
3. PROJECT DESCRIPTION

3.1 INTRODUCTION

The Waynflete School is located at 360 Spring Street in Portland, Maine. The attached Location Map shows the project location. The property is located within the Residential (R4) Zone and the Waynflete Overlay Zone. The school owns approximately 5.6 acres of an area bound by Spring, Storer, Danforth, Emery, and Fletcher Streets; the boundary survey attached to Section 19 of this Report shows the full Waynflete School Campus area. The school is proposing the following campus upgrades:

- Demolition of the existing athletic facility and construction of a new 13,600 sf gymnasium;
- Renovation and addition of the Lower School, supporting early Childhood through 5th grade education; and
- Development of new playgrounds, educational gardens, and site features.

3.2 PROJECT PURPOSE AND NEED

The proposed project is intended to upgrade the learning experience of the classrooms. It should be noted that the proposed expansion is not intended to accommodate a larger enrollment. The proposed campus upgrade will better serve the needs of the school today and into the future. The new Lower School will be a high-performance, sustainable building that provides spaces custom designed for Waynflete's unique teaching needs and goals aligning with their commitment *"to help students adopt healthy values and acquire new skills in an everchanging world"*.

3.3 EXISTING CONDITIONS

The Existing Conditions Plan, included in the drawings submitted with this application, depicts the existing conditions of the Waynflete School Campus (the Site). No portion of the development is within the 100-year flood plain; a FEMA flood zone map has been attached for your reference. The Site is currently fully developed. The majority of the city-block bound by Spring, Storer, Danforth, and Fletcher Streets, is occupied by the Waynflete School campus, except for two small residential parcels. Topography slopes generally in a southerly direction, towards Danforth Street. No wetlands are present on the Site.

3.4 PROPOSED DEVELOPMENT

The project involves the demolition of the existing athletic facility, the construction of a new gymnasium, the renovation and expansion of the "Lower School", the renovation of Founders Hall, and the construction of new playgrounds, educational gardens, utilities, site features and stormwater management systems. A set of project design plans showing the proposed development is attached to this application. The set includes site, utility, and grading and drainage plans as well as architectural and landscaping plans.

3.4.1 Architectural Approach

The attached Schematic Design Narrative from Scott Simons Architects describes some of the basis for the proposed project. Also attached to this Section are architectural renderings of the proposed project.

