



Brookline High School

Expansion & Renovation Process

Education Plan

Draft

Revised October 2, 2017

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Education Plan -- Executive Summary

The Public Schools of Brookline is taking the opportunity of expanding Brookline High School to rethink what we do, how we do it, and how well we do it. While we look closely at and appreciate all of the success our school and our students have had over the years, we acknowledge that we must build now the school that our community will be proud to have for the next 50 years.

Although it is difficult to anticipate the changes that will happen in our community, our country, and the world, if the past 100 years are any guide, we know we need to prepare our students for the changes and challenges to come. The way educators, students, community members, and partners work together and the physical space where they collaborate will determine how successful Brookline is in preparing the next generation for college, career and the communities where they will live.

Three questions propel us in developing this Education Plan and therefore the anticipated expansion and renovation of Brookline High School:

1. How will we more deeply engage all students at BHS so their education is personally meaningful, positively impacts themselves and others, and prepares them for the changes and challenges ahead?
2. How do we better serve all students so they are connected to BHS, feel supported to be full, thriving members of our community who share their talents and passion, and have the support needed to excel academically?
3. How do we accommodate growth and expansion and still retain the essential unity, feel, and cohesion of the Brookline High School campus?

1. How will BHS engage student more deeply?

Engaging all students more deeply requires that we provide opportunities for them to explore the connections between fields and subjects, investigate, take action, make an impact on their classmates and their community, collaborate, solve problems that matter to them, create, think critically, and make choices about what they study and how they study it. Education that looks like this requires flexibility in scheduling, instruction, course offerings, and curriculum. It requires greater integration across subject areas and deeper collaboration among faculty, especially those in distinct subject areas. The physical spaces that support this type of learning will need to mirror the educational approach and allow for better integration across disciplines, more flexibility in the use and configuration of space, and spaces that support collaboration, communication, and connection.



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2. How will BHS better serve all students?

Brookline High School is renewing its commitment to equity of access and outcomes so that all students can be full, thriving, and academically successful members of our school community. We will continue to improve our approach to identifying students who need academic and social-emotional supports and provide interventions inside and outside of the classroom to help these students be successful. Better serving all students requires us to create the structures and provide the support that build connection between adults and students and among classmates. The physical space must support the need to make a large school have an intimate feel where each student can find his or her own way and never feels overwhelmed by the sheer size of the student body or the school building. The structures and spaces for guidance, college and career counseling, health and mental health services, and special education programs need to be well organized and appropriately situated within the life of the school so students will avail themselves of these supports.

3. How do we expand BHS and still maintain a cohesive, unified campus?

While the current campus is truly an accident of 170 years of growth and expansion, the next phase of BHS must take a look at the campus as a whole in creating any solution. The great fear is creating an anonymous sea of 2600+ students where both students and teachers feel marginalized and disconnected from the community. A solution that merely adds additional classrooms at a nearby location will lead to the degradation/diminishment of all of our core values. However, a plan for an integrated campus including the current buildings, new building(s), Cypress Field, parking, and the community is something we believe will succeed in addressing our values of high academic achievement for all students, excellence in teaching, understanding and respect for human differences, collaborative relationships, and educational equity.

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How we answer these three essential questions through the design process and construction of new spaces and facilities will go a long way in creating the type of education Brookline High School will provide in the next fifty years.

Some of these answers will come from essential changes to the way the school is organized structurally: rethinking the use of our current facility as well as how we would use the expanded campus we hope to build. Some of the answers will come from new and innovative spaces, where learning takes place across disciplines and outside the traditional classroom walls. Some of the answers will come from improving our current spaces so the physical structures of our school do not limit what can be achieved. All of our answers need to be about how we address issues of equity and achievement and how to better support all students so they can each attain their best possible future.



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With this building project, Brookline High School will address the dual challenges of meeting the instructional needs of students and teachers in the 21st century and addressing the rapid and unprecedented expansion of the town's school-age population. While adding to our existing campus enables the school to create new spaces not otherwise available in the current facility, the expanded campus must maintain, and in many ways allow us to deepen, the personal connections essential for any student to successfully navigate high school. The design must support the need for all students to be connected to the larger high school community while allowing them to explore other communities and ultimately find the one or ones where they have a strong sense of belonging.

One key conclusion of this educational plan is that the expanded school must help us achieve the pedagogical vision of our various departments and teams in a fully integrated and interwoven experience for our students. The school needs flexible spaces to foster collaborative activities within departments, interdepartmentally, and throughout the school. These flexible spaces can take many forms: expandable classrooms, common areas for students and for faculty, maker spaces, and laboratories. We anticipate that the schematic design process will provide the opportunity for BHS teachers and staff to work with architects and planners to develop ideas and explore options for creating these flexible collaborative spaces that will help us meet the evolving needs of students in the 21st century.

Through the visioning and collaborative process used to develop the Educational Plan, the school community, faculty, and staff have identified other key beliefs to consider:

- We believe the true business of the school and our most sacred work is the teaching and learning that happens in our school.
- We believe what makes BHS in its current form so successful is the close connection of students and adults in the building. It is essential that the big school retain this small school feel.
- We believe it is essential to consider the campus as a whole in any renovation or expansion plan. BHS must look, feel, and be an integrated whole instead of loose consortium of disconnected buildings.
- We believe any future high school will need open and unfettered access to technology, and support for a one-to-one environment.
- We believe that students and teachers do their best work when well-lit and properly heated and ventilated spaces are accessible to all.
- We believe collaboration and connection with teachers and other students are essential and therefore should be reflected both in class sizes and in new physical spaces in the complex.

Beyond holding these general beliefs about Brookline High School, we summarize below key areas that will be essential to engaging students, supporting students, and creating a cohesive campus and educational approach. These areas will be detailed more thoroughly in the body of the Education Plan.



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## Experience and Exploration Beyond the BHS Campus

As part of our efforts to more deeply engage students in their learning and provide more active learning opportunities, BHS will develop connections and collaborations with area businesses, universities, research centers, and governmental and non-governmental organizations. By offering options that complement and extend the traditional classroom, students will have the ability to directly apply their skills in active ways. Examples range from having students learn about design thinking at the MIT Media Lab, hosting professionals for month-long residencies, participating in service projects alongside international aid organizations, participating in internships related to academic or artistic studies, and having professionals visit the school to share their career experiences and wisdom.

## 21st Century Disciplines, Approaches, and Learning Experiences

Ultimately our students will need the tools to creatively and collaboratively solve problems and communicate their solutions to a diverse audience of stakeholders. To this end, BHS students will participate in deeper learning experiences in 21st century disciplines, approaches and methods such as design thinking, coding and computer science, robotics, and the integration of science, technology, engineering, design, and the arts (STEAM). We expect to broaden the use of the design thinking process as one way to more deeply engage students who prefer a more active approach to learning and problem solving. By breaking down the artificial barriers between disciplines, and by integrating science, technology and the arts, students will emulate the efforts that have brought about the most innovative solutions of our time and create ones of their own. Computer Science and coding can be taught as separate content areas as well as integrated into a wide range of courses, so students can actively create solutions and demonstrate their learning. While pockets of this work exist at BHS, we need to widen our offerings and integrate them more fully across disciplines in the years to come, ensuring wide exposure to 21st Century learning is available for all learners. It is a matter of equity, and this type of learning and work should be integral to all students' BHS experience.

## Interdisciplinary Learning and Collaboration

Coordinators and teachers across all subject areas continue to stress that rich, authentic learning opportunities exist for students and teachers when we break down disciplinary silos and approaches and support teachers to collaborate. The best, most recent example of this type of collaboration is the 5-year commitment to the Content-area Reading Initiative (CRI) that took an interdisciplinary approach to supporting literacy and reading in all areas.

In order to meet the challenges of developing students' literacy skills across multiple disciplines, cross-content teams of BHS educators engaged in the CRI professional learning opportunity with goals of reflecting on past practice, experimenting with new approaches to teaching literacy, and sharing that learning with colleagues to encourage more explicit and effective literacy instruction school-wide.



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Over the course of four years, teachers from English, Social Studies, Math, Science, World Language, plus a hybrid team of individuals from various departments, participated in structured professional learning, relying heavily on the use of inquiry to develop new disciplinary literacy practices that they then infused into their teaching. During their time, teachers reported wholesale shifts in practice as they sought to explicitly teach their students the tools of literacy in their disciplines, and also new collaborative relationships to support their ongoing learning and instruction. Ultimately, the infusion of humanities-type skills into all disciplines has proven essential to the future of BHS as it contributes both to interdisciplinary approaches to learning and 21st century skill building.

The design of CRI was intended both to address identified needs in disciplinary literacy instruction at the school and to utilize collaborative, professional learning community (PLC) structures in order to begin to shift the ways that teachers work together -- within and outside of their departments.

As BHS considers modernizing our facility and our instructional approaches, it is important to support teachers in providing our students with more interdisciplinary learning opportunities and expanded interdisciplinary course offerings. We currently have several examples of these types of classes at BHS, including communication for entrepreneurs, documentary film and history, journalism, and visual arts and field science. We have recently added a pilot American Studies class for US history and language arts; a media studies class to expand access to journalism, layout, and production; and the aforementioned STEAM offerings. In considering the design of the expanded campus, it is important to create a physical structure that supports the integration and collaboration required of teachers and students across multiple disciplines. The need for flexible collaborative spaces that can be used in multiple ways and transformed quickly for other use are essential with spaces that allow for larger, mixed groups of students to gather in a larger space, as a way of promoting the flexibility and adaptability we recognize as essential 21st Century skills. Some of these could be explicitly designed as makerspaces in which students could be using a wide variety of hands-on activities to support academic learning and the development of a mindset that values playfulness and experimentation, growth and iteration, and collaboration and community.

## Scheduling for Access, Collaboration, and Support

We believe it is essential to examine how we use time, our buildings, and the school schedule to offer more academic support and extracurricular opportunities throughout the day. Such opportunities could occur before, during, and after school, and could take various forms: a morning session, an intervention block within the day for both re-teaching and enrichment opportunities, an extended day academic center with highly structured support and/or extracurricular offerings on and off campus.

## Socio-emotional Curriculum, Supports, and Interventions

We recognize the need for a more systematic and coordinated approach to social-emotional learning (SEL), supports, and interventions as essential in retaining a small school feel in an increasingly larger school environment and maintaining the direct connection between adults to students. By intentionally



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connecting already existing programs at BHS such as the Mindfulness/Stress Reduction curriculum, Identity Curriculum, developmental guidance seminars, 9th grade Health/Fitness curriculum, and SEL activities within the Advisory curriculum including Anti-Bullying, we are already moving in this direction. By intentionally mapping and adding to these existing Social Emotional Learning opportunities, we will work to meet the developmental needs of all students regarding feelings of belonging, safety, and community while at BHS. We will develop more directed SEL supports and “soft” skills for students as they transition from the Brookline elementary schools to BHS, as well as promote these developmental skills as they move out of BHS into college and career options after graduation.

## A Diversity of Academic and Enrichment Opportunities Helps Students Connect and Contribute

BHS presently offers an impressive range of academic, social, artistic, athletic, and club programs. At the heart of this diverse set of offerings lies the understanding that high school students want to explore opportunities, and they want to find a place where they belong, can see themselves and their interests represented, and can participate. This home base can come in the form of an academic program, a dance group, a club, a theater group, an advisory, an athletic team, or a multitude of other micro-communities within the larger BHS community. As we grow larger, BHS must take care to continue to create spaces, places, and structures so all students can form the connections that allow them to contribute their best selves. We will assess our currently existing academic and enrichment programs to identify which may require expansion and where we need to add new ones.

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The education plan that follows envisions the instructional, organizational, and physical changes that we anticipate in the coming years while trying to sustain the best of the existing and historical strengths of Brookline High’s academic and enrichment programs. Throughout the plan and all the work ahead, we endeavor to come up with the best possible answers to how do we engage all students, how we do support all students, and how do we make sure all students feel connected to the community we continue to build.



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Education Plan

2.1 EDUCATIONAL PLAN AND VISIONING PROCESS

Beginning in the summer of 2014, the Public Schools of Brookline, the Brookline High School (BHS) community, and the architecture firm Symmes Maini & McKee Associates (SMMA) began an in-depth educational planning process that informed the following Education Plan document. This Educational Plan is a critically important step in the process leading towards a substantially expanded Brookline High School, as this Educational Plan details our vision for BHS for the next fifty years. As one of the Commonwealth's oldest extant and continuously active high school structures, BHS has served its community well. Its multiple additions over the years have allowed for a dynamic and comprehensive offering of educational programs to serve the increasingly diverse student population of the community. A large renovation in the late 1990s arranged the disparate buildings on the campus into a more unified whole, but the campus still retains a very mid-1900s conception of education and administrative organization. Throughout the Educational Plan are noted areas where the campus fails to achieve today's 21st century educational practices and where the school's core organization requires a more collaborative and integrated approach to serve our students well.

In spring 2014, SMMA educational planners met with staff, administration and students in a variety of sessions. In June and September 2014, SMMA facilitated two workshops that involved more than 30 community members including school and town administrators, teachers, parents, teachers, elected officials, community groups, and business leaders. Each collaborative session was designed to inform the Brookline High School design process. Participants were led through a step-by-step visioning process aimed at capturing their best thinking about Brookline High School's current and future educational goals and priorities, and connecting them to best practices and possibilities in innovative school facility design. Through these sessions, participants identified Guiding Principles for the design of an expanded Brookline High School.

In spring 2016, the BHS Design Working Group convened the school's Academic Standards Committee, faculty, and staff in discussions about the ongoing growth of the high school and the likely expansion. In these discussions, BHS faculty and staff reaffirmed that the school's Core Values and the Guiding Principles identified during the 2014 visioning process should drive the design of an expanded school. During these meetings, faculty and staff also considered the pros and cons of multiple design options. The most recent step in gathering community input about the design for an expanded Brookline High School occurred in June 2016 when more than 100 parents and community members gathered at the high school to consider the design options discussed by school faculty and central office staff earlier in the spring.

During the 2016-17 school year, Brookline High School and Public Schools of Brookline faculty and administration engaged in a feasibility study with the support of local architecture firm HMFH. Within this process, four massing options emerged to consider where BHS could expand and renovate. Included were three options that proposed expansion on the existing campus (including the main building, Tappan, and the UA), along with a fourth option that expanded the campus to 111 Cypress. After much consideration and dialogue, the Brookline High School Building Committee chose to explore the fourth



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option, which includes a new building at 111 Cypress Street, a new Science center on the Tappan side of the main building, and a subsequent conversion of the current science classrooms.

The goal has been to connect the project to the school's long study of what makes Brookline High School what it is. We believe this was distilled clearest in the core values beliefs and expectations (see Section 2 Appendix A) created for the NEASC review in 2011, which in turn is a further distillation of numerous earlier explorations of the mission and values of the school. Through each of the sessions and over this long period of years the school has arrived at a clear list of guiding principles that are fundamental to consider as the school expands. These guiding principles are a distillation of the core values of the school and the district as well as the mission of the school, as a way of understanding how these relate to the expansion of the school both physically and structurally.

