SPRINGBROOK HIGH SCHOOL

SCHOOL-BASED WELLNESS CENTER

FEASIBILTY STUDY REPORT

Prepared For:
Montgomery County Public Schools and Montgomery County Department of Health and Human Services

February 6, 2026

Architecture Incorporated
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Reston, VA 20191

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1. INTRODUCTION

Springbrook High School
201 Valley Brook Drive
Silver Spring, Maryland 20904

Montgomery County Board of Education

Ms. Grace Rivera-Oven	President
Ms. Brenda Wolff	Vice President
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Andrea Swiatocha	Deputy Chief of Facilities Management
Shiho Shibasaki	Facilities Architect, Division of Facilities Management
Julie Morris	Supervisor, Planning and Real Estate
Adrian Saunders	Project Manager, Department of Planning and Construction
Christina Thomas	Planner II, Department of Planning and Construction

Maryland State Department of Education

Jillian Storms	Executive Director
Jo Anne Murray	School Facilities Architect

1. INTRODUCTION *(Continued)*

Springbrook High School is located at 201 Valley Brook Drive, North in Silver Spring, Maryland. Architecture, Incorporated architects conducted this study at the request of Montgomery County Public Schools (MCPS). The school-based wellness center is a joint project between MCPS and the Department of Health and Human Services (DHHS). All work for this study was performed under the advisement and direction of the MCPS Department of Planning and Construction and DHHS.

Participation

The Feasibility Study participants reviewed, revised, and approved the design approaches for a School-Based Wellness Center at Springbrook High School though a series of work sessions. These sessions occurred on September 15, September 18, October 1, October 9, and October 23, 2025. The proposed designs are a result of the participants' suggestions and guidance during the feasibility study process.

Feasibility Study Participants

Julie Morris	Director	MCPS, Dept. of Planning and Construction
Robin O'Hara	Senior Planner	MCPS, Dept. of Planning and Construction
Adrian Saunders	Project Manager	MCPS, Dept. of Planning and Construction
Christina Thomas	Planner	MCPS, Dept. of Planning and Construction
Tonia Rodgers	Planner	MCPS, Dept. of Planning and Construction
N. Aissa Sires	French Interpreter	MCPS
Jerome Jackson		DHHS, Children Adolescents School-based Services (CASS)
Lesie Reyes-Rosa	Program Manager	DHHS, Dept. of School Health Services
Sambila Zangre Congo	Nurse Manager	DHHS, Dept. of School Health Services
Jeanett Peralta	Nurse Admin	DHHS, Dept. of School Health Services
Kirsten Andersen		DHHS, Dept. of School Health Services
Claudia Bonilla	CCI Health Services	DHHS Contractor
Allison Legg	Director	Architecture, Inc
Liz Paradine	Architect	Architecture, Inc
Musa Kanneh	Asst. Project Manager	Architecture, Inc
Pedro Santini	Spanish Speaker	Architecture, Inc
Sean Lindaman	Project Manager	Clark | Azar & Associates

1. INTRODUCTION *(Continued)*

Scott Molongoski	Structural Engineer	Greenman-Pedersen, Inc.
Michael Sherren	PE	James Posey Associates
Ben Meister	Electrical Engineer	James Posey Associates
Mark Black	Mechanical Engineer	James Posey Associates
Joe Adams	VP Estimating	Downey & Scott, LLC
David Repass	Estimator	Downey & Scott, LLC
Stephanie Valentine	Principal	Springbrook High School
Susan Katz	Administrator	Springbrook High School
Nicole Brown	Administrator	Springbrook High School
Jamilia Gates	School Liaison	Springbrook High School
Julie Simon	Librarian	Springbrook High School
Desiree Clark	SDT	Springbrook High School
Aja Jhingory	Special Education	Springbrook High School
Christine Eddy	BHS, World Languages	Springbrook High School
Laura Grant	ELD	Springbrook High School
Rachelle Braun	ELD	Springbrook High School
Viky Sosa-Kirkpatrick	ELD	Springbrook High School
Amy Hairston	Music Teacher	Springbrook High School
Charles Foster	Art RT	Springbrook High School
Samantha Chheang	Art RT	Springbrook High School
Brooke Petrucci	Art Teacher	Springbrook High School
Tabia Muhammad	Engineering	Springbrook High School
Dorothy Lee	Social Studies RT	Springbrook High School
Sarah Preston	Science	Springbrook High School
Kathryn Sander	Science, Garden Club	Springbrook High School
Nichole Kellerman	Science RT	Springbrook High School
Karen Greger	Counseling	Springbrook High School
Patricia Jones	Staff	Springbrook High School

1. INTRODUCTION *(Continued)*

Jillian Storms	Executive Director	MDSE, OSF
Jo Anne Murray	School Facilities Architect	MDSE, OSF
Fitsum Habtemariam	Amharic Interpreter	
Sam Tesafe	Amharic Interpreter	
Steven O'Neill	Community Member	
Lisa O'Neill	Community Member	
Dan Willhelm	Community Member	
Mary D. Ott	Community Member	

2. EXECUTIVE SUMMARY

Purpose

The purpose of this feasibility study is to explore three design approaches for a School Based Wellness Center at Springbrook High School. The design approaches will accommodate the Program of Requirements for Springbrook High School School-Based Wellness Center assembled by Montgomery County Government Department of Health and Human Services (DHHS), dated December 17, 2024. Additionally, any designs of spaces within the building primarily serving the school, and not the Wellness Center, will coordinate with the High School Educational Specifications Feasibility/Schematic Design document developed by Montgomery County Public Schools (MCPS) for Springbrook High School. The study process evaluated a series of potential design solutions that would satisfy the Program of Requirements and its space summary. The intent of this study is to provide MCPS with design considerations and potential construction costs associated with the implementation of each design approach.

Montgomery County Council passed appropriations in FY22 to expand the Wellness Center program. There was a planning process with input from stakeholders, and consideration by elected officials. The appropriations require expansion of High School Wellness Centers in every high school in Montgomery County Public Schools (MCPS). New high schools will be designed with School-Based Wellness Centers (SBWC) as part of the minimum requirements. Existing high schools will receive SBWC based on social determinants of health and need by MCPS and DHHS. In addition to high schools, all elementary schools will receive Linkages to Learning spaces. The DHHS performed a comprehensive analysis of need to determine the priority order for constructing the centers. Woodward HS and Springbrook HS were schools identified as the highest priority to be completed within a 6-year period. The Department of Health and Human Services (DHHS) will fund the construction of and have full responsibility for the operation of the Wellness Center.

Background/History Information

Location: 201 Valley Brook Drive, Silver Spring, Maryland 20904

Overview

Originally constructed in 1960, Springbrook High School received additions in 1964, 1970, 1985, and 1994. The first floor of the building is very large and has a sprawling footprint. There are two wings of the building on a basement level. The majority of the academic classrooms are located in a three story tower near the middle of the building. The building consists of masonry bearing walls and steel frame construction.

2. EXECUTIVE SUMMARY *(Continued)*

History and Square Footage of Existing Building:

1960	Original Construction
1964	Classroom Addition
1970	Auditorium Addition & Library Expansion
1985	Auxiliary Gymnasium Addition
1994	Cafeteria Expansion, Classroom and Media Center Addition, Modernization
	Total (approx.): 305,000 gross square feet

Site size: 25.13 acres

Current and Projected School Capacity and Student Enrollment:

Although the Educational Specifications uses a 2,400 student capacity and a core capacity of 2,100 students, MCPS identified that this feasibility study shall use a program capacity of 2,100 students.

As of October 2025, current school enrollment is 1,788 which indicates more than 300 seats are available; MCPS projects a continual yet gradual enrollment decline over the next 5 years.

2. EXECUTIVE SUMMARY *(Continued)*

Methodology

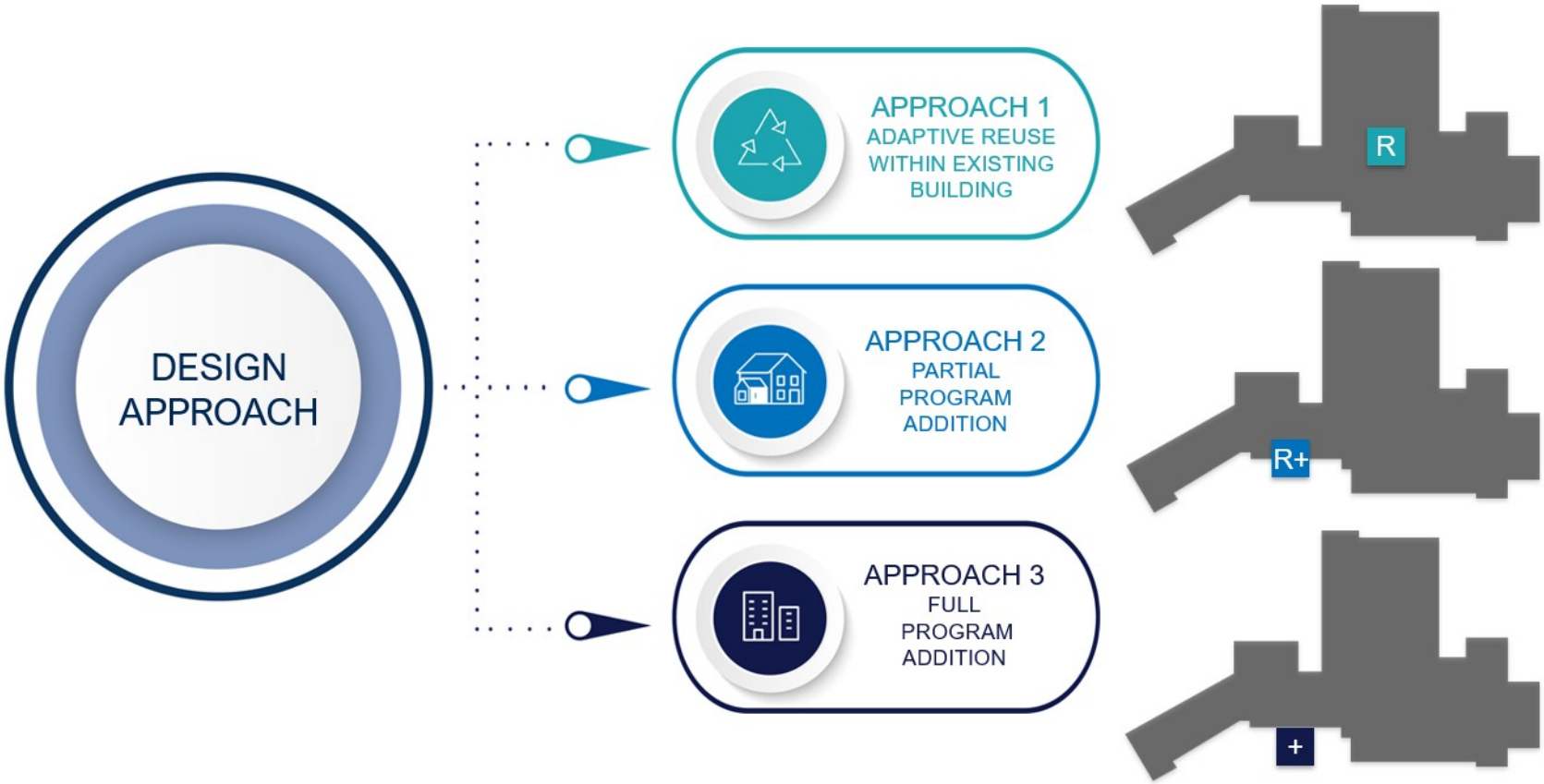
MCPS requested this feasibility study to explore three design approaches: Adaptive Reuse of Existing Building, Partial Program Addition, and Full Program Addition. These design approaches will be described in more detail in the following pages. The study identifies potential impacts of each design approach. The evaluation is based on MCPS Educational Specifications.

The methodology includes:

- Survey of existing building
  - Evaluate existing building space summary versus Program of Requirements and Educational Specifications
  - Identify current building usage and departmental locations
  - Identify quantity, type, and size of teaching spaces to identify where excess capacity, if any might be found
  - Evaluate the potential for capturing any excess capacity
- Development of Design Concepts
  - Create general bubble diagrams showing spatial relationships
  - Gather committee input from MCPS and DHHS
  - Refine and reshape concept diagrams employing preferred features
  - Gather input from school staff and community
  - Incorporate school and community comments
  - Engineering disciplines
  - Cost estimating
  - Construction schedule and duration
- Feasibility Study Creation
  - Assemble documents and brochures for Board of Education
  - Assemble IAC feasibility study submission

2. EXECUTIVE SUMMARY *(Continued)*

The grey represents the footprint of Springbrook HS. The blue box represents the square footage of the proposed SBWC program. These two shapes are proportionate to one another and show that the relative size of the proposed SBWC is much smaller than the existing school square footage.



2. EXECUTIVE SUMMARY *(Continued)*

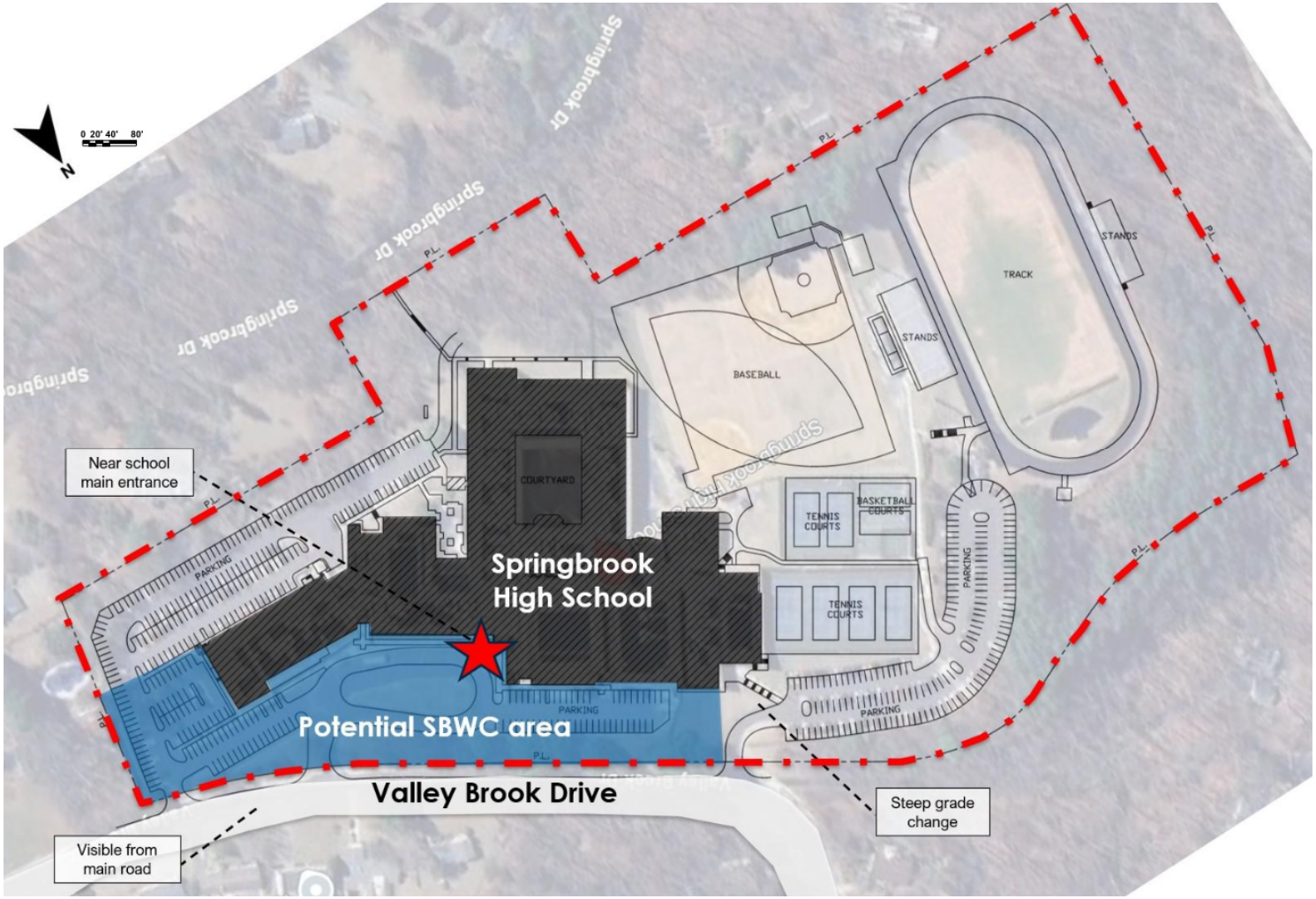
Several parameters of the School-Based Wellness Center (SBWC) Program of Requirements narrowed the potential areas for this study. These parameters helped define the methodology employed in this study. Parameters for the SBWC include:

a. Locate the SBWC near the front of the school – in a visible location
b. Position the School Health Room directly adjacent to the Wellness Center
c. Provide two exterior entrance/exit doors
d. Plan for convenient access to parking for Wellness Center staff and visitors

As a result of these parameters, this feasibility study explored potential locations of the SBWC at the front of the school as illustrated in the following pages.

2. EXECUTIVE SUMMARY *(Continued)*

Site Plan – Potential Areas for the SBWC

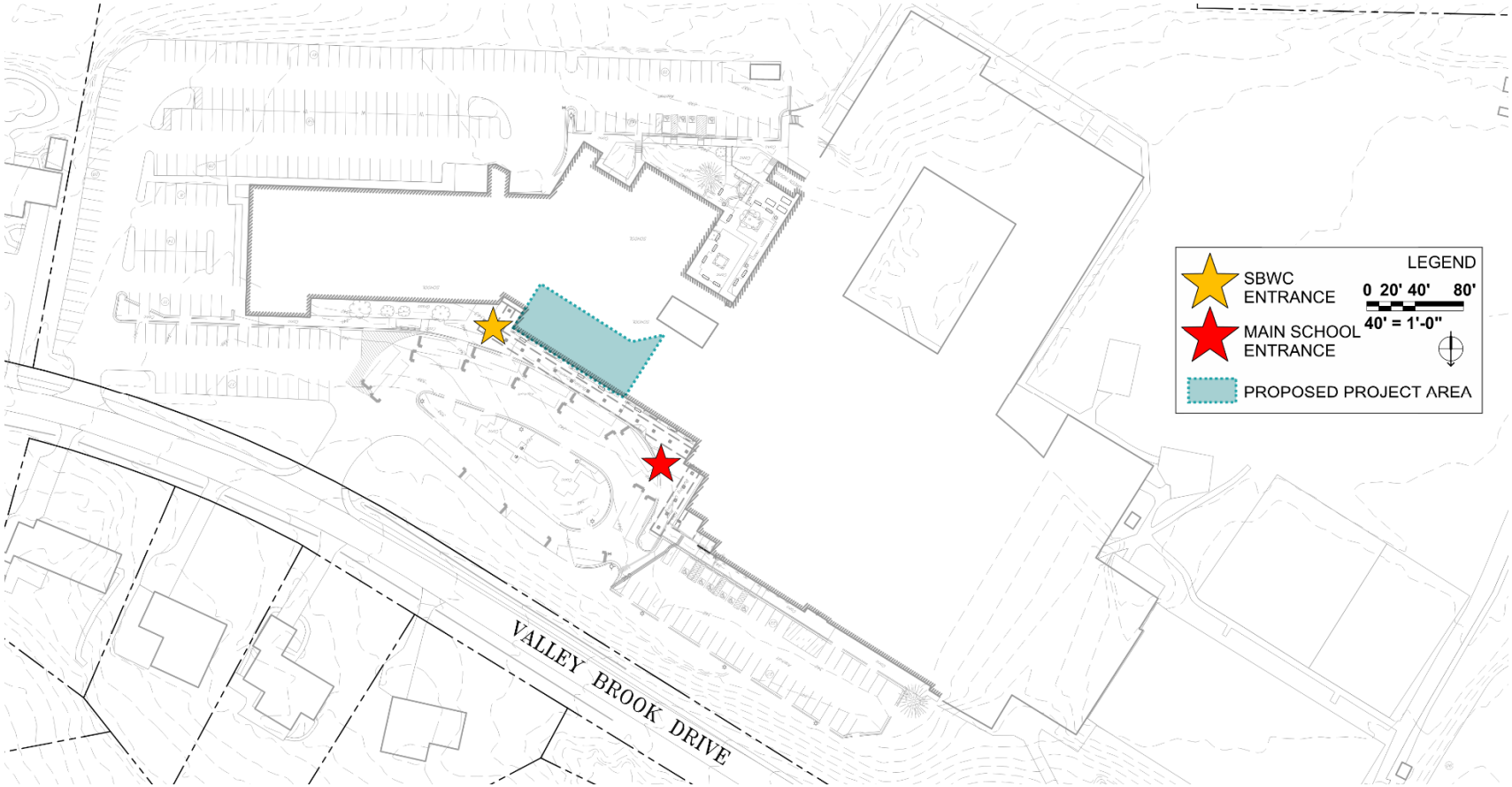


2. EXECUTIVE SUMMARY *(Continued)*

Design Approach 1

REDACTED

Design Approach 1 is an Adaptive Reuse of the Existing Building. In the graphic below, the proposed location of the SBWC is indicated in blue. The red star represents the main entrance to the school and the gold star represents the location of the main entrance to the SBWC. This approach has little to no site work. Three options to this Approach were explored and are presented herein.

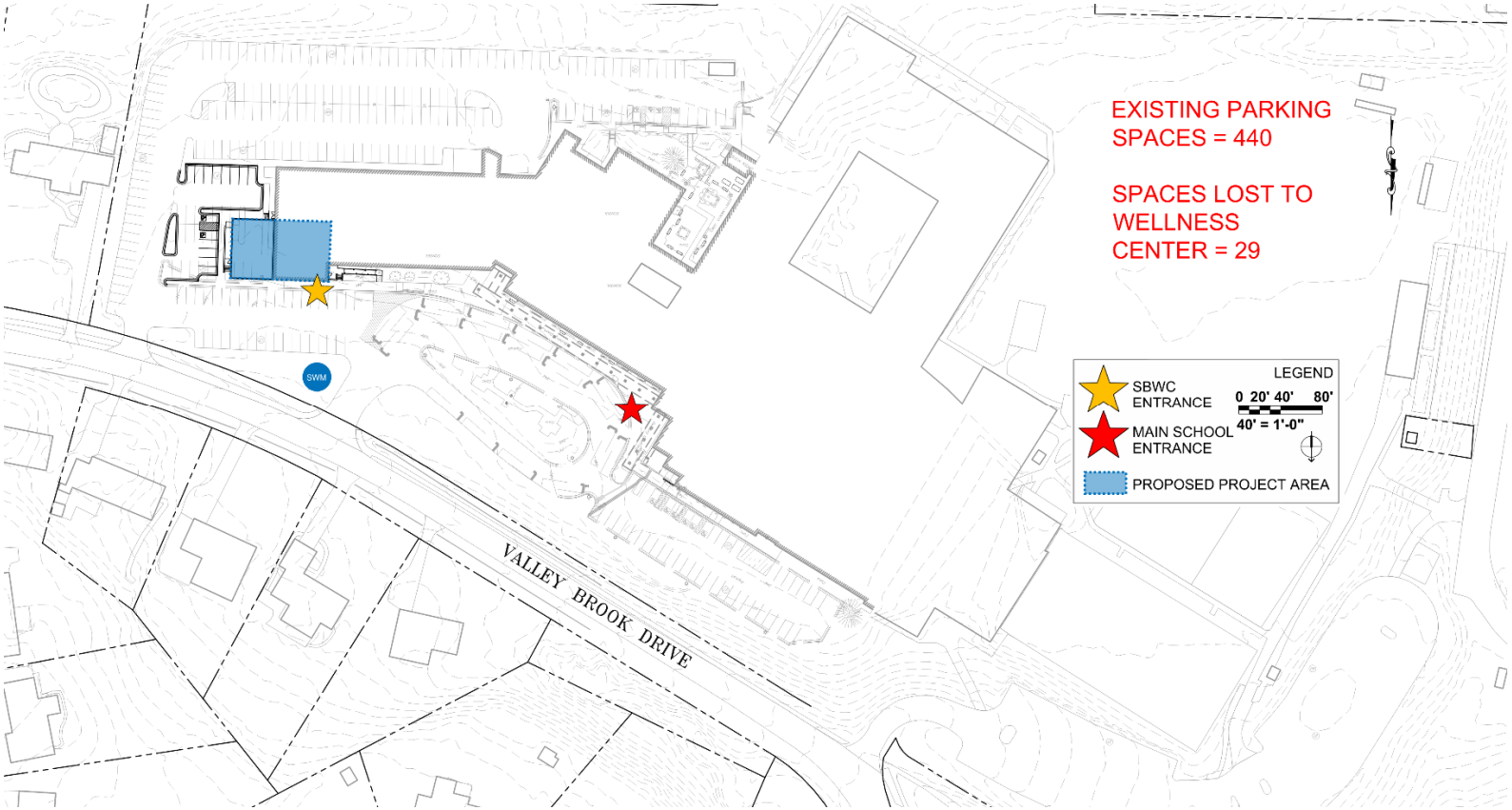


2. EXECUTIVE SUMMARY *(Continued)*

Design Approach 2

REDACTED

Design Approach 2 is a Partial Program Addition. In the graphic below, the proposed location of the SBWC is indicated in blue. The red star represents the main entrance to the school, and the gold star represents the location of the main entrance to the SBWC. This approach has some site work, including parking improvements and stormwater management indicated by the blue circle, as the proposed location of the SBWC includes renovation of existing interior space as well as a small addition.

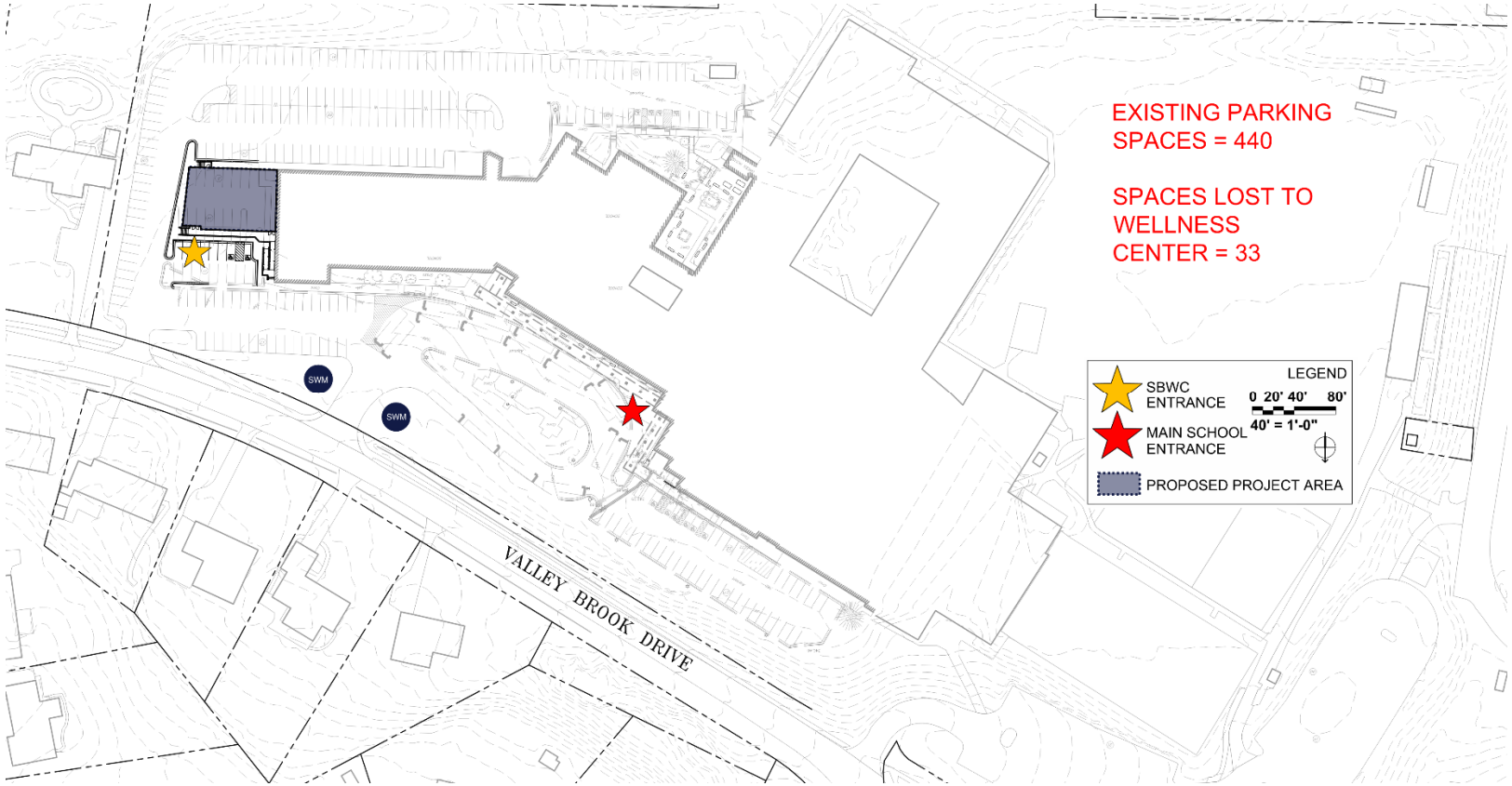


2. EXECUTIVE SUMMARY *(Continued)*

Design Approach 3

REDACTED

Design Approach 3 is a Full Program Addition. In the graphic below, the proposed location of the SBWC is indicated in blue. The red star represents the main entrance to the school and the gold star represents the location of the main entrance to the SBWC. This approach has some site work, including parking improvements and stormwater management indicated by the blue circles, as the proposed location of the SBWC includes a small addition.