3.4.2 Landscaping Approach

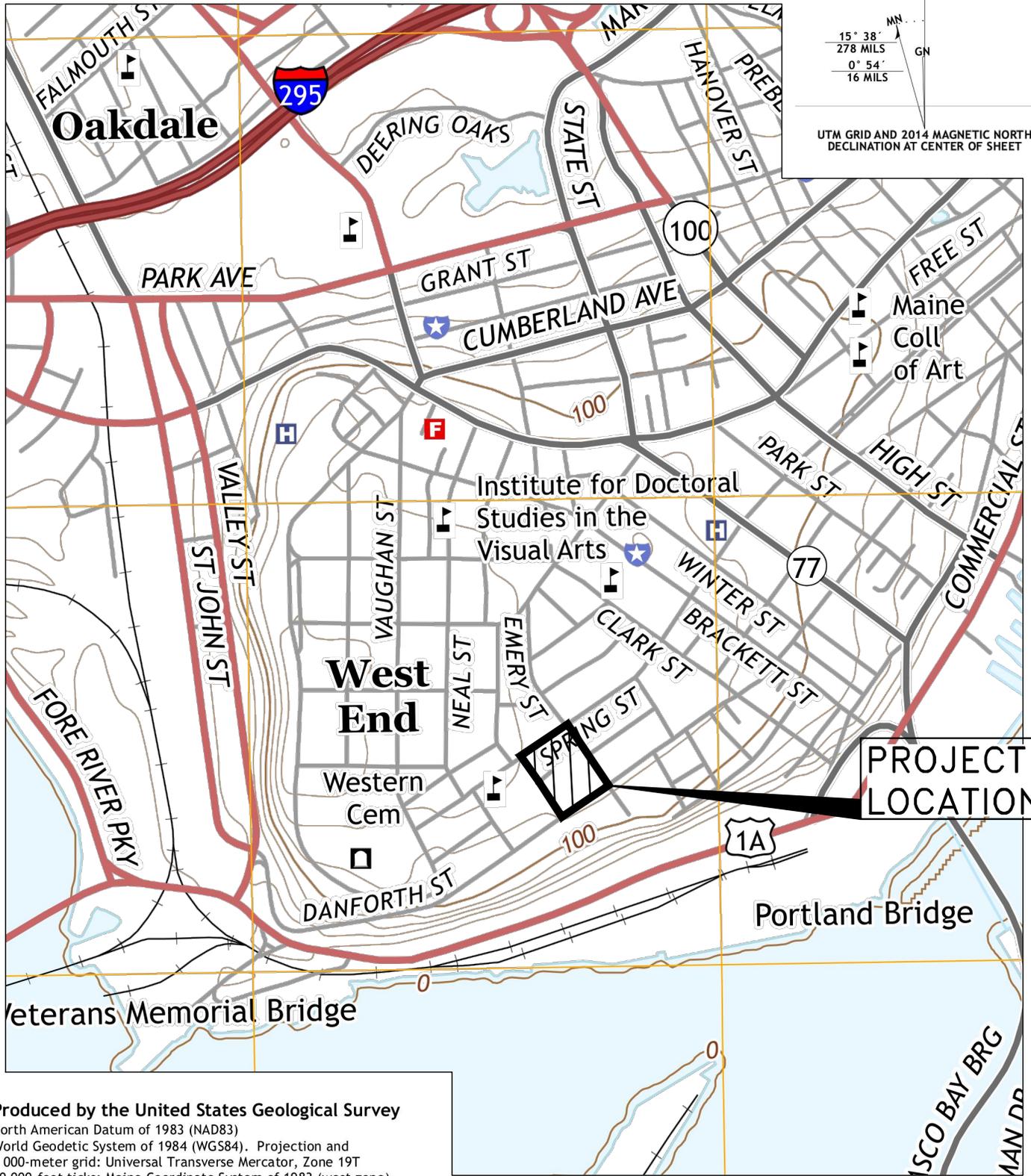
The attached landscape plans, developed by Michael Boucher Landscape Architecture are divided into the following zones:

- The Upper Playground is a relatively flat rectangular area bounded on three sides by the gym, Lower School and Founders Hall, and by the bus loop parking area on the fourth side. A fence and gate (to match existing) separates the yard from the parking area. A concrete walkway along the gym façade allows an accessible route, and a snow removal path, from the parking area to the main entrances of the Gym and Lower School. The playground area consists of four play “pods” within an impervious playground surface, for various play opportunities. Planting beds along Founders Hall and the new lower school provide spaces for sensory gardens. Waynflete’s lower school will be determining the exact use of each of the play pods as well as the plants for the sensory garden, with further study by a playground committee.
- The Gymnasium landscape consists of an arborvitae hedge to act as a buffer between the Gymnasium and the adjacent neighbor on Fletcher Street; as well as street trees planted along Fletcher Street. Adjacent to the southwest side of the gym The third side of the gymnasium is adjacent to a new Fletcher Street concrete entry walk located in a similar footprint to the existing Fletcher Street walkway.
- The Slope Playground lies between the new Lower School and the adjacent neighbor on Fletcher Street. There is an approximate 14 foot grade change between the entries of the Gymnasium and Lower School and the playfield. Two play pods sit at different elevations along the slope, connected by a trail and granite steps. This zone is planted with new native trees, shrubs and groundcover, creating a natural playground zone. A grass slope leads to the playfield to allow for sledding in the winter. A concrete retaining wall has been proposed adjacent to the neighbor’s property, replacing an existing slope and wooden retaining structure.
- The Playfield remains in its current location, and will be rehabilitated and reseeded post-construction.
- The Lower Playground will remain in its current state and location, this is outside the area of work. A new retaining wall separates this playground from the adjacent Fletcher Street neighbor to the northwest, replacing the existing wooden retaining structure.
- The Garden lies between two sets of egress stairs, in the current orchard location. This zone allows a space for the school to plant new orchard trees or relocate their container gardens if desired.

The planting palette will be finalized after a site walk and review with city arborist Jeff Tarling.

