
- 2. Jeff also explained the expectation of the Committee which will be to meet approximately once a month if not more often depending on where we are in the process. A working group should also be formed.

- 3. There was extensive discussion of the schedule and time frame of the "next phase" of the project, the designer selection process. A schedule was handed out with a detailed list of dates and processes associated with them. What to expect at each point of the schedule was also reviewed.
- 4. There was discussion of the assessment of the existing building that will be done for the feasibility studies: There was a question if the dates were negotiable and Jeff confirmed that they could be changed but that there are a few dates that need to be met based on the the MSBA schedule and how construction gets more expensive over time.
- 5. Value of estimation should be considered when the schedule is being set. Joslin, Lesser & Associates will provide the agendas for the meeting and what will be listed for the next meetings.
- 6. During the feasibility study from June 16-December 9, there should be public announcements and engagement activities; especially in the fall after information from the feasibility study comes back.
- 7. There was extensive discussion around the designer selection process timeline and how the designer is selected and rated. The designer selection panel has 15 members including 3 local members (the rest are selected by the MSBA); the Superintendent of Schools or designee, the CEO of the town or designee, and a School Committee member. Joslin, Lesser & Associates will offer a sit down with the three local members to offer guidance.
- 8. The OPM will assist in the designer selection process is able as the company will; be able to determine what the committee is looking for in a designer for example; experience and qualifications. Joslin, Lesser & Associates will ensure that the district's preferences are heard.
- 9. Jeff and Tom both strongly recommended interviewing the designer candidates.
- 10. Local members should not deliberate with local firms because it violates the open meeting law.
- 11. Tom overviewed the RFS for the designer in great detail. This document can be edited to the districts specifications, but the designer should be involved in the lead checklist.
- 12. Project goals and other additional goals, such as a green energy efficient structure, should be included into the RFS in order to attract or reach the most appropriate designers for the project.
13. There was discussion of the projected cost of the project that should be listed in the RFS.

IV. <u>Questions</u>

Ludmilla: What is the education plan for the community?

Jeff: During the first phase in September-December there will be options for the community to become involved via the web or social media.

There were questions regarding the statement of interest for the Wildwood School and Fort River Schools. Fort River has submitted their interest statement but Wildwood's statement of interest was approved by the MSBA. An announcement should be made clarifying that the Wildwood School is being considered for renovation and/or an addition. But Fort River may be involved so a new building with new grade configuration are being considered. Should this occur, the Fort River building will be repurposed.

14. Meeting for designer selection team of three: May 21st 10:30-12:30 on process orientation

C. Next Steps

- 1. The deadline for comments and feedback for the RFS is April 17st. All Committee members have until this time to suggest changes. All comments will be sent to Mike and Sasha. Once the RFS is completed and submitted to the MSBA there will be a public announcement via an advertisement in the newspaper and on the Central Registrar.
- 2. A doodle poll will be created for the next Communication Planning Meeting which should occur before May 21st.

V. Adjournment

Mike Morris adjourned the meeting at 5:25 p.m.

Minutes submitted by: Sasha Figueroa

Wildwood School Building Committee Meeting Minutes

September 15, 2015

I. Call to order

Tom Murphy called to order the regular meeting of the Wildwood School Building Committee at 4:02 pm on September 15, 2015 at the Amherst Regional Middle School in the PD Center.

II. Roll call

Tom Murphy conducted a roll call. The following persons were present: Guildford Mooring, Holly Bowser, John Musante, Katherine Appy, Maria Geryk, Ron Bohonowicz, Nick Yaffe, Michael Morris, Sandy Pooler, Ludmilla Pavlova, Sean Mangano, Sasha Figueroa, Anna Bartolini, Timothy Sheehan, Jeff Luxenburg of JLA, Tom Murphy of JLA, Jim LaPosta of JCJ, and Douglas Roberts of JCJ. Also attending were Vincent O'Connor (public) and Dave Eisenstadter (press).

III. Approval of minutes from last meeting

Tom Murphy reviewed the agenda and minutes from the previous meeting. Ludmilla Pavlova made a motion to approve the minutes. Ron Bohonowicz seconded the motion; the motion was approved with one abstention (Guilford Mooring), no one opposed.

IV. Open issues

a) Visioning Update:

Joslin Lesser and JCJ gave an update to the visioning groups, giving a description of what they were, who they consisted off, and its purpose; to produce and educational plan that will inform the design of the project.

b) Designer Update:

JCJ made an update on the design process. Designers have made a visit to the Wildwood School, to measure and photograph the surface of the soil, as well as review the maps and structural documentation that has been maintained by the facilities department.

c) Schedule:

The schedule was reviewed. Expectation of the next major meetings (School Committee meetings) is to discuss and eventually vote on a grade configuration option. Other major dates were identified, like the community forum to occur on September 29th. Invitations will be sent out to the Committee for upcoming events on the project schedule.

There were questions on location (where new structure, should that option be chosen, would be built). There have been site assessments that will continue. A working group will need to be established to help with this process. The MSBA will request evidence that other sites within the town have been assessed. This is a necessary process. Note: The MSBA will not reimburse the acquisition cost of land not currently owned by the town.

d) Site Assessment Working Group:

Five volunteers were identified. Morris, Bohonowicz, Ziomek, Pavlova, and Sheehan.

e) Communication & Production Document Vote:

JLA reviewed the Communication and Document Protocal Manual that had been distributed and discussed by the SBC at the last meeting. Ludmilla made a motion to approve the document, Appy seconded, and it was unanimously approved.

V. New business

a) Construction Delivery Methods:

JLA described the two types of construction delivery methods, Design/Bid/Build and CM at Risk and reviewed some of the Pros and Cons for each method. CM at Risk contractors have an interview process and a pre-construction fee and more readily work with a phased construction process. Bid documents are known to have some inconsistency but the CM at risk has fewer discrepancies during the bidding process. It is a more transparent process. Bids and contracting options were discussed in detail. Clarification was made on the disadvantages for CM at risk and extensive discussion regarding it followed.

CM at Risk is the preferred choice for this project.

There will be a selection committee created to review and vet a CMs and prices. The Building Committee would be represented on the selection committee.

b) CM at Risk Vote:

Pooler made a motion to approve CM at Risk as the preferred construction delivery method and authorize the OPM and Town to submit the necessary application to the State Office of the Inspector General for approval., Appy seconded, and the decision was unanimously approved.

c) Consultants Vote:

Appy made a motion to approve the commitment of \$19,976 for Architectural/Engineering services as identified in the JLA Memo dated September 11, 2015 and backup materials provided, Ludmilla seconded, and the decision was unanimously approved.

d) Invoices:

Musante moved to approve the invoices totaling \$50,500 as identified in the JLA memo dated September 11, 2015 and backup materials provided, Appy seconded, and the motion was unanimously approved.

e) Communication:

There were some questions on how the community was being reached out to. JLA is currently hosting a website and the district is hosting a Facebook site.

Geryk invited the Committee to the filming of the "Most Likely to Succeed". Details will be emailed.

