



ANDOVER PUBLIC SCHOOLS

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Massachusetts School Building Authority School District Educational Profile Questionnaire

Date: July 27, 2018

Name of School District: Andover Public Schools

District Contact (Name, Title): Paul P. Szymanski, Asst. Supt. for Finance & Admin.

As part of the District’s invitation into the Eligibility Period, the MSBA is seeking the following information to further inform our understanding of the School District’s facilities, teaching methodology, grade configurations and program offerings. If the below information is available in documents previously provided to the MSBA, please indicate in which document and on which page this information may be found.

SECTION ONE: Facilities

A. Please confirm the following MSBA 2016 School Survey information for all public schools in the District using a “Y” for accurate and “N” for not accurate:

District	School Name	Type	Year Founded	Last Reno.	GSF	Y/N
Andover	Bancroft Elementary School	ES	2014		67,600	N
Andover	Henry C. Sanborn Elementary School	ES	1951	1995	51,560	Y
Andover	High Plain Elementary School	ES	2002		99,600	Y
Andover	South Elementary School	ES	1957	2014	65,800	Y
Andover	West Elementary School	ES	1951	2001	94,000	Y
Andover	Doherty Middle School	MS	1951	2014	125,000	Y
Andover	Andover West Middle School	MS	1956	2016	106,000	Y
Andover	Wood Hill Middle School	MS	2002		76,600	Y
Andover	Andover High School	HS	1966	1995	343,520	Y

Using the space below, provide additional information for any inaccurate or incomplete Needs Survey data.

GSF of 67,600 shown for the Bancroft was for the original building. The new school has a GSF of 106,846 GSF.

B. Using the chart below, list Charter Schools (Commonwealth, Innovative, or Horace Mann) and private schools located in the District.

Name of School	Type of School	Year Established	Grades Served	Current Enrollment
Not applicable				

SECTION TWO: Current Program, Grade Configuration, Teaching Methodology

A. **For elementary and middle schools only** In the chart below, provide information about the current grade configuration for each public school facility adding or editing cells and rows as appropriate. Check the boxes provided to indicate program offerings at each facility. Next to the check, please indicate the number of hours and days the program is offered.

Name of School, Grades Served	Science Classes	Art (Performing and Visual Art)	Music	Physical Education (Adaptive PE)	Library Classes	Extended Day Care	Lunch Seatings
Bancroft Elementary School (K-5)	Kindergarten 2 X 30 Grades 1-3 2 X 45 Grades 4-5 3X45 min	Kindergarten 1X30 First/Second/Fourth/Fifth Grades 2X45 Third Grade 1X45	Kindergarten 2X30 First/Second 1X45 Third grade 2X45 Fourth/Fifth 2X45	Kindergarten 4X30 First-Fifth Grade 2X45	Kindergarten 2X30 First-Fifth Grade 1X45	Yes	All grades 1X25
Henry C. Sanborn Elementary School (K-5)	Gr. K 2X30 Gr. 1-3 2X45min Gr. 4-5 3X45min	Gr. K 1X30 Gr. 1, 2, 4, 5 2X45min. Gr. 3 1X45 min.	Gr. K 2X30 Gr. 1, 2, 4, 5 1X45 Gr. 3 2X45	Gr. K 4X30 Gr. 1-5 2X45	Gr. K 2X30 Gr. 1 – 5 1X45	NO	Roughly 240 children at a time

High Plain Elementary School (K-5)	Kindergarten 2 X 30 Grades 1-3 2 X 45 Grades 4-5 3X45 min	Kindergarten 1X30 First/Second 2X45 Third Grade/ Fourth/Fifth Grades 1X45	Kindergarten 2X30 First/Second 1X45 Third grade 2X45 Fourth/Fifth 2X45	Kindergarten 4X30 First-Fifth Grade 2X45	Kindergarten 2X30 First-Fifth Grade 1X45	Yes	All grades 1X25
South Elementary School (K-5)	Kindergarten 2 X 30 Grades 1-3 2 X 45 Grades 4-5 3X45 min	Kindergarten 1X30 First/second/ fourth/fifth 2X45 Third Grade/ 1X45	Kindergarten 2X30 First/Second 1X45 Third grade 2X45 Fourth/Fifth 2X45	Kindergarten 4X30 First-Fifth Grade 2X45	Kindergarten 2X30 First-Fifth Grade 1X45	Yes	All Grades 1X 25
West Elementary School (K-5)	2 x 45 Min/Wk. Within classrooms	2 x 45 Min/Wk. 50 Sections	1 x 45 Min/Wk. 36 Sections	3 x 45 Min/Wk. 66 Sections	1 x 45 Min/Wk. 33 Sections	NO	6
Doherty Middle School (6-8)	General Science 5x45/week Health 4x45/week Engineering 4x45/week	Visual Art 4x45/week	General Art 4x45/week	PE 5x45/week	Independentl y Scheduled	NO	3x30 minutes/day
Andover West Middle School (6-8)	6-8 5X/Wk. 45 Min. classes	6-8 4X/Wk. for 10 Wks. ¼ school Yr. 45 Min.	6-8 4X/Wk. for 10 Wks. ¼ school Yr. 45 Min.	Adaptive PE as needed. Gen'l PE 6-8 2X/Wk. 45 Min.	Not available	N/A	1 seating/Gr. 30 Min.
Wood Hill Middle School (6-8)	5 days a week x 48 minutes day.	36 times a year at 48 minutes per period	36 times a year at 48 minutes per period	2 times a week at 48 minutes per period	No scheduled classes	No	3 a day (6 th , 7 th , and 8 th each day)-

For high schools only Attach to this questionnaire current program/scheduling information (core, non-core, enrichment and vocational). **Not applicable to this project.**

B. Does the District belong to a Collaborative? Yes No

Does the District host a Collaborative? Yes No

If yes, please provide the name of the Collaborative _____

Does the District provide Pre-Kindergarten? Yes No

Is Kindergarten fee based? Yes No

If yes, please provide the fee structure:

Andover Public School District provides both half-day and full-day kindergarten. Half-day kindergarten is free. The full-day kindergarten program is fee-based and costs \$3,975 for 2018-19, including a \$500 deposit due at registration, which started in February. Of the balance, \$1475 was due in mid-July, \$1000 will be due in November, and the remaining \$1000 in February 2019.

Andover's full-day kindergarten operates during the regular school hours of 8:45 a.m. to 2:45 p.m. The half-day program runs two sessions per day, 8:45 a.m. to 11:15 a.m. and 12:15 p.m. to 2:45 p.m. Students eat lunch at school and, if eligible for transportation, are transported on regular school buses.

Does the District provide transportation? Yes No

If yes, please provide the name of the provider(s) (District or vendor): Vendor- Trombly Motor Coach Service, Inc. for regular Ed.; Vendor- NRT Bus, Inc. for SPED

C. Using the space below, provide information about the Priority Statement of Interest School's teaching methodology (i.e. self-contained classroom, team teaching, departmental, or cluster). Include class-size policy and if applicable, scheduling particulars.

CLASS-SIZE POLICY: West Elementary adheres to the district's policy on class size, which follows.

Pre-K & K: be at or below 20 students per class, and if not feasible, to within a range of 16 to 24.

Grades 1 & 2: be at or below 23 students per class, and if not feasible, to within a range of 19 to 27.

Grades 3-5: be at or below 25 students per class, and if not feasible, to within a range of 21 to 29.

OVERVIEW OF CORE TEACHING METHODOLOGY: West Elementary's faculty members have participated in extensive and intensive professional development to hone and expand their instructional skills. However, when it comes to applying these up-to-date and evidence-based strategies, their efforts are constrained on a daily basis by the limitations of the physical facility. Following are the characteristics that define the instructional approach currently being implemented at West Elementary. It must be noted that faculty members are applying these programs and strategies to the fullest extent possible, within the confines of the aging and overcrowded building. They are eager for the opportunity to execute these programs in greater depth, given a facility that can accommodate today's approach to teaching and learning at the elementary level.

Classes at West Elementary are primarily self-contained, but mixed groupings are in play most days in various parts of the building. The teachers strive to be inclusive, placing students with special needs into general education classrooms to the extent possible. Title I support, special education services, and English language learning services are provided both within the classroom and in small pull-out groups when appropriate. Teachers also apply the principles of universal design for learning through both adaptive technology and hands-on manipulatives, providing greater access to printed material and curricular content by students of varying ability levels. In most subject areas, the teachers are making a particular effort to use curricula that support inquiry-based instruction, authentic learning, and project-based learning—both in the classrooms and in a makerspace carved out of the media center. They also team teach among grade-level classrooms and with specialists. Teachers consistently establish learning centers in classrooms, although space constraints in classrooms limit the extent of these centers. They bring an array of resources into the classrooms in order to differentiate and personalize instruction. They plan lessons based on the results of multiple assessment instruments and diagnostic tools that are used to measure progress and inform teachers’ instruction.

To execute these methodologies most effectively would require a variety of small instructional spaces for support services, flexible multipurpose rooms that could be easily rearranged to meet changing needs, rooms with retractable walls that support team teaching, rooms that are equipped to support an array of technological devices, and furnishings that lend themselves to student collaboration, hands-on projects, and display of student work. At this point, the West Elementary facility does not meet these standards.