2. EXECUTIVE SUMMARY *(Continued)*

Design Approaches

In each of the design approaches the existing School Health Room and the existing Bridge to Wellness spaces are relocated into the new School-based Wellness Center (SBWC). Only spaces receiving the new SBWC or receiving a displaced existing space shall be renovated. If a design approach does not include relocating a function into the existing School Health Room or Bridge to Wellness spaces, those rooms shall remain as they are; there will be no demolition/renovation of those spaces. The design approaches vary in terms of how the School-based Wellness Center is positioned in relation to the existing building. Approach 1 is Adaptive Reuse of Existing Building. Approach 2 is Partial Program Addition. Approach 3 is Full Program Addition and includes all of the SBWC being located within an Addition.

Construction Scheduling

MCPS anticipates construction activities not requiring the use of temporary classroom trailers. It is expected that planning and scheduling for construction activities will likely happen prior to the summer. It is expected that construction activities will be executed during the summer or during long school breaks. Any space within the existing building required for School use will be completed, inspected, and tested as necessary for School occupation during the school year. This will require consideration and coordination regarding the permitting and bidding process, ordering of materials and equipment, and attention to long lead times. If necessary, construction activities will pause to allow the School to use the spaces, and then reconvene at the next appropriate point in time. Addition construction activities can occur during the school year, and shall be coordinated with MCPS. At all times clear egress shall be maintained from the building. MCPS and DHHS have scheduled construction funds for FY27 and FY28.

2. EXECUTIVE SUMMARY *(Continued)*

Cost Estimates

Cost estimates are separated into: New Construction/Addition, Building Renovation, and Building Return to School. The costs are separated into prevailing wage and (non-prevailing wage). See Appendix D.

Design Approach 1

New Const./Addition	0 SF
Renovation Type 1	4,860 SF
Renovation Type 2	5,377 SF
Selective Demolition	
Site	
Additional Owner Cost	
Total Project Cost	**1.1:**
	1.2:
	1.3:

REDACTED

Design Approach 2

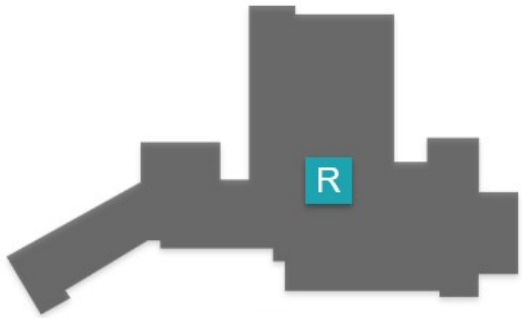
New Const./Addition	2,300 SF
Renovation Type 1	2,840 SF
Renovation Type 2	7,154 SF
Selective Demolition	
Site	
Additional Owner Cost	
Total Project Cost:	

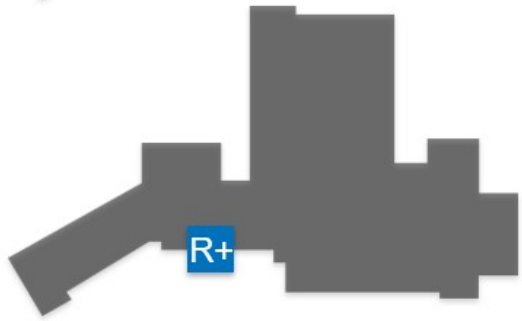
REDACTED

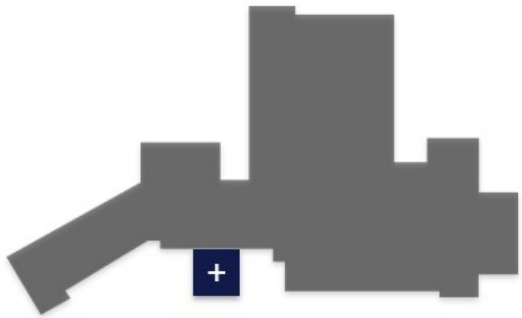
Design Approach 3

New Const./Addition	5,377 SF
Renovation Type 1	0 SF
Renovation Type 2	0 SF
Selective Demolition	
Site	
Additional Owner Cost	
Total Project Cost:	

REDACTED







2. EXECUTIVE SUMMARY *(Continued)*

Stakeholder Engagement

The design approaches described in this study reflect input from the feasibility study participants incorporated via community engagement meetings. These meetings took place both in person at Springbrook High School and virtually. Meetings took place in the afternoon and in the evening hours in order to be as available as possible to members of the community. Meetings were held on September 15, 2025 (Staff, in person), September 18, 2025 (in person), October 1, 2025 (virtual), October 9, 2025 (hybrid), and October 23, 2025 (virtual). For the community meetings, the design team developed and refined design concepts to coordinate with the Program of Requirements. During the community meetings the design team elicited feedback and questions from attendees via survey questions. Additionally, the community meetings proved to be instrumental for MCPS and DHHS to provide valuable information regarding the county's envisionment of the Wellness Center.

During community engagement meetings, concern was expressed that students should not need to exit the building to access the Wellness Center. A few community members expressed concern with any potential increase in vehicle traffic through the community. School staff expressed concern that the Wellness Center project might divert or delay funding for current needed repairs and improvements to the building. Examples shared included instances of poor HVAC functioning (lack of air conditioning, which required the class to be relocated to another space) and failure of electrical power systems (no power in a classroom). Other comments and concerns included: disruptions to teaching because of ceiling leaks, gas turrets in chemistry classrooms not working, and Internet connectivity issues. School staff expressed a desire to maintain as much as possible existing classroom sizes and arrangement of teaching spaces. The school also expressed a desire to maintain as many parking spaces as possible.

Conclusions

The design approaches outlined in this study were developed to meet DHHS' Program of Requirements and MCPS' Educational Specifications, while also responding to community concerns related to traffic and parking. The concepts explore multiple ways to integrate a Wellness Center at the existing Springbrook High School and describe the associated impacts on the school.

3. PROJECT SCOPE

Scope and Intent

The intent of this feasibility study is to explore several design approaches for locating a School Based Wellness Center at Springbrook High School. MCPS identified three design concepts to explore: Adaptive Reuse of Existing Space, Construct an Addition, or Standalone Structure. All design approaches will fulfill the Program of Requirements, will meet MCPS standards, and reflect the concerns of the School and the Community.

This study is a combination of the existing building survey, meetings with MCPS, DHHS, School Staff and Community Members, and discussions to discover potential solutions to shape these three design concepts. The final design approaches described in this study reflect input from the feasibility study participants incorporated via community engagement meetings. Five meetings were held both in person at Springbrook High School and virtually. These meetings took place in the afternoon and in the evening hours to be as available as possible to members of the community. During the community meetings the design team presented design concepts derived from the Program of Requirements, elicited feedback and questions from attendees via survey questions, and refined the concepts based on the feedback received. Additionally, the community meetings proved to be instrumental for MCPS and DHHS to provide valuable information regarding the county's envisionment of the Wellness Center. When found to be practical and beneficial to the design, comments and suggestions discussed in the meetings were incorporated into the design approaches.

Montgomery County Council passed appropriations in FY22 to expand the Wellness Center program. There was a planning process with input from stakeholders, and consideration by elected officials. The appropriations require expansion of High School Wellness Centers in every high school in Montgomery County Public Schools (MCPS). New high schools will be designed with School-Based Wellness Centers (SBWC) as part of the minimum requirements. Existing high schools will receive SBWC based on social determinants of health and need by MCPS and DHHS. In addition to high schools, all elementary schools will receive Linkages to Learning spaces. The DHHS performed a comprehensive analysis of need to determine the priority order for constructing the centers. Woodward HS and Springbrook HS were schools identified as the highest priority to be completed within a 6-year period. The Department of Health and Human Services (DHHS) will fund the construction of and have full responsibility for the operation of the Wellness Center.

The Wellness Center supports the school community - the high school students, their parents, and their siblings. Other Wellness Centers currently in operation serve approximately 25 people per day. The following services will be provided: somatic (including physicals for sports, immunizations, and prescriptions), mental health, case management, and youth development programs. The typical hours of operation are Monday through Friday 8am to 6pm, and periodic evening events for parents. The Center will also function as a meet-up place for student field trips that are typically scheduled on a quarterly basis.

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4. EXISTING CONDITIONS SUMMARY

The original 1960 school facility was organized with one expansive first floor, two smaller lower floor wings, and a second floor over two classroom wings. Over time several additions were added around the perimeter of the building in 1964, 1970, 1985, and 1994. There is a total of four different floor levels. Over time the building program functions shifted locations or were eliminated, resulting in several mismatched environments. The result is an academic core tower surrounding an enclosed courtyard, an expansive first floor, and a stacked physical education department. The main entrance to the building faces the bus loop. Building services are at the rear of the building.

The enclosed courtyard allows many classroom spaces to have abundant daylight. A long linear skylight along the primary corridor on the first floor brings daylight into the center of the building. Additionally, the third floor offers multiple skylights in the corridors which contribute to a more pleasing environment. Corridors in the academic core are lined with recessed hall lockers. Corridors have terrazzo flooring. Some corridors have a high tile wainscot. There are a few locations where exposed face brick remains unpainted, adding warmth to the environment. Most partitions are painted CMU.

Exterior walls are primarily uninsulated masonry consisting of CMU and face brick. Masonry bearing walls and steel framed structure support the roof structure and floors above. The roof is largely covered with photovoltaic solar panels.

Throughout the building there are examples of stained ceiling tiles. It is unclear if the stains are from roof leaks or utility pipe leaks.

The 25.13 acre site is located at 201 Valley Brook Drive in Silver Spring, Maryland. The site is nestled deep within a residential community served primarily by one two-lane road. The neighborhood is composed of single-family homes. The site has three entrances off of Valley Brook Drive, approximately 3/8 mile from New Hampshire Avenue (MD 650). The bus loop is small; buses are triple stacked around the loop during loading. Student drop off takes place at the entrance to the student parking lot, at the west end of the school. Student drop off also takes place at the front of the building near the east end of the school.

The project program of requirements includes many stand-alone features for mechanical and electrical services. The utility requirements for the SBWC will not detrimentally draw from the infrastructure supporting the existing building spaces.

MCPS is planning an HVAC improvement project for Springbrook High School. This project is unrelated to the Wellness Center project and will be funded through separate funds. The Wellness Center project will not preclude any planned facility or systemic infrastructure improvements.

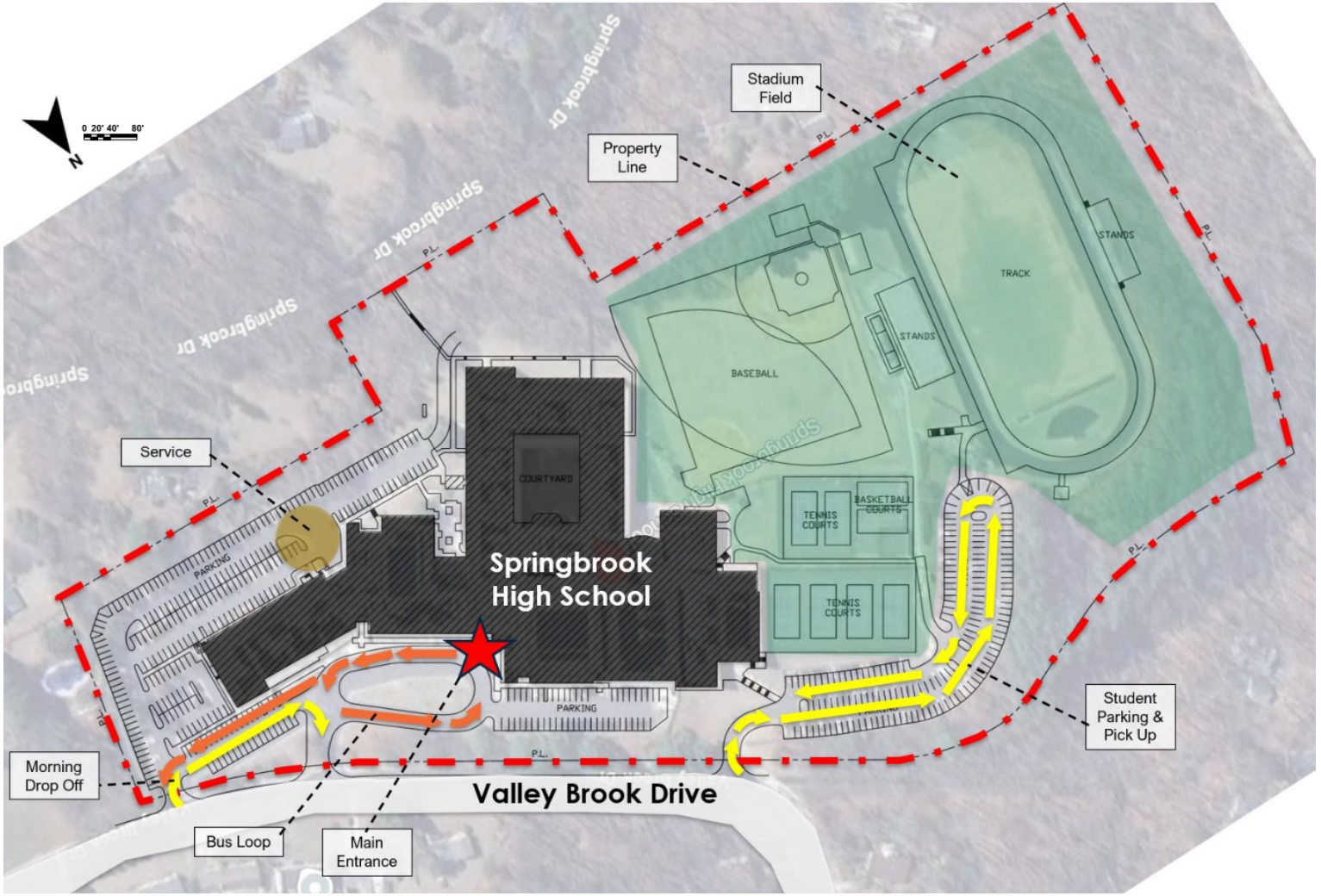
See “Existing Conditions Survey” in Appendix C for complete survey.

4. EXISTING CONDITIONS SUMMARY *(Continued)*

Vicinity Map

4. EXISTING CONDITIONS SUMMARY *(Continued)*

Site Plan



4. EXISTING CONDITIONS SUMMARY *(Continued)*

Existing Floor Plans

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4. EXISTING CONDITIONS SUMMARY *(Continued)*

First Floor Plan

REDACTED

4. EXISTING CONDITIONS SUMMARY *(Continued)*

Second Floor Plan

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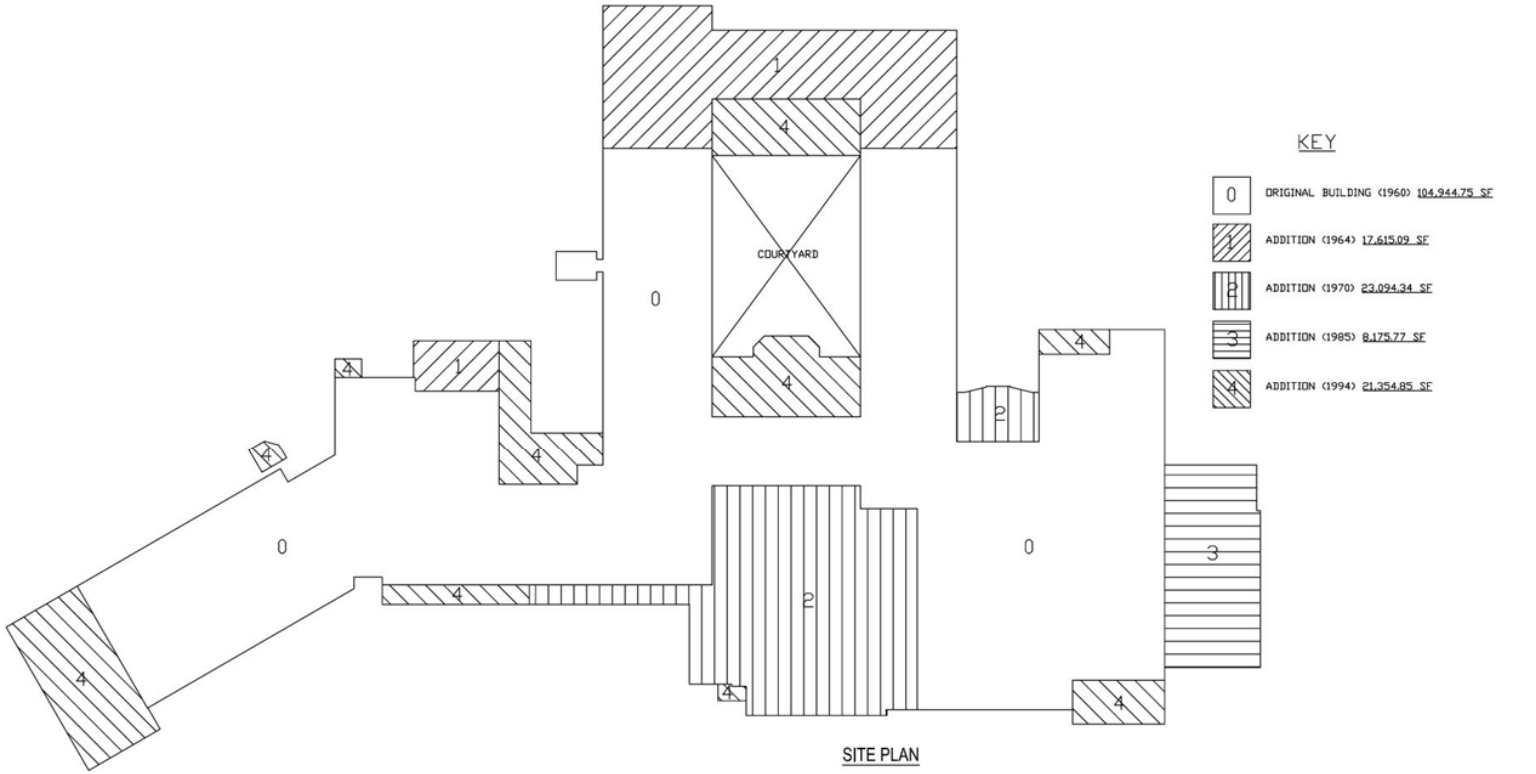
4. EXISTING CONDITIONS SUMMARY *(Continued)*

Third Floor Plan

REDACTED

4. EXISTING CONDITIONS SUMMARY *(Continued)*

Building History Diagram



5. DESCRIPTION OF APPROACHES

Common Design Elements for Approaches 1, 2, and 3

CIVIL

Sidewalk and Pavement

- Any changes to the pavement shall meet the following requirements:
- Sidewalk shall be concrete (4,500 psi). Sidewalks shall be 5' wide minimum and 4" deep with WWF 6x6 and a 4" stone base.
- All curb and gutter shall be concrete (4,500 psi).
- All heavy duty concrete (4,500 psi) for ADA spaces or vehicular pavement shall be 8" thick with WWF 4x4 and 4" GAB.
- Asphalt pavement shall be 6" thick (2" asphalt surface course and 4" asphalt base course) with a 6" GAB.
- Heavy duty asphalt pavement for the bus loop or loading dock, shall be 6" thick (2" asphalt surface course and 4" asphalt base course) with an 8" GAB.
- All pavement shall be over an approved subgrade.

All new exterior entrances and exits will be designed to be fully accessible in compliance with the American with Disabilities Act (ADA) and MCPS accessibility standards. This standard shall be met regardless of minimum allowances provided by the International Existing Building Code (IEBC). Accessible exterior routes (walkways) surrounding the building shall be continuous and free of abrupt changes in level or interruptions.

Proposed Utilities

- Water – Water for the proposed wellness center should be pulled from the main building. It is not anticipated that an increase to the existing service would be required.
- Sanitary Sewer – The existing sanitary sewer should be reused if possible. If a new line is necessary, a new line should be connected to the sanitary on site prior to tying in to the sanitary main.
- Electric – All electric work is to be coordinated with PEPCO. It is not anticipated that the new building will require an upgrade to the electrical service.
- Stormwater Management – Disturbance over 5,000 square feet will need to meet Montgomery County Environmental Site Design (ESD) requirements
- Storm Drainage – Any new work will need to tie into the County storm drain system. Any increase in impervious would need to be checked with the existing storm drain lines to verify there is capacity for the increase in runoff. If not, there is potential that a storm water quantity control device would need to be installed.

5. DESCRIPTION OF APPROACHES *(Continued)*

Fire Access
Any new addition to the school would need to meet fire access requirements. Since there does not appear to be an existing fire access plan or fire lane order, a new addition would need to meet full requirements without exacerbating any existing non-compliant issues with the existing school. A new fire lane order needs to be provided.

MECHANICAL

Heating and Cooling Infrastructure Systems
An air-source heat pump unit system is included to support the Wellness Center approach. This type of mechanical system provides the ability to have independent heating or cooling year-round, while delivering an extremely high level of energy efficiency. In addition, the system does not require any central heating or cooling infrastructure systems, which will allow the Wellness Center to operate independently of the school, and will avoid additional strain on the school's existing heating and cooling systems. The proposed DOAS and air-source VRF systems to serve the Wellness Center will be "stand alone" and will not be served by the existing mechanical systems. Any relocated spaces will continue to be served from the building's central heating and chilled water systems.

Wellness Center HVAC Systems
A variable refrigerant flow (VRF) system, complete with heat recovery type air-source condensing units, will be utilized for space conditioning within the Wellness Center areas. Condensing units will be located on the roof and positioned near the areas served.
The use of ceiling cassette type VRF terminal units is included throughout the Wellness Center, promoting sufficient access for filter replacement. Multi-occupant spaces will be provided with 3'x3' cassettes with high efficiency (MERV 10 or higher) disposable filters. Single occupant spaces will be provided with 2'x2' cassettes with the VRF manufacturer's standard washable filter.

A rooftop Dedicated Outdoor Air System (DOAS) unit with supply and exhaust fans, enthalpy wheel for pre-conditioning outdoor air, DX heat pump coil with air-cooled compressors, hot gas reheat coil for tempering supply air, and auxiliary electric resistance heating coil will be provided to deliver conditioned ventilation airflow to the Wellness Center. Airflow supplied from this DOAS unit will be dehumidified, conditioned, and delivered directly to each space served. Exhaust airflow from treatment spaces, lab areas, restrooms, and storage room areas will be routed through the DOAS unit's enthalpy wheel for pre-conditioning of outdoor air.

Return to School Areas
Areas noted in architectural sections to be returned to school will continue to be served by the school's existing HVAC systems. Ductwork and air devices will be modified where required to serve the new program.

5. DESCRIPTION OF APPROACHES *(Continued)*

PLUMBING SYSTEMS

Domestic Water Piping Systems

Domestic water piping systems located above the adjacent corridor ceilings will be extended to serve new plumbing fixtures within the Wellness Center, relocated Art Classroom areas, and returned to school spaces. New piping will be provided with new piping supports, piping insulation, and shut-off valves throughout. All domestic water piping systems will be constructed of Type L copper, with soldered joints provided for piping 2-inches in diameter and smaller and brazed joints provided on piping 2.5-inches in diameter and larger. The existing 4-inch domestic cold water main has adequate surplus capacity to serve the Wellness Center under all design approaches presented in this study.

Sanitary and Vent Piping Systems

Sanitary and vent piping systems will be extended to serve new plumbing fixtures within the Wellness Center, relocated Art Classroom areas, and returned to school spaces. Sanitary piping in the vicinity of the area of work is generally located below grade, with vent piping located above ceilings. Existing to remain under-slab piping, serving the area of work, should be scoped during design to ensure that no blockages or other deficiencies exist that would prevent proper flow through this piping. Any deficiencies identified during scoping should be remediated through pipe snaking or selective piping replacement. New sanitary waste and vent piping systems will be constructed of solid core polyvinyl chloride (PVC).

Plumbing Fixtures

New plumbing fixtures will be provided for the Wellness Center, relocated Art Classroom areas, and returned to school spaces. Plumbing fixtures will be institutional grade and include floor-mounted water closets utilizing 1.28 gallon per flush valves, and wall-hung lavatories with hot and cold water faucets with low flow aerators. The water consumption figures noted are equal to or less than what is required by the current plumbing code and for promoting good water conservation practices. All new plumbing fixtures will be ADA compliant. All wall-mounted fixtures will be supported from fixture carriers.

5. DESCRIPTION OF APPROACHES *(Continued)*

FIRE PROTECTION SYSTEMS

Fire Detection and Alarm System

New devices will be added to the existing to remain fire detection and alarm system as required to serve the new Wellness Center. The fire detection and alarm system will comply with State of Maryland Fire Code, local authorities having jurisdiction, International Building Code, and NFPA. The existing fire alarm annunciator with graphic display located in the main entry lobby will be updated to reflect the revised floor plan. Initiation devices will include manual pull stations, smoke detectors, duct smoke detectors, heat detectors, and carbon monoxide detectors (where gas-fired equipment is used). Notification devices will include fire alarm combination speaker/strobe devices, strobes, and fire alarm speakers. The fire detection and alarm system will be connected to the lighting control system to facilitate the automatic illumination of the path of egress upon initiation of the fire alarm system.

ELECTRICAL

Electrical Service

Montgomery County Public Schools (MCPS) has provided a record of the peak demand loads for Springbrook High School for the last three years. Based on this data, the existing electrical infrastructure has sufficient capacity to support the proposed renovation without needing a new electrical service.

Power Distribution

Two (2) branch circuit panelboards will be provided in a new electrical room located in the Wellness Center to serve mechanical and receptacle loads within the space. Normal power lighting circuits will connect to existing to remain panelboards. The new electrical room will contain a dry-type transformer and the branch circuit panelboards.

Panelboards will be rated at 277/480 volts and 120/208 volts. Panelboards will have a copper bus structure. Panelboards will be sized with approximately 25 percent spare capacity and 25 percent spare breaker space. A three-phase surge protective device (SPD) will be mounted adjacent the branch circuit panel serving receptacle / plug loads. Panelboard circuit directories will be typed.
The typical dry-type transformer will be general-purpose, energy-efficient type, complying with DOE 2016, and will have a 480-volt delta primary, and 208/120-volt, three-phase, four-wire, wye secondary.