Guiding Principles for the Design of an Expanded Brookline High School identified during 2014 Visioning Sessions and reaffirmed by Faculty and Staff in Spring 2016:

- Big School, Small Feel
- Allows for Integration between Disciplines & Departments
- Use of the Entire Building/Campus for Teaching & Learning
- Allows for self-directed, hands-on and experiential learning
- Flexible learning spaces – allow for performance, presentation, collaboration, socializing, independent and group study
- Green/Sustainable

BHS Core Values and Cultural Strengths:

- Breadth of Academic and Social Emotional Supports
- Continuous Learning and Rich Experiences for a Range of Learners
- Cultural Diversity/Human Differences
- Relationships are Foundational
- Safety – Intellectual, Social, Emotional and Physical
- Shared Ownership of School and Learning

2.1 GRADE AND SCHOOL CONFIGURATION POLICY

Brookline High School educates students in grades nine through twelve, as well as students requiring additional services until the age of 22. The mission of Brookline High School is to develop capable, confident, lifelong learners who contribute to their community, participate thoughtfully in democracy, and succeed in a diverse and evolving global society.



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The town of Brookline intends to expand/reconfigure/reimagine the current grade nine through twelve high school to accommodate the 50% rise in enrollment from 2010 to 2025. (See Section 2, Appendix B.) This expansion could be done in several ways.

Brookline High School was founded in 1843. Brookline High School is known best for its extensive curriculum, outstanding faculty, and innovative programs and services, leading to students' academic success. Brookline is a dynamic and progressive community of approximately 60,000 people, deeply committed to the success of its public schools.

2.2 CLASS SIZE POLICY

Although there is no official class size policy at Brookline High School, the administration makes every effort to keep class size manageable to optimize learning for all students. Additionally the BSC and the BEU have a stated goal of keeping class sizes at no more than 25. The school tries to stay within a desired range of 18-25 depending on the level of the class for academic classes. Courses in elective programs the range from up to 80 in some music programs to 16 in some shop courses and is guided by safety and/or space concerns.

2.3 SCHEDULING METHODOLOGY

Brookline High School uses a weekly block schedule - a five-day cycle with classes meeting 4x per week for 220 minutes. The school day begins at 8:20 am and ends at 2:50 pm, with some additional classes meeting at 7:30am. There are currently three 30-minute lunches per day.

Brookline High School Weekly Schedule 2016-2017 v1.1

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Z1 7:30 – 8:15 | Z2 7:30 – 8:15 | Z3 7:30 – 8:15 | Z4 7:35 – 8:15 | Z5 7:30 – 8:15 |
| A1 8:20 – 9:10 50 | A2 8:20 – 9:20 60 | A3 8:20 – 9:10 50 | B3 8:20 – 9:20 60 | B4 8:20 – 9:10 50 |
| B1 9:15 – 10:15 60 | T-Block 9:25 – 10:05 | B2 9:15 – 10:10 50 5 minute info time | A4 9:25 – 10:25 60 | D4 9:15 – 10:05 50 |
| C1 10:20 – 11:15 50 5 minute info time | C2 10:10 – 11:10 60 | C3 10:15 – 11:15 60 | X-Block 10:30-11:10 | E4 10:10 – 11:00 50 |
| D1: 60 Class 1: 11:20 – 12:20 3 rd Lunch: 12:25 – 12:55 Class 2a: 11:20 – 11:50 2 nd Lunch 11:50 – 12:20 Class 2b: 12:25 – 12:55 1 st Lunch: 11:20 – 11:50 Class 3: 11:55 – 12:55 | G2: 60 Class 1: 11:15 – 12:15 3 rd Lunch: 12:20 – 12:50 Class 2a: 11:15 – 11:45 2 nd Lunch 11:45 – 12:15 Class 2b: 12:20 – 12:50 1 st Lunch: 11:15 – 11:45 Class 3: 11:50 – 12:50 | F2: 60 Class 1: 11:20 – 12:20 3 rd Lunch: 12:25 – 12:55 Class 2a: 11:20 – 11:50 2 nd Lunch 11:50 – 12:20 Class 2b: 12:25 – 12:55 1 st Lunch: 11:20 – 11:50 Class 3: 11:55 – 12:55 | E3: 60 Class 1: 11:15 – 12:15 3 rd Lunch: 12:20 – 12:50 Class 2a: 11:15 – 11:45 2 nd Lunch 11:45 – 12:15 Class 2b: 12:20 – 12:50 1 st Lunch: 11:15 – 11:45 Class 3: 11:50 – 12:50 | C4: 50 Class 1: 11:05 – 11:55 3 rd Lunch: 11:55 – 12:25 Class 2a: 11:05 – 11:30 2 nd Lunch 11:30 – 12:00 Class 2b: 12:00 – 12:25 1 st Lunch: 11:00 – 11:30 Class 3: 11:35 – 12:25 |
| F1 1:00 – 2:00 60 | D2 12:55 – 1:45 50 | D3 1:00 – 2:00 60 | G3 12:55 – 1:55 60 | F4 12:30 – 1:20 50 |
| G1 2:05 – 2:55 50 | E1 1:50 – 2:50 60 | E2 2:05 – 2:55 50 | F3 2:00 – 2:50 50 | G4 1:25 – 2:15 50 |
| | Faculty and Staff Meetings 3:00 – 4:00 | | | Student Early Dismissal Teacher Collaborative Time |

The academic year is divided into two semesters, with full year courses yielding 1 credit and half-year courses yielding .5 credits The master schedule of classes is completed by the Assistant Headmaster in



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conjunction with the guidance department. Every effort is made to ensure that students get the courses for which they registered. With seven blocks available to each student each year (in some cases eight blocks for students choosing a Z block class) there is ample opportunity for all students to earn the 22 credits necessary for graduation. The schedule also affords a 40-minute advisory T-block once a week, which is used, for the advisory program and other homeroom-type needs. Integral to the schedule is the X-block session of 40 minutes every Thursday in the middle of the day as an opportunity for students to seek academic support and/or participation in numerous clubs and activities.

In the course of the past few years the school has examined many different types of extended day schedules, which could effectively increase the number of students served by the current facility. Such changes would entail considerations of after-school activities, family responsibilities of students, the teachers contract, and/or the lack of space available for blocks in the middle of the day when all students would be competing for the same classroom space. Even with "open campus" the numbers of students who would be required to have multiple free blocks in the middle of the day to accommodate the space needs of 2600+ students would greatly exceed the abilities of the campus and would result in many undesirable outcomes.



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GRADUATION REQUIREMENTS

In order to graduate from Brookline High, students must satisfy the following Graduation Requirements:

Minimum Course Requirements (22 total credits, including the following 19 required credits)

| | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| English: (4 credits)* | four years (some students will achieve some of these credits by studying English as a Second Language) |
| Mathematics: (3 credits) | three years |
| Science: (3 credits) | three years |
| Social Studies: (3 credits) | three years (World History I and II, U. S. History*) |
| World Languages: (2 credits) | two years in one language (some students will achieve some of these credits by studying English as a Second Language) |
| Career and Technology Education, Community Service, Performing Arts, and Visual Arts: (3 credits) | three years distributed across at least three of these program areas |
| Health and Fitness: (1 credit*) | Health and Fitness must be taken each year |
| Three additional credits in any subject area | |
| Successful completion of MCAS English, Math, and Science. All students are required to take the statewide assessments. | |

**These course requirements are mandated by the State and cannot be modified.*



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2.4 TEACHING METHODOLOGY

A. Administrative and Academic Organization/Structure

I. Current Organization

Brookline High School is structured as a traditional public, 4-year comprehensive high school both administratively and academically. The current academic model continues from earlier eras with departments housed in clusters. Students very clearly experience the departments: Athletics, Career and Technical Education, English, English Language Learner, Health and Fitness, Mathematics, Performing Arts, Science, Social Studies, Special Education, Visual Arts, World Languages...and students would recognize that the offerings they choose from fall distinctly under these headings. Teachers in general are housed in close proximity with other members of their department both in terms of classroom location and, where possible, office location. This serves us well in developing departmental goals and professional learning, while limiting in many ways opportunities for interdepartmental professional learning. Teachers would be likely to first identify themselves by their department before identifying themselves as part of the larger high school. Departments are led by "curriculum coordinators" who run biweekly meetings, manage curriculum, observe and support teachers, and serve as the first level of administrative response for behavioral issues in the classroom. The administrative structure continues in traditional fashion with associate deans, deans, assistant headmaster and headmaster.

Academic programming is offered based on grade level with students generally selecting a Standard, Honors, or (in mathematics and world language) Advanced level within the traditional academic departments. Brookline by policy allows students to select their own level, though such decisions and recommendations typically come from teachers and counselors. BHS has a long and proud academic history with a large number of students graduating and attending most selective and highly selective colleges. Brookline's long reputation for rigorous courses and excellence in teaching is well founded and is shaped in part by the rich tradition and history of the institution, as well as the proximity of the community to the Longwood Medical Area, MIT, BU, BC, and Harvard University. The high school also recognizes that there are many pathways toward success and offers a variety of programs and a variety of teaching methods to broaden and deepen the pool of what it means to be accomplished at BHS. Elective courses (within the CTE, Performing Arts, and Visual Arts) are unleveled. Special education is primarily implemented via inclusion using the co-taught model, and the school has numerous substantially separate programs in keeping with the belief that students of all types should remain in the high school when possible.

Academic departments are housed in offices. In some cases, teachers have desk space within or near the main departmental office. Typically the departments have a common space they use for lunch and collaboration. The school schedule allows for common lunchtime of 30 minutes for all teachers within their department. This year we are experimenting with a schedule, which allows for each department to have a common unassigned block with the goal of furthering collaborative time.



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All ninth and tenth grade students participate in an Advisory program which helps acculturate students, build community, and support students academically and socio-emotionally. Advisory incorporates academic guidance and planning, community building, identity development, and cultural sensitivity. BHS currently offers a mostly integrated approach to student support via a dean's team model as well as several alternative programs. As noted in this plan's guiding principles, core values and cultural strengths, BHS views knowing students well and developing relationships over time as foundational. Deans and program coordinators work with teams of guidance counselors and other student support personnel to cultivate relationships that encourage personal accountability, high academic achievement and good citizenship. These student support teams work closely with faculty, staff, parents, and students to foster a culture of *freedom and responsibility* that allows all students to feel ownership of school culture and community. Through class and school-wide assemblies and a highly intentional advisory program serving ninth and tenth graders, the school promotes individual student responsibility in ways that ensure safety and encourage unity in our diverse community.

The overwhelming majority of the school's students are attached to one of the school's two dean's teams: ninth and eleventh and tenth and twelfth. Each team is led by a dean of students and consists of two associate deans, four guidance counselors, and an administrative assistant. Importantly, students are assigned both a dean and a guidance counselor and these support people follow students through the four years at BHS. (Thus the ninth and eleventh grade team for 2016-17 will be the tenth and twelfth grade team for 2017-18.)

Beginning in tenth grade, students can seek entry – via admissions processes and/or a lottery – to one of two general education alternative programs: Alternative Choices in Education (ACE) and School within a School (SWS). ACE currently has a 48-student capacity and serves as a competency-based alternative to the regular Brookline High School curriculum. ACE is the most recent evolution of the alternative high school program that has existed for almost 40 years at the high school recognizing that the traditional pedagogy and structure of the larger school does not work for all students. BHS recognizes that it's necessary to provide alternatives for students to experience HS in different ways. In some ways ACE is a methodology and approach to re-engage students in their academic and social environments within BHS. SWS attempts the same things with students who are heavily invested and engaged and active in their academic and social world, and provides for them a democratic and less authoritarian structure both academically and administratively. Both programs are the high school's embodiment of a long held philosophy that there is not just one path to success, as well as the long school, district, and town commitment to educational equity.

The dean's suites are each equipped with separate offices for the dean, associate deans, and guidance counselor, a reception area, and a conference room. ACE has a reception area and conference room along with office spaces for the program coordinator and guidance counselor. SWS shares a secretary with ACE and has office space for her and for the program coordinator. As the school's student population has grown over the past few years, the school has tried to distribute office spaces throughout the building so that all students, faculty and staff have relatively easy access to administrators and support staff.

BHS has a wide breadth of social emotional supports: social workers, substance and violence prevention counselors, nurses, psychologists, most of whom serve on dean's' teams and various other student support teams. Currently, these student support services do not have many adjacencies, making collaboration



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between and among them challenging. As a result, there are sometimes redundancies and gaps in student support at the high school.

In addition to the dean's' teams, ACE, and SWS, Brookline High School has several other staff members and/or programs that help monitor and support students. The METCO program has a classroom for academic support and an office space for its coordinator. Steps to Success is a private non-profit organization that works with the Public Schools of Brookline to support students who live in public housing. PSB employs three program advisors at BHS who work with students in the Steps to Success program, often within a large academic and meeting area. BHS also has an international student coordinator who has meeting space and a student lounge in the main office. Each of these student support programs is located in the center of the school, close to the atrium and main office. These locations provide students with havens of comfort and support. As we move toward a more integrated, unified approach to student support and to encourage unity, determining how best to give all students access to and/or interaction with these smaller student groups and programs is important.

Special Education services almost 20% of the students in the school and strongly favors inclusion. The majority of students served use the co-taught teaching model in one or more of their subjects along with Learning Centers. The inclusion philosophy extends to students in our community and postgraduate programs that are integrated on the campus and allows participation in the daily life of the larger high school. Our commitment and in-district programs, along with the expertise of the specialists we employ, allow us to run programs and offer a continuum of services that furthers our goal of inclusivity.

II. Proposed Changes and Why or Statement that No Changes are Proposed

As Brookline High plans for rising enrollment, the school must expand significantly, and in this expansion determine the best ways to make a large school feel smaller. By the 2018-2019 school year we will be overcrowded to the point that we will have to make compromises. As the school will necessarily prioritize classroom space, the impact will most directly be felt on common spaces, teacher meeting spaces, and program-specific spaces at the high school. In the past 12 months numerous town and district offices and programs have been relocated outside of the high school allowing the current population of the school to be satisfactorily housed; nevertheless, very quickly as we continue to grow we will be out of space for classrooms. While the high school is not yet at a historic high in terms of population, it is approaching a historic high for the ratio of students to available classrooms. This is important to keep in mind in the short-term as many of the things that make Brookline High School what it is will be potentially impacted by growth. The level of service/rooms necessary for 2000 students in 2016-17 considering special education needs, tutorial, small group learning environments, common spaces, etc. in many ways exceeds the level of service/rooms needed for the 2400+ student maximum population in prior years.