VI. Adjournment

Tom Murphy asked for a motion to adjourn the meeting. Appy made a motion, Bowser seconded and the motion was unanimously approved at 5:28 pm.

Minutes submitted by: Sasha Figueroa

Wildwood School Building Committee Meeting Minutes

October 15, 2015

I. Call to order

Mike Morris called to order the regular meeting of the Wildwood School Building Committee at 4:06 PM on October 15, 2015 at the Amherst Regional Middle School in the Professional Development Center.

II. Roll call

Mr. Morris conducted a roll call. The following persons were present: Tom Murphy of Joslin LesserNV5, Doug Roberts of JCJ, Nancy Stewart, Sasha Figueroa, Katherine Appy, Maria Geryk, Sean Mangano, Ron Bohonowicz, Holly Bowser, Sandy Pooler, Ludmilla Pavlova-Gillham, Michael Morris, Monica Hall, Dave Ziomek and Tim Sheehan.

III. Approval of minutes from last meeting

Mr. Morris read the minutes from the last meeting. The minutes were approved as read.

IV. Visioning Update

- a) Public comment was reserved for the beginning of the meeting. The Committee agreed to use the same format as the School Committee for public comment in terms of how much time is spent per person and in aggregate for public comment at meetings.
- b) Mr. Morris reviewed the agenda and there were no questions. Ms. Appy moved to approve the minutes, Mr. Sheehan seconded, and the minutes were approved with one abstention (Ms. Stewart).

Mr. Morris updated the committee on the visioning meetings and its work and progress. The Visioning Committee's purpose and expectations were explained. Expectations include creating an educational plan. Mr. Morris also shared the results of those meetings. Ms. Appy made a few comments on the learning experience and the possibilities of 21st century learning and building. Mr. Bohonowicz also made a comment on the small break out groups during the Visioning Meetings and how common themes were identified within all of them and much of the teachers work has been very insightful.

c) Mr. Morris also shared a small presentation that covered in detail the communication process, learning goals (of the 21st century), critical thinking and problem solving goals, and other goals for collaboration, cultural awareness and expression, effective oral and written communication. He shared the guiding principles that were recognized during the Visioning Meetings. Ms. Pavlova-Gillham suggested discussing the guiding principles as a committee. Mr. Morris

responded that it will be included in the draft of the educational plan that will be put forth.

- d) Mr. Murphy discussed into detail the PDP that needs to be submitted to the MSBA which will include the educational plan. He discussed what the expectations are of the plan and the space summary, site development evaluation and the preliminary evaluation of the alternative.
- e) Mr. Morris went over the enrollment predictions and possible models that are being considered.

V. Site Assessment Update

- a) Mr. Murphy updated the committee on what sites had been reviewed along with the criteria that is being used to search for possible building sites. A handout was given highlighting what has been removed as options and those that remain possibilities. It is an ongoing process and JCJ is working alongside the Town to identify best options. Questions and comments by the committee can be directed to Mr. Murphy via email. Mr. Roberts of JCJ reviewed the criteria, explaining their purpose and why they were chosen and applied. A note to be considered is that the land needs to be owned by the town and controlled by the district for the duration of the project. Mr. Roberts also went through the possible sites and why they were selected and the possibilities of their selection.
- b) The next step is to rate the possible building locations and when more information is found it will be brought back to the committee.

IV. Invoices

- a) The invoices were reviewed for JCJ and JLA. Ms. Appy made a motion to approve, Ms. Geryk seconded, it was unanimously approved.
- b) Upcoming meetings: The next SBC should be selected after the November 3rd School Committee vote. A possible date was scheduled for the next meeting (November 10th)
- c) Ms. Pavlova-Gillham suggested that Facebook advertise for the major School Committee meeting that involve voting for the PDP. Ms. Appy moved to end the meeting, Mr. Pooler seconded and it was unanimously approved to end the committee.

VI. Adjournment

Mike Morris adjourned the meeting at 4:52 PM. Minutes submitted by: Sasha Figueroa

Wildwood School Building Committee Meeting Minutes

November 17, 2015

I. Call to order

Morris called to order the regular meeting of the Wildwood School Building Committee at 4:06 PM on November 17, 2015 at the Amherst Regional Middle School Library.

II. Roll call

Tom Murphy conducted a roll call. The following persons were present: Anna Bartolini, Holly Bowser, Guilford Mooring, Ron Bohonowicz, Doug Roberts of JCJ, Jim LaPosta of JCJ, Tom Murphy of JLA, Jim Hoagland of JCJ, Mike Morris, Katherine Appy, Sandy Pooler, Sean Mangano, Laura Kent, Irv Rhodes, Narayan Sampath, Ludmilla Pavlova, Nick Yaffe, Maria Geryk, Nancy Stewart, Dave Ziomek, Sasha Figueroa, and two members of the public.

III. Approval of minutes from last meeting

Tom Murphy asked to approve the minutes from the last meeting. Appy made a motion to approve the minutes, Kent seconded the motion and the minutes were approved with two abstentions from Mooring and Bartolini.

IV. Continuing business

- Laura Kent was introduced and welcomed to the Committee as a new member. She is a parent of a Wildwood student and a preschool student at Crocker Farm.
- b) Mike Morris passed along the public comment policy for the district.
- c) LaPosta reviewed the agenda and where the designers are in the project process. Hoagland explained what information is needed for submission to the MSBA in regards to the site assessment / space review.

d) Template Discussion

The space summary document was reviewed by LaPosta in a presentation. Current space of the Wildwood facility, proposed space and the MSBA standard was reviewed for the Committee. The goal will be to submit the final version and preferred option to the MSBA. The template will not match the MSBA standards exactly as actual class sizes and required rooms may differ from the district standard. The MSBA will be looking to ensure that the space template matches the information within the educational program that will also be submitted. A new summary chart will be created to represent the new option, if approved, to create a K-6 building for all Fort River and Wildwood students.

Hoagland reviewed the square footage for each of the building options as well as the details for the number and size of classrooms standards from MSBA. This information is included into a document that will be continuously updated. It was made clear the importance of the design reflects the educational program.

During the consideration to the Space Template document, smaller spaces for one-on-one groups and rooms specific to ELL were also included, as well as rooms dedicated rooms for special education as well as self-contained rooms. There were questions on how the classrooms will translated to accommodate more classrooms if the K-6 building option is chosen. A separate document will be created for Green considerations.

e) Site Alternative Overview

An analysis was created of possible site locations should a new building be constructed. Jim summarized the criteria for site possibilities. A review was also made of the current sites on the Wildwood property, including topographical information.

f) **Building Footprints**

Hoagland reviewed with a graphical presentation of possible locations that fit with comparison to the current building for the new Wildwood option. For the K-6 for Fort River and Wildwood, Hoagland showed where the larger building could be built around the current Wildwood site, and what the implications would be for each foot print.

The Fort River site was also looked at for both the new Wildwood option and the larger K-6 option. Where the topography had more possibilities, it is covered in flood zones. Building may be a possibility, but permits and restrictions will be made on construction and costs would be higher. In conclusion the current Wildwood is more plausible.