Lighting will be connected at 277 volts, single-phase. Mechanical equipment will be connected at either 120 volts, single-phase; 208 volts, single-phase; 208 volts, 3-phase; 277 volts, single-phase; or 480 volts, 3 phase, depending upon the load requirements. Motors one horsepower

5. DESCRIPTION OF APPROACHES *(Continued)*

or larger will be connected at 480 volts, 3-phase. General receptacles will be connected at 120 volts, single-phase. Each feeder and branch circuit will have a separate copper grounding conductor in the same raceway.

Rigid galvanized steel (RGS) conduit will be used in the first five feet of underground conduit extending outside of the building, under roads and paved areas where existing pavement is not to be disturbed, and for elbows penetrating floor slabs, exterior walls, or bearing walls. Intermediate metal conduit (IMC) will be used for wiring to exterior equipment. Electrical metallic tubing (EMT) will be used in interior spaces, except where RGS is required. Polyvinylchloride (PVC) conduit will be used for underground feeders and circuits, except where RGS is required. Flexible metal conduit (FMC) will be used to connect to transformers. Liquid-tight flexible metal conduit (LFMC) will be used to connect to motors and other vibrating equipment. FMC and LFMC will be limited to a maximum 6-foot length. The minimum size conduit will be 3/4 inches.

The wiring system will be copper conductors with THHN/THWN-2 insulation. MCPS allows the use of aluminum feeders for feeders 100 amperes (#2 AWG) and larger. For branch circuit wiring, Type MC cable will be allowed to be installed in concealed ceiling spaces, drywall partitions, and casework. EMT conduit will be used in rooms with open ceilings, in masonry partitions, and masonry walls.

Receptacle branch circuits will utilize #12 wiring when the run is 50 linear feet or less, #10 wiring when the run is more between 50 and 100 linear feet, and #8 wiring when the run is over 100 linear feet.

Tamper-resistant receptacles will be provided throughout to meet NEC requirements for educational facilities. Receptacle device plates will be labeled with circuit designations.

Switched / controlled receptacles will be provided to meet the IECC requirement that at least 50% of 120-volt 20-ampere receptacles in classrooms, private offices, conference rooms, work rooms, and staff break room. Switched / controlled receptacles will be connected to the lighting controls system and controlled by occupancy sensor(s) in respective room.

Generator Power

The existing generator power distribution system consisting of generator, automatic transfer switches, panelboards will remain. New circuits will be provided in existing to remain Emergency branch panelboards to serve to emergency egress lighting in corridors and exit signs. New circuits will be provided in existing to remain Optional Stand-by branch panelboards to serve refrigerators/freezers in the Wellness Center, heaters/heat trace for rooftop equipment and outdoor piping, selected receptacles in the health suite, and other devices as determined by MCPS.

5. DESCRIPTION OF APPROACHES *(Continued)*

Lighting

Luminaires (lighting fixtures) will utilize LED light sources. LED luminaires in rooms with lay-in ceilings will be recessed 2' x 2' or 2' x 4' LED luminaires. Recessed LED downlights will be used where smaller luminaires are appropriate. LED strip luminaires will be used in support spaces with open ceilings. Emergency lighting and exit signs with red lettering will be provided where required. Exit signs will be LED type.

The lighting design will comply with 2021 International Energy Conservation Code (IECC) and Maryland Green Building Council - High Performance Green Building Program. Lighting power density (LPD) will not exceed 0.61 watts per square foot, which is 15% better than 0.72 watts per square foot for a school building in the IECC. The selection of lighting fixtures for the building will be compliant with the energy code. Lighting levels will be designed in accordance with the recommendations of the Illuminating Engineering Society (IES). Maintained illumination values will be calculated using a total maintenance factor of 90 percent. The correlate color temperature (CCT) rating will be 3500 Kelvin for interior luminaires and 3000 Kelvin for exterior luminaires per MCPS requirements.

Lighting Controls

Switching of luminaires will have ON/OFF and RAISE/LOWER lighting level capability in regularly occupied spaces and will be zoned as appropriate for larger spaces. Occupancy sensors will be utilized for automatic control of both interior and exterior lighting. In addition, an astronomic time switch / time clock will be used to turn ON/OFF exterior lighting if needed.

Lighting controls will include a dedicated lighting load relay controller (to be located in accessible ceiling space near respective entrance/egress door), low-voltage lighting control stations, and ceiling occupancy sensor(s).

Occupancy sensors in offices, workrooms, seminar rooms, and storage rooms will be set to "vacancy" mode, meaning that lighting in these spaces will need to be manually turned ON via local lighting control wall station. Occupancy sensors in group toilet rooms, individual toilet rooms, vestibules, and corridors will be set to "occupancy" mode, meaning that lighting in these spaces will be automatically turned ON when occupied.

Automatic daylight controls (daylight photocell/sensor that automatically dims lighting when there is sufficient daylight in a space) for daylight harvesting will be utilized only where required per 2021 International Energy Conservation Code (IECC). Daylight harvesting will be required in rooms where there is more than 150 watts of general lighting within a sidelight or toplight daylight zones.

5. DESCRIPTION OF APPROACHES *(Continued)*

In compliance with 2021 NFPA 101 (Life Safety Code), Sections 7.8.1.2.2, 7.8.1.2.3 and A.7.8.1.2.3, where occupancy sensors are used to control lighting fixtures within the means of egress (corridors, stairs), lighting fixtures will automatically be illuminated to full output upon activation of the building fire alarm system.

In order to meet 2021 IECC, Section C405.2.7.3, for lighting setback, each exterior building-mounted luminaire will have an integral occupancy sensor to dim lighting to 50 percent lighting level when occupancy is not detected for 5 minutes.

Public Address System
The existing intercommunications/public address system headend will remain. New devices, including speakers and call switches, will be provided in the Wellness Center per MCPS standards.

Security System
The existing security systems infrastructure will remain. New devices including door access control (card readers), intrusion detection (keypads and motion detectors), and video surveillance (cameras) will be provided in the Wellness Center per MCPS standards.

Technology Infrastructure
The existing communications (data and voice) systems infrastructure will remain. New devices including wireless access points for Wi-Fi and raceway provisions for voice/data outlets and audio/visual systems will be provided in the Wellness Center per MCPS standards. A wall mounted rack may be required to serve data and voice outlets in the Wellness Center based on the distance from the nearest IT closet.

Return to School Areas
Areas noted in architectural sections to be returned to school will continue to be served by the school's existing fire alarm, power distribution, public address, and security systems. Existing to remain lighting fixtures will be modified where required to serve the new program

Add Alternates
An Add Alternate is an optional scope or design variation included in a bid that the Owner may choose to accept in addition the base bid, typically to enhance the project or to adjust costs. It allows flexibility by providing separately priced options without requiring a change to the core score. Current cost estimates indicate that construction of displaced parking spaces and areas simply being returned to the school as unprogrammed space, is not within budget. Therefore, including this scope as an Add Alternate allows the cost to be re-evaluated on bid day with actual market conditions.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 1 – *Adaptive Reuse of Existing Building*

The existing building footprint remains unchanged and there are no additions in this approach. Only spaces directly impacted due to relocation of spaces will be renovated. This approach is expected to have the lowest cost but will cause the most disruption to school operations and may displace or alter existing program spaces.

Approach 1 maintains the existing building footprint and locates the Wellness Center in a very visible location. The proposed SBWC is located at the front of the building, near the School's main entrance and near the Main Office. The location is also convenient for students entering from the School side. Interior partitions will be demolished to accommodate the proposed layout. All of the spaces listed in the Wellness Center's Program of Requirements will be provided, as seen in the graphic on the following pages, although some rooms might be undersized due to spatial constraints of fitting the program into the existing building.

Approach 1 – Pros

- The work is contained within the existing building footprint.
- The existing site and parking lot are not affected by the construction.
- Displaced spaces will be relocated within the building.
- Lower cost as this approach is only an interior renovation.
- No loss of parking.

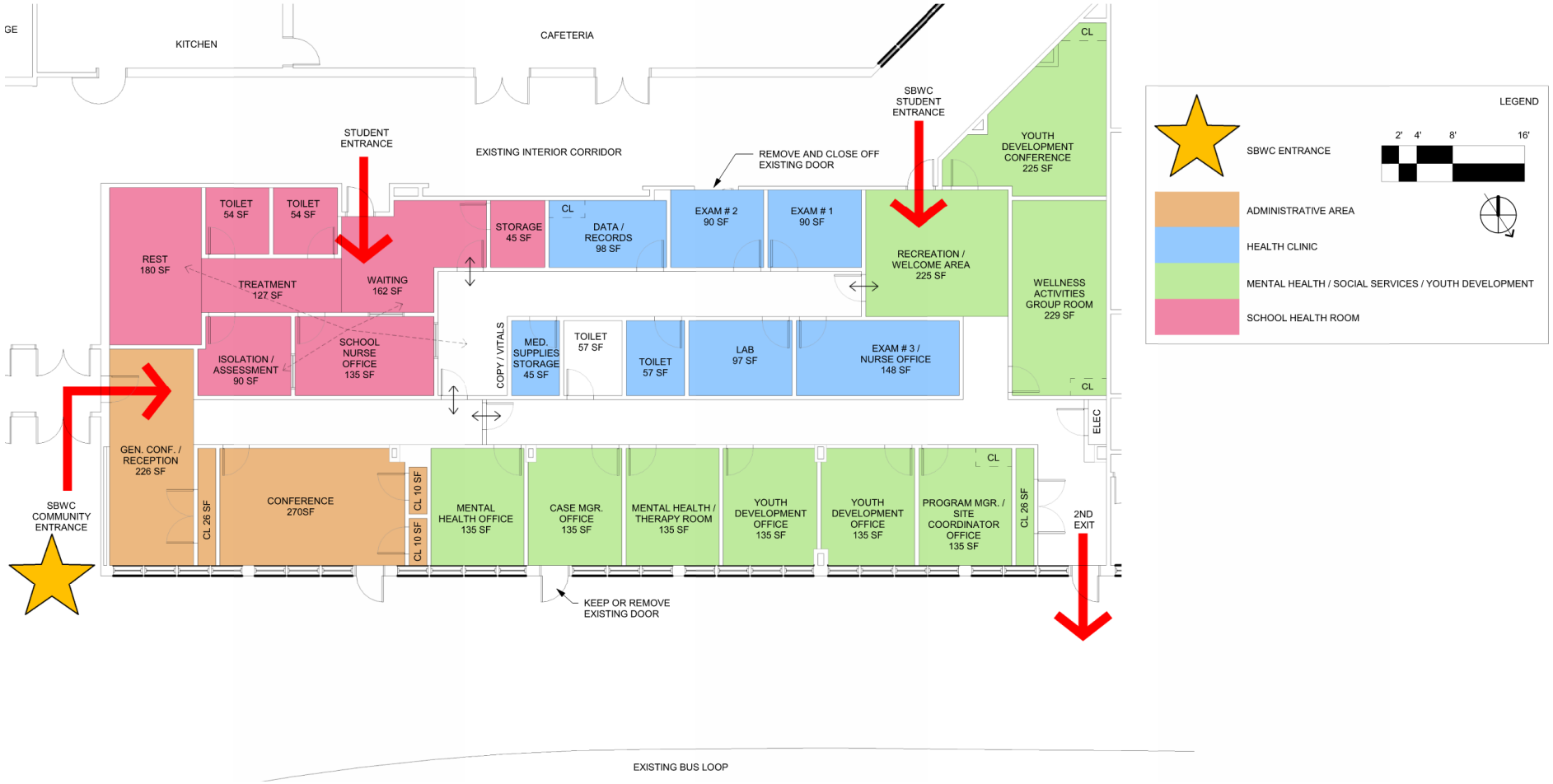
Approach 1 – Cons

- Downsides of this location include being located on the bus loop.
- Parking spaces reserved for the SBWC are farther away.
- Clients might need to navigate through pedestrian and bus traffic during bus drop-off and loading times.
- Queued buses might block visibility for visitors trying to find the SBWC entrance.
- Some spaces may be undersized.
- This will have the most disruption to school operations.
- There is a potential loss or change to existing program spaces.

This approach has three sub-approaches to accommodate the spaces displaced by the SBWC as described in the following pages.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 1 - Wellness Center Floor Plan



5. DESCRIPTION OF APPROACHES *(Continued)*

CIVIL

Approach 1 does not disturb any site features. There is potential that Department of Permitting Services (DPS) would require a Right-of-Way (ROW) maintenance permit to repair any damage to ROW elements from construction traffic. Parking for Approach 1 would be located in the parking lot to the east of the bus loop. Ten spaces will be reserved for the Wellness Center resulting in a net loss of ten parking spaces for the school. Although ADA parking and access from this location was upgraded in summer of 2023 to be ADA compliant, this approach can add two additional ADA parking spaces to accommodate the Wellness Center visitors.

STRUCTURAL

This approach is an entirely interior renovation of the existing school spaces to provide the new Wellness Center. The renovation area focuses on the ground floor of the school, generally adjacent to the main entrance and cafeteria areas. The existing spaces are primarily art rooms and a special education room that would need to be relocated. As an interior renovation, the structural scope of work is minimal. The new interior spaces of the Wellness Center should be located such that the existing steel building columns are located within interior walls as much as possible. Any new and/or replacement mechanical roof top equipment would need to be reviewed structurally to confirm that the existing roof framing has sufficient capacity to support the equipment. Miscellaneous steel channels, angles, etc. would likely be required to support any new mechanical unit curbs.

MECHANICAL

Adaptive Reuse within Existing Building – repurposes space within the existing Springbrook High School for use as a School Based Wellness Center. Any Classrooms (i.e. Art and Special Education LFI) currently occupying space proposed for the new Wellness Center will be relocated to other areas within the building. The majority of the school retains the existing mechanical, plumbing, and fire protection systems. New stand-alone mechanical systems will be provided to serve the Wellness Center. Plumbing and fire protection systems within the Wellness Center will be served from the school's existing infrastructure. Mechanical, plumbing, and fire-protection improvements included within the scope of this design approach are further summarized within this section. The work will be completed outside of the normal school-year and during the summer timeframe.

Relocated Art Classroom Areas – Ventilation and space conditioning for the relocated Art Classroom areas will be provided by the building's existing HVAC systems. Ventilation for these spaces will continue to be provided by Make-up Air Unit 1 (MU #1). Existing horizontal ducted 2-pipe fan coil units located above the ceiling of the proposed Art Classroom location will provide space conditioning. A new roof mounted exhaust fan will be provided to achieve the Art Classroom general exhaust requirements. Ductwork and air devices within the Art Classroom areas will be modified to serve the new space configuration. Revisions to branch ductwork serving MU #1 above the adjacent corridor ceiling are also anticipated to achieve the Art Classroom make-up air requirements.

5. DESCRIPTION OF APPROACHES *(Continued)*

PLUMBING SYSTEMS
Condensate drainage piping from HVAC systems shall connect to the building's existing condensate drainage system or discharge to the below grade storm water system through an indirect connection.

FIRE PROTECTION SYSTEMS
The building's existing sprinkler system will continue to serve the Wellness Center, relocated Art Classroom areas, and returned to school spaces. New sprinkler heads and branch piping will be provided to accommodate the revised space configuration. All work will be specified to conform to standards of the National Fire Protection Association (NFPA) and will include requirements for performance verification through hydraulic calculations.

ELECTRICAL
Adaptive Reuse within Existing Building – repurposes space within the existing Springbrook High School for use as a School Based Wellness Center. Art Classrooms currently occupying space proposed for the new Wellness Center will be relocated to other areas within the building. The majority of the school's existing electrical distribution equipment, lighting fixtures, lighting controls, receptacles, voice/data system, public address system, and security system components will remain.

Panelboards serving the Wellness Center will be served from the school's existing power distribution infrastructure. In addition to the power distribution system, the existing fire detection and alarm system, public address system, and security systems (door access control, intrusion detection, video surveillance) will be modified as described below to serve the renovated spaces. New lighting fixtures and lighting controls will be provided throughout the Wellness Center. The work will be completed outside of the normal school-year and during the summer timeframe.

The electrical design will comply with applicable codes, regulations, standards, and authorities having jurisdiction.

Exterior full-cutoff dark-sky compliant LED building-mounted luminaires will be provided. Exterior luminaires will include building-mounted luminaires around the perimeter of the building. Luminaires will be located so as not to exceed the maximum lighting levels beyond the property line. The finish of exterior luminaires will be selected by the Architect.

Relocated Art Classroom Areas – The existing fire detection and alarm system, power distribution equipment, public address system, and security systems will be modified as required to support the relocated Art Classroom areas. New lighting fixtures, lighting controls, and receptacles will be provided as required to serve the new space configuration. Power connections will be provided to the new exhaust fan serving the spaces. Existing to remain lighting fixtures, public address system speakers, fire alarm devices, and wireless access points in the adjacent corridor ceiling will be removed and reinstalled as necessary to complete the modifications to the ductwork above the ceiling.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 1.1

As illustrated in the graphic on the next page, two art classrooms, with accompanying storage and office, and one Special Education LFI Classroom are displaced.

One of these art classrooms is recouped by resizing Room B109 (Art/Digital Art). The second art classroom is recouped in Room B105; the two Special Education LFI Classrooms currently in Room B105 are relocated to World Languages Classroom F102 and Technology Classroom F215. LFI Classroom B101 is relocated to the combined F114/F116 location. Existing Speech, World Languages Workroom, and World Languages Office will be shifted into the existing Bridge to Wellness spaces.

The existing School Health Room spaces are returned to the school, renovated as an Add Alternate in this project, or addressed in a future Building Modifications and Program Improvements (BMPI) project. If MCPS elects to have these spaces identified as an Add Alternate (identifying any demolition/renovation work within the scope of the construction project, but clearly identified separately for easy inclusion or exclusion), the work can be bid upon and selected if construction funds are available.

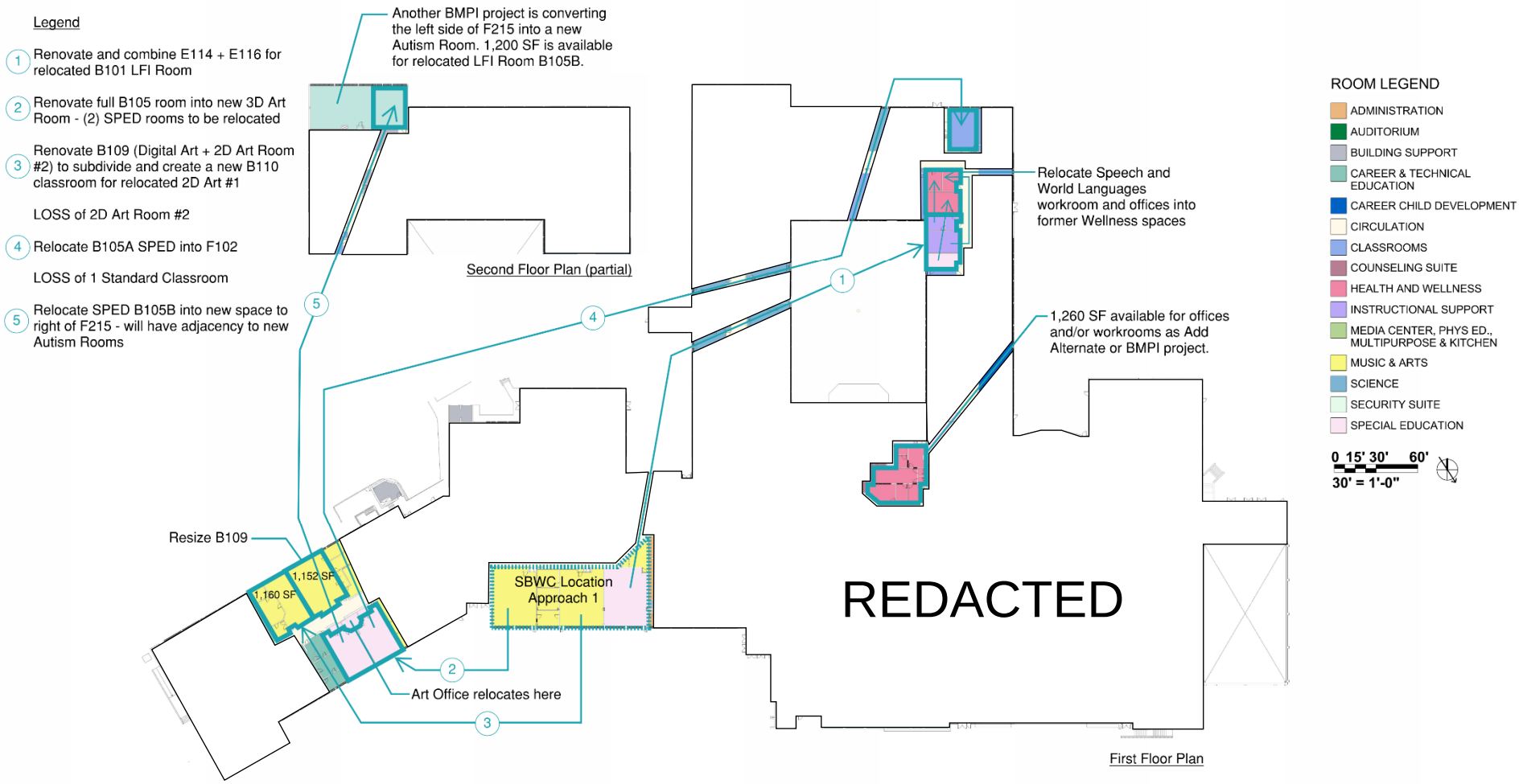
The spaces displaced in this approach are relocated with good adjacencies to their departments. The special education spaces are closer to other special education spaces, and the art classrooms remain close to the Art Department.

The net result is a loss of one Standard Classroom. There is also a reduction to the Art Department due to Room B109 being resized to receive one of the relocated art classrooms. Existing Room B109 serves the Art department in several capacities simultaneously. The room is a large room and has space for computer stations; simultaneously the room functions as a “wet” art space. Typically, the educational specifications would provide two separate spaces, one room for computers and a second room for wet art programs. The large open layout of Room B109 allows the computer stations to be safely located away from any wet activities. Reconstructed spaces, such as art rooms, special education rooms, teacher workrooms, will be designed to meet the MCPS Educational Specifications. All systems, equipment, and finishes shall meet the MCPS Educational Specifications.

This sub-approach involves the following art rooms: 3D Art, 2D Art, and the Art/Digital Art classrooms. Room B109 can be resized to align with the Educational Specification of approximately 950 sf. The relocated 2D Art room can be approximately 1,075 sf; the Educational Specification calls for the Studio Art room to be 1,300 sf, which results in the space being 17% undersized. The 3D Art room can be relocated into Room B105; this provides approximately 1,486 sf of space; the Educational Specifications calls for the Ceramic/Sculpture room to be 1,500 sf, which results in the space being 1% undersized.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 1.1 - Proposed Relocation of Displaced Spaces



5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 1.2

As illustrated in the graphic on the following page, two art classrooms, with accompanying storage and office, and one Special Education LFI Classroom are displaced.

One of these art classrooms is recouped by resizing Room B108 (Cisco Lab). The second art classroom is recouped in Room B105; the two special education classrooms currently in Room B105 are relocated to World Languages Classroom F102 and Technology Classroom F215. LFI Classroom B101 is relocated to the combined F114/F116 location. Existing Speech, World Languages Workroom, and World Languages Office will be shifted into the existing Bridge to Wellness spaces.

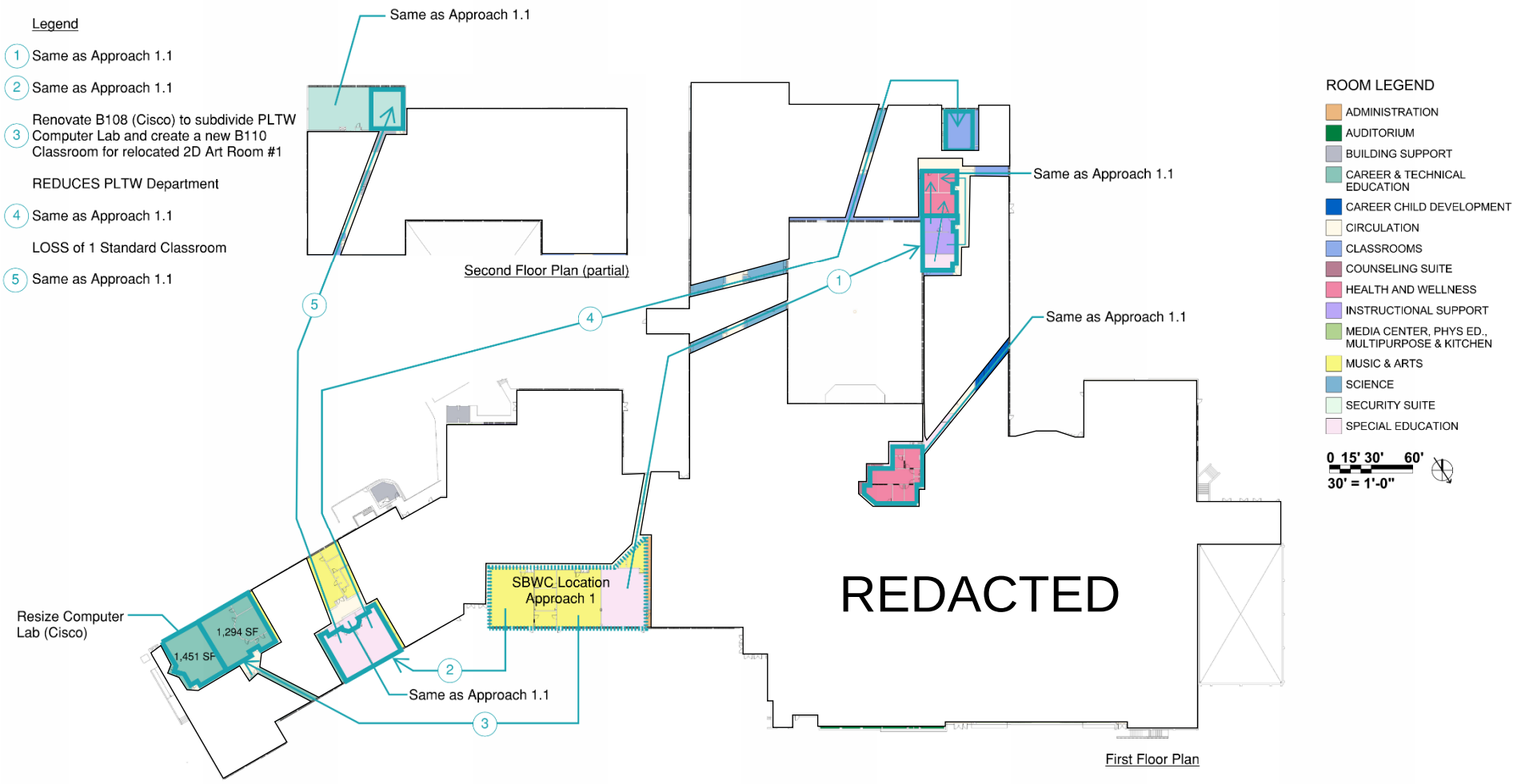
The existing School Health Room spaces are returned to the school, or renovated as an Add Alternate in this project, or addressed in a future BMPI project. If MCPS elects to have these spaces identified as an Add Alternate (identifying any demolition/renovation work within the scope of the construction project, but clearly identified separately for easy inclusion or exclusion), the work can be bid upon and selected if construction funds are available.

The spaces displaced in this approach are relocated with good adjacencies to their departments.