SCHEDULING: West Elementary has the second largest population of Andover's ten schools, exceeded only by Andover High School. In 2017-18, West served 608 students with a staff of 123 teachers, tutors, instructional assistants, administrators, and support staff. Scheduling of classes, students, teachers, and specialists is a major issue. Because a large number of West Elementary’s students require support from specialists who work with individuals or small groups, including Title I support, special education services, and English language learning services, there is a concerted effort to make the best use of use every corner of the building. The principal and assistant principal spend an enormous amount of time on a daily basis juggling the schedule and room allocations to ensure that every teacher, instructional assistant and support specialist has a room or a niche in which to deliver educational services. They continually move groups around the building to meet needs that vary day by day as teachers work on projects or want to implement different teaching strategies. As specialists who have multi-school assignments come in and out of the building on different days and different parts of days, the administrators must continually alter room assignments. This scheduling activity seriously detracts from the time that these two administrators should be devoting to instructional leadership with teachers, meeting with parents, and observing classrooms. In addition, because teachers are moved around so often, they get bumped from their “usual” rooms and find that the new spaces for that day may lack the materials or technology equipment needed for the planned lessons. Students also discover that they can’t access the learning charts and guides that are posted in other classrooms to help them succeed in their independent work. For years, teachers at West Elementary have altered plans and

compensated for building deficits in order to offer required instruction. They group students in shifts, share instructional spaces, create larger groups for differentiated instruction, send student groups into hallways for project work, work from materials on push carts, share resources as a routine part of the job, work with students one on one in hallways or repurposed closets, and sacrifice their own workrooms and break rooms to make more space for small-group instruction. Meanwhile, students are exposed to overcrowded and partitioned rooms where multiple lessons are being taught simultaneously. The school's administrators devote an increasing amount of time to solving space-related problems in order to support teachers. There is a significant need for adequate classroom, small-group instruction, and flexible space so that all teachers and specialists can provide a consistently high quality of instruction, support, and intervention for all students.

THEORY OF ACTION: Andover's theory of action lays out the critical steps that we as a staff need to take and the changes we need to make in order to accomplish our goals. This theory of action directs the work we do every day to implement our strategic plan. According to our theory of action, in order to promote growth in foundational content knowledge and thinking skills that enable students to take ownership of their learning, we need to focus on four specific areas or goals:

- the rigor of our curriculum,
- the inclusiveness of our instruction,
- the culture and climate of our schools,
- the close monitoring of student progress in order to adjust instruction to meet the needs of each student.

SPECIFIC CURRICULAR PROGRAMS: Following are the major curricular programs and teaching approaches that are being pursued at West Elementary School to address these four goals, as well as some of the facility-related factors that hamper teachers from maximizing the impact of the teaching-learning process.

GOAL 1: Ensure that every student engages in a rigorous curriculum.

READING/LITERACY: West Elementary's teachers routinely provide reading instruction through a reading block that engages all classroom teachers, specialists and instructional assistants in providing small-group instruction through flexible grouping of students based on demonstrated skill levels and diagnosed needs. The school's reading remediation program accommodates those students who most need to receive these important services. Teachers use Lexia, an adaptive computer-assisted instruction program for reading, to target specific skill development during the reading block. Instruction is provided in small groups in various classroom centers and other spaces in the school. Foundations provides the phonics component of reading instruction. The Lucy Calkins Units of Study model of writers' workshop is used for core writing development. Other strategies being used with tier II and tier III readers include Story Grammar Marker, Lindamood-Bell (LIPS), Orton-Gillingham, and Wilson Language.

The media center provides critical support to reading instruction through lexile coding of books that students use for both classroom and interest-based reading. Because of school overcrowding, on two days each week the media center must serve two classes at a time all day. As a result, the students have time to do little more than check out books. There is insufficient space and time for students to learn to use the media center for research or to understand how a library is organized to help them find information.

MATHEMATICS: The school's main instructional program for mathematics is called Math in Focus. The Title I math remediation program accommodates only those students who most need to receive services. Title I serves students in a space in the center of the teaching pods—a space that was once devoted to office cubicles. The students receiving this support struggle to block out noise and distractions from the ten classrooms that flow into the hallway around the cubicles. The Title I teacher strives to emphasize inquiry-based learning where the students work in small groups to focus on one task for the duration of a class period. The conversations/discussions and group shares are productive and the students have opportunities to make their thinking visible. Because these small groups are in such close proximity, several groups of students will typically move into the hallways and spread out on the floor to work together on solving problems.

SCIENCE: The current Full Option Science System (FOSS) curriculum requires active engagement on the part of the students. Unfortunately, West Elementary has no science labs and no rooms designated for the study of science. The building has no designated rooms for project-based or hands-on learning in science and engineering, and there is no space to store the supplies needed for such programs. FOSS is an exceptional program if executed well. However, our teachers lack the organizational time and space to implement this program as intended and to embrace the authentic, inquiry-based learning that is embedded in the FOSS lessons. Although teachers work diligently to provide science instruction that has fidelity with the program, facility constraints are preventing students from receiving the full benefits of this program.

PERFORMING ARTS: West Elementary has three music teachers and only one music room. Two of the music teachers must teach on the stage of the auditorium. The principal juggles schedules for these two teachers, who serve multiple buildings, to ensure they do not overlap schedules for that shared space. When the school has assemblies or hosts cultural events, the music teachers are displaced into a general education classroom, which inhibits nearby general education teachers' ability to implement their lessons—and students' ability to focus on those lessons—due to the noise level from the music program. Space constraints affect the music program not only because two sections must operate on a stage, but also because there is insufficient storage space for instruments, especially the larger ones, which prevents some programs from being offered. The space constraints in turn put limits on the times when the school can offer chorus or band. In fact, because of space issues, the schedule had to be rearranged so that band, orchestra, and chorus are never offered on the same day, making it impossible for the groups to practice or perform together. One section of music is taught in a classroom in the first-grade wing. The noise from the music class

permeates the regular classrooms, and small groups of students who are separated only by partitions sometimes struggle to hear their teachers and classmates. The music teacher cannot do any small-group projects that involve recording, audio, or playing instruments and occasionally has to borrow the principal's office for the purpose of recording. In addition, because both stages are almost always in use and filled with instructional equipment, students have limited opportunities to access the stages in order to put on a music performance, play or demonstration that illustrates what they have learned or their comprehension of a unit of study.

VISUAL ARTS: The projects that can be introduced by the art teachers are severely restricted by space. There is no room to undertake set design for school performances. There is no space to create a wall mural or any large project that has to be left in place while students work on it for an extended period of time. Clay and other 3-D projects have to be staggered and some classes do not receive this learning opportunity at all. The kiln is in the boiler room, which is not an appropriate space for students, so they cannot be part of the firing experience. Art teachers must coordinate with the custodian to access the kiln. Students' clay projects are often accidentally broken because of lack of display/storage space. The sink in each art classroom is grossly undersized for art-related activities, especially when 24 students need to wash paint, chalk or clay off their hands and work surfaces. Finally, the ventilation in the art classrooms is inadequate, especially given the use of glues, paints, clays and other materials that emit chemical odors.

NEW ENGLAND ARTS IN LEARNING: West Elementary has just completed its fourth year of participation in the federally funded New England Arts for Literacy (NEAL) grant program. Numerous West Elementary classroom teachers and specialists participated in NEAL, which focuses on the integration of arts—visual and performing—into literacy instruction to enhance understanding. Through professional development, these teachers learned how to implement an arts integration model and performance cycle into their literacy instruction to create powerful literacy contexts and conditions in elementary classrooms. NEAL represents a partnership among schools, museums, artists, and experts to train and support teachers in this work. Although the grant itself has now ended, these teachers plan to embed the NEAL integrative strategies in their instruction going forward.

PHYSICAL EDUCATION: West Elementary has three general education PE teachers and one Adaptive PE teacher. The three general education PE teachers share two gyms—upper and lower. The upper gym is larger and is used by two classes at a time, three days a week; however, the size of the upper gym is inadequate for operating two classes simultaneously. This gym is now divided in half by a curtain, and the crossover noise inhibits students' ability to hear instructions from the PE teachers. In addition, the gym has extremely loud commercial-size vents that operate all day, adding to students' difficulty in hearing the teachers' directions. The lower gym is smaller in size and is used by only one class at a time. With all available spaces devoted to instruction and other services, storage space has become almost non-existent. Therefore, the large PE equipment is now stored in the upper gym itself, subtracting even more of the floor space that is sorely needed for student

activities. Gym mats are stuffed between the rows of fixed seats in the auditorium and have to be moved whenever there is a performance or assembly. According to national standards, the recommended PE space for students is 110 sq. ft. per student. The lower gym offers 100 sq. ft. per student, and the upper gym provides 74 sq. ft. per student, less the space lost to equipment storage. The three PE teachers must continually modify the curriculum due to lack of space. For example, all students in the class should be simultaneously engaged in such activities as throwing/catching, floor hockey, or soccer, using three-on-three groupings. However, lack of space forces students to wait and observe, rather than participating. Not only do the students get less physical exercise and have less opportunity to develop skill proficiency, the wait time leads to boredom, inattention, and other behavior infractions. The Adaptive Physical Education teacher has no space to offer the five to seven classes needed each week and must resort to offering her program in the lower gym during lunch block or in the cafeteria when lunch is not being served.