As noted above, both academically and administratively, the model for success at Brookline High School relies on the close connection of adults and students. It is paramount therefore that we find ways to retain an atmosphere where students feel connected to adults and vice versa. The great fear is creating an anonymous sea of 2600+ students where both students and teachers feel marginalized and disconnected



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from the community. It is also important that all students have equitable access to the school's many academic offerings, as well as co-curricular and athletic opportunities. This supports the school's on-going commitment to its five core values: high academic achievement for all students, excellence in teaching, understanding and respect for human differences, collaborative relationships, and educational equity. As it is a given, it is easy to overlook the importance the current building and campus has in the creation and maintenance of these core values to the Brookline community and to the high school. The structure of our academic offerings and the space given to teachers and students, in the form of classrooms, common space, libraries, etc. fosters the high academic achievement for all students. The space given to teachers, both physical and professional, supports excellence in teaching. The understanding that there are multiple pathways and forms that success can take, and the diversity of academic and co-curricular offerings the space at BHS allows, is fundamental to our understanding and respect for human differences. The recognition that teachers are better when given space and time to collaborate with each other, and that students are better when given space and time to collaborate with each other and with teachers is embedded in our commitment to collaborative relationships. Educational equity comes from commitment on the part of the staff and the school to build spaces that enable all students to recognize Brookline High School as a safe and caring environment where all students are given the support needed to succeed. Each of these core values is potentially threatened by expansion.

Therefore change is necessary both academically and administratively. If we grow another 40% and add 40% more space we will not be the same only larger. If this growth is addressed by adding only classrooms, we will lose so many of the characteristics which allow Brookline High School to serve students well academically and socially, while still retaining a safe and secure high school for all. Therefore, it is critical that expansion plans also address the need for teacher collaboration space, co-location of student supports, and an overall campus-wide plan which considers how to make a larger more complex environment seem smaller, closer, and more welcoming. While the current campus is truly an accident of 170 years of growth and expansion, the next phase of this 170-year plan must take a look at the campus as a whole in creating any solution. A solution that merely adds additional classrooms at a nearby location will lead to the degradation of all of our core values. However a plan for an integrated campus including the current buildings, new building(s), Cypress Field, parking, and the community is something we believe will succeed in addressing our values of high academic achievement for all students, excellence in teaching, understanding and respect for human differences, collaborative relationships, and educational equity.

Contemplated changes to the structure of BHS include the following:

Over the course of the past three years there have been many scenarios for growth contemplated by the faculty and staff of the high school, as well as representatives of parent and town groups. As part of each stage of this process we have considered carefully how well any of the proposed configurations of a future high school would align with our vision and understanding of what makes BHS successful. While we are not making final determinations for which one of these structures will ultimately serve the students, faculty and town best, we do believe that in order to retain the key components of what makes BHS so successful, certain possible configurations of the future high school are more in line with those characteristics than others.

The models we have discussed as part of this process include the following:



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- 1 school on the current site with a satellite of between 500 and 800 students at a different site
- 1 school within the current/expanded BHS site
- 2 high schools
- 4 distinct schools housed within the current/expanded BHS site
- 4 distinct schools with 3 housed within the current/expanded BHS site and one in a satellite space

The process has been one of aligning these potential models with the guiding principles, core values, beliefs, and learning expectations the school has identified. Additionally, of course, come the spatial and financial constraints facing the town in the project. We recognize that given unlimited resources and space our approach could differ from what we present here. Much of the process did involve visioning and conceptualizing without regard to these considerations. However, at this point in the process, we must actively evaluate these constraints as a part of the process. Most towns in the area facing similar demographic issues have chosen to build an entirely new school. Invariably this is done on the playing fields and parking lots of the current schools and allows for relatively smooth design and construction phases. As much as we love the current campus, if it were a possibility BHS would likely follow this route. While a completely new building would allow for significant technological and structural advantages, we believe that expansion of the current coherent campus of BHS, with that expansion addressing the needs identified throughout this proposal, will allow us to continue to build on the long tradition of excellence at BHS.

This is a key to understanding the high school's current thinking about expansion. We do not believe that the answer to what will make a 2600 person high school work comes from the shape of the walls that make up the high school. We believe a 2600 person high school can and will work because of the people and structures inside of that school. Building more rooms does not solve the problem. Turning solid walls into glass walls does not solve the problem. Moving 600 students from here to there does not solve the problem. The answer comes from understanding what we do and how we do it well in creating a solution that incorporates the necessary physical space, academic environment, and administrative structure that allows Brookline High School to continue to be the valued institution that has served the town for 170 years.

Therefore we asked the architects to focus on one of two possible solutions for the HS:

1 school on the current site with a satellite of between 500 and 800 students at a different site

The high school has experience with a satellite campus, from the construction period in the late 90s when a successful ninth-grade campus was operated at the Old Lincoln School. In many ways we like this idea giving an independent and unified opportunity for students arriving from the district's eight K-8 schools a chance to acculturate and have a unified ninth-grade experience. If sufficient space is available to work this option we believe it could be successful, though large questions remain about affording ninth-grade students the full range of academic opportunities they would have as part of the main campus, as well as how we would incorporate ninth graders into the broad variety of co-curricular, extracurricular, and athletic offerings so integral to the high school experience. The ninth grade small school would also offer students closer supervision, a focus on academic and school habits, and a sense of community that fosters the school's three mantras: freedom and responsibility, growth over time, and bringing our best selves to school. Large questions also remain about how transportation and connection between the satellite



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campus and the main campus would be achieved. The HS would remain largely unchanged (around 2000 students) with the satellite ranging between 550 and 700 students. Much more research is required to determine if this standalone ninth-grade model could work over the long term.

1 school within the current/expanded BHS site

For a long time this was just seen by administration, staff, and the community as too impractical – it was just too big. However after experience and research talking with other comparable districts with schools this large we now believe that this model is possible. The heavy emphasis would be on the change necessary within the walls of the high school in how we would structure ourselves academically and so that close connections with students would be maintained. Creating opportunities for the ninth-grade students to have a thorough and effective transition to the high school would remain essential and a focus of the design. We would look at every aspect of the school's organization from the load of guidance counselors to the structure of the Deans' teams, to the way we organize our academic departments. In the end we do believe we can create a viable 2700 person high school at the current campus that retains the attributes of the high school that have been long respected, admired, and effective. Further, we keep broad and varied academic offerings, cultural opportunities, athletic opportunities; we retain equitable access to all BHS offerings; and we avoid scenario where one program/house/school becomes more desirable. The school would by its nature be different-- as the academic and administrative structures would evolve to meet the changing needs of this environment.

The true business of the school is in the teaching and learning that happens in classrooms. The sections that follow therefore represent the true vision for the educational plan of the high school as they are plans and vision for what that education will look like in the coming 50 years. Our key takeaways from these individual department sections are:

- The need to consider the campus as a whole in any renovation or expansion plan. From athletics to academics, from food service to the housing of our alternative programs, the success of the high school project will rely on creating a unified campus for all users. Whatever building(s) is added to the campus, or whatever satellite space is added, it is vital that there still is the feeling that one is at the high school from any of the buildings. We do not want to compartmentalize any department or activity, rather we want all locations on the campus to feel it they are part of a unified whole. An important phase in this would be the central location of Cypress field, which has long been neglected as the centerpiece of the campus. By renovating and rethinking the use of this field, we believe we can create a center hub of the campus and bring a radiant connection to the disparate buildings of the campus.
- The need for a big school to retain the small school feel. This is significant in the classroom where teachers and students should feel connected, as well as in the hallways, the cafeteria, and all areas of the school. Any expansion that allows students to feel less connected to the school and less connected to their peers should be resisted. While some of this is clearly administrative and structural, we believe that the architecture of the school will also play a large role in how students perceive their experience. Small school feel is that sense of connection and identification with one school. It is the sense that each student is known by adults and by peers, and the feeling that one is connected and important within the school community.



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- The need for flexible collaborative spaces rather than spaces that are devoted to a single task (a.k.a. computer labs). Spaces that can be used in multiple ways and transformed quickly for other use are essential. Part of this is furniture, but part of this represents a desire from the departments to free themselves of the idea that they "own" certain rooms. There is a recognition across departments that while this self-serving way of seeing space in the building protects what is theirs, in reality this way of viewing space hinders and inhibits creativity, collaboration, and 21st-century learning. The most common need seen in these sections is for spaces that allow for larger, mixed groups of students (led by two to three teachers over a few days) to gather in a larger space and to then separate into smaller groups for collaborative work on other days, as a way of promoting the flexibility and adaptability we recognize as essential 21st Century skills. Some of these could be explicitly designed as makerspaces-- workshop classrooms in which students could be using a wide variety of hands-on activities to support academic learning and the development of a mindset that values playfulness and experimentation, growth and iteration, and collaboration and community.
- The need for open and unfettered access to technology. We do not know what form that will take in the future, but we do know that we will need high quality whiteboards to display the technology, varied and open architecture to upgrade the point of connectivity to that technology (for example, when USB changes to something else we do not want all of our tech to be orphaned). In all cases the need for a one-to-one environment is noted or implied as a necessary step.
- The need for better ventilation. There are large sections of the room building where at certain times of the day for several months of the year, teaching and learning is diminished because of inability to adequately ventilate and therefore cool the room. This has to do with the inherent design flaws of the windows, which may have worked as single pane casements in the past, but as modern double pane windows are just too heavy to be operable in a school environment. In short, it is very hard to learn in the absence of A.C. when room temperatures rise above 80°F.
- The need for classes to remain at sizes allowing for collaboration and connection with teachers. Much of the 21st century learning outlined below is predicated on teachers fostering environments where students can collaborate and explore within the classroom setting. Whereas the old days of rote instruction may have allowed for some classes to grow quite large, learning today is different. Teachers need to be more flexible and differentiated in their approach, while students need increased recognition and attention that happens best when class sizes do not exceed 25.
- The need for further evolution of handicap accessibility around the entire campus. This could occur as part of a larger review of all aspects of "accessibility" on the campus. As we grow and incorporate all types of learners we want to be sure that there are fewer impediments to access for all students.

Entering the schematic design phase of the BHS expansion project, the design plan combines the strengths of options considered during the feasibility phase of the project. In building at 111 Cypress, we create an integrated, supportive 9th grade experience meshed with the larger, overall experience of the BHS campus. More specifically, we believe that it is ideal for ninth graders both to take classes and share



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experiences with their same-age peers while also having academic experiences with older students through the rest of the campus. Similarly, we envision some classes at the Cypress building drawing older students to that part of the campus. Our youngest students benefit from seeing and interacting with older students who model the habits and behaviors necessary for learning, growth, and achievement. It is through this integrated approach that 9th graders best will acculturate to Brookline High School. By integrating the 9th grade students into an expanded BHS campus, we eliminate multiple transitions while providing an additional level of support tailored to the ninth-grade experience and still allowing for the broad integration of ninth graders into the life of the high school including participation in clubs, arts, athletics, higher level classes. These supports will allow students a different type of transition to HS which will help to achieve the goals of the visioning sessions for the future BHS: a big school with a small feel; an integration between disciplines and departments; effective use of the entire campus for teaching and learning; a more self-directed, hands-on and experiential learning environment using flexible learning spaces; all within a green/sustainable new building.



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ENGLISH

Curriculum/Service Delivery

The mission of the BHS English Department is to teach all students to think critically and creatively, to read carefully, and to write well. In our classes we foster relationships, engagement, and confidence. Students interact with a variety of texts and with one another, construct meaning, expand their powers of reasoning, strive for excellence, and cultivate the habit of reflection. Teachers use a variety of teaching methods from large-group to small group to performance to one-on-one conferencing. The responsibility for learning gradually shifts from the teacher to the students, who learn to use their language arts skills as tools for independent, lifelong learning. Writing instruction is at the core of what we do, and all English teachers hold writing conferences inside and outside of class time. These currently take place in the classroom, in the hallways, and in teacher offices.

We are committed to exposing students to the best that has been thought and written so that students appreciate the power and beauty of language; we are also committed to using language arts to explore new directions and new media. Our senior courses in particular allow students to study a particular interest in more depth, such as creative writing, fiction and film, public speaking, or an independently chosen senior project.

We share the Humanities computer lab with Social Studies, where students do research, draft papers, work on group projects, write in-class essays. Our central English office connects directly to the Social Studies department; we share a conference/lunch room and an administrative assistant. This Humanities contiguity has worked well in terms of encouraging collaboration and reducing the silo-effect. In the past several years we have developed courses in partnership with Social Studies, and we hope to continue and expand our interdisciplinary work.

Proposed Changes and Why, or Statement that No Changes are Proposed

Due to the variety of reading, writing, and discussion activities in an English class, we need classrooms with multiple whiteboards, electrical outlets, mounted projection, consistent internet connection, light and flexible furniture that can be moved and grouped in various ways. As a department we need more central storage for books and equipment. If we will someday have student computers in every classroom, as would be ideal, we will need to have the space and security to store them there.

An adequately sized and equipped Sagamore (school newspaper) Room/Publications Center that students can access during the day is indispensable to the continued success of the student newspaper and to student communications more broadly; we hope to expand the number of students involved in journalism.

More spaces to conference with students without disturbing others or being disturbed would enhance our ability to individualize instruction.



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In our attempt to create a culture of readers (and not just screen-users) at Brookline High, we would like to encourage the creation of relaxed spaces conducive to quiet reading. Comfortable armchairs away from distractions, including screens, would serve this purpose.

Teachers often invite speakers – poets, writers, scholars, journalists, entrepreneurs – to come to the high school. There are also drama productions, senior project presentations, and other events that ideally involve somewhat larger audiences/participants in an appropriate space. It would enhance our program to have access to at least one larger space where two or three classes could gather to attend a novelist’s writing workshop, to listen to a scholar discuss literature, to participate in a poetry slam.

Many teachers display student work in their classrooms; however, we would like to have more venues to showcase student writing or artwork more publicly.



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Math

Curriculum/Service Delivery

The goal of the math department is to help our students gain an appreciation of math in their lives through a balance of computational fluency, conceptual understanding, and problem solving. In addition, in order to solidify and deepen understanding, we require students to communicate the concepts they are learning both in written and oral form. To achieve these goals we present a variety of courses at different levels, balancing direct instruction and student-led exploration of mathematical concepts. Pedagogy is based less on teacher instruction than it is on demonstration of knowledge by students.

The math curriculum balances content with the Commonwealth's Standards of Mathematical Practice. These practice standards include perseverance, attention to precision, abstract and numerical reasoning, construction of viable arguments, critique of the reasoning of others, mathematical modeling, use of appropriate tools, structure of mathematical expressions, and pattern analysis. A collaborative learning environment best supports these goals.

Proposed Changes and Why, or Statement that No Changes are Proposed

The effectiveness of our classes is limited in our current configurations by three main factors. Our small inflexible classrooms hamper the ability of teachers to modify and differentiate instruction. There is a clear need for larger spaces with more flexible arrangements. The second limitation is insufficient technology. While the technology has improved in connectivity and consistency, math, more than most subjects, is well served by a one-to-one environment because in the 21st century much mathematical exploration, both in high school and beyond, takes place electronically via graphing and algebraic programs. For students to become effective mathematicians, to be computationally fluent, to understand and communicate math at the conceptual level, and to be good problem solvers, consistent and pervasive technology is a must. In particular, one of the goals of the math department is to incorporate coding into all of our math classes. In order for this to happen we must have machines available to all students at all times. Third, and perhaps most significant, math instruction is limited by classes that are too large. As our enrollment grows, the limits of our facility will drive larger class sizes. Over-sized classes limit teacher effectiveness and prevent the type of student led exploration we see as fundamental to the BHS math experience. As classes grow, students' ability to share, model, and demonstrate knowledge will suffer. Teachers' abilities to differentiate instruction -- and ultimately to create environments that foster thoughtful mathematicians -- depend on reasonable class sizes.