The net result is a loss of one Standard Classroom. There is also a reduction to the PLTW (Project Lead the Way) Department due to Cisco Computer Lab Room B108 being resized to receive one of the relocated art classrooms. Room 108 can be resized to approximately 1,388 sf, and the relocated 2D Art room will be approximately 1,295 sf. At 1,388 sf the Cisco Computer Lab will be 146% of the specified PLTW Computer Lab size. At 1,295 sf, the 2D Art room will be within 1% of the specified Studio Art room size. Reconstructed spaces, such as art rooms, special education rooms, teacher workrooms, will be designed to meet the MCPS Educational Specifications. All systems, equipment, and finishes shall meet the MCPS Educational Specifications. This sub-approach involves the following art rooms: 3D Art and 2D Art classrooms.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 1.2 - Proposed Relocation of Displaced Spaces



5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 1.3

As illustrated on the following page, two art classrooms, with accompanying storage and office, and one Special Education LFI Classroom are displaced.

One of these art classrooms is recouped by resizing Room B109 (Art/Digital Art). The second art classroom is recouped in Room B105; one of the two special education classrooms currently in Room B105 is relocated to Room F215 (Technology Classroom). Room B108 (Cisco Computer Lab) is resized to create space for the second special education classroom from Room B105. LFI Classroom B101 is relocated to the combined F114/F116 location. Existing Speech, World Languages Workroom, and World Languages Office will be shifted into the existing Bridge to Wellness spaces.

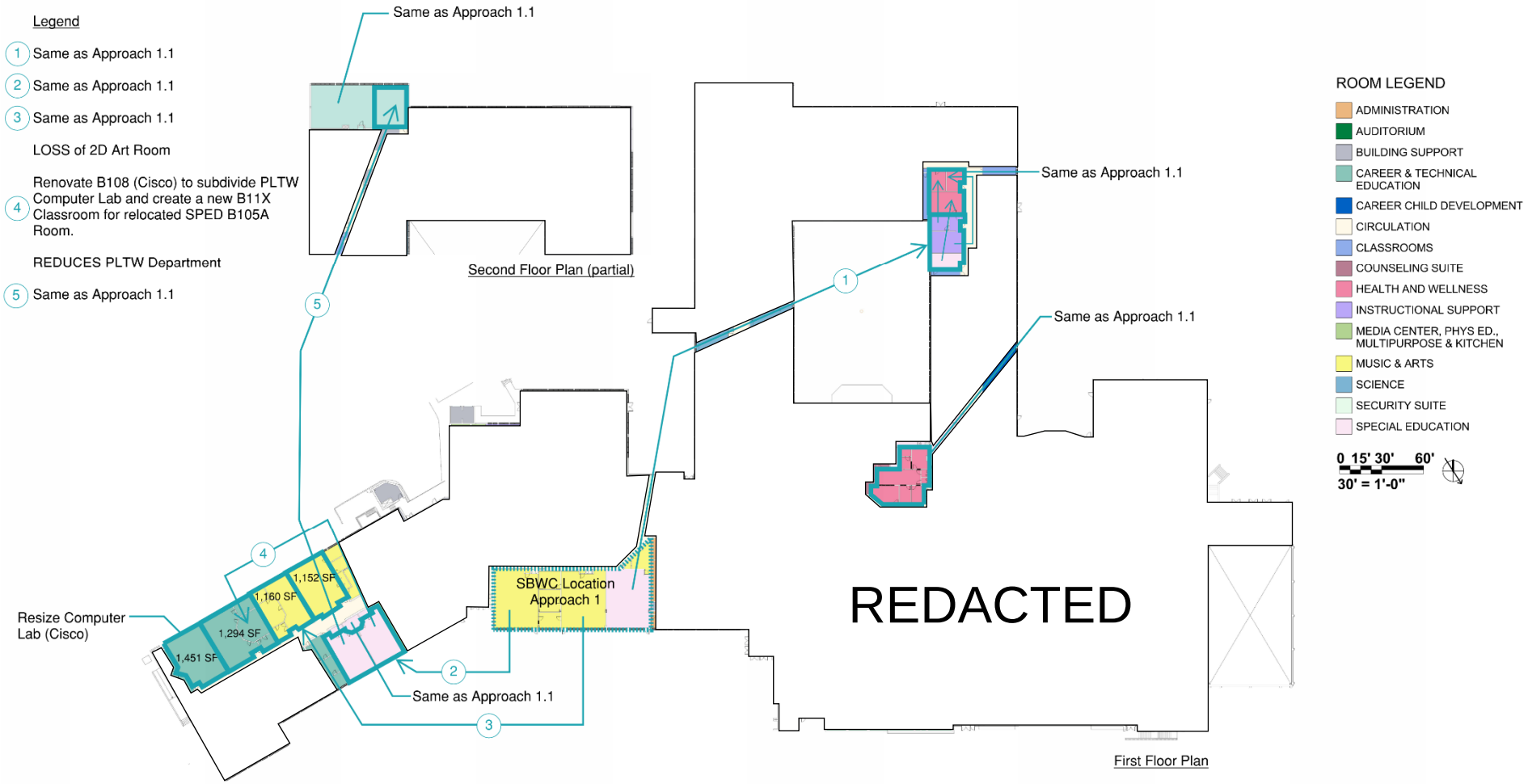
The existing School Health Room spaces are returned to the school, or renovated as an Add Alternate in this project, or addressed in a future BMPI project. If MCPS elects to have these spaces identified as an Add Alternate (identifying any demolition/renovation work within the scope of the construction project, but clearly identified separately for easy inclusion or exclusion), the work can be bid upon and selected if construction funds are available.

Most of the spaces displaced in this approach are relocated with good adjacencies to their departments; however, one special education classroom remains isolated in the new B108 location.

The net result is a reduction to the PLTW Department due to Room B108 being resized to receive one of the displaced special education classrooms. There is also a reduction to the Art Department due to Room B109 being resized to receive one of the displaced art classrooms. Currently, Room B109 serves the Art department in several capacities simultaneously. The room is a large room and has space for computer stations; simultaneously the room functions as a “wet” art space. Typically, the educational specifications would provide two separate rooms, one room for computers and a second room for wet art programs. The large open layout of Room B109 allows the computer stations to be safely located away from any wet activities. Reconstructed spaces, such as art rooms, special education rooms, teacher workrooms, will be designed to meet the MCPS Educational Specifications. All systems, equipment, and finishes shall meet the MCPS Educational Specifications. This sub-approach involves the following art rooms: 3D Art, 2D Art, and the Art/Drafting/Computers classrooms.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 1.3 - Proposed Location of Displaced Spaces



5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 2 – *Partial Program Addition*

Approach 2, as seen in the graphic on the following page, locates some of the SBWC within the existing building footprint and involves an addition to complete the Wellness Center. This approach meets the program needs and improves internal adjacencies, although it requires some site work to accommodate the changes.

This location is very visible upon entering the site; it is directly adjacent to parking, and farther away from the bus loop, to minimize interference with buses and students. Existing PLTW Room B108 will be resized to create space for the displaced PLTW Room B107. The existing exit corridor remains available for the school to use. The existing School Health Room spaces are returned to the school, or renovated as an Add Alternate in this project, or addressed as a future BMPI project. If MCPS elects to have these spaces identified as an Add Alternate (identifying any demolition/renovation work within the scope of the construction project, but clearly identified separately for easy inclusion or exclusion), the work can be bid upon and selected if construction funds are available. Reconstructed/resized spaces, such as art rooms, special education rooms, teacher workrooms, and PLTW Rooms will be designed to meet the MCPS Educational Specifications. All systems, equipment, and finishes shall meet the MCPS Educational Specifications.

Approach 2 – Pros

- Potential disruption to the school's daily activities will be minimized, as construction activities will occur at the end of the wing, and will mostly be confined to one side of the corridor.
- There is minimal relocation of existing spaces.
- The existing exit corridor remains available for the school to use.
- The new entrance/exits for the SBWC are strategically placed to maintain an open sidewalk at the front and end of the building.

Approach 2 – Cons

- Downsides of this location include the SBWC, including the School Health Room, being located at the end of a long corridor.
- The PLTW Department will be reconfigured slightly, yet will retain its consolidated location.
- This approach includes an addition which will impact the existing parking lot.
- The curb line and striped parking along the front of the building is maintained, however parking spaces are lost at the east end of the building.
- Constructing an addition will likely trigger storm water management requirements.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 2 - Wellness Center Floor Plan

5. DESCRIPTION OF APPROACHES *(Continued)*

CIVIL

The partial demolition/addition for Approach 2 expands the eastern edge of the school building. The addition impacts a small parking loop of 33 parking spaces; fourteen parking spaces will remain after the addition is completed. Ten of those spaces will be reserved for the Wellness Center. This results in a net loss of 29 parking spaces.

The location of the addition allows the existing building's corridor exit to remain untouched for egress. The Wellness Center will have two exterior doors. The main entrance will be via a ramp and stair on the east end of the addition. A secondary exit will be located on the west end of the Wellness Center behind the sidewalk adjacent the special education drop off zone also with a ramp and stair.

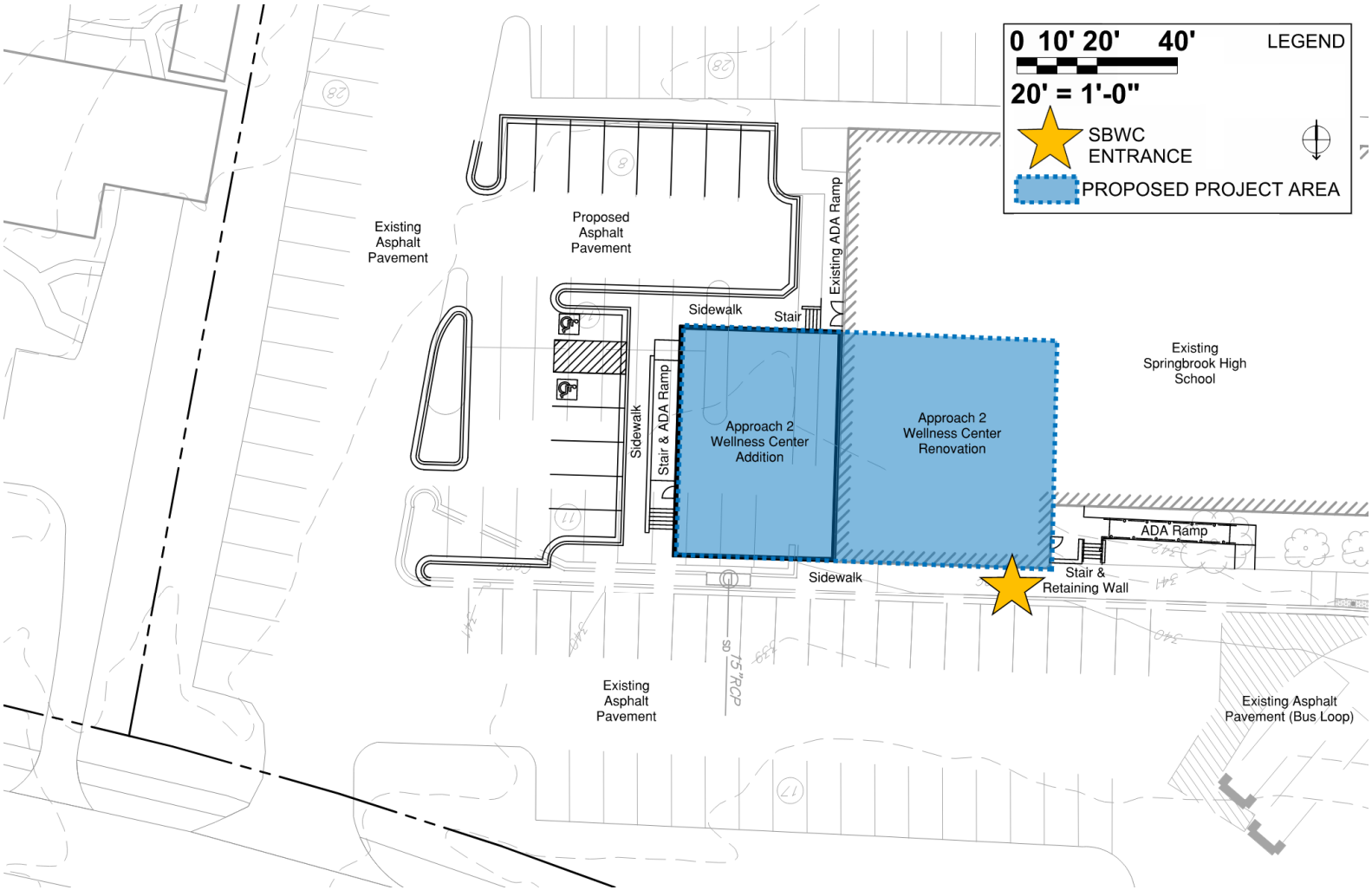
Emergency vehicles have enough space to pull up to the parking areas. Access for emergency personnel will be via the ramped access as necessary.

The total disturbance for this work will be greater than 5,000 sf. Therefore, the project will be required to go through stormwater management (SWM), erosion and sediment control (ESC), and forestry permitting. It is anticipated that in lieu of treating the new building addition for stormwater management, treatment of the existing parking areas and drive aisles will be acceptable as that will provide greater environmental benefit to the receiving waters. This is typically acceptable by DPS. The SWM approach for this Design Approach is to place a micro-bioretention north of the special education drop off in the grass space adjacent the right-of-way. There is an existing storm drainage system nearby to tie the underdrain and overflow riser into.

There is an existing light pole in the parking area that may need to be relocated to accommodate the addition.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 2 - Enlarged Site Plan



5. DESCRIPTION OF APPROACHES *(Continued)*

STRUCTURAL

This approach is a partial renovation of existing interior space as well as constructing a 2,300 sqft. addition. The addition would be located adjacent to the single-story existing addition area built in 1992. The interior renovation portion would be primarily in room B107, which would need to be relocated.

The new addition would be a single-story structure, approximately 37 ft. by 58 ft. in plan. The roof would be framed with 28 inch deep open-web steel joists at about 5 ft. on-center that would span the 58 ft. dimension of the building, similar to the adjacent 1992 addition structure roof. The roof deck would be 1½ inch metal roof deck. Load bearing CMU walls would support the joist framing. If significant amounts of glass window are required at the façade, then steel beams and columns may be required to support the roof joists. It is assumed that the walls (or columns) would be supported on concrete spread footings, similar to the adjacent 1992 addition foundation. The floor would be a 5" thick slab-on-grade. The lateral system for the addition structure would be CMU shear walls. An expansion joint between the addition and existing building would be required to isolate the new addition lateral system from the existing building lateral system.

In order to allow the interior renovation portion and new addition portion to be combined, portions of the existing exterior CMU and brick wall of the building need to be demolished. The existing wall supports only about 3 ft. of the existing roof; therefore, temporary shoring would likely not be required.

Any new and/or replacement mechanical roof top equipment would need to be reviewed structurally to confirm that the existing roof framing has sufficient capacity to support the equipment. Miscellaneous steel channels, angles, etc. would likely be required to support any new mechanical unit curbs.

MECHANICAL

Partial Program Addition – repurposes space within the existing Springbrook High School and includes a small addition for use as a School Based Wellness Center. A Project Lead the Way (PLTW) classroom currently occupying space proposed for the new Wellness Center will be relocated to another area within the building. The majority of the school retains the existing mechanical, plumbing, and fire protection systems. New stand-alone mechanical systems will be provided to serve the Wellness Center. Plumbing and fire protection systems within the Wellness Center will be served from the school's existing infrastructure. Mechanical, plumbing, and fire-protection improvements included within the scope of this design approach are further summarized within this section. The work will be completed outside of the normal school-year and during the summer timeframe.

5. DESCRIPTION OF APPROACHES *(Continued)*

Relocated PLTW Classroom – Ventilation and space conditioning for the relocated PLTW Classroom will be provided by the building's existing HVAC systems. Ventilation for this space will continue to be provided by Make-up Air Unit 1 (MU #1). Existing horizontal ducted 2-pipe fan coil units located above the ceiling of the proposed PLTW Classroom location will provide space conditioning. Ductwork and air devices within the PLTW Classroom area will be modified to serve the new space configuration.

PLUMBING

Condensate drainage piping from HVAC systems shall connect to the building's existing condensate drainage system or discharge to the below grade storm water system through an indirect connection.

FIRE PROTECTION SYSTEMS

The building's existing sprinkler system will be extended to serve the Wellness Center, and will continue to serve the relocated PLTW Classroom, and returned to school spaces. New sprinkler heads and branch piping will be provided to accommodate the revised space configuration. All work will be specified to conform to standards of the National Fire Protection Association (NFPA) and will include requirements for performance verification through hydraulic calculations.

ELECTRICAL

Partial Program Addition – repurposes space within the existing Springbrook High School and includes a small addition for use as a School Based Wellness Center. A Project Lead the Way (PLTW) classroom currently occupying space proposed for the new Wellness Center will be relocated to another area within the building. The majority of the school's existing electrical distribution equipment, lighting fixtures, lighting controls, receptacles, voice/data system, public address system, and security system components will remain.

Panelboards serving the Wellness Center will be served from the school's existing power distribution infrastructure. In addition to the power distribution system, the existing fire detection and alarm system, public address system, and security systems (door access control, intrusion detection, video surveillance) will be modified as described below to serve the renovated spaces. New lighting fixtures and lighting controls will be provided to throughout the Wellness Center. The work will be completed outside of the normal school-year and during the summer timeframe.

The electrical design will comply with applicable codes, regulations, standards, and authorities having jurisdiction.

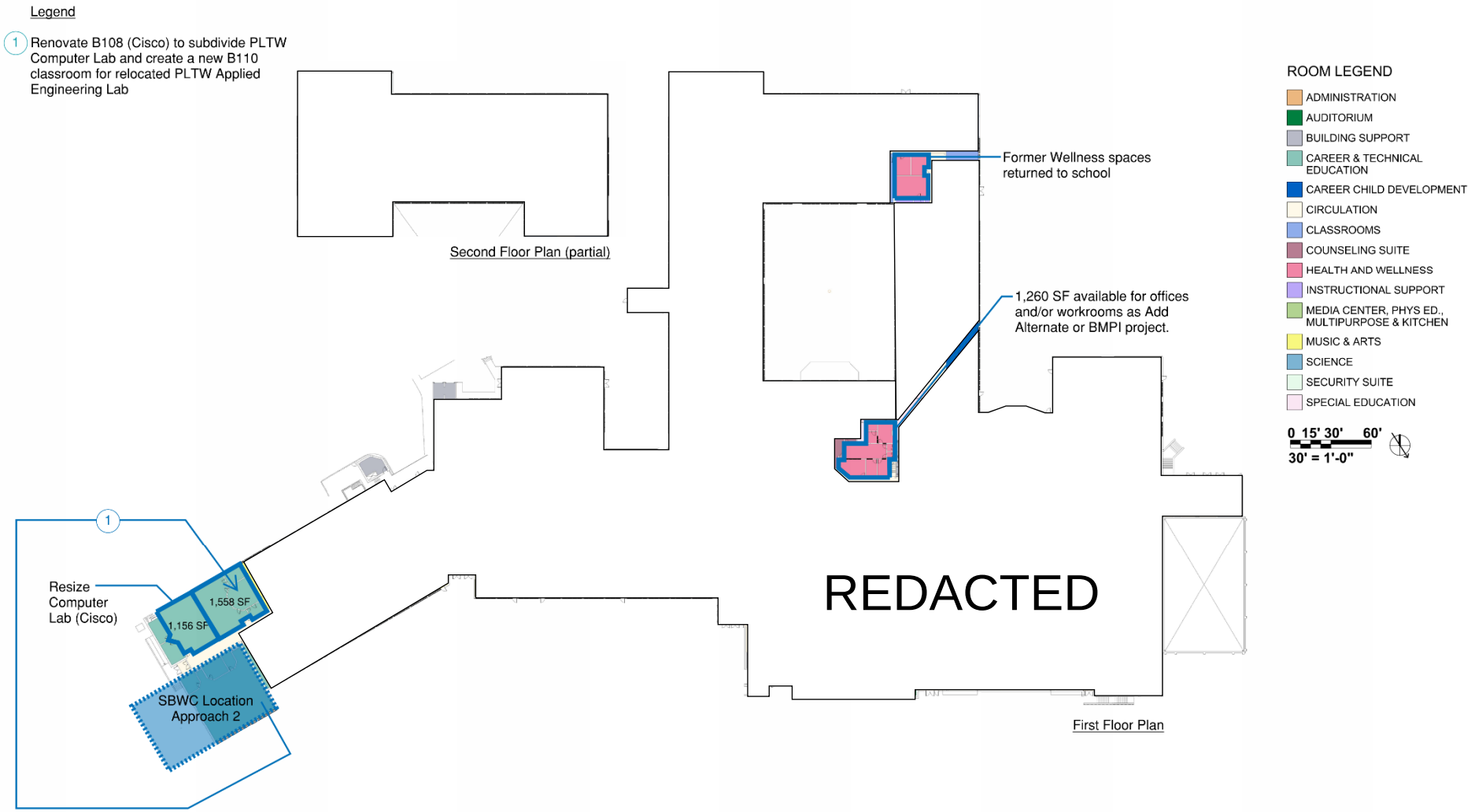
Exterior full-cutoff dark-sky compliant LED building-mounted luminaires will be provided. Exterior luminaires will include building-mounted luminaires around the perimeter of the building. Luminaires will be located so as not to exceed the maximum lighting levels beyond the property line. The finish of exterior luminaires will be selected by the Architect.

5. DESCRIPTION OF APPROACHES *(Continued)*

Relocated PLTW Classroom – The existing fire detection and alarm system, power distribution equipment, public address system, and security systems will be modified as required to support the relocated PLTW Classroom. New lighting fixtures, lighting controls, and receptacles will be provided as required to serve the new space configuration. Power connections will be provided to the new exhaust fan serving the spaces.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 2 - Proposed Location of Displaced Spaces



5. DESCRIPTION OF APPROACHES *(Continued)*

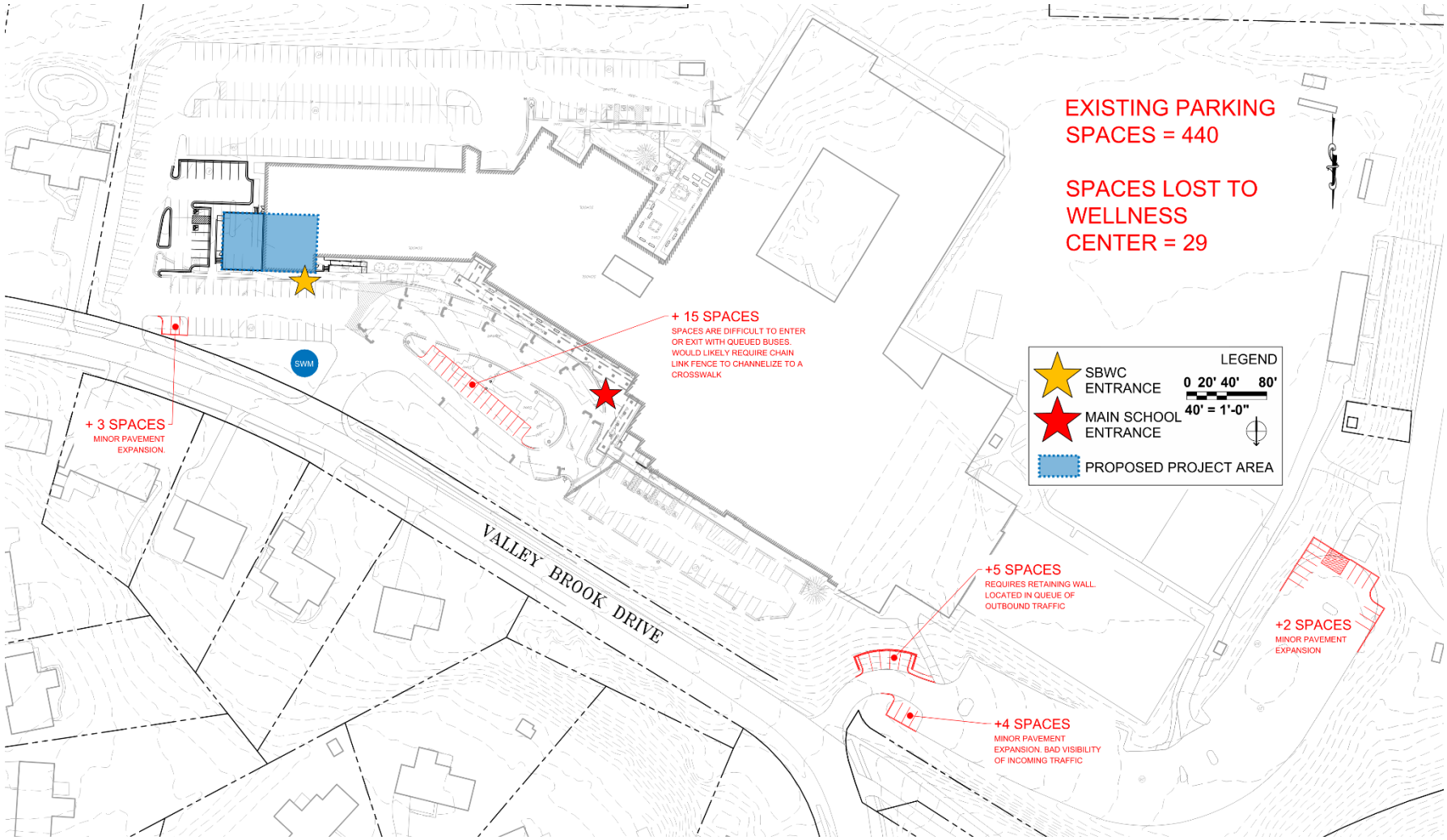
Approach 2 – Add Alternate

An Add Alternate identifies potential locations to gain parking spaces around the site. Some of these locations might involve site features such as retaining walls. Including additional parking spaces and site features to the project will involve added costs that may not be able to be constructed within the current budget established at this time.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 2 - Possible Locations for Parking (Add Alternate)

REDACTED



5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 3 – *Full Program Addition*

Design Approach 3 includes all the SBWC within an addition. This approach minimizes disruption to existing school operations and fully meets or exceeds the program requirements, but it comes at the highest cost.

The existing School Health Room and the existing Bridge to Wellness spaces are relocated to the addition; the layout of the existing School Health Room and Bridge to Wellness spaces will remain as is. The existing spaces are returned to the school, included in this project as a renovation Add Alternate, or addressed as a future BMPI project. If MCPS elects to have these spaces identified as an Add Alternate (identifying any demolition/renovation work within the scope of the construction project, but clearly identified separately for easy inclusion or exclusion), the work can be bid upon and selected if construction funds are available.

Approach 3 – Pros

- No other existing spaces are displaced, relocated, or resized.
- All spaces within the SBWC will be within 10% of the Program of Requirements.
- This location is very visible upon entering the site.
- The addition is set back from the front of the building which allows for a small parking lot in front of the SBWC.
- The existing exit corridor will be extended through the addition, so that the school can maintain exiting.
- Exterior steps/ramp will provide and maintain access to the front of the building and the bus loop.
- Accessible pedestrian access will be provided around the addition.
- There will be minimal disruption to internal school operations.

Approach 3 – Cons

- Constructing this full program addition will trigger storm water management requirements.
- Loss of 33 parking spaces.
- This is the most expensive approach.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 3 - Wellness Center Floor Plan

5. DESCRIPTION OF APPROACHES *(Continued)*

CIVIL

The full addition for Approach 3 also expands the eastern edge of the school building. The addition impacts the same small parking loop of 33 parking spaces. Eight parking spaces will remain after the addition is completed. All 8 of those spaces will be reserved for the Wellness Center. This results in a net loss of 33 parking spaces for the school.

The location of the addition blocks the existing building's corridor exit. That will require an additional exit from the school corridor to be included in the addition. The Wellness Center will have two dedicated exterior doors. The main entrance will be via a ramp and stair on the northeast corner of the addition. A secondary exit will be located on the south side of the addition via stair and ramp. Due to the finished floor elevation of the building being higher than the existing parking grades, a wall will be required to connect the corridor exit and the Wellness Center main entrance to be able to access the ADA ramp.