3.5 ATTACHMENTS

- Location Map
- FEMA Map
- Schematic Design Narrative
- Architectural Renderings
- Design Plans (Bound Separately)



15° 38' 278 MILS
 0° 54' 16 MILS
 UTM GRID AND 2014 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Produced by the United States Geological Survey
 North American Datum of 1983 (NAD83)
 World Geodetic System of 1984 (WGS84). Projection and
 1 000-meter grid: Universal Transverse Mercator, Zone 19T
 10 000-foot ticks: Maine Coordinate System of 1983 (west zone)

This map is not a legal document. Boundaries may be
 generalized for this map scale. Private lands within government
 reservations may not be shown. Obtain permission before
 entering private lands.



BAR SCALE
 1" = 1000'
 CHECK GRAPHIC SCALE BEFORE USING



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COMMITMENT & INTEGRITY DRIVE RESULTS

PROJECT LOCATION FIGURE

DESIGNED BY: N/A
 DRAWN BY: BCM
 CHECKED BY: LJS
 229423 LOCATION FIG.dwg

WAYNFLETE SCHOOL
 360 SPRING STREET
 PORTLAND, ME 04102

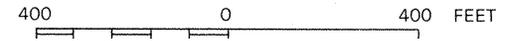
WAYNFLETE GYMNASIUM
 & LOWER SCHOOL

JOB NO.: JOB NUMBER
 DATE: FEB. 2106
 SCALE: SCALE

FIG. 1



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 13 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0013 B

EFFECTIVE DATE:
JULY 17, 1986



Federal Emergency Management Agency

ADJOINING AREA SHOWN AS INSET A ON PANEL 230051 0016 B

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

WAYNFLETE LOWER SCHOOL

The Waynflete Lower School currently occupies space on the lower and upper levels of Founders Hall and Hewes Wing. Founders Hall, originally a stable on the Horace Dudley estate, was purchased by the school and converted to classrooms in 1912. Hewes Wing was built in 1960. Since being converted to classroom space Founders and Hewes Wing have undergone many upgrades and renovations to respond to the changing needs of the school. Due to the design and age of the buildings, the Lower School classroom spaces are tight and cluttered creating a less than ideal environment for teaching and learning. Classrooms are not located in the best way for cross age connections and there's no one point of handicapped access or gathering space for families. While the existing Lower School has served its purpose housing one of Maine's premiere institutions of learning over the past 100 years, it is apparent that designing and building a new Lower School facility tailored to the school's specific needs will best serve Waynflete's current and future program needs.

Although Scott Simons Architects has been working alongside Waynflete for nearly a decade on ideas and design concepts for a new Lower School, SSA has been working closely with the Lower School Design Committee and the Lower School faculty developing the most recent design concepts since February of 2015. The process began by synthesizing information provided by Waynflete with relation to floor space requirements and enrollment numbers. SSA subsequently used this information to identify Waynflete's ideal Lower School classroom sizes for E/C, K/1, 2/3, and 4/5 and utilized this to form the foundation for early design strategies. As the schematic design process continued SSA further tailored the design to not only optimize classroom space requirements but also integrate daylighting and environmental certification strategies to maximize comfort within the learning environment and prioritize sustainability. The proposed design represents a forward-looking approach to design for education and is consistent with Waynflete's "Mission" and "Core Beliefs".

SITE

The Lower School is bordered by the Waynflete Campus on the north, south and east and by a private residence to the west facing Fletcher Street. To the north, the existing Lower School playground borders the new Lower School. The new building design acts to preserve as much open space as possible while emphasizing the connection between the new lower school and playground by providing unobstructed views both in to and out of the building's lobby. In many ways, this visual connection echoes Waynflete's mission to provide an emphasis on play alongside of the rigorous expectations of their academic programs. To the west the new Lower School borders an existing private residence. Between the residence and the new Lower School there currently exists a small "natural" playground and a hill that is used for sledding in the winter months and connects the lower ball field to the playground to the north of the new Lower School. SSA was tasked with carefully considering the impact of the new building on these areas and the new design works to preserve these functions while maintaining ample sightlines for faculty to oversee activities in the playground, "natural" playground and lower field simultaneously. The southern border of the new building borders the existing play field. Waynflete once again emphasized the importance of its on campus spaces by directing SSA to minimize the impact the new Lower School would have on the open green space. SSA carefully conducted several on site studies that

allowed members of the faculty and design committee to see first hand what the impact on these spaces would be. Ultimately the current design was chosen for its minimal impact and for the strong connection it makes between the interior and exterior of the building. To the east the new Lower School abuts the existing Sills Hall. The siting of the new school recognizes the inherent complexities of construction directly against an existing adjacent structure and has provided space to accommodate this based on input from the project's structural consultant.