There was question on natural light and how that would happen with a larger building.

Maria discussed regional property management and the process that would occur with the regional school committee. The MSBA requires that it is owned or leased by the time of the approval. She also covered what the implications would mean to swing space should the regional conversion is approved by the committee.

There were questions on using the Middle School as a swing space. Because a decision has not been made regarding the regional conversion the Middle School is not being viewed as an option for swing space. It would also involve some costs on renting the space from region, and also renovating it to fit elementary standards.

A vote was made for invoices, Guildford moved to approve the invoices, Appy seconded the motion, and the invoice was unanimously approved with no abstentions.

g) Next Steps

Next Wildwood School Building Committee will be December 3rd and a vote will be made on the PDP that will be submitted to the MSBA. The schedule and timelines were discussed and suggestions were made to make slight changes.

There was discussion on redistricting and what the implications would be. Because the zones are revisited every 5 years this is a conscious consideration. Mike asked for a motion to conclude the meeting. Ludmilla made motion to adjourn, Ziomek seconded the motion and it was unanimously approved to adjourn at 5:36 pm.

V. Adjournment

Morris asked for a motion to conclude the meeting. Ludmilla made motion to adjourn, Ziomek seconded the motion and it was unanimously approved to adjourn at 5:36 PM.

Minutes submitted by: Sasha Figueroa

Wildwood School Building Committee Meeting Minutes

December 3, 2015

I. Call to order

Tom Murphy called to order the regular meeting of the Wildwood School Building Committee at 4:08 pm on December 3, 2015 in the Amherst Regional Middle School Library.

II. Roll call

Morris following persons were present: Dave Ziomek, Maria Geryk, Tom Murphy of JLA, Doug Roberts of JCJ, Jim Hoagland of JCJ, Sean Mangano, Ludmilla Pavlova, Anna Bartolini, Guilford Mooring, Ron Bohonowicz, Mike Morris, Sasha Figueroa, Sandy Pooler, Irv Rhodes, Holly Bowser, Nancy Stewart; From the public was Vincent O'Connor and Maria Kopicki.

III. Approval of minutes from last meeting

Morris asked for an order to approve the minutes from the last meeting. Bohonowicz made a motion to approve the minutes, Stewart seconded the motion. The minutes were unanimously approved with no abstentions.

IV. Public Comment

a) O'Connor commented on the proposals for the site on the Hawthorn property being problematic and recommended that they be dropped as unviable. He also suggested that none of the parcels of land used for recreation and sports should be reconsidered.

V. Open issues

- a) Murphy began the meeting with an overview of the agenda and what information is needed as a result of the meeting including what may be needed for the PDP submission.
- b) Murphy asked for a vote to approve the monthly and consultant invoices.Pooler made a motion to approve the invoices, Rhodes seconded the motion.The invoice was unanimously approved with no abstentions.
- c) Hoagland made a quick overview of the site assessments and footprint facts that were covered in the previous meeting. He also reviewed the square footage information for all of the possible building options with images. It was suggested to have images that indicate what parcels are owned by the

town. In response to a question the Committee discussed the feasibility of a scheme for the larger footprint that would involve the construction of a portion of the larger school which would house the Wildwood student population, then the current structure would be demolished and new construction would be adjacent to the new structure, both new portions connected, and Fort River students would move into the new structure .This option will be investigated further as the design process progresses.

- d) Each building option was reviewed and those that were considered unviable were removed from the list. All options were discussed extensively as to reasons why they should be removed or kept as options. As a result a total of 5 options were removed.
- e) Murphy noted that a draft of the PDP had been distributed to the Committee for their review and asked if there were any additional comments regarding the draft. Minor comments were offered. Murphy noted that all comments should be sent to JLA before Monday, when the submission would be sent to the MSBA.
- f) Murphy asked for a motion to authorize the OPM and Designer to submit the PDP to the MSBA. Ludmilla made motion to authorize submission, Guilford seconded the motion. It was unanimously approved with no abstentions.
- g) The Pros and Cons document with the 3 building options (Wildwood for 360 students K-6, a unified district option for grade 2-6 inclusive of all three schools, and a "twin" 670 student school that is inclusive of Fort River and Wildwood) reviewed in detail. There were some questions regarding the implications of a twin school. The title will be changed to indicate that there would be two wings. There was a question as to why the same grades would be provided in each wing and instead of having grade a-c in one and d-e in another. This is due to feedback made by the community voicing concerns around preserving a small school feel and eliminating transitions. The "twin" school K-6 design will be constructed to reflect a two school feel resulting in two small schools. It would also be beneficial to clarify that for a unified option may mean two separate 2-6 wings/schools. There was a suggestion that only one main office should be built to more efficiently gather resources and having one principal with two assistant principals with multiple guidance etc. Those discussions can really be had once the design is further developed.
- h) The next Wildwood School Building Committee was tentatively scheduled for Tuesday, December 22, 2015

- i) Murphy brought up that that subcommittees need to be created for security and sustainability. SBC were invited to join or suggest others by to reach out to Murphy and Morris.
- j) Pooler made a motion to adjourn, Bohonowicz seconded the motion and it was unanimously approved to adjourn with now abstentions.

VI. Adjournment

Tom Murphy adjourned the meeting at 5:35 PM.

Minutes submitted by: Sasha Figueroa

Regular Meeting of the Amherst School Committee September 21, 2015 Library, Amherst Regional High School

IN ATTENDANCE:

Katherine Appy, Chair Rick Hood Kathleen Traphagen Vira Douangmany-Cage (arr. 6:43 p.m.)

ABSENT:

Phoebe Hazzard

1. Welcome & Call to Order

Ms. Appy called the meeting to order at 6:05 p.m. and read a brief statement regarding the sudden passing of Town Manager John Musante which was followed by a moment of silence. Ms. Geryk offered words of praise for her colleague, Mr. Musante, and condolences to his family. Ms. Appy asked that that the agenda be revised to reflect only pertinent matters in light of Mr. Musante's passing. She suggested that the Wildwood Building Project Update (A) and Set Dates for Regionalization planning Forum in Amherst (D) remain while all other items be discussed at the October 20, 2015 Amherst School Committee meeting. She asked that members email Ms. Geryk directly with thoughts regarding School Committee Priorities to Inform the Superintendent's Goal-Setting Process (C). Ms. Appy moved to amend the agenda and Mr. Hood seconded. The motion passed unanimously. Ms. Traphagen asked for a moment later in the meeting to make a comment regarding goals. Ms. Appy agreed to allow a brief statement.

2. Announcements and Public Comment

There were no announcements. Vince O'Connor commented on the photos from the September 4, 2015 edition of the *Amherst Bulletin* in which newly hired ARPS staff did not seem representative the current student demographics. He found this to be very disturbing because the school committee and superintendent created goals to recruit, hire and retain staff of color.

3. Superintendent's Update

There were no updates.