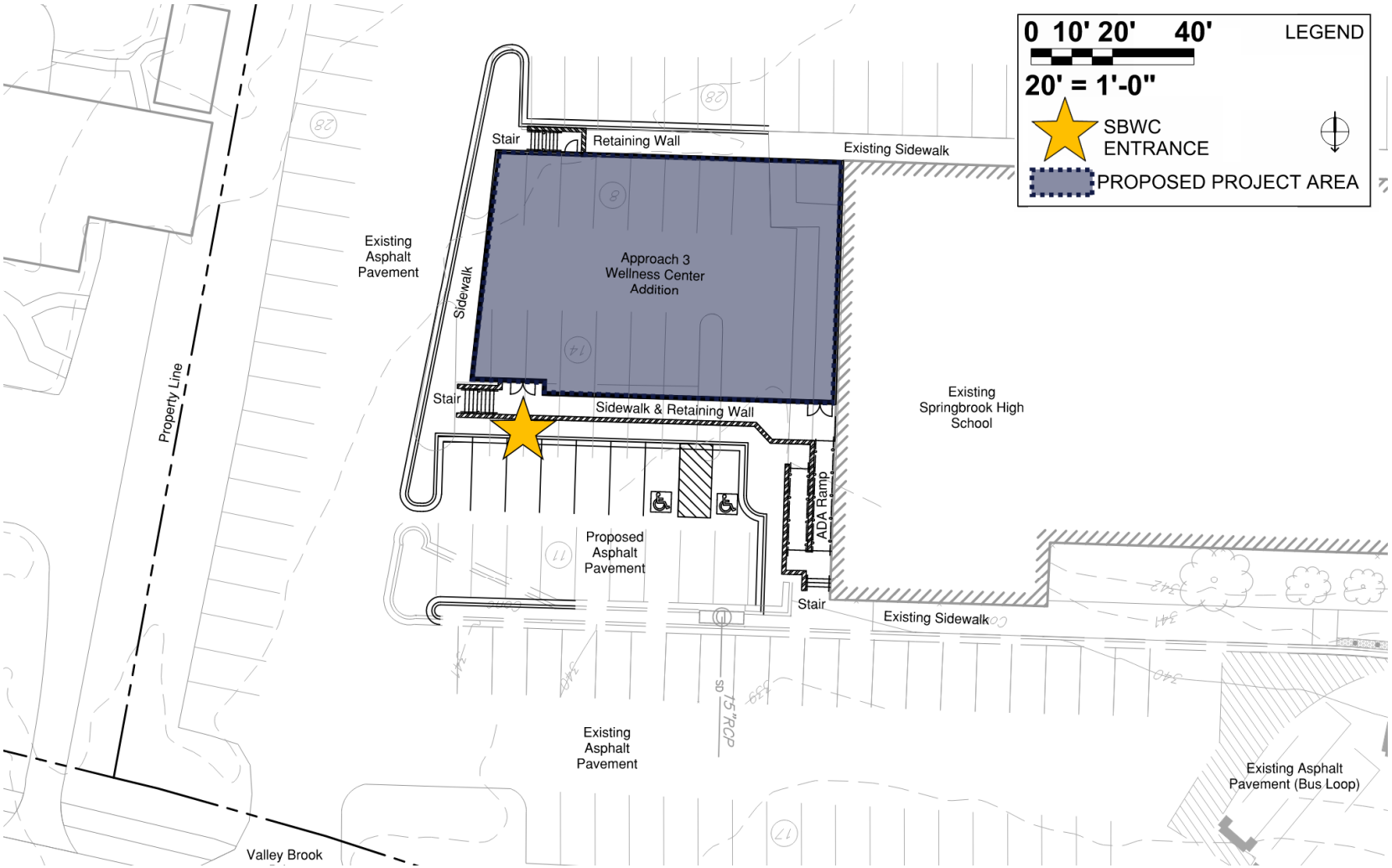
Emergency vehicles have enough space to pull up to the parking area. Access for emergency personnel will be via the ramped access as necessary.

The total disturbance for this work will be greater than 5,000 sf. Therefore, the project will be required to go through SWM, ESC, and forestry permitting. It is anticipated that in lieu of treating the new building addition, treatment of the existing parking areas and drive aisles will be acceptable as that will provide greater environmental benefit to the receiving waters. The SWM approach for this option is to place a micro-bioretention north of the special education drop off in the grass space adjacent the right-of-way. There is also space to place an additional facility in the grass area to the north of the bus loop if an additional SWM facility is required. There is an existing storm drainage system nearby to tie the underdrain and overflow riser into.

There is an existing light pole in the parking area that may need to be relocated to accommodate the addition.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 3 - Enlarged Site Plan



5. DESCRIPTION OF APPROACHES *(Continued)*

STRUCTURAL

This approach involves constructing an approximate 5,377 SF. addition. No significant interior renovation is included in this approach. The addition would be located adjacent to the single-story existing addition area built in 1992. The new addition would be a single-story structure, approximately 86 ft. by 65 ft. in plan. The roof would be framed with 28 inch deep open-web steel joists at about 5 ft. on-center that would span the 68 ft. dimension of the building. An interior CMU bearing wall would be needed to divide the joist spans into approximately equal parts. Steel beams parallel to the interior bearing wall would be required over corridors and open areas, such as the conference room and welcome area. The roof deck would be 1½ inch metal roof deck. Exterior load bearing CMU walls would support the joist framing as well. If significant amounts of glass window are required at the façade, then steel beams and columns may be required to support the roof joists. It is assumed that the walls would be supported on concrete spread footings, similar to the adjacent 1992 addition foundation. The floor would be a 5" thick slab-on-grade. The lateral system for the addition structure would be CMU shear walls. An expansion joint between the addition and existing building would be required to isolate the new addition lateral system from the existing building lateral system.

Any new and or replacement mechanical roof top equipment would need to be reviewed structurally to confirm that the existing roof framing has sufficient capacity to support the equipment. Miscellaneous steel channels, angles, etc. would likely be required to support any new mechanical unit curbs

MECHANICAL

Full Program Addition –includes an addition to the existing building for use as a School Based Wellness Center. The school retains the existing mechanical, plumbing, and fire protection systems. New stand-alone mechanical systems will be provided to serve the Wellness Center addition. Plumbing and fire protection systems within the Wellness Center will be served from the school's existing infrastructure. Mechanical, plumbing, and fire-protection improvements included within the scope of this design approach are further summarized within this section. The work will be completed outside of the normal school-year and during the summer timeframe.

PLUMBING

Domestic water piping systems located above the adjacent corridor ceilings will be extended to serve new plumbing fixtures within the Wellness Center and returned to school spaces. New piping will be provided with new piping supports, piping insulation, and shut-off valves throughout. All domestic water piping systems will be constructed of Type L copper, with soldered joints provided for piping 2-inches in diameter and smaller brazed joints provided on piping 2.5-inches in diameter and larger.

Condensate drainage piping from HVAC systems shall discharge to the below grade storm water system through an indirect connection.

5. DESCRIPTION OF APPROACHES *(Continued)*

FIRE PROTECTION SYSTEMS

The building's existing sprinkler system will be extended to serve the Wellness Center and will continue to serve the returned to school spaces. New sprinkler heads and branch piping will be provided to accommodate the revised space configuration. All work will be specified to conform to standards of the National Fire Protection Association (NFPA) and will include requirements for performance verification through hydraulic calculations.

ELECTRICAL

Full Program Addition –includes an addition to the existing building for use as a School Based Wellness Center. The majority of the school's existing electrical distribution equipment, lighting fixtures, lighting controls, receptacles, voice/data system, public address system, and security system components will remain.

Panelboards serving the Wellness Center will be served from the school's existing power distribution infrastructure. In addition to the power distribution system, the existing fire detection and alarm system, public address system, and security systems (door access control, intrusion detection, video surveillance) will be modified as described below to serve the new addition. New lighting fixtures and lighting controls will be provided throughout the Wellness Center. The work will be completed outside of the normal school-year and during the summer timeframe.

The electrical design will comply with applicable codes, regulations, standards, and authorities having jurisdiction.

Exterior full-cutoff dark-sky compliant LED building-mounted luminaires will be provided. Exterior luminaires will include building-mounted luminaires around the perimeter of the building, and pole-mounted luminaires for parking, drop-off, and bus loop. Luminaires will be located so as not to exceed the maximum lighting levels beyond the property line. The finish of exterior luminaires will be selected by the Architect.

5. DESCRIPTION OF APPROACHES *(Continued)*

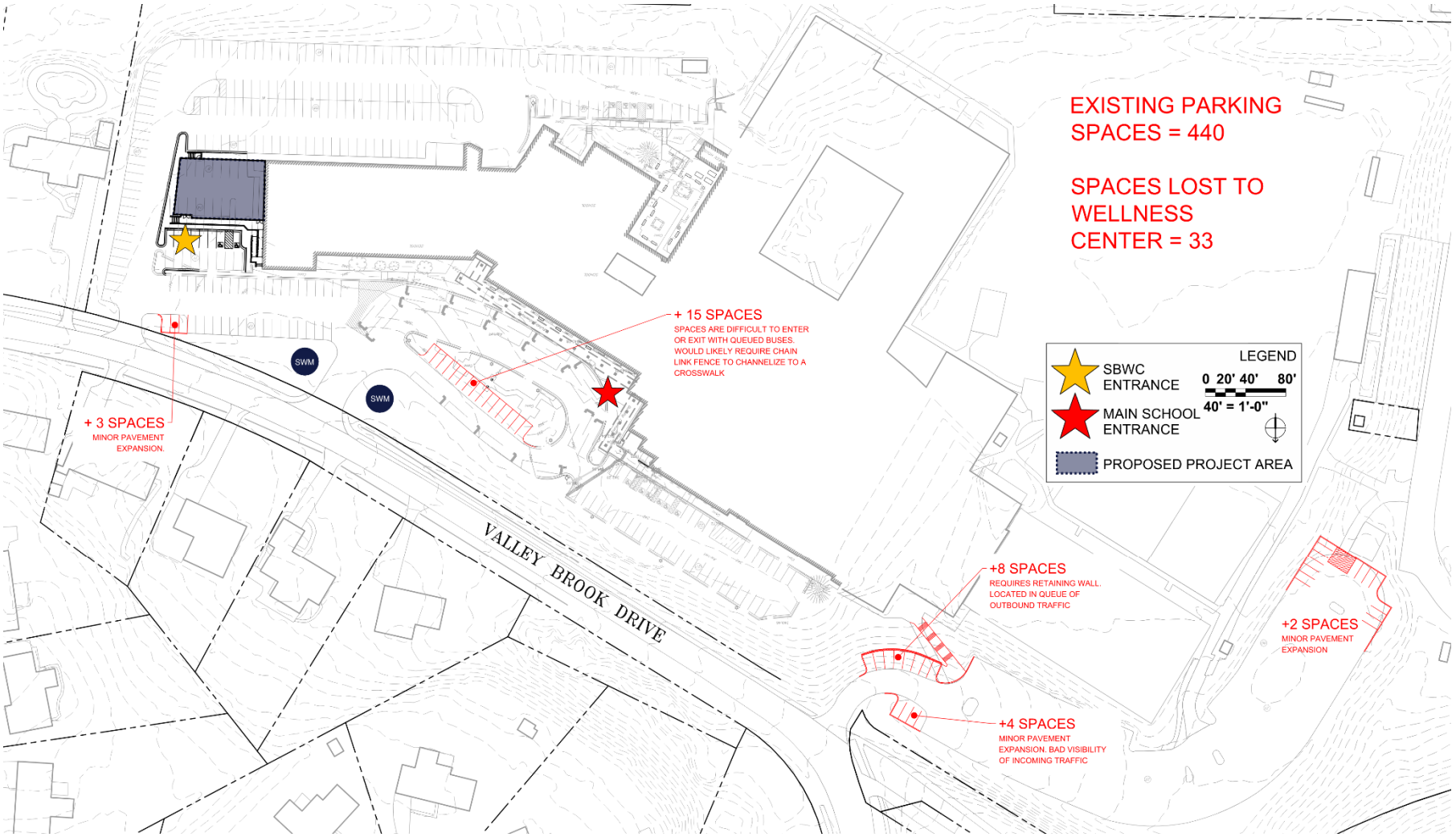
Approach 3 – Add Alternate

An Add Alternate identifies potential locations to gain parking spaces around the site. Some of these locations might involve site features such as retaining walls. Including additional parking spaces and site features to the project will involve added costs.

5. DESCRIPTION OF APPROACHES *(Continued)*

Approach 3 - Possible Locations for Parking (Add Alternate)

REDACTED



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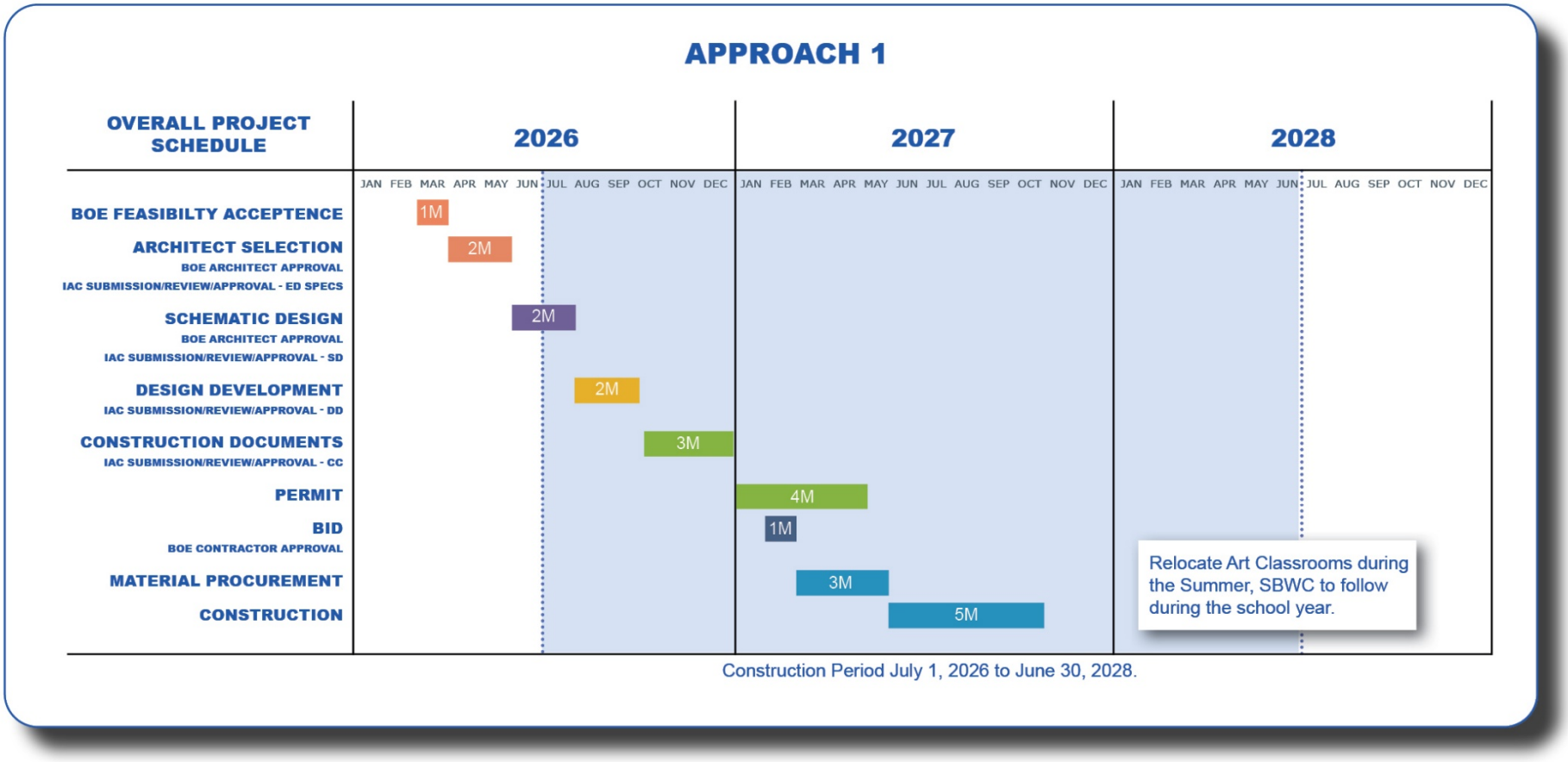
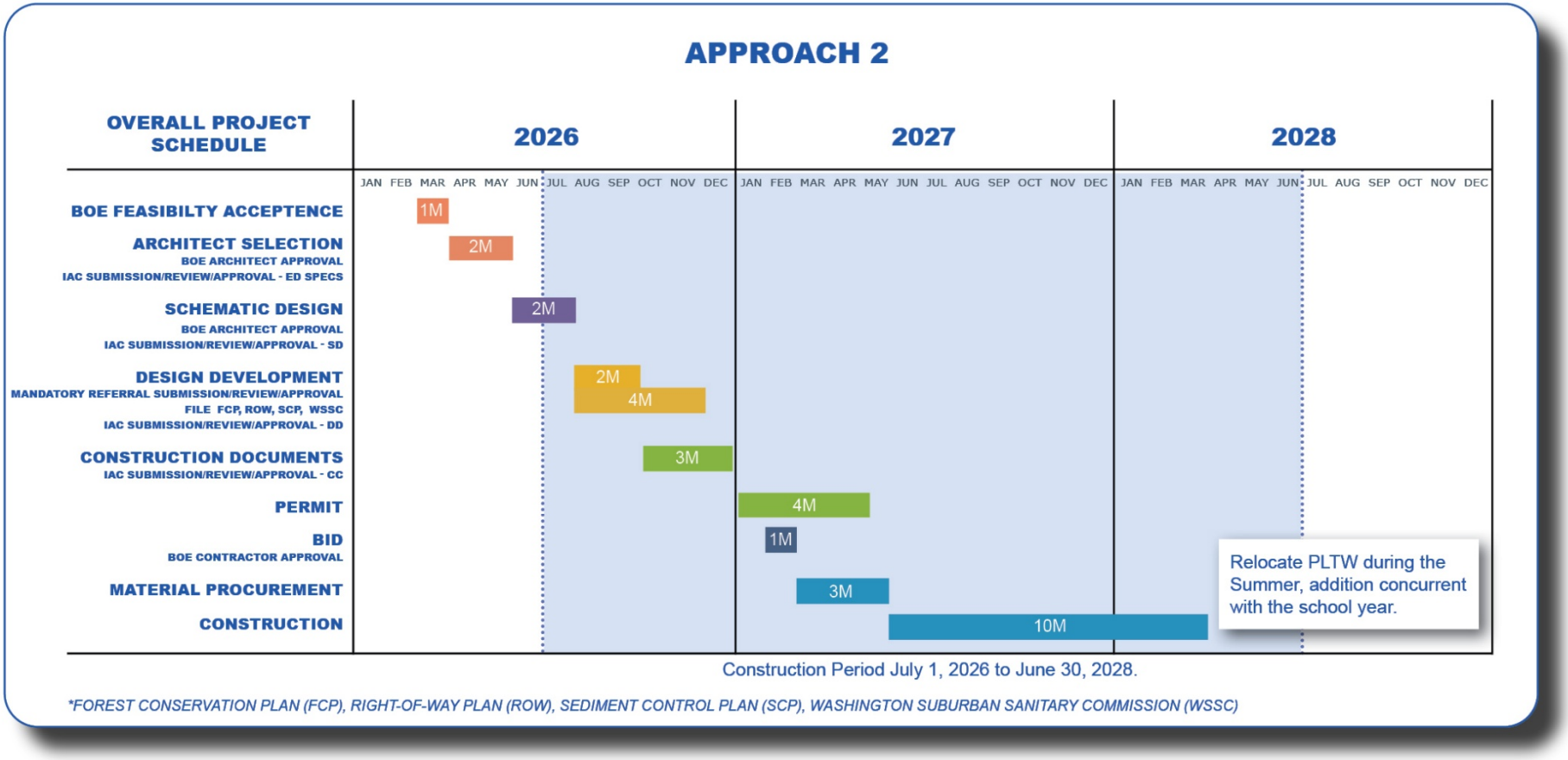
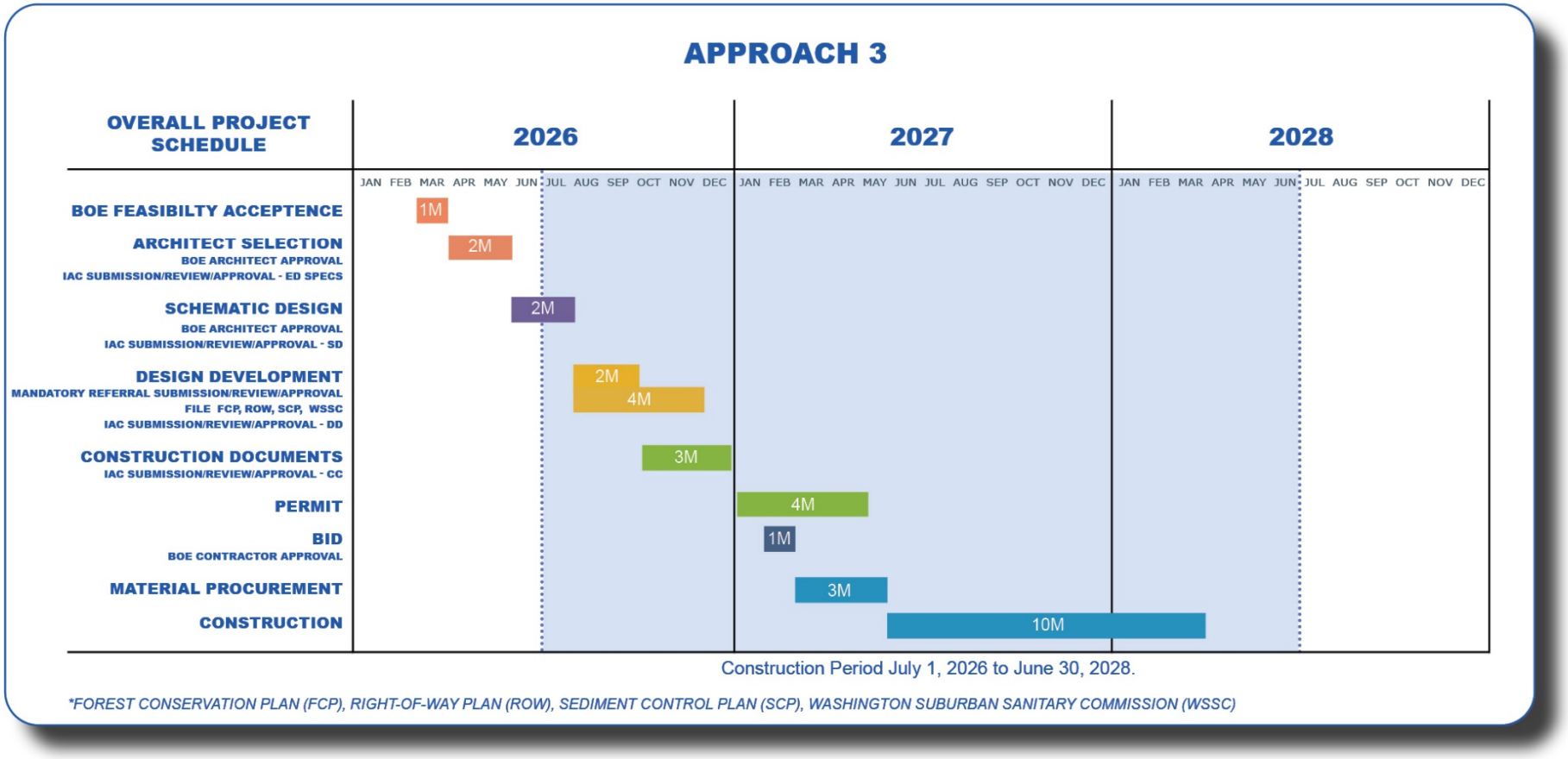
6. PROPOSED PROJECT SCHEDULE



6. PROPOSED PROJECT SCHEDULE *(Continued)*



6. PROPOSED PROJECT SCHEDULE *(Continued)*



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APPENDIX A – SPACE DESCRIPTIONS

Description	# of spaces	Net SQ. FT Each	Total Net SQ.FT.
A. Administrative Area			
1. General Conference/Reception Area	1	250	250
2. Conference Room	1	300	300
3. Storage Closets	2	10	20
4. Large Storage Closet	1	20	20
B. Health Clinic			
1. Exam Room #1	1	100	100
2. Exam Room #2	1	100	100
3. Exam Room #3- Nurse Practitioner/Physician Office	1	150	150
4. Laboratory	1	100	100
5. Medical Supplies Storage Area	1	50	50
6. Data Entry and Records Room	1	100	100
7. Toilet Room	1	50	50
C. Mental Health/Social Services/Youth Development Suite			
1. Recreation/Welcome Area	1	250	250
2. Youth Development Conference	1	250	250
3. Mental Health & Wellness Activities Group Room	1	250	250
4. Program Manager Office	1	150	150
5. Case Manager Office	1	150	150
6. Youth Development Office	1	150	150
7. Mental Health//Therapy Room	1	150	150
8. Mental Health Office	1	150	150
9. Youth Development Office	1	150	150
10. Large Storage Closet	1	20	20

D. School Health Room			
Waiting Area	1	150	150
Treatment/Medication Area	1	140	140
Rest Areas	2	100	200
School Nurse Office	1	150	150
Isolation Room	1	100	100
Storage	1	50	50
Toilet Room	2	60	120

3,820 NSF x1.34 GF = **5,119** GSF

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APPENDIX B – PROGRAM OF REQUIREMENTS & EDUCATIONAL SPECIFICATIONS

Springbrook High School - School-Based Wellness Center
Space Summary Comparison - Wellness Center