The way we teach math requires classroom spaces designed for easy collaboration and communication. To that end our ideal spaces for teaching and learning have all or most of the following characteristics: multiple writing surfaces so students can easily move around the room and share their work and thinking in a variety of ways, flexible furniture allowing quick changes to accommodate a variety of teaching strategies, spaces within the larger school to accommodate two or three classes, and shared smaller spaces



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where teachers can have individual or small group discussions with students. Furthermore, math teachers make regular use of the mounted projectors and document cameras that are located in in each math classroom. Both of these devices rely on effective and consistent connections.

Science

Curriculum/Service Delivery

The science department strives to inspire all students to become informed, curious, life-long learners about the world around them. Inquiry-based methods encourage students to ask questions about the natural world and use logic and evidence to find the answers—the process used by scientists. Students learn and apply this scientific method (hypothesis, experimentation, data collection and analysis, and making conclusions) throughout their education. The engineering program teaches students the engineering and design process (research, conceptualization, preliminary design, prototyping, detailed design, and production) in this growing program as well. A rigorous science curriculum builds upward through the grades with a sequence of cumulative skills interwoven with subject-specific content, and integrates with other areas of the curriculum to provide a complete learning experience for all students. Skills involving observation, critical thinking, effective verbal and written communication, manipulation of equipment, and applying technology are woven throughout the curriculum. Following graduation, our students understand science as a human activity, and they recognize the relevance of science to society as they grow into concerned adults. They are well prepared for a career in science or engineering, and life in the world of their future.

Teachers are moving to more student-centered and personalized learning, but are significantly influenced by current conditions that limit opportunities for more contemporary pedagogical methodologies. The Science department designs and implements curricula intended to help students master core academic content as well as develop important 21st century skills. Opportunities for authentic, relevant, real-world learning experiences are also woven into core instructional programs. However, inflexible classrooms designed for more traditional delivery methods limit teachers.

A tradition of high success rates on multiple measures (from MCAS to AP participation and scores) for part of the school population may, in some ways, hinder educational experimentation and innovation. Further, our traditional learning spaces make more varied presentations and diverse opportunities difficult and, worse, foster the perception that science is not for everyone.

Proposed Changes and Why, or Statement that No Changes are Proposed

The goal is to move towards even more student-centered and personalized models that incorporate various pedagogical methodologies. Spaces that allow for larger, mixed groups of students (led by two to three teachers over a few days) to gather in a larger space and to then separate into smaller groups for collaborative work on other days, would promote the development of 21st Century skills. Flexibility and adaptability within the classroom and through adjacencies are key elements to supporting a student-centered learning experience that is inviting, engaging, relevant, robust, dynamic, and inclusive.



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Science labs currently include traditional, heavy benches that take up much of the room. Most lectures are conducted within these same (undersized) rooms. Small classrooms with single misplaced teaching walls limit flexibility, making differentiation within a class difficult. Though teachers are able to move from lecture and discussion mode to experiments, the room sizes and layouts make the transition difficult. Inflexible and traditional placement of some fixed furnishings, such as laboratory tables, structural columns, doorways and obsolete closets, limit group work because of safety concerns. Some of the rooms were originally designed for small group lectures. The sizes and layouts of the rooms are also not conducive to collaborative interdisciplinary project work, and do not allow for student movement throughout the class time.

Preparation areas are currently limited to a few stockrooms. Teachers must take materials from these insufficient storage areas, share them across multiple rooms, and then return them to the stockroom. This transfer is inefficient, and leads to either the purchase of classroom sets of equipment, or having equipment dispersed across various classrooms. Chemical storage is centralized and secure, but there is limited space to prepare the chemicals in the central location. This means that preparing and storing chemicals to be used within a classroom during a short time period is less secure, and must be performed in the chemistry labs. This is a limitation because many chemistry classes perform short investigations with micro amounts of chemicals within the classroom, as more inquiry-based lessons are being incorporated.

Students should be able to showcase their learning, growth, and mastery in a variety of ways: preparing written reports, participating in debates and simulations, creating projects with social impact, and presenting experimental findings orally or by using multimedia in front of peers, teachers, and families. Throughout their studies, students also need to be able to make ‘real world’ connections through project-based assignments that are relevant to current issues, and through interdisciplinary opportunities to talk with and learn from professionals and experts from the community. Ample wall space, exhibition space, storage space, lecture space, teacher preparation space, and flexible classroom spaces that can support small to large-group instruction (100 or more students) are all elements that can further enhance instructional practices.

Computer Science and Engineering classes require a space with integrated technology, tables that can be arranged in flexible groupings, adequate storage for portable technology and devices, and laptops for every student. Flexible, maker-type spaces would provide students with the opportunity to build hardware as well as program software, and work with community partners regularly to gain real-world exposure and experience. There are no current spaces that can support burgeoning collaborative high-tech programs, nor to support activities such as the Robotics Team, which is advised and supported by a Northeastern University (not BHS personnel). The highly popular CTE Medical Careers course is limited by the need for students to travel to the Longwood area; if equipment were placed on the premises, then students who cannot travel to the Longwood could have the opportunity to take this innovative course, and teachers could collaborate across the CTE and Science departments.

Science and Engineering classrooms need to be flexible spaces which can accommodate lecture and lab work that would enable more academic cross pollination with other programs, particularly Math and CTE. Appropriate program adjacencies are critical to supporting this interdisciplinary work. Lab work and student research will be integrated into all lessons rather than the traditional separate lecture and lab portions of class. As already stated, the flexibility between a lecture and lab space is vital to provide for



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seamless integration of the two. There should also be greater transparency between common space and between classrooms, which allow students to work in areas with informal supervision of students as they work in more independent and small group contexts outside of the normal class time. Rooms also need to be equipped with proper safety equipment, several sinks, peripheral and/or ceiling utilities, ample storage, gas lines, fume hoods, and cutting-edge life and physical science lab equipment.

Other possible departmental configurations, where students work on STEM projects in a separate building within a moderate walking distance, would be possible with schedule and programmatic changes.

However, increasing distance from the main building may correlate with an increased disconnection among staff and students. The current departmental organization, which limits interdisciplinary activity and project-based learning, would be further negatively impacted.

Social Studies

Curriculum/Service Delivery

The goal of the Social Studies department is to engage all students to think critically and to understand diverse perspectives about the human experience. The knowledge, skills, and capacity for judgment we strive to teach in the Social Studies Department are, we believe, essential to achieving the purposes of both humane individuals and a democratic society. Our humanity requires that we know the major historical events, the political and economic institutions, and the people and ideas that have shaped our community, our country, and our world. Our democracy requires that we act as responsible citizens, and therefore that we interpret and judge the choices and practices of individuals and societies, and that we take responsibility for our own. Active citizenship also requires that we acknowledge and embrace the fact that the human world has not always been as we find it, that it can and likely will become something dramatically different still, and that it is, in the end, our burden and privilege to determine the shape of our common future. In short, we require our students in Brookline to learn about and from human societies, past and present, near and far, so that they can become aware of their own place in the world, as thoughtful, responsible, free people.

The Social Studies Department teaches a broad range of topics and themes, using a variety of pedagogical approaches, in order to engage all students in this enterprise. We share knowledge about history and society through primary, secondary, and tertiary sources, oral and visual presentation, and guided research, and teach our students the skills to access knowledge in each format. Our active classrooms require students to participate in simulations and debates, small and large-group discussions, and individual and small-group projects and presentations. We use digital technology extensively for both classroom activities and to support and scaffold the research essay each student writes in our three required yearlong classes. Our optional courses introduce students to the range of disciplines in the social sciences and challenge students to become active participants and leaders in the larger community.

Proposed Changes and Why, or Statement that No Changes are Proposed

We propose three changes that are common to other academic programs at BHS and one that is particular to Social Studies. Like other departments, we need more flexible space and furniture to accommodate project-based learning, student presentations, guest speakers, and other non-traditional learning activities.



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We also will need to provide storage and display spaces for student work. Second, like other departments and programs, we need to equip all of our classrooms with the digital technology necessary for 21st century learning and teaching. Right now, four of our classrooms have dedicated Chromebook carts that allow teachers to use computing technology and the Internet appropriately, as classroom and research activities require. Every academic classroom needs a device for every student. Third, as the Social Studies department grows along with the student body, we will need additional work and meeting space for a growing faculty.

The Social Studies department also needs new, dedicated spaces for three growing programs housed within the department. We offer three innovative courses that function as hubs for student activity in the larger BHS community: the Social Justice Leadership Workshop, the Global Leadership Seminar, and the Racial Awareness Seminar. Each sponsors trips, guest speakers, extra-curricular meetings and activities. Moreover, as BHS grows, each has the potential to become a learning community that brings students and faculty together around common interests, helping to make a large school feel smaller. These programs will need dedicated space in order for them to maximize their impact on student learning.

World Languages

Curriculum/ Service Delivery

In our studies of modern languages, the goal of the World Languages Department is to create immersive opportunities for authentic, relevant, real-world learning experiences so that students develop confidence and expertise in their ability to communicate across linguistic borders.

In our Latin program, we emphasize cultural and historical comparisons between modern and ancient worlds through close study of literature and authentic artifacts.

In the process of learning languages students develop cooperative learning strategies and gain increased confidence in their ability to debate, problem-solve, present, listen, and converse with others. Students regularly showcase their projects, “act” and “move” in simulated environments (such as ordering at a café, doing physical activities while learning health vocab, exchanging goods at a market, cooking, dancing, painting murals, etc.) Guest speakers, artists, and performers representing the cultures studied visit our classes to share their expertise.

Proposed Changes and Why, or Statement that No Changes are Proposed

The rigid spaces we use limit our ability to quickly and easily transform our classrooms to accommodate a variety of projects, simulated environments, and group configurations. This makes cultural immersion type projects such as cooking and art more difficult. Flexible space allowing for these activities and the storage of materials necessary for such activities would greatly enhance the teaching of world language. Further, having easier access to a large performing space would enable our students to show plays, or invite musicians, dancers, and other performers.



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With growing numbers of students and the limitations of space, our class sizes are growing. As class size grows it becomes harder for teachers to provide quick, effective, and personalized feedback to students. As class size grows students' ability to practice languages diminishes, as does the ability for the teacher to guide group explorations and differentiation of instruction. For language instruction this creates a diminished environment.

The teaching of world language has shifted in major ways in the past 25 years due to changes in technology. What used to be recitation and repetition in front of the teacher has evolved into immersion and interaction with technology and one's peers. Therefore the department is reliant on state-of-the-art technology for language labs as well as research, practice, immersion in regional and international culture via video, and the ability to communicate via video conferencing with students from other lands. We currently have one wonderful world language lab – to do the job right we would need at least three such labs.



Brookline High School – Expansion/Renovation Process

Special Education Programs

Curriculum/Service Delivery

The Brookline High School Special Education programs are delivered to a wide range of students requiring a broad array of programs and services to meet the varied needs of students with disabilities. Currently the Special Education Department serves approximately 350 students. Brookline prides its special education services and programs in serving the majority of students with disabilities within district. To this end, a continuum of instruction is provided in inclusion settings to those requiring a multi-tiered level of specialized and intensive support that is met in partial to substantially separate settings. Rigorous, robust programs and services teach students academic skills, facilitate social/emotional growth, address behavioral regulation, develop self-advocacy and perseverance, create independent learners, and enhance engagement in independent life skills.

Guiding principles are anchored in developing a growth mindset in students, building relationships amongst peers, and empowering students to understand their learning and how they can access and master all levels of the curriculum and life in the school and in the community. In continually assessing student acquisition of skills in all developmental domains, educators use specialized teaching methodology, differentiated instruction, and out of the box thinking to modify activities in order for all students to be independent learners and citizens.

The team of interdisciplinary professionals collaborates and integrates services for a comprehensive approach to addressing multiple student needs. Methodologies such as task analysis are used to develop individualized plans for students with disabilities. The focus for educators in all settings is to facilitate problem solving and critical thinking that is applied to all life skills. Teams use a thoughtful, intentional planning process to determine how best to deliver services and programs in the least restrictive environment.

Proposed Changes and Why, or Statement that No Changes are Proposed

There are no spaces in the building that were purpose-built for the varied needs of our special education students. In all cases rooms from the original buildings have been transformed and modified in attempts to meet the needs of such students. While this has been successful there is a need for a top to bottom review of the programs that we have now and the programs we anticipate arriving in the future to determine how we can purpose-build spaces that will serve the multifaceted needs of our high school population.

Among the architectural needs we see are:

- A further evolution of handicap accessibility around the building. This would include modernization of the chair lifts and ramps to better serve students with mobility issues, redesigning egress from the fourth floor of the UAB, and a general review of what it is like for a student in a wheelchair to access all areas of the BHS campus.



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- A life skills apartment which can serve across several programs as an educational and functional. (See description below)
- Purpose built and designed spaces for individual instruction in speech and language, as well as for working with school psychologists and other associated staff in a private one-on-one manner.

Community Based Program (CBC)/Bridge Program:

These programs serve students with severe disabilities (including students who are cognitively limited and/or nonverbal and/or non-ambulatory). The focus of classroom instruction is to teach functional academics that can be used in real life situations. One to one and small group instruction is utilized throughout the day to optimize learning. It will be necessary for all spaces and equipment to be accessible. Access to rooms includes ramps built to code and large, handicap accessible entrance doors. This includes a large wheelchair access bathroom with a lift and a changing table that allows for adult assistance; room for PT and OT that includes space for appropriate equipment (e.g. standers, and other PT equipment). The program focus is on development of life skills, post-secondary employment, independent living, travel training, vocational training, and adaptive living skills. As such, the space also will need accessible kitchen and laundry facilities with accessible equipment (washer, dryer with exterior vent, oven and stove). Classroom space should include adjacent smaller rooms that may be used flexibly (e.g. quiet space, meetings with employers and agencies, one to one instruction in functional academics and adaptive daily living skills), capacity for Smart Board and assistive technology/equipment including use, storage, and efficient Internet connections.

Co-teaching Classrooms:

Inclusion practices are founded on the principles of diversity, individual needs, reflective practice, and collaboration. Our co-taught classrooms are served by two highly qualified teachers, a general educator and a special educator, working together with inclusive groupings of students, sharing the planning, organization, delivery, and assessment of instruction, in the same classroom. This partnership between the general and special educators requires integrated, collaborative spaces, including two teacher desks in the classroom, sufficient storage of materials, and efficient technology.