Overall the site strategy aims to take full advantage of the southern exposure for daylighting by careful arrangement of the building form. In addition the project takes full advantage of the existing grade change to mitigate environmental impacts.

BUILDING DESCRIPTION

The overall form of the new Lower School is intended to have a residential scale providing a sense of comfort for the Lower School students. The familiar gabled roof forms act to define the various programmatic spaces and provide dramatic vaulted interiors in several of the classrooms. The window openings on all exposed facades provide a sense of playfulness and help to break down the scale of some of the larger walls. When entering occupants are greeted by a lobby space that has a direct connection to the outdoor environment and is open to the lower level. The connection to the lower level is made via an open amphitheater space that looks out across a shared classroom space and down through expansive openings that allow for direct views of the lower field. The amphitheater is designed to host Lower School gatherings and provide a common space for casual socializing and additional break out space throughout the school day. At the field level the building houses the arts space to the west and the after school space to the east. Each of these spaces has a continuous connecting deck that affords occupants the ability to open directly to the play field when weather conditions allow.

On the main level are the EC and K/1 spaces. These classroom spaces connect directly with the main entrance lobby providing direct access to the classroom spaces for the youngest students. Each classroom features varied views to the exterior and windows that respond to the scale of the students. Some windows are located directly at floor level and allow for unobstructed views to the natural environment outside, others provide seating areas for quiet study and reflection and others provide views to the treetops and sky beyond. In the EC classroom space the design addresses the need to have some direct access to exterior space by providing a small deck that opens directly into the classroom space. The EC and K/1 classrooms are connected by a shared classroom space for collaborative learning. This space bridges over the amphitheater below and provides direct views to the play field on the exterior and lobby/amphitheater on the interior. In addition to the lobby space, the main level houses the administrative desk that has direct access and sightlines to the main entrance providing a secure point of entry. The main level also houses the Director of the Lower School's office and connects to the existing Founder's Hall, which will be renovated as another project phase and provide further support programs. The elevator connecting all levels is centrally located in the lobby for ease of accessibility.

After moving up the sky lit lobby to the top level occupants encounter shared classroom spaces and a central solarium space that opens directly onto a roof deck that provides areas for outdoor learning and planting. On the west end of the building above the K/1 classroom space is the 2/3

classroom which is equipped with its own egress stair opening directly to the outside at the lower level for safety. The east end of the upper level opens directly to the existing upper level of Founder's Hall housing the 4/5 classroom spaces.

MATERIALS

The exterior of the new building is clad in white cementitious paneling on the main level and second levels. The material is intended to provide minimal clean lines further emphasizing the familiar gable forms that shape the classroom spaces. The white color was chosen to help connect the new Lower School to the other adjacent white buildings. On the lower level the exterior cladding material is heat-treated wood to provide natural warmth and contrast the white gabled forms above. The natural material allows the building to successfully transition to the ground plane and play field on the south and west elevations. At the play field the building above is supported by a series of load bearing tilted columns that actively engage students through their playful form in better understanding how the forces of the building are transferred to the ground plane from above. The lower level deck and ceiling are wood clad to provide warmth and another opportunity to ground the building to the field by using natural materials. The central amphitheater space, shared classroom space on the main level and solarium on the upper level serve as a connector between the gabled forms and are characterized primarily by their openness. The windows are all aluminum clad for durability.