4. New and Continuing Business

A. Wildwood Building Project Update

DOCUMENTS: Projected Milestone Schedule: Feasibility Study/Project Schedule; FAQ for the Wildwood School Building Project; Implications of Unified Configuration

Mr. Murphy explained the *Project Schedule* document to the group and requested that members vote to accept the education program and plan so that it can be included in the Project Design proposal (PDP) to the Massachusetts School Building Authority (MSBA). He then explained the *Project Milestones* document and informed the group that a presentation will occur later in the evening. Jim LaPosta explained the two parallel processes. He first emphasized that the goal of the visioning group is to inform the creation of the educational plan in regards to the work of David Stephen and 21st Century Learning. He pointed out that the grade configuration of the new school is very important as this will determine location and design of the building. He then explained that the group must understand Wildwood as a building in terms of engineering, design and renovation considerations to create a financial baseline for the MSBA. Ms. Traphagen asked if "fixes" and renovations mean constructing walls to "fix" the acoustic distractions at either school. JLA will create multiple options to accommodate appropriate educational space and the baseline study will provide financial implications for MSBA to consider. Mr. Morris reviewed the *Implications of Unified Configuration* document. When the presentation focused on enrollment trends, Ms. Traphagen asked if choice

Maria Geryk, Superintendent Mike Morris, Assistant Superintendent Sean Mangano, Finance Director Nick Yaffe, Wildwood Elem Principal Tom Murphy, JLA Project Manager Jim LaPosta, JCJ Principal Designer Community members & press Kimberly Stender, Recorder

6:05 p.m.

6:10 p.m.

6:13 p.m.

6:13 p.m.

students would be asked to leave the system. Mr. Morris replied that they would not be asked to leave. Mr. Hood asked Mr. Morris to explain to the community what *unified* means. Mr. Morris replied that in this case the term *unified* means town-wide and not pertaining to a certain *neighborhood or section of town*. For example, every 1st grader enrolled in the Amherst Elementary School district would attend the same school. When Mr. Morris concluded the presentation Mr. Hood re-capped the three options: 1). renovate the existing Wildwood School; 2). build a new Wildwood School with location to be determined; 3). create PreK-Grade 1 at Crocker Farm School. Ms. Appy added that a larger school will create a fourth option – two separate schools sharing one common space (ex. upper and lower elementary school). Mr. Morris stated that a scenario such as this could create opportunities for smaller learning communities. Ms. Traphagen asked how many students would be in the Crocker Farm PreK-Grade 1 scenario. Mr. Morris replied approximately 300. Ms. Traphagen asked if courtyards and common spaces would separate the upper and lower schools. Mr. LaPosta replied that this design seemed to work well in other communities. Gyms, libraries, cafeterias, music rooms and courtyards serve as areas to designate upper/lower schools. Photos of these types of schools and spaces would be provided at the upcoming public forums. Ms. Traphagen asked how the school committee could understand opinions and insights of staff as this process impacts them too. Mr. Morris indicated that an email was sent to all staff asking for anonymous feedback. Ms. Traphagen stated she has heard erroneous information from staff and community members. She asked how misinformation is being handled. Mr. Morris said this is a great concern and asked Ms. Traphagen to help devise a method to remedy this situation. She agreed to help. Ms. Douangmany-Cage asked if the school committee could communicate with Jean Faye and the APEA regarding staff surveys. Ms. Geryk thought this could happen. Ms. Appy was glad staff is being included in the conversation and Mr. Morris added that a FAO sheet was distributed to help curb misinformation. Mr. Hood suggested that many people focus on the "cons" of a process until they see photos or design renderings. Mr. LaPosta thought that the public forums would provide a great opportunity for the public to gather information and provide feedback. He then explained the framework of the public forums (scheduled for September 29 and October 26). These sessions will be filmed by Amherst Media. Mr. O'Connor suggested a timeline be devised that reflects an opportunity for the public to absorb the information and offer opinions at the forum. He also asked that information be provide to community members prior to the public forums. Mr. LaPosta agreed with Mr. O'Connor and stated that the intention of the forums is to be both a listening session as well as an opportunity to hear community voices. Wilma Ortiz (community member) spoke to the enormity of the project and asked if all components (challenges and opportunities) would be broken down for all community members to understand and contemplate. Mr. Morris responded to all her concerns and explained that this presentation was abridged due to time constraints and that he provided an in depth presentation at all elementary staff meetings and distributed the FAO sheets. Ms.Douangmany-Cage asked if this project, although generously funded by the State, would require more money from Town Meeting. Mr. Murphy responded that if necessary Town Meeting would have to consider this request in Fall 2016. A community member asked if the district has disseminated information to parents, staff and community members about 21st Century Learning and High Tech High in San Diego. Ms. Gervk responded that indeed the district has through emails, newsletters, Facebook and Twitter. She invited all to attend the free screening of the film Most Likely to Succeed on Wednesday, October 14 at 6:30 p.m. A O &A session with the film's producer will immediately follow the screening. Ms. Appy thanked Mr. LaPosta and Mr. Murphy and encouraged all school committee members to attend the public forums.

B. School Committee Priorities to Inform Superintendent's Goal-Setting Process 7:35 p.m. Ms. Traphagen provided a list of ideas the superintendent should consider while setting goals. She would like to see a research study completed as to why families choose to remain in the elementary schools. She would like the superintendent to consider an equitable accelerated academic program for elementary students. She is very much aware that most recommendations to an accelerated program are parent-driven with a teacher providing suggestions and strategy. She is also aware that the district provides a tremendous amount of support to academically-struggling students and would like to see excelling students aligned with an accelerated program. She suggests a working group to further discuss this idea. Ms. Traphagen would like the superintendent to consider a world language immersion program in the elementary schools. She would like to see more professional development programs geared towards equity and cultural identity. She would like to see an ambitious plan to recruit, hire and retain qualified staff of color. Ms. Traphagen would like the school committee to see and understand how Educators Handbook and PBIS are moving disparities in the intended direction through multi-cultural viewpoints and an examination of curriculum. To this point, Ms. Appy suggested that the School Equity Task Force help move this idea forward in addition to creating strategies to recruit and hire staff of color.

C. Set Dates for Regionalization Forum in Amherst

Ms. Appy suggested that the forum be held on Tuesday, October 6, 2015 in either the ARHS Library or ARMS Auditorium so Amherst Media can film the event. Ms. Geryk asked Ms. Stender to check district calendars and confirm availability of date and location. The district will also arrange for childcare and transportation for those that need it.

D. Accept Gifts

Ms. Traphagen moved to accept gifts: \$7,475.00 from Amherst Education Foundation to support Crocker Farm Preschool Playground; \$525.00 from Target to support Fort River Principal's Account; In-Kind donation from the Amherst Rotary Club to support Project Dictionary in all Amherst Elementary Schools: \$427.49 from Stop & Shop to support the Crocker Farm Principal's Account: \$325.00 from Target to support the Crocker Farm Principal's Account; \$35.00 from Giles/McCreary to support Fort River Art program; \$125.00 from Lingo to support the Fort River Art program; \$95.00 from Singer to support the Fort River Art program; \$30.00 from Marlin/Filep to support the Fort River Art program; \$30.00 from Meade to support the Fort River Art program; \$35.00 from Smith-Doerr to support the Fort River Art program; In-Kind donation from Petco in the form of a 10gallon Aquacolor aquarium for Wildwood School, Mr. Hood seconded. The motion passed unanimously.