The **ExCEL** Program (Excellence in Community, Effort and Learning) serves students with emotional/social/behavioral challenges requiring a therapeutic environment. This is a substantially separate therapeutic learning environment where community building and self-discovery are emphasized in order to improve student academic behavior and performance. The program is designed for students who need daily structure, clear behavioral expectations, consistency and a smaller community. This requires space that balances academic and therapeutic needs. Classrooms need to be comprised of connected rooms with smaller breakout rooms that allow students private space, individual counseling, and small group activities. In addition, teacher offices are needed for highly confidential phone calls to families, staff, collaterals and wrap around service providers. Air conditioning is required to support students' self-regulation and sensory needs. Bathrooms should be in close proximity to classrooms. Therapeutic environment would include flexible lighting, comfortable furniture, and academic classrooms should be equipped as general education classes (e.g. science class has a sink). Capacity for technology and efficient Internet connection to support blended learning opportunities (online and classroom combination) and access to a Life Skills Model Apartment.



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Learning Centers:

Learning Centers serve a wide range of students with mild to moderate disabilities. Learning Centers focus on specialized instruction to assist students in meeting the curricular demands of each grade. Specific services may include reading, math, written language, organizational skills, executive function and study skills, social communication and self-regulation skills. These classrooms require space for whole group instruction and flexible small group learning; desks with dividers/carrels for directed study; connected small offices for individual instruction, consultation, counseling and transition planning. This includes general learning centers, Pathways Program, and small group classrooms. Lighting control, storage space, comfortable and individualized reading and learning spaces all support students in Learning Centers.

LAHB (Language & Academic Home Base):

LAHB supports offer students access to the general curriculum with additional intensive interventions in reading and writing. Students also access a specialized, language-based learning center. LAHB students exhibit language-based challenges and demonstrate average to above average cognitive abilities; those who are self-motivated and independent benefit most from this model. These classrooms require space for whole group instruction and flexible small group learning; desks with dividers/carrels for directed study; connected small offices for individual instruction, consultation, and transition planning.

Life Skills Model Apartment:

This is a separate classroom space that is designed to provide a simulated daily living environment. The apartment should include a kitchen, living area, a large bathroom with shower that allows for adult assistance and necessary handicapped accessibility, a washer/dryer with proper ventilation, a bed for teaching making/changing bed, cleaning with vacuum.

Psychologists:

Suite of private offices for 4-6 school psychologists with acoustically soundproof walls for testing, confidential conversations with families, staff, and collaterals. A small waiting area/common space is needed along with storage for files, protocols, test kits, and files. Proximity to support staff would be helpful, as would a dedicated room for multiple school psychologist interns.

Special Education Offices and Conference room:

Need offices for administrators, ancillary and itinerant staff, clerical staff, and conference room to meet with 15+ staff, and for IEP meetings, family and collateral meetings, interdisciplinary collaboration to meet the specialized needs of students. We require the ability to project information visually for IEP meetings. The ETFs will have home base offices within the Dean's office suites to enable seamless collaboration with deans, students, guidance counselors, and families, as well as convenience and efficiency in conducting IEP meetings. Inasmuch, the ETFs will also require work space/offices within this main special education office suite in order to access and maintain compliance on student files housed in the main office, make private phone calls to families, physicians, agencies, and other collaterals associated with student cases, collaborate with special education colleagues and have direct access to special education resources and continuous professional development. File storage for 500+ students. Adequate HVAC for 12-month employees. Meeting room for smaller group meetings, less than 15



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people. Resource area with books and therapy/classroom supplies. Storage for department supplies, printers, photocopy machine, fax.

SLC (Supported Learning Center):

The Supported Learning Center serves students with challenges in social/emotional regulation. This is a home base classroom where students receive therapeutic support for emotional/social regulation that assists them in being able to engage, participate, and make effective progress in general education classes. The delivery of instruction and support utilizes a strengths-based approach, promoting self-advocacy and self-reflection for students. This therapeutic milieu classroom requires flexible space for individual and small group instruction, comfortable furniture, private rooms for counseling and de-stressing space. Small adjacent offices are needed for confidential phone conversations with colleagues, families, and collaterals.

RISE (Reaching Independence through Structured Education):

The RISE program serves students on the autism spectrum who may require intensive, individualized instruction and support. It functions as a home base for students and supports students in general education classes. Classrooms require whole group instruction with small breakout rooms for students to access a safe zone, to de-escalate and self-regulate. Small adjacent rooms are required for small group activities, and individual/small group therapies/counseling. A Sensory Room, with sensory equipment for regulating behavior and sensory needs in close proximity, two-way mirror for observations/functional assessments. Locked storage space for staff belongings and student supplies/materials, and curriculum supplies. Office areas for teachers and BCBA's, allowing for confidential consults, phone calls, assessment and access to Life Skills Model Apartment.

Transitions:

Serves students age 18-22 from all our specialized programs for teaching independent life skills, employment, career and college transitioning. These services are designed to help young adults with disabilities identify skills and interests, develop a range of career options, and ultimately secure employment in the community. Classrooms require flexible spaces for de-escalating students, self-regulation, and individual counseling. Educators' offices for confidential phone calls to employers, agencies, families, collaterals and student assessments, with common space/waiting area. Curricular programs for vocational tracks, beginning in 10th grade. Courses address skilled labor, trades, and apprenticeships. Access to Life Skills model apartment.

Related Services Programs:

Physical therapy room with adequate space, ambulatory equipment, gait training, wheelchairs, strengthening and conditioning equipment, adult desk/chair. Access to life skills model apartment.

Occupational therapy room with adequate space for suspension equipment, sensory regulation equipment and materials, tabletop workspaces, adult desk/chair, storage space. Access to life skills model apartment. Speech/language therapy rooms (2-3) with large table and 6 chairs, adult desk/chair, storage space. Sound proofing for testing and therapy.

AT/AAC specialist room for assessments, assistive technology equipment, adult desks/chairs, table and 4-6 chairs.



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Winthrop House:

This public therapeutic day school (10 month program) is an off-site component of Brookline High School, providing a specialized therapeutic educational alternative for students whose social and/or emotional challenges have hindered success in a traditional high school setting. The goal of Winthrop House is to break the cycle of difficulties some students experience in school. With its low student-teacher ratio (currently 8:1), the program provides students individual support in an emotionally and physically safe environment, helping students build self-esteem, work towards academic potential, and experience positive peer interactions. Currently this program's capacity is for 32 students, and has all components and facilities as the traditional high school setting.

The future of Winthrop House will be affected by its current location, the Baldwin School, recently having been chosen as the future site of Brookline's ninth elementary school. This likely re-location provides the department, school and district an opportunity to maintain current strengths of the Winthrop House program while potentially moving it closer to the main campus. This would offer Winthrop House students more opportunities to take classes and become involved with high school clubs and activities. Students within the Winthrop House program require a physically separate environment as part of the therapeutic day school model.

In addition, the Public Schools of Brookline is considering expansion of the Winthrop House to include middle school grades in order to provide specialized therapeutic alternative as a means in which to provide services in district. Winthrop House current model requires four classrooms with a staff of 12 full and part time faculty. In consideration of a possible expansion to support middle school grades, an increase of three additional classrooms is being projected by the opening of 2018-2019 school year. In light of almost doubling the physical blueprint of the program – additional space will be necessary for team meetings and delivery of counseling services.

The projected expansion of this program would allow the Public Schools of Brookline to currently serve the specialized therapeutic needs of our students who are experiencing social and emotional challenges at an earlier stage of their education, reducing the need of out of district programs and tuition expenses.



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ACE Program

Curriculum/Service Delivery

The ACE (Alternative Choices in Education) Program is a competency-based program within Brookline High School for up to 48 students (grades 10-12) who choose to be in a smaller educational setting where they can move at their own pace and engage in project-based and experiential learning. ACE provides a rigorous college-preparation pathway in which students are placed in multi-age classes based on their skill levels and content knowledge and can graduate once they have completed the required competencies for each content area. Students take two six-week academic classes at a time, averaging three courses in each content area in a given school year. They successfully complete a class by showing at least a basic mastery on each required benchmark and competency for that class. No letter grades are given. Rather, students are assessed on their levels of competency. When it is time to assess the student, ACE teachers offer a choice of performance-based assessments that, as much as possible, allow students real-world application of the skills. If a student does not meet a minimum level of competency - “basic competency” - in a class, they do not fail. Instead, they repeat it when it is offered next.

To allow students to work on their competencies at different paces, ACE staff intentionally infuse technology into their classes. All students in ACE have a Chromebook and many of their assignments require them to use Canvas, the BHS digital platform, along with Google applications to create and submit work.

In addition to the competency-based approach to learning, ACE is a program that intentionally builds a strong sense of community through team-building activities, whole-community meetings, advisory twice a week, and close involvement of families/guardians. Community gatherings are organized frequently to showcase student talents, celebrate student successes, and engage students in program decision-making.

In its current layout, ACE benefits from having its four content teachers in adjacent classrooms –all on the same small, discrete hallway that feels a little bit like an annex to the 2nd floor. ACE teachers report that they are able to seek out one another quickly and easily – communicating with ease about student needs. The students also report that they like having a discrete hallway that is just for their classes as it gives them a more enclosed sense of community and connection. Additionally, the ACE Program Coordinator and the ACE guidance counselor benefit from having their own separate office spaces where they can meet with students and/or families confidentially. These office spaces are also in close proximity to the ACE classrooms, which allows for quick, fluid communication between teachers and the Program Coordinator or guidance counselor.

Proposed Changes and Why, or Statement that No Changes are Proposed

After just one year, the ACE Program grew rapidly in size from 25 students to 38. We anticipate the program will be near the school committee approved size of 48 in the near future. The current space is



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sufficient for this number, though the program would benefit greatly from access to a flexible collaborative space that would allow students from the program to work together in larger groups before breaking out to the smaller constituent units typical of the ACE classroom. As BHS mainstream gets larger and larger, it will be that much more important that ACE is able to continue to keep a small community “feel” And the shared collaborative space would be a large step in fostering that environment.

Anticipating the program will expand to include 9th grade and to increase its overall number to at least 100 students as it proportionally grows with the school, ACE would require additional classroom space as well as spaces for staff to operate, or more likely would need to move to a new location on the campus. Staff strongly believe it is important for ACE to remain on the central BHS campus, though not necessarily in the BHS main building. Students in ACE still take their electives, world language, and health and fitness courses in the mainstream so they need to have easy access to those classes. These are also the classes that allow them to still feel socially connected to their mainstream peers.

One of the core design elements in ACE is to help students prepare for the 21st Century by offering courses that are thematic and focus on developing skills more than memorizing content. It is also the vision for the program to incorporate courses that emphasize innovation and creative thinking. To facilitate this learning, ACE needs - or needs access to - maker-spaces to bring students together and provide them with the tools and creative space to do this. The term “maker spaces” usually refers to workshop classrooms in which students use a wide variety of hands-on activities to support academic learning and the development of a mindset that values playfulness and experimentation, growth and iteration, and collaboration and community – characteristics that are central to the mission of ACE. Maker Spaces would also support ACE’s commitment to blended learning by allowing students the chance to experiment with innovative technologies.

Just as ACE seeks to have a wide-open space on the inside that invites its own community to come together and connect with one another, it also seeks to have its own clear entrance and glass walls to the outside world to allow for full transparency and visibility. ACE can be an incubator of innovation and so it makes sense for the outside community to be able to peek through windows and see what is going on. Additionally, ACE will be seeking to develop a way for students to be able to get out into academic internships during school hours. Once these internships will be up and running, ACE will also celebrate the idea of having open doors that go out into the community and back into ACE.



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Library (Educational Technology and Libraries)

Curriculum/Program Delivery

The mission of the BHS Library is to enable students to be critical thinkers, enthusiastic readers, skillful researchers and ethical users of information. Located just up the stairs from the main entrance of the building, the library can be seen as the heart of BHS, welcoming the entire school community and providing space, resources, and services to support the intellectual and social fabric of the school.

Many can recall school librarians of the past who were limited to a relatively narrow role in their institutions. In contrast, school librarians today—including those at BHS-- are instructors as well as collaborators with fellow educators in the pursuit of student learning, whether in the main library, technology labs, classrooms, virtual learning spaces, or the “real world.” BHS librarians also play a key role in promoting a robust culture of reading at the high school, using creative strategies to connect students with the library’s diverse collection of books in print, digital and audio formats. Representing a wide variety of genres and reading levels, the library’s collection supports assignments as well as independent reading for pure enjoyment.

We believe school librarian instruction and librarian-teacher collaboration result in students who successfully read and utilize print and digital resources for curricular and personalized learning needs. In collaborative classrooms and 1:1 sessions, BHS librarians teach students how to be thoughtful readers and inquiring learners who evaluate and use both print and digital information efficiently, effectively, and ethically, with the goal of developing lifelong learning and literacy skills. Librarians also lead the way in digital learning and literacies by acting as early adopters of new teaching and learning tools, in turn sharing the best applications and practices with students and providing formal and informal professional development to colleagues. As leaders in literacy and technology, BHS librarians are well positioned to connect teachers with tools that support differentiated instruction to every student in the school community through traditional and blended learning.

BHS librarians work with teachers in their classrooms and beyond—for example, on field trips to the local library or state archives. They heavily utilize a learning lab around the corner from the main library for classes and meetings. Formerly a traditional computer lab with desktops, the lab was recently made more flexible by swapping the desktops for a cart of laptops. The main library itself is a multi-use space and has long served as a “learning commons” rather than a traditional library. The library is one of the few social spaces in the school that has the room, resources, and atmosphere to let students gather, explore, and create. Upwards of 750 students visit the library daily, whether to use desktop computers, borrow technology such as laptops or e-readers, meet to chat with friends and work collaboratively, read a book



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or magazine, complete homework, or study in silence. The library also houses archives of the BHS *Murivian* yearbooks and the *Sagamore* newspaper, which are used by individual students, staff, and alumni, as well as classes and clubs. In the main library, librarians are always available to provide research help, assist students in finding books to read independently, train and supervise a corps of 10-15 student volunteers, and hold small classes. Librarians also often work outside the library in their colleagues' classrooms, providing collaborative instruction on topics as diverse as locating primary sources, evaluating statistical studies, studying and creating documentary films, appreciating creative nonfiction, examining child development through picture books, or exploring careers in mathematics.

Proposed Changes and Why, or Statement that No Changes are Proposed

Responses to a recent survey of BHS students and parents about the library underscore the fundamental space/design requirements of the library: current demand, not to mention growing enrollment, calls for more of everything the space currently offers. In addition, the library needs an area dedicated to reading, on-site classroom space, and the flexibility to serve multiple purposes within an area at different times. Because BHS is a noisy, bustling school with an open campus, it's not surprising that the silent study space is maxed out most blocks and that students clamor for more quiet study areas. This may run counter to the trend toward the collaborative "learning commons" model taking over many school libraries. Yet a full 50% of surveyed students asked for more quiet study areas, and as the student population grows, learners will continue to need quiet spaces to work individually. At the same time, half of students surveyed requested more library space for collaborative study, and simple observation confirms that the library needs more areas for students to work in groups. One of the disadvantages of the current library is that the quiet and collaborative study areas abut one another. In this configuration, noise carries, librarians are forced to reprimand students talking enthusiastically in the collaborative areas, and the integrity of both types of space is compromised. The library needs physical separation and/or effective sound insulation between the different areas of the library. Because the relative need for different types of space in the library is always in flux, the floor plan should be flexible (for example with movable furniture, shelving, and barriers) so the library can more easily respond to changing demands on the space.