INSTRUCTIONAL TECHNOLOGY: Students in grades 2 through 5 are part of the district's 1:1 technology program, while students in grades K and 1 have a device for every two students. The students use Chromebooks that are stored on a large charging cart. The advantage of these carts is that only one electrical outlet is needed to supply the entire cart full of devices. The disadvantage is that the carts are quite large and demand valuable space from already overcrowded classrooms. The current electrical system does not provide an adequate number or variety of outlets for modern technology needs. Most classrooms have only two or three duplex outlets; teachers must use extension cords or power strips to provide access to devices other than the Chromebooks. Because the integration of technology presents a logistical challenge and teachers are already pressed for time, it is understandable that some teachers revert to more traditional methods of instruction. Given the space constraints and inadequate infrastructure at West Elementary, students face decreased opportunities to integrate computers into their daily learning and to develop the technology-based skills needed for success in 21st century careers. Each regular classroom is also provided with a white board and projector system that enables interactive use of technology by both teachers and students. Google Classroom is a software application that supports student collaboration. It is used extensively to support student writing and student projects in various content areas.

TEAM TEACHING: Most of West Elementary's teachers engage in team teaching with specialists three times a week, but a number of teachers use it extensively with their grade-level colleagues. For example, two grade 2 teachers combine their classes on a daily basis and then differentiate instruction to better support students. They have eliminated desks and use tables and flexible bins for students to transfer materials between rooms. There is a doorway to pass between each pair of rooms, and creative teaching nooks and crannies are improvised. As an example of how this team teaching is implemented, the lead teacher first conducts a mini lesson on the rug. The students (about 45) are crammed into one room and the space is not really conducive to these large-group gatherings. The lesson may be part of the Lucy Calkins writing program, FOSS Science, or Math in Focus. After the teacher completes the presentation of the lesson, the students move to exploratory or partnered work, using both classroom spaces, while both teachers either circulate to provide support to various groups or work with particular groups on a rotating basis.

AUTHENTIC LEARNING: This method of learning applies knowledge to real-life contexts and situations. It involves learning through first-hand experiences, rather than by reading a textbook. It can include learning that occurs in the community, rather than in school. Rather than being abstract, it is overtly connected to actual life situations, such as a potential career. It is learning by doing—and what is learned has meaning beyond the walls of the school. It engages students in the collaborative creation of products or solutions that require extended focus over time, match the complex real-world tasks and investigations of professionals in practice, and integrate knowledge from multiple disciplines. West Elementary's teachers are committed to pursuing authentic learning experiences with their students, and look forward to having more opportunities to incorporate this methodology into their curriculum.

DESIGN THINKING: This methodology involves using creative and systematic thought processes to tackle problems. It encourages brainstorming new ideas and collaborating with others in learning. It offers a structured framework for identifying challenges, gathering information, generating potential solutions, refining ideas, and testing solutions. When integrated with the core curriculum, Design Thinking makes creativity and innovation an integral part of the K-12 learning experience. Design problems and projects are woven into each area of academic instruction and students are challenged to apply the process to develop and test potential solutions. Through Design Thinking, students and teachers learn to embrace experimentation and the ups and downs that are a part of the creative process. Learning is more compelling because students can see how core content is relevant to them and the world in which they live. West's principal teaches a two-day course in how to implement design thinking. A half-dozen of West's staff members have participated in this course, and the method is becoming more widely used throughout the school. The media and digital coach uses it daily, while grade-level teachers are integrating it into their classrooms.

MAKERSPACE: This is a collaborative space where students gather to create projects, to build and invent, and to learn and share ideas. At West Elementary, a small makerspace has been created out of one section of the media center and that space does house several computers. The makerspace has only 608 sq. ft. and can barely hold a full class—and even then the students have limited room to move around. Two years ago a hollow wall was built to separate the literacy room from the computer room/maker space; however, the noise transfers between the two rooms and distracts both groups of students. The makerspace should also be used for filming, as a STEM lab, and as a computer Scratch lab, yet is able to serve none of these purposes very effectively. Not all grade levels are able to have access to the makerspace because of scheduling conflicts. West Elementary lacks sufficient space to establish the type of makerspace that has become a popular and effective teaching tool at other schools. The daily struggle caused by overcrowding affects staff morale. Teachers at West Elementary are disappointed that they are unable to implement educational approaches that require more space for students to work independently, in small groups, or on projects that require spreading out materials on walls, floors, or tables.

CAPSTONE: Capstone projects originated at the high school level. However, a few of West Elementary's fifth graders participated in this program in 2017-18 as a pilot. In Capstone, the student develops a research question or problem, works on it over a period of weeks or even months, and then presents the findings in a public setting. It is a culminating opportunity that enables students to demonstrate how they can apply some of the knowledge and skills they acquired during their elementary years. Capstone projects can be research-oriented or design-oriented. At West Elementary, the solutions were typically interactive, meaning the end product was something that could be implemented and used. Some students incorporated Design Thinking and Authentic Learning strategies as they worked on their Capstone projects.

GOAL 2: Provide inclusive instruction that engages every student in authentic learning experiences, demonstrates the power of effective effort, and fosters inquiry, creativity and positive risk taking.

Note: Some of the strategies described above in Goal 1 — such as authentic learning, design thinking, and makerspaces — also support the purposes of Goal 2 with regard to providing inclusive instruction.

INCLUSION: Students with disabilities account for nearly 21 percent of the students at West Elementary School. The district has created special programming to support the enrollment of most special education students within their neighborhood school. This decision affects enrollment and also requires particular uses of space. At West Elementary, there is no additional or repurposed space available to accommodate this type of learning. Small groups of special education students are sometimes force-fit into areas not designed for formal teaching and learning. Within the overcrowded regular education classrooms, teachers find that they often must erect physical cubicles to block out distractions and make this approach work, which somewhat defeats the philosophy of inclusion. Still, inclusion of special needs students in regular education classrooms occurs at every grade level. Students on substantial IEPs may receive ELA and math support in resource rooms that are aligned with one or two homerooms at each grade level. The teachers who are assigned to the resource rooms have a meticulously designed schedule to afford the most opportunity for inclusion. West Elementary also uses a model in which co-taught math is attached to the resource rooms; as students are able, they can slowly integrate into the general education classrooms in math. By creating this opportunity as a gradual release, the students are able to acclimate, to be comfortable and appropriately supported in the larger classroom. If the co-taught class is too overwhelming, the students still have peers in the resource room who are studying math at the same time and the transition is seamless. While inclusion is the goal and teachers are committed to it, it must be acknowledged that when students with special needs and their support staff funnel into the general education classrooms for part of the day, it places even more demands upon already limited space.

TEXTHELP: TextHelp is an application of instructional technology that was introduced to the Andover Schools in 2017-18. It is a multi-dimensional toolbar that supports reading,

organization, written expression, and access to the content areas for students with language-based learning disabilities, but it is also an adaptive software application that can provide support for all students. Students can use the tools flexibly to access print media, to organize and understand difficult vocabulary, to develop study guides and organized note-taking strategies, and to collect and highlight critical text features through color-coding and outlining functions. The TextHelp screen reader can be adjusted for both voice and pace. Students can use the screen reader to navigate websites, PDF documents, and anything else their teacher uploads into Google Classroom. At West Elementary, TextHelp is accessible to all students, but is used most extensively by special education teachers at all grade levels to support inclusion.

UNIVERSAL DESIGN FOR LEARNING: UDL is an educational framework that guides teachers in developing flexible learning environments that can accommodate individual learning differences. UDL enables students at multiple ability levels to access the content of the curriculum by approaching assignments in a variety of ways that best meet their learning strengths. It may begin with a teacher providing multiple ways to motivate students, to challenge and engage them in the material they will be learning. Then there are multiple ways to present the material. For example, after a science lesson, students are given options as to how they will deepen their learning. Some students may decide to “google” videos on their Chromebooks, working from a list provided by the teacher; others may choose to access individual help from teacher-directed learning, to engage with peers in small groups that explore a problem, or to independently read a related chapter from a book. Finally, students can act on their learning to demonstrate what they know in multiple ways. In addition to traditional assessments, students may write an essay, give a talk to the class, solve a math problem, or illustrate a concept with a drawing. Many of West Elementary’s teachers incorporate UDL across all subject areas.

OCCUPATIONAL THERAPY/PHYSICAL THERAPY: The stage in the lower gym has been walled off and is used for OT and PT services. It has space for gross motor and sensory activities, but can be reached only by stairs and there is no handicap access. Thus, the very space that is, by default, being used by students with special motor needs is not even ADA-compliant. At one time, OT/PT had been offered in another area of the building, but that space was ruled out by the fire marshal because it did not comply with safety standards. The PT and OT programs do not have some of the large equipment they need (such as swings) because there is no space for storing the equipment.