E. Approve Minutes

Mr. Hood moved to approve the minutes of August 27, 2015. Ms. Traphagen seconded. The motion passed unanimously.

5. School Committee Planning

Ms. Appy suggested that items that were not discussed would be added to the next Amherst School Committee meeting on October 20, 2015.

6. Adjournment

Mr. Hood moved to adjourn the meeting. Ms. Traphagen seconded. The motion passed unanimously.

Respectfully submitted, Kimberly Stender

7:45p.m.

7:44 p.m.

7:47 p.m.

7:48 p.m..

7:51 p.m.

Regular Meeting of the Amherst School Committee October 20, 2015 Library, Amherst Regional High School

IN ATTENDANCE:

Katherine Appy, Chair Vira Douangmany-Cage Phoebe Hazzard Rick Hood

ABSENT:

Kathleen Traphagen

Maria Geryk, Superintendent Mike Morris, Assistant Superintendent Sean Mangano, ARPS Finance Director Tom Murphy, JLA Project Manager Jim LaPosta, JCJ Principal Designer Nick Yaffe, Wildwood School Principal Bobbie Finocchio, Fort River Principal Derek Shea, Crocker Farm Principal Faye Brady, Student Services Director Monica Hall, Equity & Professional Dev Director Carol Ross, Media & Climate Communication Specialist Marta Guevara, Student & Family Engagement Director Ron Bohonowicz, Maintenance & Facilities Director Community members & press Kimberly Stender, Recorder

1. Welcome & Call to Order

Ms. Appy called the meeting to order and reviewed the agenda. She stated that the Enrollment Update should be removed from the agenda as it will be incorporated into the Amherst (Wildwood) Elementary Building Project Update. She announced that the public is invited to attend the Hurricane Re-Visioning Summit on Saturday, November 7, 2015 at Amherst Regional Middle School from 9:00 a.m. until 3:00 p.m. Ms. Appy provided materials from the Four Boards meeting to all members for review. She also distributed a copy of a letter from a community member regarding the Amherst (Wildwood) Elementary Building Project. Mr. Hood moved to accept the minutes of September 21, 2105. Ms. Douangmany-Cage seconded and the motion passed with one abstention (Hazzard).

2. Announcements & Public Comment

Ms. Appy thanked the community for participating and explained the parameters of public comment (3 minute time limit per speaker). She encouraged all to attend the Amherst (Wildwood) Elementary Building Project public forums on Monday, October 26, 2015 at 3:30 p.m. or 7:00 p.m.in the Amherst Regional High School Library. Ms. Appy called the first speaker to the microphone. Stephen Lott (FR 3rd Grade teacher) expressed his concern to the health and structural issues as well as the ineffectiveness of open classrooms at Fort River. Mary Crouse (WW 4th Grade parent) stated that Wildwood is an amazing place because of the supportive staff and environment and is concerned that re-structuring would potentially cause climate and culture to dissipate. She stressed that the "gem be preserved." Michelle Markstein (WW 2nd Grade parent) was curious to know if re-configuration was the only solution and if the size of a Grade 2-6 school would be too large. She was concerned that the most vulnerable students would be negatively impacted. Tim Sheehan (FR 4th Grade Teacher and resident of Amherst) echoed the opinion of colleague Steven Lott added that the same issues that plague Fort River also are quite evident at Wildwood. He implored parents and community members to listen to the architect and consider the educational program for the sake of teachers, staff and students at these schools. The idea of two schools in one building is appealing. New schools would attract highly qualified teaching candidates and would raise property values in town. He stated that the concept of "neighborhood" schools has not existed in Amherst for a very long time. Julie HawkOwl (WW parent) was impressed with the welcoming environment at Wildwood and was concerned that building materials are causing health issues at the school. She believes that the school committee should take time before rendering a decision because many families will be split between grades and schools. Nicole Usher (ARHS Pre-School parent) believed that public education is a basic right and the current decision process is exclusive and undemocratic. She implored the committee to reach out to under-represented groups and renters in the community prior to a

6:08 p.m.

6:04 p.m.

decision. She would like to see a parent of a future ARPS learner on the committee. Maria Kapicki (CF Parent) believed that schools should be K-6 and remains unconvinced that the arguments pertaining to reconfiguration are based on research and asked that more time be set aside prior to a thoughtful decision. Bobbie Finocchio (FR Principal) echoed the sentiments of her colleagues (Lott & Sheehan) regarding health and structural issues. She stressed that student emotional and health safety is of utmost importance to prepare students to be 21st Century learners. All principals build community – "please do not leave Fort River behind". Laura Quilter (WW 2nd Grade parent) stated that a new school would be ideal but a longer, thoughtful process is necessary to render a collaborative decision. The challenge to the school committee is to listen to residents while providing the community better assessment and more data. She stressed the community should move forward together. Joanna Morse (CF parent) is concerned about health issues at Fort River. She is concerned that cost will be a major issue and implores a longer, more thoughtful approach be implemented before a decision is made. Community and culture is important at each school and inter-age schools are a major factor of positive student -to-student modelling. Oliver Broudy stressed the timeline and believes the current process is a threat and divisive to the entire community. He would like to see other solutions considered and would like the committee to think in terms of a 100 year plan. Len Lucien (WW parent) thinks the timeline is a concern and five weeks seems irresponsible. Parents need more time to look at research because "making decisions in a vacuum is not the way to go." Re-districting seems inevitable and an 800-student school will be immense. Lisa Amato (CF parent) was impressed with the amazing climate and culture at Crocker Farm and believes it should be modelled in the Holvoke Public Schools in which she is employed. The timeframe is a huge concern and communication from ARPS is lacking. She was concerned how this change will impact incomeeligible students and students of color. She thinks that inter-age schools are important. Catherine Corsin (WW parent) stated that parents and staff care about schools and the fear of losing a school is high. She is concerned that the three major projects happening simultaneously which have tremendous impact on the community (real estate values, education systems, and business) and thinks that many answers will come after the decision is made. A long-term plan should be considered. Betsy Dinger (ARPS educator) is concerned that if two state-of-the-art schools exist, and one school is left behind than the entire community would be impacted. More time is needed to build consensus but she urged the community to not wait too long as students and staff deserve the best building. Michelle Spirko (ARHS, ARMS & FR parent) decided to live in Amherst because of the great reputation of the public schools. The environment and culture of the schools is so impressive and the work of the staff is greatly appreciated and admired. She believed the woefully inadequate conditions at Fort River and Wildwood will propel the school committee to be morally obligated to do what is best for all current and future students and staff. She stated that it is morally distasteful to leave a school behind in this process and perhaps an over-ride or political process may be necessary if all are not on board. Simon Raine (ARPS pre-school parent) stated that small and good schools exist in Amherst and more time is needed before a decision is made. He said better outreach and communication is necessary and many parents are underrepresented at this forum. Bruce Baird (WW parent) thinks that because Fort River is so decrepit it should repaired first and then attention must be given to Wildwood. Nick Yaffe (Wildwood Principal) commented that the community is essential in this critical decision and to please consider the condition of both Fort River and Wildwood Schools as well as a student's ability to learn and be healthy in buildings.