	Program of Requirements			Design Approach 1 (Approaches 1.1, 1.2, and 1.3)				Design Approach 2				Design Approach 3			
Description	**Qty of spaces**	**Net Sq.Ft. Each**	**Total Net Sq.Ft.**	Qty of spaces	Area	Total NSF	% Difference from Program Requirement	Qty of spaces	Area	Total NSF	% Difference from Program Requirement	Qty of spaces	Area	Total NSF	% Difference from Program Requirement
A. Administrative Area															
1. General Conference / Reception Area	1	250	250	1	226	226	-9.60%	1	249	249	-0.40%	1	247	247	-1.20%
2. Conference Room	1	300	300	1	270	270	-10.00%	1	270	270	-10.00%	1	270	270	-10.00%
3. Storage Closets	2	10	20	2	10	20	0.00%	2	11	22	10.00%	2	9.5	19	-5.00%
4. Large Storage Closet	1	20	20	1	26	26	30.00%	1	23	23	15.00%	1	22	22	10.00%
Subtotal			590			542	-8.14%			564	-4.41%			558	-5.42%
B. Health Clinic															
1. Exam Room #1	1	100	100	1	90	90	-10.00%	1	90	90	-10.00%	1	90	90	-10.00%
2. Exam Room #2	1	100	100	1	90	90	-10.00%	1	90	90	-10.00%	1	90	90	-10.00%
3. Exam Room #3 - Nurse Office	1	150	150	1	148	148	-1.33%	1	135	135	-10.00%	1	135	135	-10.00%
4. Laboratory	1	100	100	1	97	97	-3.00%	1	90	90	-10.00%	1	90	90	-10.00%
5. Medical Supplies Storage Area	1	50	50	1	45	45	-10.00%	1	48	48	-4.00%	1	45	45	-10.00%
6. Data Entry and Records Room	1	100	100	1	98	98	-2.00%	1	102	102	2.00%	1	90	90	-10.00%
7. Toilet Room	1	50	50	1	57	57	14.00%	1	53	53	6.00%	1	54	54	8.00%
Subtotal			650			625	-3.85%			608	-6.46%			594	-8.62%
C. Mental Health / Social Services / Youth Development Suite															
1. Recreation / Welcome Area	1	250	250	1	225	225	-10.00%	1	240	240	-4.00%	1	237	237	-5.20%
2. Youth Development Conference	1	250	250	1	225	225	-10.00%	1	225	225	-10.00%	1	225	225	-10.00%
3. Mental Health & Wellness Activities Group Room	1	250	250	1	229	229	-8.40%	1	282	282	12.80%	1	205	205	-18.00%
4. Program Manager Office	1	150	150	1	135	135	-10.00%	1	135	135	-10.00%	1	135	135	-10.00%
5. Case Manager Office	1	150	150	1	135	135	-10.00%	1	135	135	-10.00%	1	135	135	-10.00%
6. Youth Development Office	1	150	150	1	135	135	-10.00%	1	165	165	10.00%	1	135	135	-10.00%
7. Mental Health / Therapy Room	1	150	150	1	135	135	-10.00%	1	135	135	-10.00%	1	135	135	-10.00%
8. Mental Health Office	1	150	150	1	135	135	-10.00%	1	135	135	-10.00%	1	135	135	-10.00%
9. Youth Development Office	1	150	150	1	135	135	-10.00%	1	135	135	-10.00%	1	135	135	-10.00%
10. Large Storage Closet	1	20	20	1	26	26	30.00%	1	16	16	-20.00%	2	17	34	70.00%
Subtotal			1670			1515	-9.28%			1603	-4.01%			1511	-9.52%
D. School Health Room															
Waiting Area	1	150	150	1	162	162	8.00%	1	227	227	51.33%	1	140	140	-6.67%
Treatment/Medication Area	1	140	140	1	127	127	-9.29%	1	128	128	-8.57%	1	132	132	-5.71%
Rest Areas	2	100	200	2	90	180	-10.00%	2	89	178	-11.00%	2	90	180	-10.00%
School Nurse Office	1	150	150	1	135	135	-10.00%	1	135	135	-10.00%	1	135	135	-10.00%
Isolation Room	1	100	100	1	90	90	-10.00%	1	90	90	-10.00%	1	90	90	-10.00%
Storage	1	50	50	1	45	45	-10.00%	1	45	45	-10.00%	2	19	38	-24.00%
Toilet Room	2	60	120	2	54	108	-10.00%	2	54	108	-10.00%	2	50	100	-16.67%

APPENDIX B – PROGRAM OF REQUIREMENTS & EDUCATIONAL SPECIFICATIONS *(Continued)*

Springbrook High School - School-Based Wellness Center
Space Summary Comparison - Relocated Spaces

		Educational Specification		Existing Conditions		Design Approach 1.1			Design Approach 1.2			Design Approach 1.3			Design Approach 2		
Description of Relocated / Renovated Space [#] indicates only individual spaces impacted by the Wellness Center project. See Note 3.		**Qty of spaces**	**Net Sq.Ft. Each**	**Qty of spaces**	**Area**	**Qty of spaces**	**Area**	**% Difference from Program Requirement**	**Qty of spaces**	**Area**	**% Difference from Program Requirement**	**Qty of spaces**	**Area**	**% Difference from Program Requirement**	**Qty of spaces**	**Area**	**% Difference from Program Requirement**
Existing Room #	Existing Room Use																
E116	World Languages Office / Workroom	[1]	225	1	439	1	170	-24.44%	1	170	-24.44%	1	170	-24.44%	1	439	95.11%
E116B	World Languages Office	[1]	500	1	138	1	392	-21.60%	1	392	-21.60%	1	392	-21.60%	1	138	-72.40%
F102	World Languages Classroom (incl. 10sf Closet)	[1]	840	1	626	Loss of 1 Standard Classroom			Loss of 1 Standard Classroom			1	626	-25.48%	1	626	-25.48%
B101	Special Education Classroom LFI	[1]	840	1	1312	1	846	0.71%	1	846	0.71%	1	846	0.71%	1	1312	56.19%
B101A	Darkroom (used as Special Education Storage)	[1]	250	1	201	0			0	0		0			1	201	-19.60%
B101B	Film (used as Special Education Storage)	0		1	22	0			0	0		0			1	22	
B105A	Special Education LFI Classroom	[1]	840	1	713	1	626	-25.48%	1	626	-25.48%	1	1294	54.05%	1	713	-15.12%
B105B	Special Education LFI Classroom	[1]	840	1	762	1	1285	52.98%	1	1285	52.98%	1	1285	52.98%	1	762	-9.29%
B105A.1	Storage	[1]	250	1	49	0			0			0			1	49	-80.40%
B105B.1	Workroom	0		1	116	0			0			0			1	116	
B105C	Storage	[1]	250	1	43	0			0			0			1	43	-82.80%
E114	Special Education Speech Pathologist	1	240	1	269	1	174	-27.50%	1	174	-27.50%	1	174	-27.50%	1	269	12.08%
F215A	Autism Classroom See Note 1.	[1]	840			1	840	0.00%	1	840	0.00%	1	840	0.00%	1	840	0.00%
F215B	(See Special Education LFI Classroom (above) relocated from Room B105B, above.) See Note 1.																
B102	2D Art Room #1 (Studio Art Room) (includes 10sf Closet)	1	1300	1	1284	1	1160	-10.77%	1	1294	-0.46%	1	1160	-10.77%	1	1284	-1.23%
B102B	Print / Workroom / Storage	[1]	250	1	197	1	49	-80.40%	1	49	-80.40%	1	49	-80.40%	1	197	-21.20%
B102C	Art Storage	[1]	250	1	240	1	43	-82.80%	1	43	-82.80%	1	43	-82.80%	1	240	-4.00%
B102D	Office	[1]	300	1	178	1	116	-61.33%	1	116	-61.33%	1	116	-61.33%	1	178	-40.67%
B103	3D Art (Ceramic/Sculpture) (includes 11sf Closet)	1	1500	1	1301	1	1475	-1.67%	1	1475	-1.67%	1	1475	-1.67%	1	1301	-13.27%
B109	B109 Art / Digital Art (Digital Art Room + 2D Art Room #2)) [Note: approach 1.1 and approach 1.3 produce loss of 2D Art Room #2)	1	950	1	1762	1	1152	0.71%	1	1762	85.47%	1	1152	0.71%	1	1762	85.47%
B109A	B109A Office	[1]	300	1	94	0			1	94	-68.67%	0			1	94	-68.67%
B109B	B109B Head Shots Theater	0		1	272	0			1	272		0			1	272	
B109C	B109C Storage	[1]	50	1	104	0			1	104	108.00%	0			1	104	108.00%
B109D	B109D Darkroom	[1]	250	1	213	1	213	-14.80%	1	213	-14.80%	1	213	-14.80%	1	213	-14.80%
B109E	B109E Vestibule (part of Darkroom layout)	0		1	72	1	72		1	72		1	72		1	72	
B109F	B109F Storage & Digital Camera Storage	[1]	50	1	131	1	131	162.00%	1	131	162.00%	1	131	162.00%	1	131	162.00%
B109G	B109G Photo Room	0		1	129	1	129		1	129		1	129		1	129	
B107	PLTW Engineering Applied Engineering Lab	[1]	1500	1	2259	1	2259	50.60%	1	2259	50.60%	1	2259	50.60%	1	1558	3.87%
B107A	Storage	[1]	150	1	161	1	161	7.33%	1	161	7.33%	1	161	7.33%	0		
B107B	Storage	[1]	150	1	205	1	205	36.67%	1	205	36.67%	1	205	36.67%	0		
B107C	Office	[1]	220	1	100	1	100	-54.55%	1	100	-54.55%	1	100	-54.55%	0		
B108	Cisco Lab (PLTW Computer Laboratory)	[1]	950	1	2055	[1]	2055	116.32%	1	1451	52.74%	1	1451	52.74%	1	1156	21.68%

APPENDIX B – PROGRAM OF REQUIREMENTS & EDUCATIONAL SPECIFICATIONS *(Continued)*

Springbrook High School - School-Based Wellness Center
Space Summary Comparison - Relocated Spaces

		Educational Specification		Existing Conditions		Design Approach 1.1			Design Approach 1.2			Design Approach 1.3			Design Approach 2		
Description of Relocated / Renovated Space [#] indicates only individual spaces impacted by the Wellness Center project. See Note 3.		**Qty of spaces**	**Net Sq.Ft. Each**	**Qty of spaces**	**Area**	**Qty of spaces**	**Area**	**% Difference from Program Requirement**	**Qty of spaces**	**Area**	**% Difference from Program Requirement**	**Qty of spaces**	**Area**	**% Difference from Program Requirement**	**Qty of spaces**	**Area**	**% Difference from Program Requirement**
Existing Room #	Existing Room Use																
B108A	Storage (Material Storage)	1	150	1	176	1	176	17.33%	1	176	17.33%	1	176	17.33%	1	176	17.33%
B108B	Storage (Material Storage)	1	150	1	192	1	192	28.00%	1	192	28.00%	1	192	28.00%	1	192	28.00%
B108C	Office	0		1	96	1	96		0			0			0		
B108D	Workroom	0		1	376	1	376		0			0			0		
B108E	Finishing Room	0		1	141	1	141		0			0			0		
F215	Computer Lab (incl. 10sf Closet) See Note 1.	[1]	950	1	2125	0			0			0			0		
C102	Health Room - Waiting	1	150	1	235	*See Note 2 below.*									*See Note 2 below.*		
C102A	Exam Room	1	100	1	348	*See Note 2 below.*									*See Note 2 below.*		
C102B	Workroom	1	140	1	72	*See Note 2 below.*									*See Note 2 below.*		
C102C	Medicines Storage	1	50	1	50	*See Note 2 below.*									*See Note 2 below.*		
C102D	Nurse Office	1	100	1	178	*See Note 2 below.*									*See Note 2 below.*		
C102E	Toilet	1	60	1	29	*See Note 2 below.*									*See Note 2 below.*		
C102F	Toilet	1	60	1	29	*See Note 2 below.*									*See Note 2 below.*		
C102G	Rest Area	1	100	1	111	*See Note 2 below.*									*See Note 2 below.*		
C102H	Rest Area	1	100	1	106	*See Note 2 below.*									*See Note 2 below.*		
E116C	Bridge to Wellness Team Room	0		1	392	*See School-based Wellness Center Space Summary*									*See Note 2 below.*		
F116A	Bridge to Wellness Office	0		1	170	*See School-based Wellness Center Space Summary*									*See Note 2 below.*		
F116B	Bridge to Wellness Office	0		1	174	*See School-based Wellness Center Space Summary*									*See Note 2 below.*		

Notes:

1	Springbrook High School has plans in place to convert the existing Computer Lab Room F215 into (2) Autism Classrooms; the work is scheduled to begin Summer 2026. The School plans to utilize the Autism Classroom in Room F215A in School Year 2026-2027. Room F215B will function as a Standard Classroom. If the Autism program increases, Room F215B will function as an Autism Classroom.)
2	See School-based Wellness Center Space Summary. Existing space returned to school.
3	Table includes only individual spaces impacted by the Wellness Center project. [#] indicates the building may contain other rooms of that type, in various quantities and sizes, which are not impacted by this project.

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PROGRAM OF REQUIREMENTS
FOR
SPRINGBROOK HIGH SCHOOL
SCHOOL-BASED WELLNESS CENTER
PROJECT # 640902

December 17. 2024

DEPARTMENT OF HEALTH AND HUMAN SERVICES
MONTGOMERY COUNTY GOVERNMENT

PROGRAM OF REQUIREMENTS

FOR

SPRINGBROOK HIGH SCHOOL

SCHOOL-BASED WELLNESS CENTER

PROJECT # 640902

APPROVED: _____

James C. Bridgers, Jr., Director Date Department of

Health and Human Services

APPROVED: _____

David Dise, Director Date

Department of General Services

APPROVED: _____

Jennifer R. Bryant, Director Date

Office of Management and Budget

APPROVED: _____

Director Date

MCPS, Department of Facilities and Services

PROGRAM OF REQUIREMENTS FOR

SPRINGBROOK HIGH SCHOOL SHOOL-BASED WELLNESS CENTER

I. Overview

This project provides for the placement of a School-Based Well Center (SBWC) at Springbrook High School, where the staff will provide somatic and mental health services, case management services, youth development programs, and activities to the school community's students and families.

II. Project Description

A. The project provides for constructing a comprehensive SBWC facility at Springbrook High School, where health and human services are delivered to school community members. It should incorporate these basic components: the health room suite, the administrative area, the health clinic, mental health, social services, youth development, and wellness program areas.

B. The SBWC should be designed adjacent to the school—the health room suite provided by Montgomery County Public Schools (MCPS). A door from the health room suite is preferred for opening into the SBWC. The design should facilitate service provision in the school health room suite by the SBWC nurse practitioner or doctor to the enrolled students who arrive ill or injured.

C. It is preferred that the SBWC be located near the main entrance of the school for supervision and security purposes and have at least one, but preferably two direct access to the outside with clear identification of the SBWC entrance to provide access during evening and weekend hours when the school is closed.

D. Two entrances from the school to the SBWC are needed, one that enters directly into the health clinic area and the other to the mental health case management area.

E. The design shall consider the safety and security of the SBWC and school use.

F. The facility is to be arranged so access from the SBWC to the school can be controlled when school is not in session.

G. Doors should have windows, and all windows should have blinds, including the window within the door. There should be Vinyl Composite Tile (VCT) flooring throughout the center. A doorbell should be placed at the outside entrance, with audible notification to the nurse's office, site

coordinator's office, and main reception area. All rooms should have the capability to be locked.

III. School Based Wellness Center Operations

A. Hours of Operation: 7:00 a.m. – 6:30 p.m. (the hours of operation could change, depending on the needs of the school community); Monday through Friday, as well as some days when school is not in session; some evening hours during the week and on the weekend, depending on the needs of the school community.
B. Staff: school community health nurse, school health room technician, nurse practitioner and/or physician, medical assistant, contract health support staff, program manager, site coordinator, case manager, mental health counselor, youth development staff, and community service aide.
C. Months of Operation: The above-mentioned staff will be present during hours of operation during the school year and summer; somatic health staff will have part-time summer hours.

IV. Site Requirements

The site chosen by MCPS for the school facility must be able to accommodate the SBWC facility and needs to be located directly adjacent to the school health room suite. Site selection considerations shall include, at a minimum, the feasibility of providing separate access to a SBWC and safety and security considerations with the operation of a SBWC on the property. Priority in site selection shall be given to the educational use of the site.

The location of the SBWC facility is to have convenient access to the school foyer and parking lot drop-off area.

V. Mechanical and Electrical Systems

The facility is to be compatible with the systems of the school at which it is located. It should have heating and air conditioning. Because the SBWC may operate while the main portion of the school is not in session, the Heating, Ventilation, and Air Conditioning (HVAC) must be zoned for after-use. The system shall be included in the school energy management system but shall allow for zoning separation capabilities. The systems selected must be maintainable by MCPS.

Two sets of electrical outlets are to be provided on all walls and comply with or exceed the minimum number required by applicable code(s). There should be an electrical outlet and data drop in the copy machine area. There should

be two data drops in every office and area that will house phones and computers, including health assessment rooms, lab, conference room, isolation room, and health room areas. On new construction only, a center data drop and electrical outlet on the floor of the conference room also should be included. There should be an emergency outlet to a backup emergency generator in the laboratory to accommodate the large refrigerator and over-the-counter freezer that store vaccines.

A low counter in the lab with quad electrical outlets above and below the counter should be installed. A high counter in the lab with an electrical outlet below the counter for a dormitory-sized refrigerator (for lab specimens) should be included. A designated space with electrical outlets and a data drop for a large copier.

VI. IT/Telecommunications

The telecommunication network conduit and wiring infrastructure are to be provided in all spaces except the restrooms, building service closets, and small storage rooms under 100 square feet. Additionally, wireless access points are to be provided to enable uninterrupted wireless service to MCG/DHHS computers throughout the SBWC.

The telephone systems shall be owned by MCPS and connected to the MCPS' telephone network (see VIII. School Facilities Needed for Support). If an individual SBWC school is at full capacity in terms of phone lines, Montgomery County Government (MCG)/Department of Health and Human Services (DHHS) will pay for the costs associated with required increased phone line capacity. Intercom system that can be turned on and off in health areas.

The computer devices will be purchased and owned by MCG/DHHS and shall be connected to the MCPS computer network. Fiber optic service or equivalent Internet connection will be provided by MCPS. The SBWC will utilize the fiber optic service to connect to the County Government network via the Carver Educational Services Center (CESC) county link. All equipment and software will meet County standards and provide compatibility with other SBWCs.

VII. Security

The SBWC is to be integrated into the school security system. The system must include provisions to allow use of the facility when school is not in session, for example, a separate control panel for the facility.

The facility is to be arranged so access from the facility to the school can be controlled when school is not in session. The door to this exit should be visible so that staffcan monitor the entrance and control access. This door should have a lock and bell system. Emergency buzzers should be installed in all rooms and areas of the SBWC. Also required is a security door that locks with a window between the health room suite and the SBWC. Doors with interior windows in the nurse's and site coordinator's offices into the health room and the administrative/reception area. Interior windows in the nurse's and site coordinator's office overlook the health room and reception area. Exterior security, including the desi$_{gn}$ of access from the parking area to the entrance, a doorbell, a security camera system, an entry pad, and the provision ofsubstantial exterior lighting is important.

VIII. School Facilities

Needed for Support - A mailbox to accommodate letters and packages shall be identified for the SBWC in the school mailroom. The school public address/intercom system shall be extended to all rooms in the SBWC. Speakers in the facility shall have volume and off/on controls and call-back features to the main office. A telephone system integrated into the school telephone system shall be provided by MCPS with voice mail capabilities. There should be a meeting to discuss keys and colors, as well as a walk-through before drywall and at any other times there are questions.

IX. Furnishings and Equipment

Montgomery County Government (MCG) shall provide the furniture and equipment as needed to operate the SBWC. A furniture and equipment summary is attached for design purposes.

As part of the construction contract, the following items will be provided upon completion of construction, (other items may be identified during design):

1.) Doorbell – chime/video in the reception area and site coordinator and nurse's office

~~2.) Carpet in offices but not in the lab, treatment, or patient areas.~~

3.) Windows in doors

4.) Blinds on all windows including doors.

5.) Two data drops in every office

6.) Plug (outlet) in the copy machine area/alcove for the fax copy machine.

7.) Low counter in the lab with plug above counter

8.) High counter in the lab with plug below the counter for dorm refrigerator (lab specimens)

9.) Data drop in copy machine area for fax/copy machine

10.) Shelves in supply closets

11.) Sign outside (Logo-spelled out)

12.) locks on all doors

13.) Tack boards in every office, lab, treatment room, and in the reception area.

14.) Large marker board/promethium board in the conference room

15.) Center data drop and plug-in floor in the conference room

16.) Television mount in the conference room

17.) Phone jack and data drop-in lab and exam rooms.

18.) Data drop in isolation room reception area and health room area

19.) Lighting above 3 cots and 3 curtains

20.) Built-in cabinets in the lab, treatment area mental health counselor, and fax area

21.) Interior windows in the nurse's and site coordinator's offices to see reception areas.

22.) Security door with window, from health room to SBHC that locks

23.) Soap dispensers and paper towel holders at every sink

24.) Vents in the bathrooms

25.) Intercom system that can be turned on and off in health areas.

26.) One VFC refrigerator and one VFC freezer in the lab

27.) Refrigerator/freezer in health room

28.) Emergency outlet to back up the generator in the lab.

29.) Shades blinds

30.) 2 Data ports in every area

31.) Wi-Fi nodes throughout

32.) Bulletin board placement

33.) Key meeting participation

34.) Color meeting participation.

35.) Signage for each room-health assessment room.

36.) Walk through before drywall to ensure data drops are correct; before Hanging bulletin boards to ensure location, at punch list time, at any other time there are questions, then a final walk-through.

X. Applicable Laws

This facility shall comply with all applicable current local, state, and federal laws, regulations, and codes, including a back-up generator emergency power supply for the vaccine refrigerator in the lab.

XI. Space Descriptions

Description	# of spaces	Net SQ. FT Each	Total Net SQ.FT.
A. Administrative Area			
1. General Conference/Reception Area	1	250	250
2. Conference Room	1	300	300
3. Storage Closets	2	10	20
4. Large Storage Closet	1	20	20
B. Health Clinic			
1. Exam Room #1	1	100	100
2. Exam Room #2	1	100	100
3. Exam Room #3- Nurse Practitioner/Physician Office	1	150	150
4. Laboratory	1	100	100
5. Medical Supplies Storage Area	1	50	50
6. Data Entry and Records Room	1	100	100
7. Toilet Room	1	50	50
C. Mental Health/Social Services/Youth Development Suite			
1. Recreation/Welcome Area	1	250	250
2. Youth Development Conference	1	250	250
3. Mental Health & Wellness Activities Group Room	1	250	250
4. Program Manager Office / Site Coordinator Office	1	150	150

5. Case Manager Office	1	150	150
6. Youth Development Office	1	150	150
7. Mental Health//Therapy Room	1	150	150
8. Mental Health Office	1	150	150
9. Youth Development Office	1	150	150
10. Large Storage Closet	1	20	20
D. School Health Room			
Waiting Area	1	150	150
Treatment/Medication Area	1	140	140
Rest Areas	2	100	200
School Nurse Office	1	150	150
Isolation Room	1	100	100
Storage	1	50	50
Toilet Room	2	60	120
Total Net SQ. FT.			3,820
Total Gross SQ. FT.-3,820 net sq. ft x 1.34 =			5,119

A. Administrative Area

This area should be centrally located between the Health Clinic and the Mental Health/Social Services/Youth Development, Health and Wellness Activities Suite to act as a central administrative area.

1. General Office/Reception Area

Key Features:

The general office space should be designed to be near the entrance of the suite and serve as a reception/waiting area for somatic health, mental health, social services, case management, youth development services, and wellness activities. This space will need multiple entries from the main school (through the school health room suite and directly from the school hallway) and access from the outside of the building to accommodate entry into the SBWC at a time when the school is not in session (i.e. weekends/evenings/ vacation). It should have an L-shaped reception counter and cabinets that can accommodate a computer workstation, printer, fax machine (with consideration of confidentiality guidelines), storage for files (a file drawer or file cabinet as needed) office supplies, and floor space for a copier. This space should have vinyl composite tile (VCT) flooring. This area will require a telephone. Two 4'x4' tack boards should be provided in this area.

2. Conference Room

Key Features:

Conference room configuration should seat 12-16 people around a conference table

or seat this number of people in an informal seating arrangement. A built-in storage closet (approximately 20 sq. ft) with five adjustable shelves should be provided within this space. This space should have VCT flooring. There should be a smart whiteboard/video teleconference capability. This room will require a telephone. Two 4'x6' tack boards and one 4'x8' marker board should be provided in this room.

3. Storage Closets
Key Features:
These closets are centrally located in the administrative area for access to all who work at the SBWC.
Lockable storage space is needed for the following:

- Staff outer clothing
- Office supplies
- Food pantry/clothing storage

The coat closet should be equipped with a clothing rod and hat shelf. The other storage closets should have five adjustable shelves each.

B. Health Clinic area should be designed with consideration for privacy and confidentiality. The health assessment rooms should be adjacent to each other, with the laboratory and toilet room nearby.

1. Health Assessment Room #1
   Key Features:
   The health assessment room should be equipped with a sink with built-in lockable base and wall cabinets. The room configuration should accommodate an examination table, a mobile medical supplies cabinet, a desk, an office chair, and two fan-back chairs. There will be space to accommodate a hazardous materials trash receptacle. Grounded wall outlets need to be on all sides of the room, including one outlet above the counter and computer drops on two sides of the room to accommodate flexibility of furniture placement. This space should have VCT flooring. This room will require a telephone. One 4'x4' tack board should be provided in this room and signage for the room.

2. Health Assessment Room #2
   Key Features:
   The health assessment room should be equipped with a sink with built-in lockable base and wall cabinets. The room configuration should accommodate an examination table, a mobile medical supplies cabinet, a desk, an office chair, and two fan-back chairs. There will be space to accommodate a hazardous materials trash receptacle. Grounded wall outlets need to be on all sides of the room, including one outlet above the counter and

computer drops on two sides of the room to accommodate flexibility of furniture placement. This space should have VCT flooring. This room will require a telephone. One 4'x4' tack board should be provided in this room. Signage for each room.

3. Health Assessment Room #3 and Nurse Practitioner/Physician Office
   Key Features:
   The health assessment room should be equipped with a sink with a built-in lockable base and wall cabinets. The room configuration should accommodate an examination table and a mobile medical supplies cabinet as well as an L-shaped desk with a hutch to accommodate a computer, an office chair, and two fan-back chairs. There will be space to accommodate a hazardous materials trash receptacle. This space should have VCT flooring. This room will require a telephone and a computer. One 4'x4' tack board should be provided in this room.

4. Laboratory
   Key features:
   The laboratory should be equipped with a sink and countertop space for specimen testing. Cabinets with locks should be placed above and below the sink. Space for a full medical-grade refrigerator and over-the-counter medical-grade freezer with emergency outlets to a backup generator is required. An under-the-counter refrigerator is needed. There must be counter space for vision and hearing screening equipment. The room requires space for a blood drawing chair. Electrical outlets must be provided above and below all counters. This room will require a telephone, a computer, fax capability, and a data drop. There will be space to accommodate a hazardous materials trash receptacle. This space should have VCT flooring. One 4'x4' tack board should be provided in this room.

5. School Nurse Office
   Key Features:
   Space should allow for an L-shaped desk or desk and computer workstation, file cabinet, bookcase, and a small round table and two chairs. This space should have VCT flooring. This office must be collocated between the health room suite and the SBWC. This room requires a telephone and a computer. One 4'x 4' tack board should be provided in this room.

horizontal

This office needs windows to the isolation room, clinic, and health room.

6. Medical Supplies Storage Area:
   Key Features:
   Lockable storage space is needed for pharmacy and medical, clinic, and laboratory supplies. This area needs built-in adjustable shelving. This area also must have the capacity to have a lockable file or other cabinet (42" wide) storage unit.

7. Data Entry and Records Room
   Key Features:
   Space is needed for the locked storage of all records and as a confidential data entry area. A large desk will be provided as a computer workstation, two 4-drawer file cabinets, and three 4-drawer lateral files. This space should be centrally located in the health suite but not directly adjacent to the exam rooms to provide enhanced patient privacy. This space also should have a closet for storage purposes for the SBWC supplies. This room will require a computer and a telephone.

8. Toilet Room
   Key Features:
   A handicapped-accessible toilet room with a sink and toilet should be in the health clinic area next to the laboratory space. A lockable specimen door between the toilet and the lab room is needed.

C. Mental Health/Social Services/Youth Development, Health and Wellness Activities Suite

1. Youth Development Conference Room.
   Key Features:
   This room will serve as an informal area that will allow for sofas and/or lounge chairs. Additionally, there should be space for two round tables with four chairs each or a conference table system. A storage closet should be provided within this space. This space should have VCT flooring. This room will require a telephone. Two 4'x6' tack boards and one 4'x8' marker board should be provided in this room.

2. Mental Health and Wellness Activities Group
   Key Features:
   This area should accommodate a conference table system and chairs to accommodate 16 people at either small tables or conference style. A storage closet should be provided within this space. This space should have VCT flooring. A smart whiteboard / video teleconference equipment would be ideal in this room. This room will require a telephone and data drop. Two 4'x6' tack boards and one 4'x8' marker board should be provided in this room.

3. Mental Health Youth Development Office/ Therapy Room
   Key Features:
   This area should accommodate an L-shaped desk area with a computer workstation. There should be space for a round table and four chairs. Space should be provided for a file cabinet and bookcase. This space should have VCT flooring. This room will require a telephone. One 4'x4' tack board should be provided in this room.