SPEECH: A closet intended for storage has been repurposed for speech therapy. This small area has no windows and no ductwork to provide fresh air. Another speech class is conducted on a stage in the lower gym. The students in the speech class continually lose their concentration when interrupted by the thumping sounds in the gym, which is used for regular PE classes. Students also have great difficulty hearing the differentiated sounds they are trying to learn to articulate.

ENGLISH LANGUAGE LEARNERS: The Andover English Language Learner (ELL) population grew from 83 students in 2011-12 to 245 students in 2017-18, essentially tripling in just six years. West Elementary alone served 44 ELL students in 2017-18. ELL services are provided both within the classroom and in pull-out sessions. The ELL room that is used for pull-out sessions is adjacent to one of the art classrooms, separated only by a partition. The routine noise level in the art class severely impedes the ability of the ELL students to focus on the language skills they are trying to develop. ELL students require quiet areas in order to hear and pronounce words, to build their self-confidence, and to work on the literacy skills they need for a solid foundation. Other ELL students are served in small areas carved out of larger classrooms, such as a former computer lab and a partitioned pod.

BRIDGE: West Elementary houses the BRIDGE program for the district. This intensive special education program was created eight years ago to serve students on the autism spectrum in a one-to-one environment. The program uses three classrooms, and each student has an instructional assistant. Each of the BRIDGE classrooms should have a smaller room adjacent to it for students who temporarily need a space for 1:1 calming. Currently, these students are taken to an office, the nursing clinic, or partitioned spaces in hallways—none of which is private, suitable or even available on-demand. Because the gyms are always in use for PE classes, there is no space for BRIDGE students to run and jump when needed; nor is there a quiet space where they can avoid noise and motion and feel safe from overstimulation. With the school already over capacity, West Elementary is unable to provide BRIDGE students with appropriate therapy and small-group spaces to meet their needs, including a motor development space and a safe room for when students are overwhelmed—spaces that neighboring districts are able to provide for similar populations.

GOAL 3: Create safe, caring, and culturally responsive classrooms and schools, and partner with families and the community to support students’ academic growth and their social, physical and emotional wellbeing.

RESPONSIVE CLASSROOM: For 20 years, West Elementary has implemented Open Circle as its program for promoting social-emotional learning. Now, the staff is supplementing Open Circle with the Northeast Foundation for Children’s Responsive Classroom program. Responsive Classroom is an evidence-based approach to teaching that focuses on the strong link between academic success and social-emotional learning. Research indicates that Responsive Classroom is associated with higher academic achievement in math and reading, improved classroom climate, and higher-quality instruction. Twenty-two members of West Elementary’s staff have been trained in this methodology. Teachers use it to create optimal classroom conditions in such areas as student engagement in academics, social awareness and sense of community, self-regulation of word and deed, and responsible decision making. Major activities applied by most teachers include the morning meeting and closing (end-of-day) meeting, as well as classroom problem-solving meetings to address issues in the classroom.. Teachers use a common language throughout the school as they promote partnered learning, cooperative groups, and an array of community-building activities.

SERVICE LEARNING: West Elementary operates a Buddy Program, pairing older and younger students. The intent of this program was to engage students in cross-age content-integrated projects. However, space constraints have limited most of their experiences to simply reading books together in the hall, as there is no room to carry out projects. With all areas of the building occupied and in use throughout the day, the school is unable to provide students with breakout areas and areas for collaboration—a skill that is greatly valued in today’s job market.

GLOBAL PORTAL: The Global Portal is an inflatable space equipped with video and audio technology that enables the people inside the portal to communicate with people in approximately 50 other portals around the globe. It connects people almost as if they were in the same room and helps them build relationships and form partnerships. Students can use the Global Portal to learn about other cultures, to practice their skills with native speakers of world languages, and to problem solve with students from other nations who have similar interests. West Elementary had access to the Portal for a week in 2017-18 and will have it for a month in 2018-19. Next year it will be located in West’s makerspace; However, the inflatable “bubble” that houses the Global Portal and enables better communication will have to be abandoned because the ceilings of the makerspace are too low to accommodate it; a makeshift portal will be constructed instead.

GOAL 4: Monitor student progress diagnostically and plan instruction after thorough and thoughtful data analysis to ensure each student reaches proficiency.

DATA-REFLECTIVE CULTURE: Every Andover school operates data teams in which teachers and administrators meet regularly to review assessment results and student work samples. The information gleaned from these meetings helps to drive changes in instruction at the school, classroom, and student levels with the goal of improving student performance. Teachers are changing their mindset to own the assessment results and recognize their responsibility to change their strategies as needed to reach all students. The major assessment instruments currently in place at West Elementary include:

Massachusetts Comprehensive Assessment System (MCAS) – assesses math in grades 3-5, English language arts in grades 3-5, writing in grade 4 and science in grade 5.

Measures of Academic Progress (MAP) – a computer-adaptive assessment from the Northwest Evaluation Association that measures a student’s ability to read for meaning. It provides teachers with a thorough picture of students’ learning—how much their skills have grown, which skills have been mastered, what they are ready to learn, and specific skill gaps that need to be addressed in both reading and mathematics. It also provides each student’s Lexile score to ensure they are reading at the correct level of challenge. It is administered to all students in grades 3-5.

Dynamic Indicators of Basic Early Literacy Skills (DIBELS) – measures discrete skills that are most closely associated with successful reading development, including phonemic awareness, decoding, and fluency in reading connected text. It is used with all students in grades K-5.

Lexia – a computer-adaptive instruction platform for specific early literacy skill development. It includes a built-in curriculum-based measurement system that can be used to track progress and adjust instruction. It is mostly used with tiers II and III students in grades K-5.

All of this information provides multiple perspectives on students' reading and math performance and allows teachers to diagnose strengths and areas of concern and plan individualized lessons accordingly.

FACILITY CONSTRAINTS ON EDUCATION OF STUDENTS: West Elementary School offers a comprehensive education program to students in grades K-5. The building's space and physical condition limit teachers' ability to create innovative teaching spaces and apply the most up-to-date instructional approaches. Spaces that were not intended to be used for student instruction are now so used with regularity. Small classroom spaces can no longer be expanded in size or increased in number, even as enrollment continues to rise and the student population becomes more differentiated. The educational program is rich, and the school still strives to grow academically, but lack of adequate space constrains this growth. An inordinate amount of time is spent on solving learning space problems rather than innovating. This is particularly true for the principal, who is forced to become a problem solver instead of an instructional leader. Students often wait to access particular computers, and there is virtually no space for project-based learning. The cafeteria seats 150 and the auditorium seats 350. With 608 students plus faculty and staff, neither room is large enough for a total school assembly; therefore, programs have to be presented twice to reach all students, which detracts from the sense of unity West strives to build as part of its school climate initiative. Special education spaces (resource rooms) are overcrowded, shared among teachers, and regularly have students in different grade levels working on different lessons. Spaces that were planned as administrative offices and tutorial rooms now house guidance counselor/school psychologist, speech/language and occupational therapy, and academic remediation services. In addition to lacking appropriate privacy, these spaces regularly house four or more students, where only one is recommended. The space limitations of the current building make it increasingly challenging to conduct these programs effectively. There is a lack of common space for teachers to work or have grade-level or data meetings. There is a lack of storage space in the classrooms, and limited counter space to spread out projects, or places to have instructional materials that are accessible to children when needed during their independent work.

The existing conditions at West Elementary are overcrowded because: 1. Enrollment is higher than the building was designed to accommodate, and 2. Requirements for learning environments—particularly around special education, ELL and remedial education service delivery—have changed since the building was constructed. These two pressures have combined to produce an inadequate learning environment for all West Elementary students. The MGT Master Facilities Study scored West Elementary “poor” for educational suitability (62 out of 100), citing specific concerns that the current classrooms do not meet size standards, do not adequately support educational programming, do not provide flexible use of space, and do not have sufficient storage. The report also noted the media center is “undersized” and

“chopped into so many different areas as to render its function as a library limited to checking books in and out.”

The school did not have space in the primary wing for the additional kindergarten class it needed; therefore, that class had to be assigned to a room in the fifth-grade hallway. This placement separates this one class of children from the other three kindergarten classes, making it harder for the teachers to coordinate activities and share students to meet individual needs. In addition, the makeshift kindergarten classroom is only two-thirds the size of the other kindergarten spaces (806 sq. ft. vs. 1216 sq. ft.), making it difficult if not impossible to conduct some instructional activities that require students to move around the classroom area, gather in small groups, or spread out on the floor to work on a common project. This classroom also lacks a bathroom, which is a serious disadvantage for kindergartners. The children must use the Grade Five bathroom in an adjacent corridor. Each time one or more students head to the bathroom, they must be accompanied by the classroom assistant. Thus, the assistant is pulled away from instructional activities multiple times each day, which negatively impacts students' learning.

Over time, throughout West Elementary, administrators and teachers have employed a variety of strategies to adapt the spaces that were available to them in order to meet the changing needs that a growing population of students presented. These strategies were originally creative, but in recent years have morphed into desperate attempts to juggle groups of children and adults. Students have been forced into areas not designed for formal instruction, with new segments of teaching space created by constructing both permanent and temporary walls. Classrooms and open common areas have been subdivided; closets and teachers' workrooms have been converted into instructional space; instruction occurs in hallways; and the lower gym stage, albeit non-accessible, has been repurposed for special education and therapy services. Computers and charging stations were placed on carts that can be wheeled from room to room; however, the classrooms are so crowded already that it is a challenge to find space for these carts, even on a temporary basis.