Though the layout of each classroom space will be designed to specifically address the needs of the grade levels that it serves, all spaces will be characterized by their clean geometries and use of natural finish materials. These materials will be specifically chosen to provide comfort, environmental sustainability and optimized air quality all in line with the environmental certification goals the project will achieve. The ceilings in the classroom spaces will be clad in wood slats with specific acoustical qualities. All millwork will have natural finishes and interior partitions will be painted drywall. Classroom spaces will be carpet tile while the lobby area will be resilient porcelain flooring. The amphitheater will be clad in wood for warmth of material and the lower level will be polished concrete slab.

SUSTAINABILITY

The Lower School is designed to achieve Passive House (PHIUS) certification. The building envelope is designed to have maximum insulative qualities minimizing the need for heating and cooling. All mechanical equipment is high efficiency/high performance, as outlined in the mechanical narrative. Lighting is energy efficient LED type. Plumbing fixtures are selected for durability, performance, and water efficiency.

SUMMARY

With the construction of the new Lower School Waynflete will have a building that better serves the needs of the school today and into the future. The new Lower School will be a high-performance, sustainable building that provides spaces custom designed for Waynflete's unique teaching needs

and goals aligning with their commitment “to help students adopt healthy values and acquire new skills in an ever-changing world”.

WAYNFLETE GYMNASIUM

Waynflete's existing Gymnasium, originally designed and constructed in the middle of the 1970s, serves as the school's primary indoor athletic space. Over the past four decades the athletic program has grown increasing the need for expanded on campus practice space for various athletic programs, expanded varsity playing space and expanded seating capacity for varsity athletic contests. Due to the increasing demands put on the existing building many of the buildings major mechanical system along with the gym floor and existing Kalwall are in need of replacement. The amount associated with these repairs has been identified in the range of approximately \$580,000. Concisely stated the existing facility does not meet Waynflete's current needs.

Scott Simons Architects has been working with Waynflete and the Gymnasium Design Committee since May of 2015 on the current design concept for the expanded Gymnasium. Beginning with a thorough analysis of the site and adjacent spaces and programs that would potentially be impacted by expanding the footprint of the new Gymnasium, Scott Simons Architects developed a concept for the new space. The reimagined Gymnasium increases the building's capacity allowing it to more comfortably host varsity athletic contests. The expanded court space creates two junior varsity practice courts which can be simultaneously used. Additionally the design incorporates office space for athletic and physical education staff specifically tailored to their program's needs. Working closely with the Gymnasium Design Committee and various design consultants, SSA has continued to develop the site plan and design for the building that will expand the gym from its current 9,340 SF to 13,614 SF to better accommodate Waynflete's program. The proposed design will accommodate these needs within the very tight urban campus addressing the concerns of neighboring residents and with a design that is mindful of the importance of environmental sustainability.

SITE

The Gymnasium site is bordered by private residences on the south and north, Fletcher Street on the West and the existing Lower School playground on the east. Because of limiting setback requirements the footprint of the new building is limited with regard to increases in size on north, south and west sides. The current design is mindful of these front yard and side yard setbacks while optimizing the amount of usable space inside of the building. The design accomplishes this by utilizing exterior stairs for egress in two locations and locating several programmatic elements below grade with no footprint extending above. The exterior stair on the southwest side of the Gym allows for direct delivery access from Fletcher Street through a large double door opening making hosting large events in the new Gymnasium as convenient and efficient as possible. Although not a setback imposed by zoning, SSA worked closely with Waynflete's Lower School staff to minimize

the impact on the existing adjacent playground to the east by holding the footprint as close to the existing Gym's footprint as possible without making spatial compromises to the new Gym's program.

The entrance from Fletcher Street is currently heavily used during Lower School drop off and dismissal times. The design for the new Gymnasium takes this into consideration by maintaining the same line of direct access from Fletcher Street. In addition, the new design also provides generous covered waiting space on the south side to shelter students and parents from inclement weather during drop off and dismissal times. The new building has two entrances, both on the east (campus) side. The entrance on the northeast is intended to serve the athletic functions of the space in a location very similar to the existing Gym entrance. Its adjacency to the parking loop makes this an ideal location for pick up and drop off and serves the needs of larger functions by allowing for the most direct access to the Gym's entrance from on street parking on adjacent Spring Street. The entrance on the southeast is intended to provide more direct access to the adjacent Lower School minimizing outdoor travel for younger students in the cold winter months.