4. Program Manager
   Key Features:

A large desk area to accommodate a computer workstation and space for round table and four chairs or small couch and chair is required. A second desk for a computer will be needed. Space should be provided for a file cabinet and bookcase. This space should have VCT flooring. This room will require two telephones. One 4'x4' tack board should be provided in this room.

5. Case Manager
   Key Features:
   A large desk area to accommodate a computer workstation and space for round table and four chairs or small couch and chair is required. A second desk for a computer will be needed. Space should be provided for a file cabinet and bookcase. This space should have VCT flooring. This room will require two telephones. One 4'x4' tack board should be provided in this room.

6. Site Coordinator Office
   Key Features:
   An L-shaped desk area to accommodate a computer workstation and space for round table and four chairs is required. Space should be provided for a file cabinet and bookcase. This space should have VCT flooring. This space should have a storage closet with five adjustable shelves. This room will require a telephone. One 4'x4' tack board should be provided in this room.

7. Toilet Room
   Key Features:
   A handicapped-accessible toilet room with sink and toilet.

D. School Health Suite (Health Room)

1. Waiting /Treatment Medication Area
   Key Features:
   A waiting area should be provided within the health room suite for sick and injured students waiting to be assessed. Students who are enrolled in the SBWC who are waiting to be examined by the NP/MD will sit in the reception area of the health clinic.

   a) This area should have space for the school health room technician to work. The area will accommodate an L-shaped desk with space for a computer workstation and printer, and three 4-drawer lateral file cabinets. Two 4'x4' tack boards should be provided in this area.

b) A treatment area should be equipped with a sink with countertop and base and wall cabinets with locks. Space is needed here for a small full-size refrigerator with ice making capabilities. There will be an area to accommodate a hazardous materials trash receptacle.

2. Rest Recovery Area
   Key Features:
   This area should not be a fully contained room but rather an area that can provide privacy for each cot with a draw curtain on a ceiling track. The rest area needs space for at least two cots in each of two areas, and a total of four bedside cabinets. There should be a separate isolation room (see below) adjacent to the rest area. One 4'x4' tack board should be provided in this room.

3. Isolation Room
   Key Features:
   This room should accommodate space for a cot and a single pedestal desk and chair. This room will require a sink, as well as an above counter lockable cabinet.

   Additionally, it will accommodate a telephone and a computer. This area requires supplementary power ventilation capable of 20 changes per hour with control by means of a separate switch within the health suite. One 4'x4' tack board should be provided in this room

4. Storage Closet
   Key Features:
   Space is needed to store the health room and some clinic supplies. This area needs built-in adjustable shelving.

5. Toilet Room
   Key Features:
   Two student handicapped-accessible toilet rooms with a sink and a toilet should be located in the school health room suite and if possible, near the health clinic.

   One toilet room should be large enough to accommodate a treatment table in the event it is needed for a handicapped student in the future. This space should have ceramic tile flooring and wainscot.

   Adult toilets within the school should be close to the SBWC and accessible for staff and visitor use.

SCHOOL BASED WELLNESS CENTERS

Furniture and Equipment Summary

	Item Description	Units
A. General:		
	Telephones	12
	Smart Whiteboard/video teleconference equipment	1
	Copier machine	I
B. Administrative Area:		
1. Reception and General Office		
	Office chair	1
	Personal computer	1
	42" 4 drawer lateral file	I
	Printer	1
	Fax machine	1
	Chairs fan back	8
	Bookcase	1
	Desk 30 x 60	1
2. Conference Room		
	Table system	1
	Chairs stack or conference	12
C. Health Clinic:		
1. Health Assessment Rooms #1 and #2		
	Exam table	2
	Exam stool	2
	Exam side table	2
	Desk 30 x 60	2
	Office chair	2
	Wall otoscope/ophthalmoscope	2
	Computer	1
	Otoscope Insufflator	2
	Digital sphygmomanometer	2
	Gooseneck lamp	2
	Chairs -fan back	4
2. Health Assessment Room #3 Nurse Practitioner Office		
	Exam table	1
	Exam stool	1
	Exam side table	1
	Wall otoscope/ophthalmoscope	1

	Otoscope Insufflator	1
	Computer	1
	Digital sphygmomanometer	1
	Gooseneck lamp	I
	36 x 72 Double pedestal desk	1
	Desk hutch -no doors	1
	Bookcase-small- 36" 2 shelves	1
	Chairs fan back	4
	Office chair	1
	Small round table	1
3. Lab		
	Full sized medical grade refrigerator and over counter freezer	1 each
	Half sized refrigerator	1
	Audiometer	1
	Titmus machine	1
	Hemocue	1
	Computer	1
	Glucometer	1
	Nebulizer	1
	Pulse Oximeter	1
	Table	1
	Chairs-fan back	2
	Blood drawing chair	1
	File cabinet-4 drawer regular	2
4. Nurse Office		
	L-shaped desk	1
	Desk hutch with doors	1
	Office chair	1
	Small round table	1
	Personal computer	1
	Chairs fan back	2
	Lateral file cabinet 4 drawer	1
	Bookcase-tall 72"	1

5. Data Entry & Record Room		
	30" x 60" desk	1
	Secretarial chair	1
	Personal computer	1
	4-drawer locking file cabinet	3
	Lateral file cabinet 4-drawer locking	2
	Small rectangular table	1

D. Mental Health/Social Services/Youth Development &Wellness Activities Suite:

1. Program Manager		
	Large desk	1
	Desk hutch with doors	1
	Office chair	2
	Personal computer	2
	Lateral file cabinet 4 drawer	1
	Desk	1
	Small round table	1
	Chairs fan back	4
	Bookcase-tall 72"	1
2. Case Manager & Community Service Aide Office		
	Large desk	1
	Desk hutch with doors	1
	Office chairs	2
	Personal computer	2
	Lateral file cabinet 4 drawer	**1**
	Desk	**1**
	Small round table	1
	Chairs fan back	4
	Bookcase - tall 72"	1

3. Site Coordinator Office		
	L-shaped desk	1
	Desk Hutch with doors	1
	Office chair	1
	Personal computer	1
	Lateral file cabinet 4 drawer	1
	Small round table	1
	Chairs fan back	4
	Bookcase - tall 72"	1

4. Youth Development Conference Room		
	Conference style table system which can be arranged in small tables or to accommodate 16.	**1**
	Sofa	2
	Chairs	4
	Small round table	2
	Chairs fan back	20
5. Mental Health/Health and Wellness Activities Group Room		
	Conference style table system which can be arranged in small table or to accommodate 16.	**1**
	Chairs - stackable	20

	Promethean board	**1**
6. Mental Health/Youth Development Office/Therapy Room		
	L-shaped desk	1
	Desk hutch with doors	1
	Office chairs	2
	Personal computer	1
	Lateral file cabinet 4 drawer	1
	Desk (30"x60")	1
	Small round table	1
	Chairs fan back	4
	Bookcase- small- 36" 2 shelves	2

Springbrook High School Wellness Center

Educational Specifications

Feasibility Study

Date: May 2, 2025

Montgomery County Public Schools
Rockville, Maryland 20850

MONTGOMERY COUNTY PUBLIC SCHOOLS
Expanding Opportunity and Unleashing Potential

Table of Contents

Space Summary

Facility	# Needed	SQ. FT./ Facility	Total Net SQ. FT.	Total Dept. SQ. FT.
Health Suite				860
Waiting Room	1	150	150	
Treatment/Medication Room	1	140	140	
Office/Health Assessment Room	1	100	100	
Health Assessment/Isolation Room	1	100	100	
Rest Areas	2	100	200	
Storage	1	50	50	
Toilet Rooms	2	60	120	

Introduction

☐ This document describes the facilities that are needed for the Springbrook High School Wellness Center educational program. The descriptions below will provide the architect with important guidelines and staff will be used by staff representatives to review drawings for the facility.

☐ There is no scheduled completion date at this time.

☐ The educational specifications are divided into three sections.

- The first section, the space summary, lists the type of spaces and square footage required when the project is complete.
- The second section describes the general design, location, and specific requirements for each type of space in accordance with Montgomery County Public Schools (MCPS) standards.
- The third section identifies additional program requirements for the school.

☐ The architect will provide a space summary comparison between the programmed space requirements and the proposed after each phase of the project including but not limited to the schematic design, design development, and final design phase.

☐ The design of the school should promote a collaborative approach for both teaching and learning. Flexibility of design should be provided to accommodate changing educational programs and pedagogy.

☐ The project will be designed to the meet current local and state sustainability guidelines.

General Planning Considerations

In the general planning of this building, special consideration is to be given to the following comments and instructions:

Code and Guidelines

☐ The architect is expected to become thoroughly familiar with all national, state and local fire safety, life safety, and health code regulations and to follow applicable rules of the State Interagency Committee on School Construction.

☐ The building is to be accessible to the disabled within the meaning of the latest edition of the Americans with Disabilities Act and to conform to all the latest requirements of the *Americans with Disabilities Act Standards for Accessible Design*. (The regulation can be found at https://www.ada.gov/2010ADAstandards_index.htm)

☐ In addition to the ADASAG, the *Maryland Accessibility Code* (COMAR.05.02.02) also is required for public schools. (The regulation can be found at http://mdcodes2.umbc.edu/dhcd/access.htm).
Per COMAR 23.03.02: Regulation .29, all high school projects that include replacing or upgrading the electrical system should be designed and constructed sot that a designated public shelter area can be fully powered in the event of an emergency.

☐ The architect should refer to the MCPS Facility Guideline Specifications when noted. The Document can be found at:
http://www.montgomeryschoolsmd.org/departments/construction/publications/guidelines.shtm

☐ Special consideration should be given to energy conservation including total life-cycle costs. The current Department of General Service (DGS) requirements shall be applied as design criteria. Life-cycle cost accounting in accordance with DGS criteria is required. A statement on energy conservation must be a part of the preliminary plans submission. Additional details on energy conservation will be provided under separate cover.

☐ The architect should refer to MSDE 2006 *Classroom Acoustic Guidelines* to address the acoustical qualities for classrooms. Core learning spaces should include sound-absorptive finishes for compliance with reverberation time requirements as specified in ANSI, *Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools* (ANSI S12.60-2002.)

☐ High quality materials are to be used in the construction. The architect should refer to the MCPS Facility Design Guidelines.

Educational Considerations

☐ The school should be designed to support flexible and collaborative learning environments. When possible, the architect should identify collaborative work spaces throughout the building. These spaces can be located near the instructional spaces as well as informal areas such as the library, hallways, etc.

- ☐ All spaces should be designed in such a way that can be adapted to changes in pedagogical changes in the future.
- ☐ The classrooms should be designed to accommodate various size groups. Each classroom should be readily adaptable for group work, various presentation formats, and should have maximum connectivity to outside resources.
- ☐ The shape of the classroom and the design of built-in features and storage areas should provide optimum net usable floor area. Elongated rooms and features that protrude into floor area, limiting flexibility, are to be discouraged. Rectangular shaped classrooms are preferred.
- ☐ For maximum instructional flexibility, large special instruction areas such as those provided for general music and multipurpose laboratories should be designed to allow easy conversion of some or all of the space for other kinds of instruction in the future
- ☐ Every teaching station, support space, and core area must be wired for computer and VOIP telephone, along with adequate electrical supply in compliance with Maryland Sate design guidelines for Technology in Schools and the MCPS Office of Technology and Innovation (OTI) guidelines. Facilities must be adaptable to accommodate rapid development in high technology and its equipment since educational program and organization in this field are dynamic. Space and power supply must be flexible to meet these changing needs.

Facility Considerations

- ☐ The architect is to design the spaces within 5 percent (plus/minus) of the net square foot guidelines provided in this document unless otherwise noted.
- ☐ The facility is to reflect an appealing visual, acoustic, and thermal environment and is to be properly furnished and equipped. Well-chosen colors and textures should be used.
- ☐ Lighting must meet current guidelines and provide adequate levels.
- ☐ A MCPS-designed alarm system will provide security for this facility. The architect will provide for this system in consultation with the Division of Design and Construction (DDC) staff.
- ☐ Some windows must be operable in each space in the building. Transmission of radiation through windows into various portions of the plant is to be considered in relation to heating and ventilating and in relation to planning the building for air conditioning. All instructional spaces should have windows, preferably exterior windows. If the design does not permit exterior windows, windows onto corridors should be provided.
- ☐ All windows should be equipped with window coverings. The specification for the window coverings will be provided by DDC. Screens on operable windows should be installed in all food related areas.
- ☐ Careful placement of glass is required to avoid excess heat gain in occupied areas.

- ☐ The entire school is to be air-conditioned.
- ☐ Zoning the plant for heating and air-conditioning should be related to after-hours use of various areas such as offices, gymnasium, multipurpose room, and the instructional media center. Appropriate location of parking, corridor barriers, and toilet rooms is necessary for after-hours use. Some classrooms nearby the multipurpose room should be zoned for after hour use as well.
- ☐ Special attention should be given to security measures within the building including location of security barriers in corridors, lockable doors to secure various sections of the building for after-hour use.
- ☐ Spaces that serve no real educational function, such as corridors, should be limited while at the same time assuring an easy to supervise and smooth flow of pupil traffic to and from the LMC, multipurpose room, gymnasium, specialized centers, and support rooms.
- ☐ For security purposes, all doors into classrooms, conference rooms, offices, etc. must be designed with a sidelight window with shades. If a sidelight is not possible, then the door requires a vision panel.
- ☐ A public address system is required in the facility. The architect and engineers should refer to the MCPS Facility Guideline Specifications for additional information.
- ☐ A building services call system is required.
- ☐ A room numbering system which is logical and understandable and which lends itself to electronic scheduling of room assignments for students is required.

Site Considerations

- ☐ The design of the building and grounds must provide for a secure environment for students and staff. Isolated areas should be minimized and natural surveillance encourage by eliminating visual barriers.
- ☐ Exterior lighting is to be shaded from neighboring properties and is to be operable as appropriate from both time and key switches. For major entrances, a doorbell should be installed.
- ☐ Landscaping and provision for outdoor watering are to be included. Planting is to include screen planting and those that may be needed for erosion control. Other landscaping to support energy conservation and to relate the building to the site with aesthetic appeal must be included.

Technology Framework

The latest technology should be integrated into every aspect of building. The architect should consult with the OTI and the DDC for the latest technology requirements. The architect must at a minimum plan for the following elements.

- ☐ CNOs consisting of a flush mounted standard electrical box with 1 1/2" conduit to the ceiling space overhead should be located in all classrooms, offices, and other work locations according to the following general rules:
  - ☐ one CNO per office, staff office, planning room, etc. adjacent to telephone outlet
  - ☐ All other areas such as the stage, bookstore, dining room, etc., where computers might be used.
- ☐ CNOs for security cameras are required at the schools. The number and location will be determined during the design process.

Description of Facilities

Please refer to the summary of spaces in the front of this document for the square foot requirements for each space described below. Square foot allocations should be considered the standard to be followed, although minor deviations are permitted.

Health Suite

Spatial needs
Waiting Room
Treatment/Medication Room
Office/Health Assessment
Health Assessment/Isolation Room
Rest Area
Storage
Toilet Rooms

- ☐ The health suite should be located near the administrative area.
- ☐ Student traffic is to be kept close to the door and cross traffic is to be minimized.
- ☐ Good supervision of the room from within as well as from the general office is required.
- ☐ A separate switch to control the ventilation system in the health suite must be provided.
- ☐ Direct access to a main corridor is needed for emergency access and egress.
- ☐ Two doors to the suite will facilitate the movement of students through waiting and treatment areas during a mass procedure.

Waiting Area

- ☐ The waiting area should accommodate ten chairs, a pamphlet rack, and a 24" x 48" table.
- ☐ Its placement in relationship to the treatment area and to the nurse's office should facilitate triage, enable its supervision, and promote confidentiality in the treatment area.

Treatment/Medication Area

- ☐ The treatment area should be accessible to the waiting area and toilet rooms.
- ☐ Its design should promote confidentiality.
- ☐ The treatment area is to contain the following:

- ☐ a kitchen-type sink and cabinet unit with locking cabinets above and below
- ☐ a clear area of at least 36 inches on the countertop
- ☐ a full-size refrigerator with ice-making capabilities
- ☐ a mirror
- ☐ an area for a hazardous materials trash receptacle
- ☐ Space for a scale, a floor lamp, a step-on covered waste can, an l-shaped desk and chair with space for a computer and printer, a telephone, and three 4-drawer lateral locked file cabinets.
- ☐ Two 4'x4' tack boards should be provided in this area.

☐ The location of the desk, chair, phone, and file cabinets should be placed so that it enables supervision of both the waiting area and the resting areas.

Office/Health Assessment Room

☐ The office should accommodate a double-pedestal desk and chair, a telephone, one lockable file cabinet, a round table to accommodate eight, and eight chairs.

☐ The room is to be enclosed in such a manner as to prevent the passage of voices into or out of the room. A transparent opening in the wall is to be provided to permit supervision of the waiting and treatment areas. Blinds are to be provided for privacy. Two doors should be provided, with one designated for access/egress to the health suite and one designated for access/egress into the administrative area. (An outside window would be appreciated.)

Isolation Room

☐ This room should accommodate space for a cot and a single pedestal desk and chair, telephone and computer.

☐ This room requires a sink and counter with lockable cabinet.

☐ This area requires supplementary power ventilation capable of 20 changes per hour with control by means of a separate switch within the health suite.

☐ One 4x'4' tack board should be provided.

Resting Areas

☐ This area should not fully contained room but rather an area that can provide privacy for each cot with a draw curtain on a ceiling track.

☐ There should be two separate areas, male and female resting areas, with at least two cots in each area.

☐ These areas should be designed to enable supervision from the treatment area.

☐ A third section will serve as a privacy room and must have a door and space for a cot and a chair. (See description above)

☐ A "cell" characteristic is to be avoided.

☐ In the rest area and privacy room, supplementary power ventilation capable of 20 changes per hour is to be provided.

☐ One 4'x4' tack board should be provided in this area.

Storage Area

☐ The storage area should accommodate cots, two folding wheelchairs, and adjustable shelving for forms and supplies.

☐ The storage area is to be secured and should not be smaller than 40 sq. ft.

Additional Program Requirements

PROGRAM OF REQUIREMENTS FOR
SPRINGBROOK HIGH SCHOOL SHOOL-BASED WELLNESS CENTER

I. Overview

This project provides for the placement of a School-Based Well Center (SBWC) at Springbrook High School, where the staff will provide somatic and mental health services, case management services, youth development programs, and activities to the school community's students and families.

II. Project Description

A. The project provides for constructing a comprehensive SBWC facility at Springbrook High School, where health and human services are delivered to school community members. It should incorporate these basic components: the health room suite, the administrative area, the health clinic, mental health,

social services, youth development, and wellness program areas.

B. The SBWC should be designed adjacent to the school—the health room suite provided by Montgomery County Public Schools (MCPS). A door from the health room suite is preferred for opening into the SBWC. The design should facilitate service provision in the school health room suite by the SBWC nurse practitioner or doctor to the enrolled students who arrive ill or injured.

C. It is preferred that the SBWC be located near the main entrance of the school for supervision and security purposes and have at least one, but preferably two direct access to the outside with clear identification of the SBWC entrance to provide access during evening and weekend hours when the school is closed.

D. Two entrances from the school to the SBWC are needed, one that enters directly into the health clinic area and the other to the mental health case management area.

E. The design shall consider the safety and security of the SBWC and school use.

F. The facility is to be arranged so access from the SBWC to the school can be controlled when school is not in session.

G. Doors should have windows, and all windows should have blinds, including the window within the door. There should be Vinyl Composite Tile (VCT) flooring throughout the center. A doorbell should be placed at the outside entrance, with audible notification to the nurse's office, site coordinator's office, and main reception area. All rooms should have the capability to be locked.

III. School Based Wellness Center Operations

A. Hours of Operation: 7:00 a.m. – 6:30 p.m. (the hours of operation could change, depending on the needs of the school community); Monday through Friday, as well as some days when school is not in session; some evening hours during the week and on the weekend, depending on the needs of the school community.

B. Staff: school community health nurse, school health room technician, nurse practitioner and/or physician, medical assistant, contract health support staff, program manager, site coordinator, case manager, mental health counselor, youth development staff, and community service aide.

C. Months of Operation: The above-mentioned staff will be present during hours of operation during the school year and summer; somatic health staff will have part-time summer hours.

IV. Site Requirements

The site chosen by MCPS for the school facility must be able to accommodate the SBWC facility and needs to be located directly adjacent to the school health room suite. Site selection considerations shall include, at a minimum, the

feasibility of providing separate access to a SBWC and safety and security considerations with the operation of a SBWC on the property. Priority in site selection shall be given to the educational use of the site.

The location of the SBWC facility is to have convenient access to the school foyer and parking lot drop-off area.

V. Mechanical and Electrical Systems

The facility is to be compatible with the systems of the school at which it is located. It should have heating and air conditioning. Because the SBWC may operate while the main portion of the school is not in session, the Heating, Ventilation, and Air Conditioning (HVAC) must be zoned for after-use. The system shall be included in the school energy management system but shall allow for zoning separation capabilities. The systems selected must be maintainable by MCPS.

Two sets of electrical outlets are to be provided on all walls and comply with or exceed the minimum number required by applicable code(s). There should be an electrical outlet and data drop in the copy machine area. There should be two data drops in every office and area that will house phones and computers, including health assessment rooms, lab, conference room, isolation room, and health room areas. On new construction only, a center data drop and electrical outlet on the floor of the conference room also should be included. There should be an emergency outlet to a backup emergency generator in the laboratory to accommodate the large refrigerator and over-the-counter freezer that store vaccines.

A low counter in the lab with quad electrical outlets above and below the counter should be installed. A high counter in the lab with an electrical outlet below the counter for a dormitory-sized refrigerator (for lab specimens) should be included. A designated space with electrical outlets and a data drop for a large copier.

VI. IT/Telecommunications

The telecommunication network conduit and wiring infrastructure are to be provided in all spaces except the restrooms, building service closets, and small storage rooms under 100 square
feet. Additionally, wireless access points are to be provided to enable uninterrupted wireless service to MCG/DHHS computers throughout the SBWC.

The telephone systems shall be owned by MCPS and connected to the MCPS' telephone network (see VIII. School Facilities Needed for Support). If an individual SBWC school is at full capacity in terms of phone lines,

Montgomery County Government (MCG)/Department of Health and Human Services (DHHS) will pay for the costs associated with required increased phone line capacity. Intercom system that can be turned on and off in health areas.

The computer devices will be purchased and owned by MCG/DHHS and shall be connected to the MCPS computer network. Fiber optic service or equivalent Internet connection will be provided by MCPS. The SBWC will utilize the fiber optic service to connect to the County Government network via the Carver Educational Services Center (CESC) county link. All equipment and software will meet County standards and provide compatibility with other SBWCs.

VII. Security

The SBWC is to be integrated into the school security system. The system must include provisions to allow use of the facility when school is not in session, for example, a separate control panel for the facility.

The facility is to be arranged so access from the facility to the school can be controlled when school is not in session. The door to this exit should be visible so that staff can monitor the entrance and control access. This door should have a lock and bell system. Emergency buzzers should be installed in all rooms and areas of the SBWC. Also required is a security door that locks with a window between the health room suite and the SBWC. Doors with interior windows in the nurse's and site coordinator's offices into the health room and the administrative/reception area. Interior windows in the nurse's and site coordinator's office overlook the health room and reception area. Exterior security, including the design of access from the parking area to the entrance, a doorbell, a security camera system, an entry pad, and the provision of substantial exterior lighting is important.

VIII. School Facilities

Needed for Support - A mailbox to accommodate letters and packages shall be identified for the SBWC in the school mailroom. The school public address/intercom system shall be extended to all rooms in the SBWC. Speakers in the facility shall have volume and off/on controls and call-back features to the main office. A telephone system integrated into the school telephone system shall be provided by MCPS with voice mail capabilities. There should be a meeting to discuss keys and colors, as well as a walk-through before drywall and at any other times there are questions.

IX. Furnishings and Equipment

Montgomery County Government (MCG) shall provide the furniture and equipment as needed to operate the SBWC. A furniture and equipment summary is attached for design purposes.

As part of the construction contract, the following items will be provided upon completion of construction, (other items may be identified during design):

1.) Doorbell – chime/video in the reception area and site coordinator and nurse's office

~~2.) Carpet in offices but not in the lab, treatment, or patient areas.~~

3.) Windows in doors

4.) Blinds on all windows including doors.

5.) Two data drops in every office

6.) Plug (outlet) in the copy machine area/alcove for the fax copy machine.

7.) Low counter in the lab with plug above counter

8.) High counter in the lab with plug below the counter for dorm refrigerator (lab specimens)

9.) Data drop in copy machine area for fax/copy machine

10.) Shelves in supply closets

11.) Sign outside (Logo-spelled out)

12.) locks on all doors

13.) Tack boards in every office, lab, treatment room, and in the reception area.

14.) Large marker board/promethium board in the conference room

15.) Center data drop and plug-in floor in the conference room

16.) Television mount in the conference room

17.) Phone jack and data drop-in lab and exam rooms.

18.) Data drop in isolation room reception area and health room area

19.) Lighting above 3 cots and 3 curtains

20.) Built-in cabinets in the lab, treatment area mental health counselor, and fax area

21.) Interior windows in the nurse's and site coordinator's offices to see reception areas.

22.) Security door with window, from health room to SBHC that locks

23.) Soap dispensers and paper towel holders at every sink

24.) Vents in the bathrooms

25.) Intercom system that can be turned on and off in health areas.

26.) One VFC refrigerator and one VFC freezer in the lab

27.) Refrigerator/freezer in health room

28.) Emergency outlet to back up the generator in the lab.

29.) Shades blinds

30.) 2 Data ports in every area

31.) Wi-Fi nodes throughout

32.) Bulletin board placement

33.) Key meeting participation

34.) Color meeting participation.

35.) Signage for each room-health assessment room.

36.) Walk through before drywall to ensure data drops are correct; before Hanging bulletin boards to ensure location, at punch list time, at any other time there are questions, then a final walk-through.

X. Applicable Laws

This facility shall comply with all applicable current local, state, and federal laws, regulations, and codes, including a back-up generator emergency power supply for the vaccine refrigerator in the lab.

XI. Space Descriptions

Description	# of spaces	Net SQ. FT Each	Total Net SQ.FT.
A. Administrative Area			
1. General Conference/Reception Area	1	250	250
2. Conference Room	1	300	300
3. Storage Closets	2	10	20
4. Large Storage Closet	1	20	20
B. Health Clinic			
1. Exam Room #1	1	100	100
2. Exam Room #2	1	100	100
3. Exam Room #3- Nurse Practitioner/Physician Office	1	150	150
4. Laboratory	1	100	100
5. Medical Supplies Storage Area	1	50	50
6. Data Entry and Records Room	1	100	100
7. Toilet Room	1	50	50
C. Mental Health/Social Services/Youth Development Suite			
1. Recreation/Welcome Area	1	250	250
2. Youth Development Conference	1	250	250
2. Mental Health & Wellness Activities Group Room	1	250	250
4. Program Manager Office	1	150	150
5. Case Manager Office	1	150	150
6. Youth Development Office	1	150	150
7. Mental Health//Therapy Room	1	150	150
8. Mental Health Office	1	150	150
9. Youth Development Office	1	150	150
10. Large Storage Closet	1	20	20
D. School Health Room			
Waiting Area	1	150	150
Treatment/Medication Area	1	140	140
Rest Areas	2	100	200
School Nurse Office	1	150	150
Isolation Room	1	100	100
Storage	1	50	50
Toilet Room	2	60	120
Total Net SQ. FT.			3,820
Total Gross SQ. FT.-3,820 net sq. ft x 1.34 =			5,119

A. Administrative Area
This area should be centrally located between the Health Clinic and the Mental Health/Social Services/Youth Development, Health and Wellness Activities Suite to act as a central administrative area.