The hallways are increasingly being used for instructional purposes, which could pose safety issues in the event a building evacuation is needed. For example, the school features a West Elementary news program and students must often do their filming in the halls, where there are continual interruptions and distractions and where noise ruins the audiotaping, forcing "do overs." Also, since the classrooms have no breakout space for collaborative projects, the students regularly spill into the hallways to work on projects, either carrying chairs with them or sprawling on the floor.

These makeshift approaches do not, of course, resolve the overcrowded conditions. They are simply an attempt to keep students safe, to maintain as effective an educational program as possible given the physical constraints of the setting, and to make the best of a bad situation until such time as a more appropriate educational facility can be provided. On some days, the crowded classroom conditions discourage teachers from implementing the creative means of instruction

described above, causing them to fall back on traditional techniques that keep students seated at their desks.

D. In the chart below, use “Y” or “N” to indicate if the listed technology offerings are available adding cells and rows as appropriate:

School	Desktop Computers	Laptop Computers	Tablets	Smart Board/ Smart Projectors	Printers	WiFi WAN/LAN
Bancroft Elementary School	Y	Y	Y	Y	Y	Y
Henry C. Sanborn Elementary School	Y	Y	Y	Y	Y	Y
High Plain Elementary School	Y	Y	Y	Y	Y	Y
South Elementary School	Y	Y	Y	Y	Y	Y
West Elementary School	Y	Y	Y	Y	Y	Y
Doherty Middle School	Y	Y	Y	Y	Y	Y
Andover West Middle School	Y	Y	Y	Y	Y	Y
Wood Hill Middle School	Y	Y	Y	Y	Y	Y
Andover High School	Y	Y	Y	Y	Y	Y

Using the space below, provide additional information for any of the aforementioned offerings marked with a “Y”.

In 2017-18, we significantly upgraded staff and student technology equipment. We deployed over 700 new hybrid laptop/tablet machines to teachers, who were especially excited about access to touch screens and pens. The older Apple Macbook Pro machines were distributed to middle and high school instructional assistants, along with cart-based devices for the elementary school IAs. We distributed more than 1000 Chromebooks to students in grades 2 and 3 to meet the 1:1 ratio for those grades, along with sufficient iPads for grades K and 1 to meet the desired 2:1 ratio for K-1. All aspects of the iAndover 1:1 program are now complete. We also upgraded all shared lab-type computers; no machine in the district is now more than five years old. In addition, we replaced the aging elementary Smartboards with new Epson interactive projectors and provided improved connectivity to all projectors from new Windows machines.

Combined, these devices greatly expand Andover’s capacity to move instruction from an approach that is textbook-based and teacher-centered to one that is student-centered and that blends technology with traditional teaching-learning methodology. In Section 2-C, we discussed extensively the way the school and the district as a whole are utilizing instructional technology to enhance the accessibility of the curriculum and the personalization of instruction. Through the use of technology and universal design for learning strategies, we are maximizing our use of

multiple means of representation of curricular concepts and providing access to a wide array of resources. Through Google Classroom and other software applications, we are supporting student and teacher collaboration. With the addition of well-equipped makerspaces and the Global Portal, we are realizing the potential of authentic learning experiences for students. The use of technology is deeply embedded throughout our instructional program.

In the area of assessment, the IT Department supported all standardized MCAS and ELL testing. In 2017-18, APS became the first district in the state to pilot the interface of student-provided technology (Bring Your Own Device – BYOD) with standardized tests in grades 6-12; the pilot performed remarkably well and next year will be expanded to more students in those grades.

In terms of communications technology, we deployed new state-of-the-art VoIP (Voice over Internet Protocol) digital handsets to every classroom in the district. Also we implemented Enhanced E911 calling to help pinpoint calls more precisely within a building. To further enhance communication and connectivity, we upgraded wireless networks in all school buildings, effectively doubling coverage and capacity.

The APS application team implemented Registration Gateway Online Back-to-School Forms for a pilot group of five schools, as well as a new online student registration system. These changes allow parents to update back-to-school forms online and to enroll their students online. This information is then automatically integrated with our Student Information System (ASPEN). By implementing this system, we eliminate data entry tasks for school administration and reduce the incidence of erroneous data being entered into Aspen. We updated the school nurse system (SNAP) with the necessary data as well.

SECTION THREE: Proposed Program, Grade Configuration, Teaching Methodology for the Priority Statement of Interest School

A. Using the chart below indicate proposed changes to the information as provided in Section Two adding or editing cells and rows as appropriate.

Name of School, Grades Served	Science Classes	Art (Performing and Visual Art)	Music	Physical Education (Adaptive PE)	Library Classes	Extended Day Care	Lunch Seatings
West Elementary School (K-5)	TBD	TBD	TBD	TBD	TBD	Will be offered	TBD

B. Is the District considering joining a Collaborative? Yes No

If yes, please provide the name of the Collaborative _____

Is the District considering hosting a Collaborative? Yes No

Is the District considering offering Pre-Kindergarten? Yes No

Is the District considering a Kindergarten fee? Yes No

If yes, please provide the proposed fee structure:

Our district has already begun the process of gradually reducing the fee for the full-day program. Over the past two years, we have reduced it from \$4650 to \$3975. Our intent is to reduce it by approximately \$500/year going forward. We anticipate that within another five to six years, we will be able to eliminate fees altogether and provide free full-day kindergarten for all students.

Is the District considering providing transportation? Yes No

If yes, please provide the name of the proposed provider: Trombly Motor Coach Service, Inc.

C. In the space below expand upon proposed changes to current grade configurations, districting, teaching methodology, programs, transportation, fees and technology. Indicate if any school facilities would be vacated, down-sized or re-organized. Indicate if changes to current staffing would result (increase/decrease).

RATIONALE: Four primary issues have prompted this request for MSBA assistance: 1) current overcrowding and lack of overall capacity in Andover's elementary schools to serve the current number of students and projected growth in overall elementary enrollment (MSBA's projection in 2016 placed overall K-5 enrollment at 3,011); 2) particularly rapid and substantial growth in enrollment at the kindergarten level; 3) lack of adequate space that is also appropriately arranged and outfitted to meet the educational needs of West Elementary School's student population; and 4) need to move a preschool program out of an aging facility and into West Elementary.

TRANSPORTATION: We are proposing no changes in transportation.

FEES: We are proposing no changes in fees other than the gradual elimination of tuition for full-day kindergarten as was described earlier in Section 3-B.

PRESSURE ON CAPACITY: As explained in our April 2017 Statement of Interest, several forces are coming together in a perfect storm to exert pressure on the space capacity of Andover Public Schools, and requiring us to build a new or renovated and expanded West Elementary to serve a larger capacity than its present one. Following is a summary of those forces.

- By the year 2026-27, enrollment at the elementary level across the district is projected to reach 3,011 according to the MSBA analysis. However, overall capacity at the elementary level for all five elementary schools is 2,718. When K-5 enrollment reaches 3,011 in 2026, the district will be at 111% of capacity and will have no place to house the increased enrollment. The capacity at the other four elementary schools is 2,082,

leaving a gap of 929. West Elementary is the district's largest elementary school by enrollment; its utilization rate now stands at 100% and is projected to reach 116% by 2026.

- It is important to understand that these analyses do not include the impact of recently approved building projects in Andover. Schools across Andover are seeing increases in enrollment due to large-scale building projects, including new 40B housing. In the near term, Andover expects to enroll more than 200 new elementary school students from three new or developing sites. The Slate just opened in 2016 with 224 apartments, Northfield Commons is currently under construction with 56 units, and Hanover at Andover court-approved construction of 248 apartments began in 2017. Several more large projects are in the planning stages.
- A 2013 study of the demographics of Andover by Barry Bluestone at Northeastern University revealed that Andover has a large concentration of older citizens (age 70 and over) in residential homes, with no school-age children in the homes. Given their age, these individuals are likely to downsize and sell their homes to younger families moving into the community. An internal district study of home sales and census data over the past few years affirms that trend. In the 485 homes sold during this period, nearly one-fifth were populated only by senior citizens. As a result of the sales, the population of residents age 70 and over in those houses declined from 171 to 75, while the population of residents under 18 increased from 267 to 473. We anticipate this trend will accelerate due to additional senior housing under construction and planned for Andover, placing additional pressure on school capacity.
- Largely because of the trend toward in-migration over the past years, the district experiences growth in the elementary grades each year. Although a grade cohort may begin in kindergarten with an enrollment of less than 400, by the time that cohort is in 5th grade the cohort has grown to approximately 500. More recently, we have been experiencing growth during the school year as new developments open to residents. For example, between October 2016 and April 2017, our K-5 enrollment grew by 46 students. From October 2017 to June 2018, elementary enrollment grew by 42 students. Overall, the in-migration of families with elementary-age children during the school year adds an average of 40 to 50 students per year to Andover.
- In addition, the demographic makeup of the student body has changed and will continue to change based upon the building projects being undertaken in the community. Across the district, ELL enrollment has tripled in the past five years. The vast majority of these students are in grades K-3, resulting in an expansion of programs and services to meet their needs throughout their educational experience. In the past ten years, the percentage of economically disadvantaged students has nearly doubled and the number of special education students has increased by 17 percent. The impact of this growth is that West Elementary and other district schools will need additional small-group spaces to provide individual and small-group instruction, as well as larger

classroom space to accommodate inclusion of students in the regular classroom along with the adults who provide their support services.