In addition to additional quiet and collaborative work areas, the library requires areas where classes can be held within our walls (rather than around the corner and down the hall, as is the current case with our tech lab). This would be served by two areas that could be flexibly configured as student workspace, large/small classroom area, a meeting space for students, faculty, and community groups, or a location for creative innovation (i.e. a "makerspace").

Despite the proliferation of articles about the "end of print" a few years ago, BHS Library will continue to need significant areas of the library devoted to shelving printed books. Surveys of BHS students consistently report that a substantial majority of students prefer to read fiction in print, rather than



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digitally. (In contrast, most students prefer to conduct nonfiction research using digital sources, while recognizing the value of nonfiction print books in the process.) The library anticipates the print collection shrinking by approximately 15 percent, which means preserving most of the current shelf space.

For the reconfigured library's many uses - reading, study, group work, classes, technology workshops, student support - it will rely on plentiful and easily accessible teaching and technological tools, such as charging stations, electrical outlets, mounted projection, and multiple printing stations.

School-Within-a-School

Curriculum/Service Delivery

School-Within-a-School (SWS), is a democratic program for approximately 125 sophomores, juniors and seniors within Brookline High School. These students are expected to behave with maturity and take responsibility for themselves, both academically and personally. SWS is an "alternative" to the main school setting because the program operates expressly through democratic practices, rather than because the students or curriculum are inherently alternative. Goals for SWS students include assuming an increased responsibility for their education, sharing in the governance of SWS, practicing empathy, and making significant contributions to community building. SWS has been operating continuously for almost 50 years. Admission to SWS is through a lottery, and is open to all BHS students. In recent years, approximately twice as many students enter the admissions lottery, as there is room for in the program.

Most SWS students take two or three SWS courses each year, taught by SWS teachers. The students take their other courses in the main school, and the SWS program is completely enmeshed within the mainstream school. SWS offers challenging courses in English, Social Studies, Biology, and Chemistry. An Honor level is indicated by H on the transcript for all SWS courses. All SWS courses are designed to be demanding, both in course content and in the level of involvement and initiative required. Students are expected to participate actively and to help with curriculum development and instructional and classroom management. All English courses are heterogeneously grouped seminars with requirements that include careful reading of high school and college level texts, and following a carefully crafted writing process to develop voice and critical thinking skills. The SWS English courses are mixed grade levels and draw students from a range of ability levels. Social Studies, Biology, and Chemistry courses follow the curricular content of the main school with an emphasis on cooperative learning, independent thinking, theoretical understanding, and analytical skill building.

SWS students take part in a weekly "Town Meeting," the centerpiece of the democratic process in SWS. Each student and staff member has an equal vote in deciding educational and administrative policy decisions. An Agenda Committee of six students runs the Town Meeting. Topics range from admissions requirements and attendance policies to grading procedures. A Hiring Committee of students and staff members participates in the hiring process for new staff. A Peer Review Committee helps support students in academic trouble and can decide if a student must leave the program. Students are involved in planning and taking part in many activities from Orientation, to after school Paper Readings, to a Day Away and Overnight trip for intensive study of a particular topic, and for community building.



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SWS Staff includes a full time Coordinator who is also the main counselor, a .2 FTE counselor, a .5 FTE secretary, three .5 FTE English teachers, a .6 FTE social studies teacher, and two .2 FTE part time science teachers. As the SWS program is enmeshed with the mainstream school, all SWS students and staff are mainstream BHS community members also. All BHS students and staff retain responsibilities and participation within the main school.

SWS operates on part of the fourth floor of BHS, utilizing three classrooms, a small study room, a student lounge/community space, and office space for the coordinator and secretary. The SWS space is also adjacent to a single occupancy unisex bathroom used by students and staff.

Proposed Changes and Why, or Statement that No Changes are Proposed

SWS has found a formula for success and has been running well for almost 50 years. A central aspiration is to continue this success while also looking for areas to develop. Both the population and the field of education continue to evolve, and changes in the mainstream school directly affect SWS. As SWS and the mainstream have a symbiotic relationship, SWS must evolve, and has evolved as the mainstream has done so.

SWS aspires to retain the amount of space it currently utilizes. SWS aspires to accommodate more of the students who are interested in joining the program. The best option might be to create another SWS-type program for the excess numbers of students who cannot be accommodated by the current SWS program. This new program could duplicate the existing SWS, or could be based on another theme. A variation on the current model as the basis for a new program might also serve a population that would like a smaller program, but who are not drawn to the existing SWS program for some reason.

Constraints (things in the existing building that limit your aspirations):

SWS has been engaged in a long term plan to incrementally increase in size in order to seek to accommodate as many interested students as possible. Over the years the program has expanded and then functioned at a range of sizes from a few dozen, to 75 students, to 100 students, then to 110, and now to approximately 120 students. It appears that SWS has approached the size limit for such a program, but the program will continue to explore how to accommodate as many interested students as possible. Options include experimenting with incremental increases in size, as well as continuing to offer seats in SWS classes to students in the mainstream.

SWS has grown to what feels like the limit of students that can be accommodated with current staffing levels and space availability. A further next increase in size might necessitate adding sections of classes, and this population increase might tip the balance away from a manageable size for a small program of this nature. In particular, the caseload size for the combined coordinator/counselor already proportionally exceeds the standard in the mainstream. Any expansion of the current program would require additional counseling staff in addition to additional teachers. Furthermore, the meeting space used for the current weekly meeting just barely holds the total staff and student population of SWS. Any further expansion would not only necessitate the addition of additional classroom space, but also a large meeting space along the lines of a small theater. Finally at 120 we believe the program is at limit for creating and maintaining a community of this type. To grow beyond this would, we think, fundamentally change the



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nature of the program. That said, the program has served as a model for other similar communities in other schools, and we believe there is sufficient demand within the high school to explore creating an analogous type of school within a school.

Career and Technology Education

Curriculum/Service Delivery

The Career and Technology Education Department offers courses, which allow students to explore occupational fields, which will influence their educational, and employment decisions. Enrollment in these courses offers opportunities for students who will pursue post-secondary education at either the 2 or 4-year level as well as students who will enter employment or the military upon graduation. Some of our course pathways have articulation agreements with local colleges. These agreements allow our students who complete certain CTE classes at BHS to receive college credit if they matriculate to that institution. In addition to providing valuable career information and experiences, courses in Career and Technology Information are intended to provide transferable skills, which are useful in both personal, and employment situations. Some of our courses offer certificates upon completion of the course work and a standards-based examination. Currently, these include Culinary Arts, Early Childhood and Business /Financial Literacy. The emphasis on technology in these courses, programs, and pathways is intended to reflect transferable skills, competencies, and technological advancements, which are important components of all career fields. The Career and Technology Education Department is committed to the integration of technology into all of its offerings.

However, the vast majority of students who take courses within the CTE program do so for other reasons. CTE courses provide an alternative type of education that serves different types of intelligences and expertise as well as provides courses that exercise different parts of the whole child. At our core we fulfill this vital need in reflecting the graduation requirements of the high school and the philosophy implied therein that a Brookline High School student must experience broad facets of education. From cooking classes to woodworking to engineering, the CTE program strives to provide courses that are high in student interest and also serve to provide a different kind of learning for students. The hands-on shop environment in many of our classes is far different from the educational experience students receive in the majority of their classes at the high school. While few students pursue the pathways and careers we demonstrate, most students enjoy and remember the experience they had within the CTE learning environment, and the courses remain among the most requested in the school.

Our programs currently occupy space in the Unified Arts Building and the main building. Creative interdisciplinary and interdepartmental collaboration continues to grow with students being able to take (certain) CTE courses for credit in the English and Science Department and/or Visual Arts Department. Students are involved in high interest, hands on, team building and individual projects. Classroom size appears to be generally good for serving our current population, but space in some areas (Computer Science, Family and Consumer Science) are limited due to size and budget constraints.

Proposed Changes and Why, or Statement that No Changes are Proposed



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CTE needs large flexible spaces for all of its work. Perhaps more than other departments the CTE department relies upon technology and machinery, yet experience teaches us that these spaces quickly become obsolete if they are dedicated to single tasks (see the auto shop). New CTE spaces need to be flexible in design and configuration to ensure that the space does not get "locked" into one specific technology. The makerspace concept certainly applies here, as it would allow for a variety of courses to be taught using many of the same materials, tools, and machines. Additionally, a properly outfitted space of this type will serve many other disciplines in the school, especially math and science as they look for real-world spaces to test out designs and theories from their classes. The CTE Department would also like to see the purpose built early childhood "lab" to allow for expansion of the current early education program and full development of that program into a CTE pathway.

As always, safety issues in some shops necessitate limits in class size. Material costs for all classes rise as enrollments in CTE classes increase.

ELL PROGRAM

Curriculum/Service Delivery

Brookline High School's English Language Learners' (ELL) Program is designed to meet the educational needs of English language learners (ELLs) by providing explicit English language instruction and specially designed academic support. The purpose of the program is to provide intensive English language instruction and an orientation to American culture and high school life. Our program of study supports ELLs in the process of understanding, speaking, reading, and writing English fluently and competently in order to succeed academically and socially in their classrooms, school, and communities at large. Our primary goal is to support students' acquisition of the linguistic and cultural knowledge needed to function effectively in an ever-changing global society.

Brookline follows an integrative Sheltered English Immersion (SEI) program model where students take ELL courses as well as additional courses from the general school curriculum and are expected to fulfill the school's graduation requirements. Students work with ELL staff for part of their school day on direct English language development skills. For the remainder of the day, students are integrated into mainstream classrooms such as math, science, and history, where learning is supported by sheltering strategies that make content comprehensible and develop academic language proficiency across disciplines. The ELL program provides instructional services that encourage students to become confident, empowered learners through the development of critical thought, reflection, and action. Individual needs are respected and accommodated through the use of various instructional methods fostering high academic achievement.

At Brookline High School, we offer a leveled sequence of ELL courses with curricula aligned to state and national standards. Our courses provide in-depth instruction and practice in communication, literacy, and analytical skills. We also offer students an ELL Academic Support course that provides students with advanced strategies to succeed in their classes. In this class, English learners hone their vocabulary, grammar, and communication skills effectively for academic purposes.



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Brookline High School also has an International Student Advisor (ISA) who provides students with vital academic and social support. The ISA works closely with all international students and their families as they transition to living and studying in Brookline. The ISA serves as both advocate and resource. This support includes, but is not limited to: helping families access the wide range of school services offered, planning social activities, supporting students in need, advising students and families, assisting with course selection, and post-secondary planning.

Proposed Changes and Why, or Statement that No Changes are Proposed

In many ways the needs for the ELL program align with those of the world language program. ELL students are more reliant on technology and language lab time and are in greater need of 1 to 1 computer access as well as stable and reliable Internet connections. While classes are smaller than the BHS average, the program demands larger rooms as by definition students are going to be at various levels of language acquisition and therefore need a differentiated and specialized mode of instruction. This is best achieved within a room that has multiple learning zones and study areas as well, ideally, as having quiet spaces or reading and study within the classrooms.

Health and Fitness

Curriculum/Service Delivery

The goal of the health and fitness department is to provide all students, through high quality health and fitness instruction, with the knowledge and skills necessary to be healthy and physically active for a lifetime as well as productive members of society. Students learn life skills that are practiced and utilized outside of the school setting. These skills help students to be successful and contribute positively to society. The curricula are age and developmentally appropriate and foster current trends in health and fitness as well as an intentional focus on collaboration and cross-curricular association.

Health and fitness teachers have unique opportunities to work with students throughout their high school career. The consistent teacher/student engagement affords opportunities for the development of trusting, reliable relationships. We offer a variety of inclusive, active, and enjoyable fitness classes designed to meet the needs and interests of our students. The department's pedagogical approach addresses a variety of learning styles, where students engage in large and small group discussion, individual and small group presentations, project-based learning, and individual, small and large group activity-based learning. The health and fitness department consistently challenges students to enhance their confidence and competence, critical thinking, writing, and problem-solving skills. The department depends on valid, credible and reliable research that showcases the correlation between quality physical education/fitness and academic achievement. Specifically, we incorporate an objective fitness assessment system, Polar GoFit, and specialized heart rate monitors to support students' understanding of cardiovascular endurance and analysis of their progress. We incorporate the proven research of *SPARK*, by Dr. John Ratey, to showcase the positive correlations between exercise and brain function. Students are charged with reading assignments from *SPARK* followed by presenting a detailed analysis of their understanding.



Brookline High School – Expansion/Renovation Process

Proposed Changes and Why, or Statement that No Changes are Proposed

The spaces for health and fitness are in need of modernization. Other than the climbing gym, the equipment in use and the configuration of the spaces in use is largely unchanged in the past 30 years. Health and fitness is not as equipment sensitive as other disciplines, but several areas of need could be addressed in the project. While other areas of need exist, these are needs of priority to ensure students receive the most effective instruction and ultimately result in Brookline High School becoming a national model for wellness.

A wellness center would allow for the incorporation of fitness concepts, student grouping arrangements, inquiry and researched based activities resulting in comprehensive health and wellness lessons. Additionally, the space could be used for examining/investigating various types of human anatomy, and first-aid, CPR, and AED certification. This also would address the lack of a dedicated health classroom integral to the ninth-grade curriculum and the health and wellness instruction for the school.

The fitness center is too small and not properly designed for effective fitness instruction and student participation. A fitness center should accommodate 50 students at once and would encourage more interest and enthusiasm for lifetime fitness courses, as well as allow two classes to be taught simultaneously as enrollment increases. The space would need to accommodate state of the art fitness equipment. This space should be large and flexible, allowing for different types of activities to be run in the room, and not allowing the equipment in the room to dictate the instruction. Too many of the spaces for health and fitness in the past have become "uni-task" rooms suited for a single purpose.

Locker rooms in close proximity to the fitness center, multipurpose room, dance studio, and the gymnasiums would allow for more efficient transition, thus providing additional instructional time. The current locker rooms in the school are badly outdated and no longer serve the health and fitness department well. A reconfiguration of these spaces sensitive to the way students now use the spaces in terms of changing, securing valuables, and showering, is in order.



Brookline High School – Expansion/Renovation Process

School Counseling – Guidance and Social Work

Curriculum/Service Delivery

The goal of the school counseling department is to offer substantive and effective social emotional supports for all students at Brookline High. In addition, school/guidance counselors also provide guidance and information for every student as they pursue continuous learning in their post high school goals. These efforts are built upon the foundation of the BHS community with its focus on the integral nature of relationships between adults and students in the classroom, in the hallways, in the counselor's office, and on the playing fields. In the effort to promote Brookline High as a big school with a small school feel, the critical need for ongoing shared and effective collaboration and communication is reflected in the student support services offerings and related programs.