3. Superintendent's Update

Ms. Geryk invited school committee members and the community to attend the Juntos We Play event on October 24 from 11:30 a.m at Colonial Village; the meet and greet with new ARPS ombudsperson, Paul Wiley is scheduled for October 23, 2015 from 6:30 p.m.-7:30 p.m. in the ARHS Library; and the They Made it So Can We presentation is scheduled for October 30 at Crocker Farm School. Ms. Appy invited all to attend the annual AEF Trivia Bee on October 29 at 7:00 p.m. in the ARMS Auditorium.

4. New & Continuing Business

Educational Program & Grade Configuration Recommendation 10/20/15; Amherst Public Schools Educational Program 10/20/1; Memo from Supt Geryk Re: Educational Program for the MSBA Building Project 10/16/15; 3.1.2 Educational Program explanation January 2015; Newton Cabot

7:06 p.m.

7:00 p.m.

Elementary School Part 2: Educational Program 2/27/15; Brookline Edward Devotional Elementary School Educational Program

Mr. Morris explained the many components of the educational program throughout the lengthy presentation including guiding principles; 21st Century learning goals; communication vehicles (2013present); infrastructure; transportation plans; budgetary and educational program implications; enrollment; re-districting; and financials of the two scenarios (re-configuration and K-6 model). Mr. Murphy explained the MSBA timeline and deadlines. Mr. LaPosta explained operational efficiencies and building life-cycle costs. He also showed photographs of newly built schools in other communities (Framington, CT, Bridgeport, CT and Weston, MA) with various configurations and designs. Ms. Geryk recommended that the Educational Program with a reconfiguration of Crocker Farm as a PreK-Grade 1 school and a new school be created to educate all Grade 2-6 students be accepted by the school committee on November 3, 2015. Mr. Morris explained next steps and invited all community members to participate in the October 26 community forums in the ARHS Auditorium at 3:30 p.m. and 7:00 p.m. Ms. Appy thanked Mr. Morris, Mr. Murphy and Mr. LaPosta for a highly comprehensive presentation and opened the floor to questions from committee members. Mr. Hood had no questions because the school committee had been well-informed since 2013. He stated that he had not heard any new concerns since the process began and had not heard of alternative solutions from the public. He further stated that more time to render a decision and vote would not be needed. Ms. Douangmany-Cage noted that the conversation had become more about the health, structural and safety issues of the school buildings. She stated that it is demoralizing that the community has become so divided. She asked if the administration had considered other MSBA options and programs to repair schools. Mr. Bohonowicz explained that he had and believed that the route currently undertaken was the best possible plan. Ms. Geryk added that since 2007 conversations between MSBA and the district have been very public. Officials from the town and the schools make decisions which impact school buildings regarding repairs and maintenance. She thanked Mr. Bohonowicz and his staff for their work and quick responses to teacher and staff concerns and complaints. Ms. Douangmany-Cage asked about non-ADA compliance and Mr. Bohonowicz answered that both Wildwood and Fort River were built before federal accessibility laws were enacted. Ms. Douangmany-Cage suggested that the public become more familiar with programs the MSBA offers to municipalities. Ms. Hazzard thanked Mr. Morris for his work on this report and realizes that the final recommendation was a very difficult decision to make. She asked if the MSBA would potentially not accept the 2-wing school building design. Mr. Morris explained that the MSBA will accept the plan because the educational program and architectural plan is comprehensive. He encouraged all school committee members to examine the reports. Ms. Hazzard asked if testimonials from other districts which have a re-configured school building be available. Mr. Morris indicated that the Weston, MA, Framington, CT and Bridgeport, CT school districts' feedback could be obtained. Ms. Hazzard then asked which administrator would be eliminated (referenced in the presentation) once the school is built. Mr. Morris stated that the administrative team would be re-configured and many options exist. Ms. Appy stated the presentation was highly informational and reflected the work since 2013. She understands human nature and why many community members are just paying attention now as a decision draws near. She added that it is intolerable that special education elementary students are being underserved in the current Wildwood and Fort River buildings. She encouraged all community members to attend the October 26, 2015 forums.

F. Accept Gifts

8:59 p.m.

Mr. Hood moved to accept gifts: \$300.00 from Lucia Spiro to support the Crocker Farm Principal's Discretionary Fund. Ms. Hazzard seconded and the motion passed unanimously.

B.-C. FY 15 Budget Final Report & FY 16 1st Quarter Budget Update 9:01 p.m. Amherst Public Schools FY 2015 End of Year Budget Report; Amherst Public Schools FY 2016 First Quarter Budget Report

Mr. Mangano reviewed the FY 15 Budget document and asked for questions. There were none from the committee. He then reviewed the FY16 report and asked for questions. Ms. Hazzard asked if another Kindergarten classroom would be added at Crocker Farm based on enrollment. Mr. Mangano replied that if that occurred another teacher would be hired.

D. Superintendent's Goals FY 15-FY 16

Superintendent Evaluation 2015-2016 Self – Assessment Goals Action Steps

Ms. Appy moved to accept the Superintendent Evaluation 2015-2016 Self –Assessment Goals Action Steps. Ms. Geryk explained that the Regional and Pelham School Committees recently voted and accepted the goals. In response to a committee member's suggestion, the goals were changed to reflect this recommendation (see pages 3, 4, and 7). Ms. Douangmany-Cage asked if goals would be reviewed again and Ms. Geryk stated that this would happen in January 2016. Ms. Hazzard moved to approve the Superintendent Evaluation 2015-2016 Self –Assessment Goals Action Steps and Mr. Hood seconded. The motion passed unanimously.

5. School Committee Planning

Mr. Hood asked if the calendar would be published on the district website so community members have the opportunity to view upcoming topics. Ms. Geryk indicated it would happen. Ms. Geryk stated that the DIP and SIPs would be presented at the November 3, 2015 meeting and the calendar was updated to reflect this. Mr. Hood thanked everyone again for their work on the building project. Ms. Douangmany-Cage asked if another educational program would be submitted in the case that the current one was not accepted. Mr. Morris indicated that the program would be adjusted accordingly so that it could be submitted by the MSBA deadline and accepted by the MSBA. He explained that this is why the educational program is currently a draft.

6. Adjournment

Mr. Hood moved to adjourn and Ms. Hazard seconded. The motion passed unanimously.

Respectfully submitted, Kimberly Stender

9:03 p.m.

9:13 p.m.