REDISTRICTING: This pressure on capacity is being felt most keenly at the kindergarten level, where enrollment is beginning to increase even as more students enroll in full-day kindergarten rather than half-day. Prior to 2015-16, approximately 75% of parents selected full-day kindergarten. Over the past two years, that percentage has steadily increased (see table below). In 2017-18, we served 305 students in the full-day kindergarten program districtwide and 58 in the half-day program, increasing the percentage in full-day to 84%. At this point in the summer, we had projected to have 369 kindergartners registered for 2018-19. Instead, we have already registered 402 students with more students likely to enroll over the coming month. More families are also choosing the full-day program rather than half-day. Of the 402 registered thus far, 356 or 88.5%, have selected the full-day program.

PERCENTAGE OF STUDENTS IN FULL-DAY KINDERGARTEN				
	Full Day K	Half Day K	Total K	% Full Day K
2013-14	265	90	355	74.6%
2014-15	279	96	375	74.4%
2015-16	303	77	380	79.7%
2016-17	288	67	355	81.1%
2017-18	305	58	363	84.0%
5 Year Avg.	288	78	366	78.8%

At West Elementary, all full-day classes are slated at the maximum of 24 students for 2018-19, and we have added another half-day class. Because there is no available space at West Elementary to add another full-day class and registration for the three full-day classes exceeded capacity, we had to hold a lottery for the available slots. At this point, six families have had to choose between the half-day program at West Elementary or the full-day program at another school. Any additional registrants will be faced with the same decision, resulting in a less-than-ideal start to a long-term parent-district relationship. Most of our kindergarten classes across the district will exceed 20 students. Continued growth in enrollment across the district may mean that more schools will see their kindergarten class size grow to the maximum of 24 each.

Part of the growth in the district’s kindergarten program is due to the in-migration of young families as older residents downsize or move to the newly available senior housing being built in Andover. Part is the result of new housing developments in the Andover community that include large apartment and condominium projects. However, yet another factor may affect future growth: the declining tuition rate. Each year for the past several years, approximately eleven percent of parents have chosen private kindergarten and then bring their children into the public system at first grade, as shown in the table below. Over time, we anticipate that the lower/eliminated fees will entice more families to choose public kindergarten over private,

which alone will increase the district’s kindergarten enrollment by about fourteen percent or approximately 52 students, requiring at least three additional classrooms. Given the fact that the district’s other four elementary schools are also at or over capacity, we foresee a looming difficulty in housing these additional kindergartners at those four sites as the district is currently configured.

PERCENTAGE INCREASE IN ENROLLMENT K TO GRADE 1				
	Kindergarten Enrollment	1st Grade Enrollment	Increase	Percent Change
Class of 2024	391	467	76	19.44%
Class of 2025	370	441	71	19.19%
Class of 2026	355	410	55	15.49%
Class of 2027	375	387	12	3.2%
Class of 2028	380	406	26	6.84%
Class of 2029	355	425	70	19.72%
6 Year Average	371	423	52	13.98%

In addition, because approximately 20 percent of parents have chosen half-day kindergarten, when we move to free full-day kindergarten for all students, we will need an additional two to three classrooms to accommodate these students within School Committee policy maximums. The impact on space would be mitigated to some degree because we have already included some half-day students within current full-day classes. In total, the change to free full-day kindergarten plus the growth in enrollment will require an additional five to six classrooms across the district.

MSBA has projected that by the year 2026, Andover’s K-5 enrollment will reach 3,011, compared with our 2017-18 enrollment of 2,565. That means we are looking at an increase of nearly 450 elementary students. This growth will have a significant impact on all five of our elementary schools. We are reluctant to add portables at each site to handle the overflow, given the many negatives associated with these “temporary” structures, such as safety/security, difficulty with heating and cooling, limited access to restrooms, less inclusiveness for special needs students, inconvenient access to cafeteria and media center, isolation of staff in an emergency, impact on school climate and sense of unity, etc. Therefore, we see the West Elementary project as an opportunity to do more than just solve the problems of one school. We need to approach this project so it will ultimately benefit Andover’s entire elementary program.

One of the attachments submitted with the West Elementary SOI in 2017 was a report from the consulting firm MGT of America on its comprehensive building plan for Andover. Page 41 of that report provides a chart showing the capacity of each of our current elementary schools.

Adding up the capacity of the four schools (excluding West Elementary) yields a total capacity of 2082 students in grades K-5. Subtracting that 2082 from MSBA's projection of 3011 means that West Elementary would need to accommodate 929 students. Therefore, our Building Committee and the School Committee have voted that we seek to build a new or renovated West Elementary that can appropriately accommodate 930 students.

Making this decision means that, at such point as the new or renovated West Elementary opens, we would redistrict the other four elementary schools in such a way that each school's enrollment is most effectively aligned with its capacity. The goal is to have a utilization rate at each school that is approximately 95%.

STAFFING: All Andover elementary schools would be staffed in accordance with the district's class-size policy, based upon student enrollment and any special programs housed at each school. The new or renovated West Elementary would house the district's largest elementary student body and would be staffed appropriately to serve that population. Overall staffing is not expected to increase or decrease for any reason other than enrollment.

GRADE CONFIGURATION: One change in grade configuration is anticipated over the next several years. Currently, West Elementary houses Grades K-5, as do all of the district's elementary schools. However, West Elementary serves a special role in the district in that it houses the BRIDGE program for students on the autism spectrum who need intensive and individualized support. Shawsheen Preschool, built in 1923, has a substantial number of special needs students who move into the BRIDGE program at kindergarten age. Even now, the aging Shawsheen facility is extremely limited for serving preschool children with significant special needs. The district's plan is to begin accommodating these preschoolers at the new or renovated West Elementary in order to provide a consistent and supportive environment over a period of several years and to limit disruption for this particular group of students. Under this plan, the preschool population now served by Shawsheen (where half of each classroom's enrollment are students with special needs) would move to a wing that is designed for these students and attached to the new or renovated West Elementary. This plan would require sufficient space for approximately 130 preschool children.

VACATING A FACILITY: Once the new or renovated West Elementary School opens, and if the 130 preschool students are moved from Shawsheen Elementary to a special wing at West Elementary, Shawsheen would no longer be needed to serve students. At that point, the aging Shawsheen building/site could either be re-purposed or removed from the district's inventory of properties.

PROPOSED CHANGES/ADDITIONS TO CORE TEACHING METHODOLOGIES: Nearly all of the teaching methodologies and curricula that were described in Section Two-C will be continued in the proposed site. The major difference will be the breadth and depth of implementation. As mentioned in Section Two-C, every day at West Elementary is a scramble for space. The overcrowding of small classrooms, coupled with the space needs of many support services for students with special needs, has overwhelmed the facility. The instructional staff are

committed to providing the best education possible for every student, but in effect they are having to implement these potentially very effective programs with a collective arm tied behind their back. Every day entails a series of compromises, as teachers adjust their lessons to cope with overcrowding, insufficient electrical outlets to support technology, shifting classroom assignments, lack of storage for materials and student projects, and noise that distracts from the learning process. In a new or renovated building—with adequate square footage in core classrooms, small instruction rooms and attached areas for special services, science labs and makerspaces, sufficient gyms and music/art rooms, teacher work rooms, and fixtures/furnishings and wiring that support today’s educational needs—West Elementary’s faculty plans to teach the curriculum in ways that best reflect approaches that promote inquiry, engagement and deep learning as outlined in Section Two-C. In addition to the current methodologies and curricular programs already described in Section Two-C, following are a few programs that will be added over the next several years to more deeply address the four goals in the district’s theory of action.

GOAL 1: Rigorous curriculum

READING: The district is preparing to roll out the Fountas and Pinnell literacy program for all elementary schools. In 2018-19, we will focus our professional development around the Reader’s Workshop model and related strategies, which will then be applied to the new curriculum. At the end of that year, we will distribute the Fountas and Pinnell program materials to teachers of grades K-2. Grades K-2 will begin implementing the new reading program in 2019-20. Finally, in 2020-21, the program will be implemented in grades 3-5. The new Fountas and Pinnell tier I language arts curriculum will be provided 60 to 75 minutes each day. Following the Reader’s Workshop model, the program will consist of interactive read alouds, 15-minute mini-lessons for all students on some aspect of literature or a reading strategy, small group teaching/conferencing (which means some students will have to walk to their special education support rooms at that point), and independent reading. During independent reading time, the teacher engages in student conferences on an individual or group basis. Since the format gives students tools for selecting and comprehending literature, students who were once reluctant to read find themselves with the skills needed to be successful readers. Over the course of the year, students read many books and are encouraged to do as good readers do in exploring different genres, authors, and texts. Also during independent reading time, students may keep a journal and respond to the literature in terms of what they think or how they feel about what they are reading. Teachers can also engage in guided reading with groups of students who need additional support. Some classes include a sharing time in which students share their journal entries with another person who gives feedback. At West Elementary, the crowded regular classrooms do not have quiet spaces for conferencing or independent reading. The curriculum materials and the associated classroom libraries for independent reading have just arrived and demand an enormous amount of space. The school lacks sufficient storage space to house the materials in a way that teachers and students can easily access them. Faculty and administrators have scheduled a meeting in the fall to determine how to manage the materials so teachers can access them during the coming year for professional

development and so students can access them once the program is rolled out. Classrooms in the new or renovated West Elementary will be designed to take these materials and strategies into account.