BUILDING DESCRIPTION

The new Gymnasium is designed to play host to athletic contests and provide a space that can accommodate larger campus wide events and functions as well. The new Gym's floor level is further sunken into the ground (approximately 6') allowing occupants to enter directly on the mezzanine level a full floor level above the gym floor below. During basketball games and other athletic and non athletic functions bleachers will extend from below the mezzanine to allow for direct access from the mezzanine to the gym floor level. Along the mezzanine at the upper level are two stairs that allow for access to the lower level at times when the bleachers are retracted. At the same upper level are the Athletic and Assistant Athletic Director's offices. Located near the main entrance to the building, these offices have direct sight lines helping to create a secure point of entry. The mezzanine level also contains four individual unisex toilet rooms with shared sinks and a centrally located elevator to provide handicap accessible access to the lower level.

In addition to the gym floor, the lower level houses both the home and visiting locker rooms that each contain two bathroom stalls, shared sinks and a shower. These are located below the mezzanine level and have direct individual access to the gym floor on the north and south sides of the court. Two physical education offices are located on the south side of the gym to provide direct physical and visual access to the gym floor. The lower level also contains several spaces dedicated to storage of athletic equipment and several spaces for mechanical and electrical equipment TBD.

On the exterior the building is designed to respond to the scale of the residential neighborhood in which it is sited. To accomplish this the building elevation was designed to address the scale on the Fletcher Street (west) side by stepping down to a scale that bears relation to other residences on the street. The west facade also incorporates a number of openings to further scale down its scale adjacent to the street and prevent it from having a wall-like feel similar to the existing Gymnasium's west facade. On the east elevation facing the playground the building is once again scaled down to a single story to allow for maximum light and air to enter the outdoor space and respect the current feeling of openness. On the large south facing facade the design incorporates an awning that both scales down the elevation and provides cover for students and parents at drop off and

dismissal. Planting material will be utilized to create buffers between adjacent neighboring properties and at the Fletcher Street facade to once more help scale down the building and allow it to blend successfully within the context of the West End neighborhood. The interior of the building is designed with multipurpose functions in mind. The design strategy is to minimize the amount of exposed steel and employ the most cost effective structural system and utilize these cost savings on wood cladding and materials generally not associated with the typical gymnasium. The ceiling HVAC and structural are almost entirely concealed by a series of hanging wood panels that create a shell below the ceiling that serve to better tailor the scale of the space while dressing up the Gym and make it a more appealing space for functions that lie outside athletics (i.e. baccalaureate, all school events, etc.). The wood ceiling panels would not simply act as an aesthetic element but also as an acoustic element making the space more comfortable for all occupants and events.

MATERIALS

The exteriors of the new building are clad with brick to better help the building blend in with both the historic context of the neighborhood and other buildings on campus. The windows are all aluminum clad for durability. Roof overhangs are designed to shade and shelter the entrances and walkway from Fletcher Street and provide covered outdoor spaces. The undersides of the new roofs will be clad with wood, providing warmth and texture to these surfaces. The interior walls will be painted drywall with some use of natural wood paneling to provide a warm feel and needed durability for athletic practices and events. Flooring on the mezzanine will be porcelain. The remainder of the space is covered by the gym floor and additional porcelain flooring for durability. Ceilings will be a combination of wood paneling, acoustic ceiling tile, or painted drywall.

SUSTAINABILITY

The Gymnasium is designed to achieve LEED Platinum (Version 4 certification). All mechanical equipment is high efficiency/high performance, as outlined in the mechanical narrative. Lighting is energy efficient fluorescent and/or LED lamps. Plumbing fixtures are selected for durability, performance, and water efficiency. A large photovoltaic array will be installed on the roof to offset electricity costs as well.

SUMMARY

With this Gym Waynflete will be able to better accommodate the existing and future needs for the athletic program now and into the future. The new, expanded building, will be a high-performance, sustainable building that serves the needs of the school and enhances the context of the neighborhood and campus. It can play host to athletic and non-athletic functions making it a valuable asset in what is a very compact urban campus with limited room for expansion. The new building provides the entire Waynflete community a space consistent with its mission "devoted to the healthy development of the whole person: mind, body and spirit."