9:09 p.m.

REGULAR Meeting of the Amherst School Committee November 17, 2015 Library, Amherst Regional High School

IN ATTENDENCE:

Katherine Appy, Chair Vira Douangmany-Cage Phoebe Hazzard Rick Hood KathleenTraphagen (arr. 6:03 p.m.) Maria Geryk, Superintendent Mike Morris, Assistant Superintendent Sean Mangano, Finance Director Nick Yaffe, Principal Wildwood School Bobbie Finocchio, Principal Fort River School Derek Shea, Principal Crocker Farm School Jim LaPosta, JCJ Principal Designer Tom Murphy, JLA Project Manager Faye Brady, Student Services Director Marta Guevara, Family Engagement Director Monica Hall, Equity/Prof Development Director Carol Ross, Media/Climate Specialist Community members & Press Kimberly Stender, Recorder

1. Welcome

Ms. Appy called the meeting to order at 6:02 p.m. and reviewed the agenda. Ms. Hazzard moved to approve the minutes of November 9, 2015. Mr. Hood seconded the motion. Ms. Traphagen asked that a sentence be amended. She will send Mr. Morris the corrected sentence for inclusion and the November 9, 2015 minutes will reflect this change. The motion passed with one abstention (Douangmany-Cage).

2. Announcements & Public Comment

Vince O'Connor (community member) addressed issues faced by ELL programs in a very large elementary school and asked the school committee and administration to demonstrate caution as the school building process moves forward. He does not want the same design and program mistakes made in the 1990s when the high school was renovated happen again. He urged the judicious release of accurate information to the community. Ms. Appy wordsmithed the House Bill 326 letter and will bring it to the December 22, 2015 meeting. Ms. Traphagen asked members if they had heard about DESE's decision regarding standardized testing. Mr. Morris explained the decision in depth and how it could impact ARPS students.

3. Superintendent's Update

Ms. Geryk reported that the Amherst Together November 16, 2015 event featuring the film, *James Baldwin: The Price of Ticket*, was well-attended. She thanked Carol Ross and community partners for their efforts.

4. New & Continuing Business

A. Wildwood Building Project Update

DOCUMENT: Meeting & Milestone Schedule: Feasibility Study and Schematic Design

Mr. Murphy explained the document and emphasized significant dates. He noted that some dates may change. Ms. Traphagen inquired about the date for the school committee's advisory vote and grade configuration vote. Mr. Hood explained that more information would be forthcoming at the December 22, 2015 meeting and the advisory vote could occur at the January 19, 2016 meeting. Mr. Murphy added that basic financials will be provided at the December 22, 2015 meeting. Ms. Hazzard asked if a design recommendation would be presented at the December 8, 2015 public forum. Mr. Murphy replied he did not anticipate a final decision regarding one design over another. Mr. Morris added that complexities of the design and site issues may impact the calendar and schedule. Mr. Murphy went on to say that the final cost will be determined by different factors (site preparation, materials, etc) and costs will be presented as the process advances. Mr. LaPosta explained the term eco-charette. This term is used in conjunction with

6:04 p.m.

6:02 p.m.

6:16 p.m.

6:15 p.m.

green schools and the LEAD rating system and is a requirement in the building process. It is a workshop or session for community members, committee members and administrators to brainstorm ideas to create the most sustainable school. Ms. Douangmany-Cage asked if there is an updated listing of the MSBA Building Committee on the district website. She also asked if the latest building committee meeting minutes would be posted as the last ones posted were dated April 8, 2015. Mr. Morris explained that the building committee would approve the minutes at their next meeting and that these would be posted on the Joslin, Lesser & Associates website. The JLA website is currently linked to the district website. Mr. Morris spoke about his November 13, 2015 phone conversation with the MSBA. During the conversation, topics such as acceptable class size, overcrowding, and design options were discussed. He explained that the MSBA has a different idea of what enrollment and overcrowding mean compared to the perception of ARPS administrators. He explained that this is because the MSBA reviews requests from districts which are far worse than Amherst. He expects a response from the MSBA by November 30, 2015 and will share this with the school committee. Ms. Geryk added that the conversation was meaningful and contained many clarifying questions and data. She stated that twin Grade K-6 schools may be an option and that she remains cautiously optimistic that the MSBA will consider this option. Mr. Murphy stated that the MSBA will fund the project at 68% and perhaps this percentage will increase as LEAD and other incentives are explored. Mr. Morris reported that the trip he, Mr. Yaffe and Mr. LaPosta took to the 1,000 student Acton/Boxborough school (Merriam and McCarthy-Towne) on November 16, 2015 was extremely informative. Mr. Yaffe spoke about the physical design of the building, common spaces, the overall climate of the two schools and the collaborative nature of staff. He very much admired the concept of a "Co-Existing Committee" and was hopeful a similar group could be established in the new Amherst school(s). Mr. Morris was satisfied with the informative feedback the group received from the Acton/Boxborough staff and administrators. Mr. Yaffe was impressed with how each school created their own identity and climate and that students and staff seemed calm and happy despite being in a large building. He commented on the design and layout of the building made it seem compact and easily accessible (ex. short hallways). Ms. Appy asked how in such a large school was class size equalized. Mr. Morris explained that families are offered school choice amongst the town's elementary schools and administrators determine classes at schools based upon requests. This is a different model than what is used in Amherst. Ms. Douangmany-Cage asked if students wore uniforms and how common spaces were shared between the schools especially at lunch. Mr. Yaffe replied that students did not wear uniforms; lunch and recess seemed orderly; and classes had their own spaces on the playground and in the cafetorium. He was very impressed with the library design and how two classes could use it simultaneously without much noise. He admitted it was much quieter than the Wildwood library when one class utilizes it. Mr. LaPosta explained the MSBA Space Template and stressed it was an important document which will be examined by the MSBA as changes to the design are made. He indicated that many versions of this worksheet will be completed throughout the entire building process. He then presented the site alternatives and pointed out water tables, culverts, topography, flood plains, underground streams as well as regulatory issues for each site. He explained that a multilevel school has a smaller footprint and this concept may best be suited for the proposed sites. The sites he showcased were the current Wildwood and Fort River campuses and the Hawthorne Farm property (adjacent to Wildwood and ARMS near East Pleasant Street).

B. Fees Review

DOCUMENT: FY2016 Fee Review & Proposed Changes for FY2017

Mr. Mangano announced that there would not be a vote this evening and explained the budget document. He explained fee increases for school meals and Crocker Farm Pre-School. Ms. Douangmany-Cage inquired how tuition is adjusted for pre-school parents who use State vouchers. Mr. Mangano agreed to research this and will provide information regarding this. Ms. Douangmany-Cage asked about the contract with Whitson's Foods. Mr. Mangano explained that the contract is currently in its third and last year with two options years (2016-2017 and 2017-2018). He went on to say that it is a long process to select a new vendor and requires a committee of community members, school committee members and school staff to craft an RFP and determine the best vendor based on specific criteria.

7:14 p.m.