SOCIAL STUDIES: A new elementary social studies program is being developed within the district. It is called One Community, One Nation (OCON). It will have a civics-based curriculum with a theme for each grade level. OCON will be implemented in a way that incorporates authentic learning strategies. NEAL (arts and literacy) methodologies are also going to be woven into the lesson plans. NEAL lessons incorporate a great deal of community building, which is the heart of the Responsive Classroom approach to social-emotional learning. When students present their work and what they have learned, their exhibits often take the form of tableaux—theatrical movements/dance in response to the written word. These demonstrations require significant space. In 2017-18, the five NEAL teachers at West Elementary used the stage in the auditorium (bumping music classes), the cafeteria, or the gym at lunchtime. The new or renovated West Elementary will be designed with appropriate spaces to enable students to demonstrate their learning through multiple means of action.

COLLABORATION: The teachers at West Elementary are doing their best to incorporate this important learning strategy into their instruction at the current school. However, the building is so crowded that it is challenging to provide students with the breakout spaces that the strategy requires. Collaboration encourages students to actively participate in the learning process by talking with each other in pairs or small groups and listening to others' opinions. These discussions often take place in the course of working together on a long-term project. After some preparation and practice and with clearly defined roles, a discussion may constitute most of a lesson, with the teacher only giving short feedback at the end or in the following lesson. Teachers may employ collaboration to assess students' abilities to work as a team, their leadership skills, and their presentation skills. Once the overcrowded conditions at West Elementary are alleviated by a new or renovated facility, students will have increased opportunities to develop this skill that is highly prized in today's job market.

MAKERSPACES: West Elementary's current makerspace is small, poorly equipped, and often pre-empted by other activities, making teachers hesitant to include it in their lesson plans. The new or renovated West Elementary will be designed with two makerspaces and the rooms will not be used for other purposes. They will be equipped with computers, software, 3D printers, electronics, craft supplies, hardware supplies, and hand tools. The makerspaces will support West Elementary School's emphasis on project-based learning. More than just a physical space, makerspace is intended to create a climate and mindset that foster innovation.

GOAL 2: Inclusive instruction

AUTHENTIC LEARNING AND PROJECT-BASED LEARNING: These methods of learning often overlap and teachers tend to use them in conjunction with each other. Authentic learning applies knowledge to real-life contexts and situations. It involves learning through first-hand experiences, rather than by reading a textbook. It can include learning that occurs in the community, rather than in school. It may match the complex real-world tasks and investigations of professionals in practice. Rather than being abstract, it is overtly connected to actual life situations, such as a potential career, and what is learned has meaning beyond the walls of the school. The authenticity may also spring from its connection to concerns or issues in the student’s own life. Project-based learning often engages students in the collaborative creation of products or solutions that require a sustained focus, inquiry, search for resources, and trial-and-error application of knowledge for weeks or even months. It typically integrates knowledge from multiple disciplines. The project is framed by a meaningful problem to solve or question to answer. Students make some decisions about how they work—independently, in pairs or teams, on the floor or at a computer. Project-based learning is often one of the best ways to engage students who otherwise are hesitant to participate in classroom activities. Once the authentic problem is addressed or the project is completed, the students reflect on their learning and the quality of their work and explain how they reacted to obstacles. They may choose to present their project to others and receive feedback from peers and teachers. West Elementary’s teachers are eagerly anticipating the space that will be available in a new or renovated facility to support authentic and project-based learning, including space to store materials and space to leave students’ work spread out until the projects are completed. *(Note: authentic and project-based learning also support the rigorous curriculum intent of Goal 1.)*

GOAL 3: Caring climate and culturally-responsive classrooms

RESTORATIVE DISCIPLINE: This whole-school approach to building school climate and addressing student behavior aligns with the district’s work on social-emotional learning. It is an approach to discipline that fosters belonging over exclusion, social engagement over control, and meaningful accountability over punishment. In a classroom that focuses on relationships and learning, errors in judgment and behavior are addressed through logical consequences and restorative practices that help students learn to resolve differences, manage their emotions and see others’ perspective. The goal is to restore the relationship, provide restitution when appropriate and enable the student to re-enter the classroom community bolstered by the trust and respect of other students and adults. The teachers at West Elementary will incorporate restorative discipline techniques into the class meetings that are integral to the Responsive Classroom model they are already implementing.

GOAL 4: Progress monitoring

DATA-REFLECTIVE CULTURE: Beginning with the 2018-19 school year, teachers will be implementing the Benchmark Assessment System that is part of the Fountas and Pinnell reading program. If the new or renovated West Elementary incorporates a wing of

preschoolers from Shawsheen, those students will be administered the Preschool Early Literacy Indicators (PELI); it measures pre-literacy skills such as letter naming and oral language.

INTEGRATION OF METHODOLOGIES: One of the most interesting elements of West Elementary School's approach to learning is the way in which the various strategies can be integrated so they naturally support each other. Makerspaces, authentic learning, project-based learning and Capstone projects are easily woven together. Inquiry-based thinking, design thinking, and critical thinking are applicable to any content area. Social-emotional learning, Responsive Classroom, and restorative discipline use a common language that can strengthen the sense of community throughout the school. A commitment to inclusion and universal design for learning, bolstered by adaptive instructional technology, ensures that all students benefit from the excellent programs and services at West Elementary. The Global Portal and service learning help students look beyond themselves toward ways that they can make the world a better place for all. While at first glance it may seem that West Elementary's teachers are faced with an overwhelming array of programs to be implemented, the manner in which the methodologies interact across the curriculum and the fact that many of these programs and strategies are implemented schoolwide, makes for a cohesive and coherent approach to reaching all students that addresses the district's four goals for advancing student learning.

NEW, IMPROVED, AND EXPANDED SPACES: To support the high quality of the instruction and services at West Elementary, following are some of the ideas that the West Elementary faculty and administrative team believe should be incorporated into the design of any new facility.

GENERAL FEATURES OF CORE CLASSROOMS

- Flexible space that can be easily rearranged to accommodate a variety of purposes.
- Sturdy, retractable walls in some areas to support team teaching/co-teaching of multiple classes.
- Classrooms with enough space to support student collaboration and inclusion of students with special needs and students requiring English language learning supports, along with their support personnel.
- Classrooms that allow for tables or desks in clusters for partner or small-group work; flexible seating options—stools, standing desks and floor desks.
- Student-centered classrooms that support interactive learning strategies and teaching practices, with space for multiple learning centers and the large carts that hold the Chromebooks.
- Classrooms that support student collaboration as well as teacher-student conferencing, without everyone being in such close quarters that students are unwilling to share their ideas.

- Comfortable spaces for independent reading, rug/floor space for whole-group instruction, space for the robust classroom library that is part of the adopted reading curriculum.
- Each grade level should be clustered in the same wing on the same floor with its partner grade level (K with 1, 2 with 3, 4 with 5) to promote teacher and student collaboration as well as vertical alignment.

SMALL-GROUP SPACES

- Dedicated space within or adjacent to each core classroom for use by small groups: tier I or tier II reading support by the teacher, small-group assessment, student-led book talks, reading theater practice, partnered reading, prototype building in the design cycle, or a quiet space for children who may want silence to work or a space to read their work out loud to themselves.
- Special education pull-out room – at least two per grade level
- ELL pull-out room – one per grade level
- Speech, OT, and other related services – one space per grade level, in proximity to that grade level so students don't lose instructional time in walking the halls.
- Common areas for grade-level meetings of teachers to plan and review student work, and for data team meetings; three such areas, each shared by two grade levels (K-1, 2-3, 4-5).

TARGETED-USE ROOMS

- Multi-purpose room: large enough to hold up to three classes, furnished with tables and chairs, equipped to support technology, and with a high ceiling to accommodate the Global Portal. Used for presentations to students, professional development, back-up music room, parent engagement meetings, Book Fair, possibly student filming, etc. Anticipate its being used at least three days per week.
- Centrally located conference rooms: two to serve entire school, outfitted with computer/technology and a smartboard. For meetings of 5 to 12 people, including interviews, IEP meetings with a large number of parents and support personnel, back-up space for data meetings, all BRIDGE program meetings.

CONTENT AREA INSTRUCTION

- Three science labs for K-1, 2-3, 4-5, each located in the grade-level hallway. Outfitted with wide tables, multiple sinks and sources of water, digital microscopes hooked up to a smartboard, living creatures in habitats. Space to conduct experiments. Ample storage space for supplies and materials needed to implement inquiry-based FOSS curriculum with active engagement by all students at the same time.
- Two makerspaces, each large enough for a full class, but with folding wall so two classes can sometimes work together on project-based learning or Capstone projects. Include ample

storage space for tools and supplies, as well as multiple electrical outlets for computers and other technology.