The school counseling/guidance program models itself on the ASCA (American School Counselor Association) National Standards for Students in the areas of academic development, career development, and personal/social development. These standards cover such competencies as: improvement of academic self-concept, achieving school success, goal-setting, relating school to life experiences, developing career awareness/readiness/ goals, and acquiring self-knowledge and interpersonal skills. Through grade level developmental guidance seminars, collaborative daily monitoring and action planning in Dean's Teams, and ongoing relationship building and sharing in counselor and social worker offices, students are given the tools and support they need to do their academic best and to build self-advocacy and self-reliance skills to be successful contributors in the Brookline High community and beyond. The importance of school counselors and deans continuing their work with the same students over four years is essential to knowing students and families well. This "following" of students over a 4-year period is a model that best supports students during their years of great emotional, physical, and academic growth. In addition, the developmental underpinnings of having counselor caseloads be split into annual grade 9/11 and grade 10/12 allows counselors to focus their attention on certain grade levels at critical times of the school year. For the 9/11 pairing - semester one focuses on incoming freshmen transition to the high school while semester two focuses on juniors as they jump start into the post high school planning process. For the 10/12 pairing - intensive post high school planning support for seniors is the focus of first semester and building career awareness as it relates to future course planning and extracurricular experiences is the focus for sophomores during semester two.

The resurgence of a guidance department sponsored College and Career Center at BHS has just started and has shown positive impact in its first school year. The availability of having both a part time Career Counselor and a part time College Counselor has offered additional resources and support in these areas as adjuncts to every student's assigned school/guidance counselor. Through workshops, drop-in support, large group assemblies, parent assemblies, and guest college representatives, BHS students have the opportunity to gain more insight into the various options open to them in high school and beyond as they consider their development outside the school walls through internships, employment, and sorting out a good fit for school or life goals after graduation.



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The department also maintains a close connection to the Brookline Mental Health Center and the associated BRYT (Brookline Resilient Youth Team) program, which serves as a transitional program for students returning from hospitalization and/or the concussion protocol. This bridge program fills a key support need in the high school. Currently the BRYT program has a converted classroom that serves as its meeting space and office.

Proposed Changes and Why, or Statement that No Changes are Proposed

With the increasing student enrollment projected over the next 10 years, the challenge of continuing to provide quality support services in the above arenas is evident. The critical nature for students to build trusting relationships with adults can continue in the broadening of the current and highly effective Dean's Team support models at BHS. In the effort to strengthen the collaborative teamwork of multiple educators and counselors in these teams, grade level deans/associate deans would work in tandem with school/guidance counselors as well as a social worker and an Educational Team Facilitator from the Special Education department to provide consultation, communication, and wrap around support for every student in that grade level Dean's Team. Dean's teams could be set up in zones that reflect the counselor caseload models of 9/11 and 10/12 collaborations. Although not housed in the current suite model, having these teams in zones within proximity to each other would allow for efficient and effective communication and collaboration to best support every student.

At the same time, the school counseling department could be reorganized in a hub like manner with the College and Career Center being the center of this student resource center space and the Guidance Coordinator, Guidance administrative assistants, College Counselor, and Career Counselor all housed as spokes to this hub. Ideally, this student resource space would be centrally situated within the high school to promote constant student traffic. When needed, this space could be seen as flex space for weekly large group school counselor/ guidance department meetings along with group workspace for College/Career workshops, panels, and presentations.

Both of these proposed models also support building RTI practices within Brookline High. Having Dean's Team grade level zones and a School Counselor/ Guidance department hub with the College and Career Center at its center offer genuine team models to continue effective communication and brainstorming. These efforts would loop in other critical RTI partners such as regular education teachers, BHS Health / Wellness providers, Tutorial and Advisory programs, and programs that offer essential support services to certain valued members of the school community – METCO, African American Latino Scholars Program (AALSP), and Steps to Success.



Brookline High School – Expansion/Renovation Process

SCHOOL HEALTH SERVICES

Curriculum/Service Delivery

The mission of the School Health Program is to foster the growth, development, and educational achievement of all students by promoting health and wellness. This happens in the following ways: providing first aid, emergency treatment, intervention and referral for physical, psychological, social-emotional and behavioral issues; administering direct care for special medical needs, monitoring health status and administering screening programs; and building partnerships to ensure referral to quality services that are effective, culturally appropriate and responsive to the diverse and changing needs of our students and their families.

In the 2015-2016 school year, 6858 students sought treatment from the two (occasionally three) nurses in the health office at Brookline High School. This demand is a more than one thousand student increase over the previous year. Of those visits, 270 were for social/ emotional/behavioral health issues; 1421 were for neurological assessments (headache, seizure, concussion); 1240 were for musculo-skeletal assessments. The nurses had over 1270 conversations with parents/guardians related to students' health issues and over 75 conversations with community agencies, including health care providers. Nurses are an integral part of the plan of care for concussions, relaying pertinent information between outside health care providers, parents, students, guidance, and sometimes coaches and teachers.

In the 2015-2016 school year over 560 students had a diagnosed special health care need. Of those, 7 had diabetes, 19 had a seizure disorder, 24 had a history of migraine headaches, 5 had cardiac conditions, and 236 had asthma. 45 students have a prescription for Epi-Pen for treatment of life threatening allergies.

Currently the health office/clinic at Brookline High School has one private office space with phone and door. There is one handicapped- accessible bathroom. There are two separate "resting areas" with a total of 5 cots. These are well used, as evidenced by the numbers of students who visited the health office. There are no curtains or privacy screens between the cots. There is no dimming of overhead lighting. This area is not observable from any of the office areas. There is one private area with sink for screenings or treatments, which also houses locked medical files. There is a medication area with sink, counter and cabinets, and locked medication cabinet.

Proposed Changes and Why, or Statement that No Changes are Proposed

As the high school grows it is certain that the need for health services will grow proportionally. To this end student health services require a space that is purpose built for school health-care be a part of any new construction. The current space was designed in a previous era for students who needed to lie down for a little while or wait for a parent to pick them up at the school. While these are still a part of the health service, modern nursing care has evolved greatly in the past 50 years and will likely demand a far greater level of service in the future. With increased student enrollment, there will continue to be increasingly complex and diverse student health needs and more students coming to the clinic for assessment, triage,



Brookline High School – Expansion/Renovation Process

and treatment. Additionally, the size of the school staff needs to be considered, as many staff members also seek care in the health office.

The design needs to allow for specific, separate areas to meet student health needs. Specifically the design should include separate private areas for phone conversations between nurses and service providers and/or parents; additional space for the commensurate larger nursing staff; treatment areas and beds in full view of the entire nursing suite; a waiting area removed from the treatment area; larger resting area in accord with the standard MDPH ratio of one cot per 300 students; and, at least two handicapped accessible bathrooms. All of these spaces are areas of need. As the high school community continues to grow our ability to treat and manage the health and welfare of the students and staff members in the BHS community will be diminished by these limitations.



Brookline High School – Expansion/Renovation Process

Athletics

Curriculum/Service Delivery

BHS Athletics currently offers 40 sports and fields 80 teams, serving a total of 1880 student-athlete registrants of which 1190 were unique, representing 61% of the total student body engaged in at least one sport at BHS, during our three distinct interscholastic athletic seasons. BHS has one of the largest athletic programs in the state both in terms of the number of participants and the number and levels of offerings. The program provides the primary source of identification with the school for many of our students. Further it is the embodiment of our commitment to recognizing all types of success as well as educating the whole child. It is on the athletics fields that we see the core values of respect, equity, excellence, collaboration and achievement put to the test. For coaches and for student athletes what happens on these fields is the living laboratory for the values we as a school and as a community hold dear.

Our on-campus indoor facilities are spread out in separate buildings and include: One main competition gym, Two auxiliary gyms, the Pavilion/Fieldhouse space, Specialty spaces including spin room, crew/erg room, wrestling room, mezzanine fitness area, the Aquatics Center, Sports Medicine Center suite, Fitness Center, various locker rooms in the basement of Schluntz Gym and Tappan Gym, one classroom space, one small conference space, an officials' room and shower, area for equipment manager and storage for uniforms and equipment is adequate but far from offices and difficult to access, and equipment storage areas.

Proposed Changes and Why, or Statement that No Changes are Proposed

The lack of contiguous outdoor athletic space at the school means that over half of our teams and three quarters of our participants practice and compete off-campus. We have fields located as far as 4 miles from campus, causing transportation and time hardships, especially for students involved in varsity soccer, rugby, field hockey and ultimate disc. Many other teams are travelling 1-2 miles to their practice/contest venues. As we do not have locker/changing room access at our remote locations, this creates logistical hardships for many of our participants, for example football players who need to get dressed in their equipment at BHS and often walk a mile, across Route 9 to and from their practice and sub-varsity playing field.

For football, we rely on Northeastern University's Parsons Field, subject to their scheduling and field amenity restrictions (e.g. no locker rooms, blue field lines, no field numerals, etc.) BHS Ice Hockey uses 8 different rinks to accommodate scheduling for four teams, resulting in late hours, transportation hardships and impediments to participation. With no indoor track, runners are regularly training outside on streets and sidewalks in winter conditions.



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These and other limitations on our current facilities, impair our ability to add sports, roster spaces, and intramural opportunities. BHS Athletics' goal is to continue current offerings as well as expand opportunities to keep pace with enrollment growth. Maintaining unique registrations at 61% of the student body would mean nearly 1700 students would participate in athletics. To serve this number of student-athletes, many students' athletics would require a town-wide review of the program and facilities designed to increased athletic offerings for the students at the high school as well as other school age children and adult users of town facilities.

It is a priority for the new/renovated Brookline High School to partner with Parks and Open Space to include a synthetic turf multi-purpose athletic field at the High School, with spectator seating. It is our hope that creating a campus with this facility will ensure more opportunities for practice and competition by adding a reliable field and will increase the number of students participating in many of the aforementioned sports, by eliminating time and transportation hardships. We further hope that inclusion of this facility will foster community building by increasing the number of school staff and other spectators in attendance for contests, and attracting more staff to coaching by removing associated time and transportation hardships.

Additional needs would include

- Fieldhouse space that is large, flexible and divisible, including capacity for 200 meter track, four volleyball/multi-sport courts, indoor tennis courts, badminton, batting cages, curtain partitions, etc.
- Locker rooms that have controlled entry/exit, secure lockers, privacy areas, showers in a centralized athletic department location will work to address many safety/security issues. Short-term secure lockers for small valuables would also help. Locker room accommodations should include unisex or transgender changing spaces.
- A renovated Sports Medicine Center
- One (or more) large flexible fitness center(s) that can accommodate 50+ students at a time



Brookline High School – Expansion/Renovation Process

Performing Arts (Music, Drama and Dance)

Curriculum/Service Delivery

Brookline High School has demonstrated a long-standing commitment to performing arts education. As part of our graduation requirements every student takes at least one class in the performing arts, demonstrating Brookline's belief that exposure to a variety of ways of thinking, including those developed through music, drama and dance, is a vital part of every student's learning. The performing arts program provides students with opportunities to practice creativity every day, develop critical thinking skills, learn how to refine work through practice, analysis and adjustment to practice, and to experience creating original work, performing, and connecting to other areas of study through the performing arts.

The goal of Performing Arts at Brookline High School is twofold: first, to provide students at all levels of experience, including those with no prior experience, an opportunity to become artists and find their own voice through creating, performing, responding to, and connecting with music, drama and dance. Second, is to have students learn essential skills that can be applied to all areas of life and study through what is fundamental to our disciplines: learning to work within an ensemble as well as independently, reflecting on and refining their work, building skills through practice, analyzing and communicating ideas about their own work and the work of others, thinking critically and creatively, learning more about themselves through artistic expression, and more. To achieve these goals we present a variety of courses at different levels, balancing direct instruction and student-led exploration. Performing Arts at Brookline High School is a thriving and lively home to creativity in which we offer courses in instrumental music, vocal music, digital music, dance, drama, stagecraft, set design, lighting and sound design in introductory through advanced levels.

The Performing Arts curriculum balances content and development of skills aligning with the National Core Arts Standards for Music, Drama and Dance. These standards include Creating, Performing, Presenting and Producing, Responding to, and Connecting. The collaborative nature of our classes and learning environment support these goals.

Proposed Changes and Why, or Statement that No Changes are Proposed

In the 2016-2017 school year, we currently have 783 seats in Performing Arts classes at BHS filled by 657 of our 1998 high school students, or one third of the BHS students taking performing arts classes this year. Our class numbers are larger than ever, with 85 students in our school Orchestra, 84 students in our Concert Band, dance classes over limit, and Digital Music classes that are full with no space for more students who have requested to enroll. Additionally, a thriving elementary music program is driving increased demand for our high school performing arts program; demand that cannot be met within the current constraints imposed by our facility. Perhaps most significantly, if the current plan is to include a refiguring of the Tappan gym, the two dance studios will need new locations.



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The effective working of our classes is limited in our current configurations by three main factors. First, the number of students wishing to enroll in certain classes is outgrowing our spaces. The digital music studio and the piano lab are far too small. Brookline High School's Performing Arts spaces were not originally designed for the current degree of activity in our robust Performing Arts program. Over the course of years in which the program has grown both in numbers and content, we have put together spaces in a piecemeal fashion, in which we use a storage room for a Digital Music class laboratory, and an auditorium stage for our Orchestra rehearsals and Drama classes (a space that is shared by the whole school resulting in our classes being displaced for school assemblies). Even in dedicated Performing Arts spaces, like our Band Room or Dance Studios, we no longer have spaces large enough for our current student capacity. Our spaces don't reflect our pedagogical approach to teaching performing arts. We have thriving performing groups, and no practice rooms for students to rehearse alone and in small groups during the day; we have an enormous Orchestra and no storage for student instruments during the day; we break our ensembles into small groups during class periods and they have to work in the hallways; we are trying to bring our classes into the 21st Century with exposure to how professionals in Music, Dance, Drama work today, yet we lack appropriate 21st century digital music and set design labs. We have a clear need for larger spaces with more flexible arrangements in which students can work comfortably in both large and small ensembles.

The second limitation is insufficient technology. While there have been improvements in connectivity, to bring Performing Arts into the 21st century, we need a larger digital music lab and a space that can be used as a recording and engineering studio. We need a space that can be used for 3D digital stagecraft, set, lighting and sound design for our Backstage courses, and one-to-one computer stations for our current Backstage and Digital Music Classes, as well as recording and engineering class which we would like to be able to offer. For students to become effective in these areas that are now common in the Performing Arts world, and to be fluent with the current technology used in music and theater in particular, technology is a must. Third, and perhaps most significant, Performing Arts instruction is limited by classes that are too large, where class numbers have been increased to meet demand to the extent possible within our constrained facility. Our Concert Band and Orchestra have now grown to over 80 students each. As we only have enough teaching staff to offer one section of each of these classes, we are also not able to have different leveled groups, so we mix beginners with advanced musicians in these ensembles. While having students of different levels working together is important, it is also essential for students of different experience levels to be challenged by working in ensembles that are at their level.