C. District Improvement Plan

7:18 p.m.

DOCUMENT: ARPS District Improvement Plan: A Blueprint for Continuous Growth 2015-2016 Ms. Geryk presented the overview of the District Improvement Plan's goals, priorities and practices. She addressed co-teaching, Professional Learning Network and DESE equity work, student and family engagement work with the University of Massachusetts and ARPS Family Center, and the work with the University of Chicago School of Education Reform's 5Essentials survey work.

D. School Improvement Plans

7:32 p.m.

DOCUMENTS: Crocker Farm Elementary School Improvement Plan 2015-2016; Wildwood School Improvement Plan 2015-2016; Fort River School Improvement Plan 2015-2016

Mr. Shea praised the talented and committed Crocker Farm staff which develops, supports and fosters learning skills in all students. He showcased several books staff and administrators have read which enhance teaching and learning perspectives. He noted that there is a strong connection amongst all the elementary schools with a focus on best ideas and practices. He spoke about the results of the family survey conducted in Spring 2015 which indicate that Crocker Farm is heading in the right direction. He praised the Teacher Leadership Team, PGO and School Climate Team. Mr. Yaffe stated that the District Improvement Plan is finely crafted, ambitious and serves as an excellent guide for all elementary schools. He praised each elementary school for adhering to this road map while simultaneously remaining unique in terms of climate and culture. Mr. Yaffe stressed the importance of student voice, PBIS, using mistakes as learning tools and the integrated arts program. He believes it is critical to emotionally support staff each day. Ms. Finocchio highlighted effective instruction, aligned curriculum, and student social/emotional/health needs and increasing family engagement in the Fort River SIP. She also mentioned arts integration, co-teaching, ARPS Family Center and before/after school programs. Ms. Douangmany-Cage commented on the Wildwood SIP cover photograph and the welcome sign at Crocker Farm. She asked if the Crocker Farm lunch room was quieter. Mr. Shea replied that is was because staff took the time to develop a simple plan to engage students in a knowledge game throughout the meal. Ms. Traphagen thanked all principals for their work and wanted to hear about accelerated programs for elementary students. She stated this has been brought to her attention many times by parents/guardians. Ms. Geryk stated that project-based differentiated learning will enhance the educational experience of all students and spark collaborative creativity. She went on to say that high achieving students in the district far outscore students from other districts on the MCAS test. Mr. Yaffe explained that there is a high cognitive demand on students especially in the Everyday Math program and math labs. He added that the Everyday Math program is the anchor to establish standards and integrated arts enhancements and creates multiple entry points for learning. He stated that the Reader Writing Workshop has experienced success. Ms. Finocchio indicated that Fort River is making gains as math coaches and reading specialists are stretching the minds of all students. She mentioned that the current buzz word at the school is "grapple" as staff determines new ways to bring out the best in each student. She added that SuperKids and Reader Writing Workshop are enhancing ELA differentiation. Mr. Shea suggested that the math coaches and reading specialists present their work to the school committee at an upcoming meeting. Ms. Traphagen asked how the district best meets the needs of students who are not always "in the lane." She suggested a committee be formed to examine ways to support gifted students. She added that this has equity implications as not every family knows that their child has options (skipping grades, accelerated learning, etc.). Mr. Yaffe suggested that gifted students may find challenges in project-based learning. Ms. Traphagen was appreciative that quantitative goals and an emphasis on equity was included in the Fort River SIP. She suggested more data regarding the effectiveness of PBIS and discipline data should be included. Ms. Finocchio explained that the Fort River Climate Committee examines PBIS and discipline data and also develops plans and formulates topics for staff meetings. Mr. Shea added that the ongoing PBIS work with Dr. Sara Whitcomb (University of Massachusetts College of Education) and Dr. Brady has produced effective solutions to issues. He provided an example of a playground situation which staff solved through collaborative means in real time. Ms. Traphagen would like field trips to be discussed at an upcoming meeting. She suggests the committee also examine time on learning primarily with science and social studies as this seems to be lacking. She believes that not enough emphasis is currently placed on these subjects. Ms. Finocchio explained that staff can integrate science and social studies with math. In this way teachers would not be taking away but enhancing what currently exists. Mr. Morris explained

that this is currently being done on the secondary level and welcomes suggestions as to how this could be done on the elementary level. Mr. Hood thanked all principals for their work and appreciates the honest conversation. He stated that in the six years he has served on school committee he has noticed an increased collaborative nature amongst elementary school leadership, programs and initiatives. Ms. Geryk commented that the elementary leadership team is comprised of dynamic, talented and dedicated educators who do amazing work each day. Mr. Morris stated he enjoys working with exceptional principals in Amherst and Pelham. Mr. Yaffe commented that the work is based on the DIP and is being expanded in the schools. Mr. Shea added that teacher leadership capacity is off the charts. Ms. Hazzard also thanked the principals for their work and noted that research-based tools can enhance student work to achieve goals. She requested that AIMS Web scores from each school be provided to school committee members and Ms. Geryk said they would be. Ms. Hazzard inquired about the Diverse America curriculum. Ms. Hall explained that this could be integrated across the curriculum on all grade levels and through project-based learning. Ms. Hazzard also praised the Elementary Garden Program and the enhanced music program. Ms. Appy thanked the principals for their continued work and commitment to all students, staff and families. She stated that the SIPs have become guiding documents in which PBIS, collaboration, arts integration and programs are highlighted and serve as foundations to move all students forward. She would like to see special education and MCAS scores be featured more prominently in the SIPs. She added that professional development and teaching collaboration time is commendable with limited resources. Ms. Geryk reminded the group that the district is creating a learning community in which all learners can achieve. Mr. Shea added that the new ARPS Family Center Home Visit Program is very effective. With permission from the superintendent, Mr. Shea invited school committee members to visit Crocker Farm School.

E. FY17 Budget Guidance

Mr. Mangano and Ms. Geryk asked the school committee to send queries regarding the budget to them. Mr. Hood reminded members that reductions and additions are the most important items in this process and that guidelines are very general. Mr. Mangano stated that the budget will be discussed at the Four Towns meeting on Saturday, December 5, 2015 (9:00 a.m.,ARMS Library) and all are encouraged to attend. He will present a detailed budget at the January 19, 2015 school committee meeting. Mr. Hood suggested that an additions/reductions Plan B be created if public feedback is negative at the February 9, 2016 meeting.

F. Accept Gifts

There were no gifts to accept.

5. School Committee Planning

After a brief discussion, the committee decided to include the following topics on the December 22, 2015 agenda: field trips, current restraint policy, wellness policy (lunch/recess detention) and preliminary budget guidelines. It was also decided that a potential vote regarding the FY17 Budget would occur at the January 19, 2016 meeting.

6. Adjournment

Ms. Traphagen moved to adjourn the meeting at 8:56 p.m. and Mr. Hood seconded. The motion passed unanimously.

Respectfully submitted, Kimberly Stender

8:42 p.m.

8:49 p.m.

8:49 p.m.

8:56 p.m.