- Three sound-proof music rooms with room for choral risers, ample room for movement-based activities, and storage space for instruments.
- Three separate gyms or three teaching spaces for physical education, all meeting the square footage standards of SHAPE America. If a dividing wall is used, it should be soundproof. A smaller area adjacent to large gym for adaptive PE. An office and storage closet directly connected to the gymnasium. Climbing wall, cargo nets, and climbing ropes with placement recommended by PE teachers. Natural light with the option of shading the windows when a projector or other projected technology is in use.
- Two art studio classrooms, one in primary wing and one in intermediate, but preferably somewhat close to each other to facilitate collaboration and sharing of materials. Two to four sinks per room. Storage closet adjacent to each art studio for drying kiln projects, other art work and supplies. Ample space for tables, sinks, counters, storage cabinets and a gathering floor space. Large windows for natural light. Ideally located on the first floor to facilitate access to outdoors. Adjacent kiln rooms and shared room for throw-wheel work and clay roller; projection boards; wall space to hang work in process and for drying racks.
- Media center: West Elementary is served by two media specialists several days a week. While the media center itself needs to be larger, there also needs to be a room adjacent to the media center for read-aloud or group work while another class is utilizing the media center space.

SPECIAL AREAS/SUPPORT SERVICES

- Each of the three BRIDGE classrooms should have a smaller room adjacent to it for students who temporarily need a space for 1:1 calming. It is critical that students in the BRIDGE program have a safe space that offers virtually no stimulation. Each classroom should be large enough to include six or seven cubicle work spaces, play skill area and morning meeting area. The rooms need sensory-friendly lighting. Each classroom should have an attached room with a double-sided mirror; this room will be used for parent observations and as quiet space for therapists and/or students that require a quieter space to work. The BRIDGE program also needs: a centrally located sensory room large enough to accommodate a sensory swing and additional equipment, a centrally located speech room and a centrally located OT room each of which includes two cubicle work spaces for students, and a centrally located conference room for parent meetings, consults and IEP meetings.
- The Clinic needs one room for screenings, a general space for clinic visits, a small room for a child who needs a quiet space, and two private bathrooms.
- The Evaluation Team Facilitator (IEP team chairperson) requires one office, one large conference room, and two smaller spaces where school psychologists and other related service providers can conduct assessments.

In the 66 years since ground was broken on West Elementary, the delivery of education has transformed in ways no one could have imagined and the students who walk through our doors have needs that no one expected. P.L. 94-142 did not go into effect until 1975, appropriately opening the schoolhouse to students with special needs—mental, physical and emotional. Also since the late 1970's, the United States has seen wave after wave of refugees and immigrants who turn to public schools to help their children assimilate and succeed in their new land. Where students of the 1950's sat in rows of desks and worked with paper and pencil, today's students are expected to learn teamwork and problem solving through project-based educational experiences supported by technology. All of these changes in the student body, in society's expectations, and in the needs of the work force dictate a different way of delivering education. Our school facilities need to respond by providing spaces that support small-group instruction, integration of technology, and student/teacher collaboration.

Andover is striving to ensure that we take every step possible to continue meeting standards even as our enrollment increases and more students with special needs and English language learning needs are identified. Our families want their children to experience educational opportunities in a safe and up-to-date learning environment that meets MSBA standards and corresponds to the latest advances in educational programs. We are seeking to provide a building that serves an integral role in expanding and deepening students' opportunities to excel.

D. Using the space below, indicate any proposed changes to current technology offerings (e.g. "One to One" technology, WiFi hotspots, laptop carts, etc.).

West Elementary seeks flexible classrooms, fixtures and seating that will support the continuation of our iAndover 1:1 initiative in a blended and personalized learning environment as described in Section Two-D. The space will need to support classroom technology that varies depending on the classroom: Grades K and 1 have iPad trays and Grades 2 through 5 have laptop carts. All teaching spaces should be equipped with classroom audio enhancement systems and instructional audio and video systems.

In 2017-18, Andover completed the installation and configuration of Microsoft Office 365 Education and will be rolling out this program to all staff and students in 2018-19. In addition to the usual suite of applications such as Word, PowerPoint and Excel, Office 365 Education includes a new program called Microsoft Teams. The Teams app is designed to complement many of the instructional strategies that Andover's schools are implementing, such as professional learning communities for staff and collaborative learning and projects by students.

Soon we will be adopting a learning management system for the entire district that better supports instructional planning and student performance data analysis. This system will more effectively integrate teacher planning and instructional materials with student data and parent communications.

In 2017-18, the IT Department upgraded the audio and video architecture in the School Committee Room to provide improved collaboration and broadcast capabilities. Over the summer we will add video conferencing capabilities to provide an enhanced technology training experience. We will also use the information gained from this administrative-level experience to re-imagine how we can incorporate broadcast and video conferencing into the school and classroom levels in order to expand learning opportunities for students.

In terms of communications technology, we have selected and are currently installing a new town and school-wide notification system that will provide improved communication in both routine and emergency situations. The new system allows us to communicate over VoIP phones, smartphones, intercoms, police radio and more. As part of this project, aging physical analog intercom systems will be upgraded to modern digital paging systems. While the communications system is not directly a part of the instructional program, it will enhance teacher-parent communication in support of student performance. In addition, support technology that improves school operations and safety enables teachers to focus their attention on instructional matters rather than being distracted by security concerns. Finally, building on the success of this past year’s five-school pilot, we will be expanding our use of online back-to-school forms and a new online student registration system—both of which are important tools in facilitating parents’ access to the district.

SECTION FOUR: Space - District’s Priority Statement of Interest

ELEMENTARY SCHOOL

A. Complete current information in the table provided below adding or editing cells and rows as appropriate:

<u>ROOM TYPE</u>	No. of Rooms	Comments
<u>CORE ACADEMIC SPACES</u>		
<i>Pre-Kindergarten</i>	0	
<i>Kindergarten (indicate full or half day)</i>	4	<i>(1) Half day & (3) full</i>
<i>Grade 1</i>	5	
<i>Grade 2</i>	5	
<i>Grade 3</i>	5	
<i>Grade 4</i>	5	
<i>Grade 5</i>	5	
<u>SPECIAL EDUCATION</u>		<i>SPED Resource – 374 sq. ft. SPED Resource – 794 sq. ft. – two teachers share SPED Resource – 792 sq. ft. – two</i>

<u>ROOM TYPE</u>	No. of Rooms	Comments
		<i>teachers share SPED Resource – 963 sq. ft. Intensive SPED – 770 sq. ft. Intensive SPED – 783 sq. ft. Intensive SPED – 814 sq. ft. ELLs & Tutor – 1240 sq. ft. . Speech – 176 sq. ft. ft. Speech in closet – 120 sq. ft. Speech – 264 sq. ft. OT & PT & SPED RR – share 820 sq. ft. on stage OT/PT in partitioned hallway – approx. 160 sq. ft. Psychologist – 154 sq. ft.</i>
<u>ART & MUSIC</u>		<i>Music – 734 sq. ft. Music on stage – 820 sq. ft. – four teachers share Art – 832 sq. ft. Art – 845 sq. ft.</i>
<u>HEALTH & PHYSICAL EDUCATION</u>		
<i>Gymnasium</i>	2	<i>Lower gym– 2390 sq. ft. Upper gym – 3779 sq. ft. – two classes share</i>
<u>MEDIA CENTER</u>	2	<i>Library/Media - 1965 sq. ft. Computer room/Maker space – 606 sq. ft.</i>
<u>DINING & FOOD SERVICE</u>	1	3644 sq. ft.
<u>MEDICAL SUITE</u>		
Nurses' Office	1	Nursing clinic–360sq.ft.
<u>ADMINISTRATION & GUIDANCE</u>	2	Principal's office – 130 sq. ft. Assistant principal's office – 103 sq. ft

B. If not offered within the District’s Priority Statement of Interest school, indicate in the space provided below where the District’s collaborative, special education, art, music, health/physical education, media center, dining/food service and technology spaces are offered.

[Type text here...]

SECTION FIVE: Safety and Security Statement

Has the District formulated a school specific Multi-Hazard Evacuation Plan (Section 363 of the FY 02 State Budget) for each school under the superintendent's supervision?

Yes No

What was the date of the last review with local public safety and law enforcement officials?

Date: September 2017

SECTION SIX: Attachments

Please attach to this completed questionnaire any Executive Reports or Conclusions of reports or studies that relate to accreditation, an assessment of facility conditions and/or findings as issued by the Department of Elementary and Secondary Education (DESE). Below, please list the documents attached (as applicable).

Documents attached:

Regarding an assessment of facility conditions Andover Master Plan Final Report June 2016 Update Modified April 2017 as prepared by MGT of America, is an integral part of this questionnaire. Said report was provided to the MSBA as an attachment to the West Elementary SOI on April 6, 2017.

Should you have any questions about this questionnaire, please contact Project Coordinator Jennifer Flynn at:

Massachusetts School Building Authority
617-720-4466
www.massschoolbuildings.org