Performing Arts requires classroom spaces designed for easy collaboration and communication, that are sufficiently sized for ensembles that allow for students to move freely and participate with instruments and props, soundproofed as needed, practice rooms to support student development in music, and with sufficient technology to utilize 21st Century modalities in the Performing Arts, such as digital studios and recording spaces. To that end, our ideal spaces for teaching and learning have all or most of the following characteristics: Classrooms in close proximity for break-out groups of small ensemble work, and that allow collaboration between music, drama and dance disciplines. We should consider classrooms that take allow for large ensembles, such as Orchestra and Concert Band and have sufficient and dedicated instrument and storage space that can be shared with other disciplines, but not during class time. Dance studios that take into consideration not only how many students are in a class, but the space needed for movement in these classes. Drama spaces that allow for performance as well as teaching space with



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digital lighting, and a mid-sized (four hundred person) theater space, which can be shared with other departments.

Visual Arts

Curriculum/Service Delivery

BHS and the Brookline community have a long commitment to supporting the arts and providing a strong arts education to every student. Embedded in our graduation requirements is an understanding that exposure to a variety of arts and ways of thinking is a vital part of the BHS experience and a critical component for a well-rounded education. Arts education addresses the PSB core value of life-long learning, encouraging students to stay curious about the world, be critical and creative thinkers, and reason effectively and innovatively. The visual arts classes are based on challenges that lead to genuine understandings, by applying knowledge into new situations to express themselves through art. Keen observation is, an essential condition of understanding and it is through art making that students integrate careful observation and the creative capacity to see what is possible while remaining attentive to what is.

The Visual Arts program provides students with repeated opportunities to practice creativity every day, developing habits of mind, critical thinking skills, observational skills, decision-making skills and craftsmanship. The curriculum prepares students to communicate ideas, demonstrate understandings and interact with a larger public's response through criticism and exhibitions.

The Visual Arts program also provides student first hand experience with the design process so critical to innovation and innovative thinking. Having an idea, creating a plan to execute the idea, responding to setbacks in the implementation, problem solving, reflection and exhibition provides students with learning that leads to the appreciation of the application of knowledge to real world situations. The visual arts students must invest themselves to truly learn and understand for the intrinsic value, for the gratification of solving the problem, a problem that does not have one right answer.

Our goal is to have Visual arts students work in well-equipped studios to build strong artistic practice. Instruction is grounded in “student as worker, teacher as coach” model. Teachers design complex challenges, provide instruction/modeling of the materials and techniques as needed then allow all students the opportunity to create their very best work. Students understand that failure is expected and examined for the learning it provides through the creative process. In the creative thinking and design processes, visual arts students develop personal voice, persistence, problem solving, an appreciation of different points of view, the ability to collaborate through critic, and effective communication skills. Students also experience making their work public through multiple community exhibitions. These thinking/design skills lead to the craftsmanship needed to create increasingly sophisticated works of art.

Artists develop skill in a strongly supported environment, The Visual Arts program meets the National Arts Core Standards, provide students with multiple ways of working, and experiencing the personal satisfaction of creating something from an idea to a form.



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All experience levels are welcomed; every student is introduced to and encouraged to develop an intrinsic connection with design thinking challenges as a way to learn any new material. Artists develop through practice, age and inclinations allowing all students of every grade level and every program. Groupings cover all grade levels and all programs available at BHS.

Visual Arts students develop the skills and knowledge to pursue a productive and fulfilling life as an artist, or transfer these practiced skills to other professions.

Proposed Changes and Why, or Statement that No Changes are Proposed

As we welcome more students to the visual arts programs, our current spaces will quickly be less effective. The existing digital media labs will not keep pace and limit the expansion of this area of the department work. More computer labs are needed to add enough classes for the growing population. Updated Media centers and regular, reliable upgrades of technology for our programs are important to meet the needs of our students.

Maker Spaces/studios in the future should have large open spaces with smaller working areas surrounding it so all the users can access the open space and maintain smaller areas for student work. Currently all materials are stored and student work is completed in the traditional classroom space. By having smaller studio work spaces available, students would be able to work beyond class time, have ongoing work visible, would be able to create multiple pieces simultaneously.

Additional changes to our current space that would support our vision for Visual Arts at BHS are:

- A larger space that could be divided with movable panels for large group presentations that can be reconfigured to small work areas. Writing surfaces on walls tables, etc. to share and promote visual thinking in the open studio spaces.
- Spaces that encourage interdisciplinary studies and support student driven learning experiences that break free of soloed learning. An example might be a nature lab/ collections of artists work library/display of student created visuals/student work/videos and corresponding science equipment, with secure open access, tables for students to research, examine, and explore the collection for inspiration in all classes.
- A community viewing space for student work and the work of community artists that are open regularly and secure. For example, this could be a courtyard for sculpture or a lobby exhibition area that both enhances the BHS community and makes public students' visual arts work. Providing a central, dedicated gathering and exhibition space that is both community friendly and flexible will provide a proper area to have student work presented to peers, outside experts, judges, and audiences on a regular basis. This will increase the amount of exhibitions and public feedback opportunities for the students simulating real world experiences
- A large space with tools for metal, wood, plaster sinks, and ventilation that can accommodate large-scale sculpture work.
- Creative work classrooms demand space for work in process, models, mock-ups, exhibition ready work. As the numbers increase space for individual work will lessen.



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2.15 FUNCTIONAL AND SPATIAL RELATIONSHIPS AND ADJACENCIES

To sustain Brookline High School's mission and goals, the facility should:

- support 21st century teaching and learning
- integrate technology and the necessary infrastructure in all areas
- provide vibrant, flexible teaching and learning spaces
- facilitate student and teacher initiative and engagement
- ensure safety and security
- welcome the community and educational partners

Key to design will be flexible learning spaces for students and teachers to engage in both teacher-directed and student-directed learning. To ensure the best learning opportunities for students, this project should include:

- Modern classrooms with interactive LCD projectors, adequate whiteboard space and storage, and maximum natural lighting with windows that open.
- Teacher workroom space that is designed for both inter and intra-departmental collaborative work as well as professional development.
- At least two large group instruction space (flat floors, moveable tables and chairs) that can be used for combined classes, presentations, lectures, seminars, faculty meetings, and parent meetings.
- 21st century science labs that facilitate instruction, lab work, and technology integration.
- Learning/meeting areas for alternative programming for special needs and at-risk students
- Library/media center, rich with technology central to all content areas
- Related departments (for example, math and science, art and technology/engineering, the humanities departments) that are close in proximity.
- Redesigned library/media center supporting multi-media, flexible group space, and current research practices
- A gymnasium with flexible space for alternative programming and a fitness center
- A dining/cafeteria area that includes safe and accessible eating areas for all students, and food preparation areas that support healthy and varied alternatives
- Storage space for school needs and student needs, including additional school lockers
- Community, student-centered areas that provide community access to auditorium and gymnasium
- Efficient, effective security systems



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2.16 SECURITY AND VISUAL ACCESS REQUIREMENTS

Teaching and learning in a safe and secure environment is of critical importance to the Brookline High School community. Brookline High School has six deans who serve in part in a disciplinary capacity and three full time security paraprofessionals. The school has a long and cooperative relationship with the Brookline Police Department.

Physically the building has many areas of concern from a security viewpoint. Large areas of the campus have little to no adult supervision and yet allow free access to all. The 40 exterior doors found in the current school design impede security and safety protocols. There is no doorbell or monitoring system managing school entrance into the building. Currently only a handful of the doors are locked during the day.

The Brookline High School should include a security system that includes video cameras and alarms. Such a system would have to be elaborate as the numerous right angles and corners of the exterior of the building present many visual impediments to an effective monitoring system. Inside the building such areas multiply exponentially given the three to four story main building as well as the many spaces within the Tappan and UAB.

A monitoring system for camera review should be located in Main Office or Assistant Headmaster's office. The Main Office design does not provide a view of the main entrance doorways, but it should in the new project. The design of the atrium does not naturally flow visitors to the office to sign in.

The buildings are also used for non-BHS purposes (e.g. Brookline Interactive Group, Adult Education, Recreation), and therefore there are constantly adults in the building who are not PSB employees. It is currently impossible to monitor people exiting the building. Any design option should have a clearly identified primary entrance and a mechanism for monitoring activity by all such locations around the campus.

Also in need of study will be the accommodation of pedestrians through the campus. As we grow to 2600 we would expect new issues to arise at crosswalks and intersections around the campus and a careful study of the increased foot traffic should be undertaken. Related to that would be additional attention and identification of safe areas for student drop off/pickup.



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Other considerations for expansion

The section incorporates some space specific ideas that are either implied or mentioned tangentially in earlier sections of the document. Any discussion of the high school campus must include the broad and varied use the entire campus gets.

Adult Education is the second largest user of the campus running multiple programs in the building nights and weekends. There are numerous Adult Ed classes going on in the evenings and their needs in terms of office space and classroom space must be remembered in any expansion plan. Additionally **Brookline Recreation** has a large role on the campus with the shared use of the Tappan Gym and other spaces.

The Brookline High campus is extensively used for **summer school** and summer programs both from the high school and from the town. We host numerous camps, extended school year programs, as well as the ordinary Brookline high school summer school and as such usage of the building is almost year-round

The **African-American and Latino Scholars (AALSP)**, **Steps to Success (STS)**, and **METCO** programs serve as vital parts of the school's effort for equity and access for all students. These programs require a home base that serves as central point of identification and support services for students in the programs, as well as meeting space for the program advisors and students.

The **cafeteria** is an immediate area of concern as we grow larger. This year we have gone to three lunches involving a split class in the schedule in order to accommodate all of our students in the cafeteria. Prior to this the lines had gotten too long and the conditions in the cafeteria itself were overcrowded. While the split class itself is working nicely this condition will only last for the next few years. As we continue to grow the overcrowding in the cafeteria will quickly return. Further the architecture of the cafeteria itself is poor with a low ceiling increasing noise level as well as perceptions of a small and limited space.

High school also has a long tradition of hosting **early education** on the campus and would welcome an expansion of this role and the opportunity for students in the career and technical education area to collaborate with and work with young children. An early education lab-type setting with space for observation and teaching would enhance both high school and the early education experience.

The **BRYT** program has served the high school well both in terms of saving the district the expense of out of district placements and more significantly providing a necessary intermediary step for students returning from hospitalizations. This extension of Brookline Mental Health has served the district well and also serves as a model for many other districts that have implemented similar programs.

The high school's broad commitment to the electives, as evidenced by our graduation requirements and by our extensive arts offerings, means that the school has a large number of spaces dedicated to the arts. Dance studios, black box theater, auditorium with full fly, white box space, and music performance areas, exceed those of other comparable schools and serve as a vital support for the elective offerings in the performing arts.

Brookline Interactive Group is coming to the end of their 10-year space agreement with the schools. The sharing and co-use of facilities and expertise has benefited the school, though the future use of the B.I.G. space on the 4th floor of the UAB is uncertain.



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Appendix A CVBLE Document from the 2011 NEASC review

Core Values, Beliefs, and Learning Expectations

Executive Summary

Brookline High School has been engaged in a dynamic and inclusive process of continuing to identify and commit to its core values, beliefs, and learning expectations. This process has been ongoing over the last decade and has involved all stakeholders within the school community. The process has also been informed by developments in the world around us, including an engagement with educational research and best practices. Our core values, beliefs, and learning expectations infuse all that we do at Brookline High School, including our approaches to curriculum, instruction, assessment, support services, professional development, resource allocation, and other considerations that shape our overall school culture. Our identification of and our commitment to the core values and beliefs about learning will continue to aid us in the pursuit of our central mission: to develop capable and confident life-long learners who contribute to their community, participate thoughtfully in democracy and succeed in a diverse and evolving global society.

Brookline High School has developed challenging and measurable 21st century learning expectations for all students, addressing academic, social and civic competencies that are defined and measured by school-wide analytic rubrics that identify high target levels of achievement. The learning expectations include elements that have been identified over the last decade of initiatives at the school, as well as newly incorporated themes that are particularly important for the life of our school and in the lives of our students in the 21st century. The expectations are clear and specific enough to be understood by everyone in the community and are applicable to the wide range of educational activities happening everyday at Brookline High School. Parameters for identifying levels of achievement have been clearly defined in each rubric, including the minimum acceptable level of achievement at a high level of demand.

Actively reflected in the culture of the school, Brookline High School's core values, beliefs, and 21st century learning expectations drive curriculum, instruction, and assessment in every classroom, and guide our school's policies, procedures, decisions, and resource allocations. Our school has a fantastically rich culture that thoroughly embraces our core values and beliefs, and directs our various approaches to curriculum, instruction, and assessment. Every area of life at Brookline High School is oriented towards promoting our school wide learning expectations. Several initiatives in place are specifically oriented to 21st century themes including environmental sustainability, technology and media literacy, social justice, and making choices for healthy living. Ours is a culture that promotes equity, achievement, innovation, freedom, and responsibility.

Brookline High School has a plan to regularly review and revise its core values, beliefs, and 21st century learning expectations based on research, multiple data sources, as well as district and school priorities. Our current core values, beliefs, and 21st century learning expectations document has been informed by a decade of initiatives shaped by the principles valued by our school and district. Future work including the formation of a committee for the bi-annual review and revision of these Learning Expectations has already been identified and structured. Combining the work and thought of what we have already done



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with this future work and thought to come will enable us to better align with the standards (specifically as it relates to the fourth indicator).

Based on the ratings guide for the standard Brookline High School judges our adherence to the standard as ACCEPTABLE.

Core Values, Beliefs, and Learning Expectations Strengths and Needs

While we have many successes, we also have some work to do to thoughtfully improve our school, using our CVBLE as benchmarks.

Strengths:

- Involvement of the full faculty in examining the core values, beliefs, and learning expectations documents
- A large core values, beliefs, and learning expectations committee that represented a wide range of school staff
- Design of a new process for reviewing and revising core values, beliefs, and learning expectations
- Updating our 21st century learning expectations to include new themes that specifically relate to contemporary themes
- Identifying the role that all of the various initiatives of the past decade have played in the manifestation of our core values, beliefs, and learning expectations
- Collaboration of high school and district staff in the development of rubrics for measuring 21st century learning expectations
- Some success with closing the Achievement Gap
- Student Centered Meetings
- Teacher Autonomy
- Additional student support provided by the programs 4+1 allows
- Freedom and Responsibility for Faculty and Students (Trust)

Needs:

- Further development and implementation of school wide rubrics for 21st century learning expectations
- Further development of ongoing process for reviewing and revising core values, beliefs, and learning expectations documents
- Increased involvement of students and parents in the NEASC self study process including the work related to core values, beliefs, and learning expectations
- More coordination across K-8 and 9-12 in several disciplines.
- Commitment to class size caps
- More work to be done on Closing the Achievement Gap
- Stability and continuity across support programs and Special Education
- More focus on Technology, including a clearer vision of what Tech could do for us and how to make the best use of what we have
- Expand 4+1 to include all teachers
- More work towards hiring a faculty that reflects the demographics of the student population



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Appendix B BHS Enrollment Forecast

Why do we need to expand BHS?

BHS Enrollment is about to increase rapidly

- BHS Student Enrollment (2010 - 2011): 1,726
- Current Enrollment (2015 - 2016): 1,946 (+220)
- Short Term Increase (2021 - 2022): 2,552 (+826)
- Longer Term Projection (2024 - 2025): 2,789 (±1,063)

The Challenge
Public Schools of Brookline



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