1. General Office/Reception Area
Key Features:
The general office space should be designed to be near the entrance of the suite and serve as a reception/waiting area for somatic health, mental health, social services, case management, youth development services, and wellness activities. This space will need multiple entries from the main school (through the school health room suite and directly from the school hallway) and access from the outside of the building to accommodate entry into the SBWC at a time when the school is not in session (i.e. weekends/evenings/ vacation). It should have an L-shaped reception counter and cabinets that can accommodate a computer workstation, printer, fax machine (with consideration of confidentiality guidelines), storage for files (a file drawer or file cabinet as needed) office supplies, and floor space for a copier. This space should have vinyl composite tile (VCT) flooring. This area will require a telephone. Two 4'x4' tack boards should be provided in this area.

2. Conference Room
Key Features:
Conference room configuration should seat 12-16 people around a conference table or seat this number of people in an informal seating arrangement. A built-in storage closet (approximately 20 sq. ft) with five adjustable shelves should be provided within this space. This space should have VCT flooring. There should be a smart whiteboard/video teleconference capability. This room will require a telephone. Two 4'x6' tack boards and one 4'x8' marker board should be provided in this room.

3. Storage Closets
Key Features:
These closets are centrally located in the administrative area for access to all who work at the SBWC.
Lockable storage space is needed for the following:

- Staff outer clothing
- Office supplies
- Food pantry/clothing storage

The coat closet should be equipped with a clothing rod and hat shelf. The other storage closets should have five adjustable shelves each.

B. Health Clinic area should be designed with consideration for privacy and confidentiality. The health assessment rooms should be adjacent to each other, with the laboratory and toilet room nearby.

1. Health Assessment Room #1
   Key Features:
   The health assessment room should be equipped with a sink with built-in lockable base and wall cabinets. The room configuration should accommodate an examination table, a mobile medical supplies cabinet, a desk, an office chair, and two fan-back chairs. There will be space to accommodate a hazardous materials trash receptacle. Grounded wall outlets need to be on all sides of the room, including one outlet above the counter and computer drops on two sides of the room to accommodate flexibility of furniture placement. This space should have VCT flooring. This room will require a telephone. One 4'x4' tack board should be provided in this room and signage for the room.

2. Health Assessment Room #2
   Key Features:
   The health assessment room should be equipped with a sink with built-in lockable base and wall cabinets. The room configuration should accommodate an examination table, a mobile medical supplies cabinet, a desk, an office chair, and two fan-back chairs. There will be space to accommodate a hazardous materials trash receptacle. Grounded wall outlets need to be on all sides of the room, including one outlet above the counter and computer drops on two sides of the room to accommodate flexibility of furniture placement. This space should have VCT flooring. This room will require a telephone. One 4'x4' tack board should be provided in this room. Signage for each room.

3. Health Assessment Room #3 and Nurse Practitioner/Physician Office
   Key Features:
   The health assessment room should be equipped with a sink with a built-in lockable base and wall cabinets. The room configuration should accommodate an examination table and a mobile medical supplies cabinet as well as an L-shaped desk with a hutch to accommodate a computer, an office chair, and two fan-back chairs. There will be space to accommodate a hazardous materials trash receptacle. This space should have VCT flooring. This room will require a telephone and a computer. One 4'x4' tack board should be provided in this room.

4. Laboratory
   Key features:
   The laboratory should be equipped with a sink and countertop space for specimen testing. Cabinets with locks should be placed above and below the sink. Space for a full medical-grade refrigerator and over-the-counter medical-grade freezer with emergency outlets to a backup generator is required.
   An under-the-counter refrigerator is needed. There must be counter space for vision and hearing screening equipment. The room requires space for a blood drawing chair. Electrical outlets must be provided above and below all counters. This room will require a telephone, a computer, fax capability, and a data drop. There will be space to accommodate a hazardous materials trash

receptacle. This space should have VCT flooring. One 4'x4' tack board should be provided in this room.

5. School Nurse Office
   Key Features:
   Space should allow for an L-shaped desk or desk and computer workstation, file cabinet, bookcase, and a small round table and two chairs. This space should have VCT flooring. This office must be collocated between the health room suite and the SBWC. This room requires a telephone and a computer. One 4'x 4' tack board should be provided in this room.

6. Medical Supplies Storage Area:
   Key Features:
   Lockable storage space is needed for pharmacy and medical, clinic, and laboratory supplies. This area needs built-in adjustable shelving. This area also must have the capacity to have a lockable file or other cabinet (42" wide) storage unit.

7. Data Entry and Records Room
   Key Features:
   Space is needed for the locked storage of all records and as a confidential data entry area. A large desk will be provided as a computer workstation, two 4-drawer file cabinets, and three 4-drawer lateral files. This space should be centrally located in the health suite but not directly adjacent to the exam rooms to provide enhanced patient privacy. This space also should have a closet for storage purposes for the SBWC supplies. This room will require a computer and a telephone.

8. Toilet Room
   Key Features:
   A handicapped-accessible toilet room with a sink and toilet should be in the health clinic area next to the laboratory space. A lockable specimen door between the toilet and the lab room is needed.

C. Mental Health/Social Services/Youth Development, Health and Wellness Activities Suite

1. Youth Development Conference Room.
   Key Features:
   This room will serve as an informal area that will allow for sofas and/or lounge chairs. Additionally, there should be space for two round tables with four chairs each or a conference table system. A storage closet should be provided within this space. This space should have VCT flooring. This room will require a telephone. Two 4'x6' tack boards and one 4'x8' marker board should be provided in this room.

2. Mental Health and Wellness Activities Group
   Key Features:
   This area should accommodate a conference table system and chairs to accommodate 16 people at either small tables or conference style. A storage closet should be provided

within this space. This space should have VCT flooring. A smart whiteboard / video teleconference equipment would be ideal in this room. This room will require a telephone and data drop. Two 4'x6' tack boards and one 4'x8' marker board should be provided in this room.

3. Mental Health Youth Development Office/ Therapy Room

Key Features:

This area should accommodate an L-shaped desk area with a computer workstation. There should be space for a round table and four chairs. Space should be provided for a file cabinet and bookcase. This space should have VCT flooring. This room will require a telephone. One 4'x4' tack board should be provided in this room.

4. Program Manager

Key Features:

A large desk area to accommodate a computer workstation and space for round table and four chairs or small couch and chair is required. A second desk for a computer will be needed. Space should be provided for a file cabinet and bookcase. This space should have VCT flooring. This room will require two telephones. One 4'x4' tack board should be provided in this room.

5. Case Manager

Key Features:

A large desk area to accommodate a computer workstation and space for round table and four chairs or small couch and chair is required. A second desk for a computer will be needed. Space should be provided for a file cabinet and bookcase. This space should have VCT flooring. This room will require two telephones. One 4'x4' tack board should be provided in this room.

6. Site Coordinator Office

Key Features:

An L-shaped desk area to accommodate a computer workstation and space for round table and four chairs is required. Space should be provided for a file cabinet and bookcase. This space should have VCT flooring. This space should have a storage closet with five adjustable shelves. This room will require a telephone. One 4'x4' tack board should be provided in this room.

7. Toilet Room

Key Features:

A handicapped-accessible toilet room with sink and toilet.

D. School Health Suite (Health Room)

1. Waiting /Treatment Medication Area

Key Features:

A waiting area should be provided within the health room suite for sick and injured students waiting to be assessed. Students who are enrolled

in the SBWC who are waiting to be examined by the NP/MD will sit in the reception area of the health clinic.

a) This area should have space for the school health room technician to work. The area will accommodate an L-shaped desk with space for a computer workstation and printer, and three 4-drawer lateral file cabinets. Two 4'x4' tack boards should be provided in this area.

b) A treatment area should be equipped with a sink with countertop and base and wall cabinets with locks. Space is needed here for a small full-size refrigerator with ice making capabilities. There will be an area to accommodate a hazardous materials trash receptacle.

2. Rest Recovery Area
   Key Features:
   This area should not be a fully contained room but rather an area that can provide privacy for each cot with a draw curtain on a ceiling track. The rest area needs space for at least two cots in each of two areas, and a total of four bedside cabinets. There should be a separate isolation room (see below) adjacent to the rest area. One 4'x4' tack board should be provided in this room.
3. Isolation Room
   Key Features:
   This room should accommodate space for a cot and a single pedestal desk and chair. This room will require a sink, as well as an above counter lockable cabinet.
   Additionally, it will accommodate a telephone and a computer. This area requires supplementary power ventilation capable of 20 changes per hour with control by means of a separate switch within the health suite. One 4'x4' tack board should be provided in this room

4. Storage Closet
   Key Features:
   Space is needed to store the health room and some clinic supplies. This area needs built-in adjustable shelving.
5. Toilet Room
   Key Features:
   Two student handicapped-accessible toilet rooms with a sink and a toilet should be located in the school health room suite and if possible, near the health clinic.

One toilet room should be large enough to accommodate a treatment table in the event it is needed for a handicapped student in the future. This space should have ceramic tile flooring and wainscot.
Adult toilets within the school should be close to the SBWC and accessible for staff and visitor use.

SCHOOL BASED WELLNESS CENTERS
Furniture and Equipment Summary

Item Description		Units
A. General:		
	Telephones	12
	Smart Whiteboard/video teleconference equipment	1
	Copier machine	I
B. Administrative Area:		
1. Reception and General Office		
	Office chair	1
	Personal computer	1
	42" 4 drawer lateral file	I
	Printer	1
	Fax machine	1
	Chairs fan back	8
	Bookcase	1
	Desk 30 x 60	1
2. Conference Room		
	Table system	1
	Chairs stack or conference	12
C. Health Clinic:		
1. Health Assessment Rooms #1 and #2		
	Exam table	2
	Exam stool	2
	Exam side table	2
	Desk 30 x 60	2
	Office chair	2
	Wall otoscope/ophthalmoscope	2
	Computer	1
	Otoscope Insufflator	2
	Digital sphygmomanometer	2
	Gooseneck lamp	2
	Chairs -fan back	4
2. Health Assessment Room #3 Nurse Practitioner Office		
	Exam table	1
	Exam stool	1

	Exam side table	1
	Wall otoscope/ophthalmoscope	1
	Otoscope Insufflator	1
	Computer	1
	Digital sphygmomanometer	1
	Gooseneck lamp	I
	36 x 72 Double pedestal desk	1
	Desk hutch -no doors	1
	Bookcase-small- 36" 2 shelves	1
	Chairs fan back	4
	Office chair	1
	Small round table	1
3. Lab		
	Full sized medical grade refrigerator and over counter freezer	1 each
	Half sized refrigerator	1
	Audiometer	1
	Titmus machine	1
	Hemocue	1
	Computer	1
	Glucometer	1
	Nebulizer	1
	Pulse Oximeter	1
	Table	1
	Chairs-fan back	2
	Blood drawing chair	1
	File cabinet-4 drawer regular	2
4. Nurse Office		
	L-shaped desk	1
	Desk hutch with doors	1
	Office chair	1
	Small round table	1
	Personal computer	1
	Chairs fan back	2
	Lateral file cabinet 4 drawer	1
	Bookcase-tall 72"	1

5. Data Entry & Record Room		
	30" x 60" desk	1
	Secretarial chair	1
	Personal computer	1
	4-drawer locking file cabinet	3
	Lateral file cabinet 4-drawer locking	2
	Small rectangular table	1
D. Mental Health/Social Services/Youth Development &Wellness Activities Suite:		
1. Program Manager		

	Large desk	1
	Desk hutch with doors	**1**
	Office chair	2
	Personal computer	2
	Lateral file cabinet 4 drawer	**1**
	Desk	**1**
	Small round table	**1**
	Chairs fan back	4
	Bookcase-tall 72"	**1**
2. Case Manager & Community Service Aide Office		
	Large desk	1
	Desk hutch with doors	1
	Office chairs	2
	Personal computer	2
	Lateral file cabinet 4 drawer	**1**
	Desk	**1**
	Small round table	1
	Chairs fan back	4
	Bookcase - tall 72"	1

3. Site Coordinator Office		
	L-shaped desk	1
	Desk Hutch with doors	1
	Office chair	1
	Personal computer	1
	Lateral file cabinet 4 drawer	1
	Small round table	1
	Chairs fan back	4
	Bookcase - tall 72"	1

4. Youth Development Conference Room		
	Conference style table system which can be arranged in small tables or to accommodate 16.	**1**
	Sofa	2
	Chairs	4
	Small round table	2
	Chairs fan back	20
5. Mental Health/Health and Wellness Activities Group Room		
	Conference style table system which can be arranged in small table or to accommodate 16.	**1**
	Chairs - stackable	20
	Promethean board	**1**
6. Mental Health/Youth Development Office/Therapy Room		
	L-shaped desk	1
	Desk hutch with doors	1

	Office chairs	2
	Personal computer	1
	Lateral file cabinet 4 drawer	1
	Desk (30"x60")	1
	Small round table	1
	Chairs fan back	4
	Bookcase- small- 36" 2 shelves	2

High School

Educational Specifications

Feasibility/Schematic Design

Montgomery County Public Schools
Rockville, Maryland 20850

MONTGOMERY COUNTY PUBLIC SCHOOLS
Expanding Opportunity and Unleashing Potential

Table of Contents

Space Summary

FACILITY	# NEEDED	SQ. FT./ FACILITY	TOTAL NET SQ. FT.	TOTAL DEPT. SQ. FT.
Standard Spaces				87,010
Standard Classroom	88	840	73,920	
Drama Classroom	1	1,150	1,150	
Developmental Reading	1	840	840	
Project/Collaboration Rooms	6	550	3,300	
Workrooms	3	225	675	
Large Staff Office	4	1,000	4,000	
Small Staff Office	2	500	1,000	
Composition Aid Work Area	1	175	175	
Textbook Storage	1	550	550	
Textbook Storage	2	450	900	
Textbook Storage	2	250	500	
Special Education				11,715
Classrooms	7	840	5,889	
Resource Room	2	840	1,680	
Speech & Language	2	240	480	
OT/PT Room	1	250	250	
Transition Office	2	125	250	
Conference Room	1	250	250	
Itinerant Staff Office	2	125	250	
Support Staff Office	1	125	125	
Accommodation Rooms	4	300	1,200	
Large Staff Office	1	1,100	1,100	
Textbook Storage	1	250	250	
ESOL				3,070
Classrooms	3	840	2,520	
Small Staff Office	1	250	250	
Student Support Office	1	300	300	

FACILITY	# NEEDED	SQ. FT./ FACILITY	TOTAL NET SQ. FT.	TOTAL DEPT. SQ. FT.
Science				2,650
Science Laboratories (Island layout)		1,500	0	
Science Laboratories (Perimeter layout)		1,500	0	
Preparation Rooms		300	0	
Chemistry Preparation Room		300	0	
Chemicals Storage	1	125	125	
Storage Rooms	5	300	1,500	
Greenhouse (only needed if school has program)	1	600	600	
Greenhouse Preparation Room (only needed if the school has a program)	1	125	125	
Textbook Storage	1	300	300	
College, Career, Research, Development				840
CCRD Classroom	1	840	840	
Art Department				7,450
Ceramic/Sculpture Room	1	1,500	1,500	
Kiln/Glaze/Prep Room	1	300	300	
Ceramic Pug Room	1	100	100	
Studio Art Room	1	1,300	1,300	
Photography Room (only if school offers)	1	1,300	1,300	
Dark Room (only if school offers)	1	250	250	
Digital Art Room	1	950	950	
Digital Photography Room	1	950	950	
Department Office	1	300	300	
Large Storage Rooms	2	250	500	
Small Storage Room	3	50	150	
Music Department				6,250
Instrumental Room	1	1,950	1,950	
Instrumental Storage Room	1	450	450	
Percussion Storage Room	1	150	150	
Choral Room	1	1,800	1,800	
Office/Library	1	400	400	

FACILITY	# NEEDED	SQ. FT./ FACILITY	TOTAL NET SQ. FT.	TOTAL DEPT. SQ. FT.
Practice Room	4	75	300	
Robe/Uniform Storage	1	300	300	
Small Ensemble/Keyboard Laboratory	1	900	900	
Technology Education				7,090
Foundations of Technology Lab	3	1,750	5,250	
Student Storage Space	3	200	600	
Material Storage Space	3	140	420	
Office	1	220	220	
The spaces below are for schools with PLTW programs only:				
Applied Engineering Laboratories		1,500	0	
Computer Laboratory		950	0	
Student Storage Space	2	150	300	
Material Storage Space	2	150	300	
Computer Science				2,120
Computer Laboratory	2	950	1,900	
Office	1	220	220	
Multipurpose Laboratory				1,550
Laboratory	1	1,350	1,350	
Storage	1	200	200	
Career Child Development				2,000
Laboratory	1	1,000	1,000	
Observation Room/Classroom	1	800	800	
Office/Storage	1	200	200	
Physical Education				30,558
Main Gymnasium	1	10,000	10,000	
Ticket Booth	1	100	100	
Indoor Concessions Area	1	400	400	
Second Gymnasium	1	6,000	6,000	
Dance Studio	1	1,849	1,849	
Storage Closet	1	100	100	

FACILITY	# NEEDED	SQ. FT./ FACILITY	TOTAL NET SQ. FT.	TOTAL DEPT. SQ. FT.
Fitness/Cardio-Pulmonary (Weight) Room	1	2,250	2,250	
Storage Closet	1	100	100	
Wrestling Room	1	1,849	1,849	
Storage Closet	1	60	60	
Health Classroom	2	900	1,800	
Locker Rooms	2	1,650	3,300	
Inclusive Locker Room	1	450	450	
Shower/Drying Area	2	150	300	
Toilet Room	2	200	400	
Towel Storage Room	2	50	100	
Staff Office	2	600	1,200	
Common Planning Room	1	200	200	
Resource Teacher Office	1	100	100	
Athletics				7,880
Team Rooms	5	500	2,500	
Team Rooms	1	1,000	1,000	
Athletic Director Office	1	200	200	
Athletics Dept. Storage	1	140	140	
Coaches Office	2	140	280	
Coaches Closet	2	40	80	
Referee Office	1	140	140	
Football Equip./Uniform Drying	1	500	500	
Training Room	1	300	300	
Laundry Room	1	140	140	
General Storage	1	1,500	1,500	
Chair and Table Storage	1	400	400	
Outside Storage	1	500	500	
Storage	2	100	200	
Library Media Center				9,105
Circulation Area	1	750	750	
Main Learning Environment	1	5,000	5,000	
Work and Production Area	1	900	900	
Television Studio	1	1,250	1,250	
Editing Rooms	3	75	225	

FACILITY	# NEEDED	SQ. FT./ FACILITY	TOTAL NET SQ. FT.	TOTAL DEPT. SQ. FT.
Editing Room	1	140	140	
Media Services Technician Office	1	140	140	
Storage (general)	1	350	350	
Storage (equipment)	1	350	350	
Auditorium				17,699
House Area	1	9,474	9,474	
Ticket booth	1	100	100	
Concession Booth	1	200	200	
Stage	1	4,000	4,000	
Orchestra Pit	1	500	500	
Orchestra Pit Storage	1	300	300	
Scenery Construction/storage	1	1,130	1,130	
Stage Office	2	100	200	
Make-up Area	1	500	500	
Dressing Rooms	6	75	450	
Costume Storage	1	225	225	
Projection Room	1	225	225	
Lighting Equipment Storage	1	100	100	
Costume Construction	1	225	225	
Musical Equipment/Piano Storage	1	70	70	
Student Activities Facilities				1,795
Student Council Suite	1	380	380	
School Store	1	175	175	
School Store Storage	1	200	200	
Journalism Staff Room	1	380	380	
Yearbook Staff Room	1	380	380	
Literary Magazine Staff Room	1	280	280	
Staff Offices				1,625
Signature Coordinator Office	1	140	140	
Staff Development Office	1	225	225	
School Psychologist Office	1	140	140	
Internship Coordinator	1	140	140	
IT Systems Specialist Office	1	140	140	
Staff Support Offices	6	140	840	

FACILITY	# NEEDED	SQ. FT./ FACILITY	TOTAL NET SQ. FT.	TOTAL DEPT. SQ. FT.
Administration Suite				5,710
General Office	1	1,200	1,200	
Principal's Office	1	250	250	
Assistant Principal's Office	4	140	560	
Administrative Support Office	1	140	140	
Principal's Secretary Office	1	125	125	
Business Administrator Office	1	140	140	
Financial Specialist	1	125	125	
Business Manager Waiting Area/Storage	1	100	100	
Conference Room	1	290	290	
Large Team/Testing Room	1	1,200	1,200	
Storage	1	140	140	
Paper Storage	1	140	140	
Testing Room	1	175	175	
PTA Storage Room	1	100	100	
Attendance Office	1	125	125	
Office Workroom/Storage/Toilet Area	1	500	500	
Photocopy Room	1	200	200	
Fire Command Center	1	200	200	
Counseling Suite				3,620
Resource Counselor Office	1	180	180	
Counselors' Office	9	140	1,260	
ESOL Counselor Office (if needed)		140	0	
Waiting Room	1	500	500	
Conference Room	1	290	290	
Records Room	1	250	250	
Registrar's Office	1	140	140	
Workroom	1	200	200	
Career Information Center	1	800	800	
Health Suite				860
Waiting Room	1	150	150	
Treatment/Medication Room	1	140	140	

FACILITY	# NEEDED	SQ. FT./ FACILITY	TOTAL NET SQ. FT.	TOTAL DEPT. SQ. FT.
Office/Health Assessment Room	1	100	100	
Health Assessment/Isolation Room	1	100	100	
Rest Areas	2	100	200	
Storage	1	50	50	
Toilet Rooms	2	60	120	
Security Suite				950
School Security Office	1	450	450	
Restorative Justice Room	1	500	500	
Staff Facilities				1,750
Staff Room	2	500	1,000	
Staff Dining	1	600	600	
Privacy Room	3	50	150	
Food Services Facilities				15,645
Student Dining	1	12,000	12,000	
Serving Area	1	1,300	1,300	
Food Preparation	1	1,200	1,200	
Dry Food Storage	1	400	400	
Ref.& Frozen Food Storage.	1	420	420	
Office	1	100	100	
Locker/Toilet Room	1	100	100	
Loading & Receiving Platform	1	125	125	
Building Services Facilities				3,340
Building Services Office	1	140	140	
Locker/Shower Area	1	300	300	
Compactor/Trash Room	1	300	300	
General Storage and Receiving Area	1	1,000	1,000	
General Storage	5	250	1,250	
Building Services Outdoor Storage	1	350	350	
Mechanical Spaces				750
Telecom Equipment Closet (TEC)	1	400	400	
Telecommunication Closets	7	50	350	
Subtotal–School	**122**		**233,182**	**233,032**

Introduction

☐ In this Document, facilities are described for the Springbrook High School Wellness Center. The descriptions provide the architect with useful guidelines and staff representatives use them when reviewing drawings and specifications for the facility improvements.

☐ This school will be designed with a capacity for 2400 students, a core capacity of 2100 students. The architect should show the location for the future classroom addition.

☐ This project needs to meet the educational guidelines for a Grades 9–12 program.

☐ The educational specifications are divided into three sections.

- The first section, the space summary, lists the type of spaces and square footage required when the project is complete.
- The second section describes the general design, location, and specific requirements for each type of space in accordance with Montgomery County Public Schools (MCPS) guidelines.
- The third section identifies additional program requirements for the school.

☐ The architect will provide a space summary comparison between the programmed space requirements and the proposed work after each phase of the project including but not limited to the feasibility study, schematic design, design development, and final design phase.

☐ The architect should show the location for relocatable classrooms, should they be required in the future. These units should be sited in a location where it will not cause conflict with the constructability of a future addition. The necessary utility connections, i.e. electrical power, fire alarm, public address, and data should be provided near the future location of relocatable classrooms.

☐ The design of the school should promote a collaborative approach for both teaching and learning. Flexibility of design should be provided to accommodate changing educational programs and pedagogy.

☐ The project will be designed to the meet current local and state sustainability guidelines.

General Planning Considerations

In the general planning of this building and development of the site, special consideration is to be given to the following comments and instructions.

Code and Guidelines

☐ The architect is expected to become thoroughly familiar with all national, state and local fire safety, life safety, and health code regulations and to follow applicable rules of the State Interagency Committee on School Construction.

☐ The building is to be accessible to the disabled within the meaning of the latest edition of the Americans with Disabilities Act and to conform to all the latest requirements of the *Americans with Disabilities Act Standards for Accessible Design*. (The regulation can be found at https://www.ada.gov/2010ADAstandards_index.htm)

☐ In addition to the ADASAG, the *Maryland Accessibility Code* (COMAR.05.02.02) also is required for public schools. (The regulation can be found at http://mdcodes2.umbc.edu/dhcd/access.htm). Per COMAR 23.03.02: Regulation .29, all high school projects that include replacing or upgrading the electrical system should be designed and constructed sot that a designated public shelter area can be fully powered in the event of an emergency.

☐ The architect should refer to the MCPS Facility Guideline Specifications when noted. The Document can be found at: http://www.montgomeryschoolsmd.org/departments/construction/publications/guidelines.shtm

☐ Special consideration should be given to energy conservation including total life-cycle costs. The current Department of General Service (DGS) requirements shall be applied as design criteria. Life-cycle cost accounting in accordance with DGS criteria is required. A statement on energy conservation must be a part of the preliminary plans submission. Additional details on energy conservation will be provided under separate cover.

☐ The architect should refer to MSDE 2006 *Classroom Acoustic Guidelines* to address the acoustical qualities for classrooms. Core learning spaces should include sound-absorptive finishes for compliance with reverberation time requirements as specified in ANSI, *Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools* (ANSI S12.60-2002.)

☐ High quality materials are to be used in the construction. The architect should refer to the MCPS Facility Design Guidelines.

Educational Considerations

☐ The school should be designed to support flexible and collaborative learning environments. When possible, the architect should identify collaborative workspaces throughout the building. These spaces can be located near the instructional spaces as well as informal areas such as the library, hallways, etc.

- ☐ All spaces should be designed in such a way that can be adapted to changes in pedagogical changes in the future.
- ☐ The classrooms should be designed to accommodate various size groups. Each classroom should be readily adaptable for group work, various presentation formats, and should have maximum connectivity to outside resources.
- ☐ The shape of the classroom and the design of built-in features and storage areas should provide optimum net usable floor area. Elongated rooms and features that protrude into floor area, limiting flexibility, are to be discouraged. Rectangular shaped classrooms are preferred.
- ☐ For maximum instructional flexibility, large special instruction areas such as those provided for general music and multipurpose laboratories should be designed to allow easy conversion of some or all of the space for other kinds of instruction in the future
- ☐ Every teaching station, support space, and core area, must be wired for computer and VOIP telephone, along with adequate electrical supply in compliance with Maryland Sate design guidelines for Technology in Schools and the MCPS Office of Technology and Innovation (OTI) guidelines. Facilities must be adaptable to accommodate rapid development in high technology and its equipment since educational program and organization in this field are dynamic. Space and power supply must be flexible to meet these changing needs.

Facility Considerations

- ☐ The architect is to design the spaces within 5 percent (plus/minus) of the net square foot guidelines provided in this document unless otherwise noted.
- ☐ The first impression of a building is important. The main entrance to the school should have a clear and inviting identity, and the architect should emphasize the entrance area through its design and landscape.
- ☐ The facility is to reflect an appealing visual, acoustic, and thermal environment, and is to be properly furnished and equipped. Well-chosen colors and textures should be used.
- ☐ The design of the main lobby area needs to convey a feeling of warmth and welcome. The inclusion of a lighted showcase in which student work can be displayed is recommended.
- ☐ The main lobby should have a large overhead-animated electronic display board for messages and videos.
- ☐ Lighting must meet current guidelines and provide adequate levels.
- ☐ Carpeting should be limited to the principal's office, assistant principal's office and conference room in the administration suite and the main reading room of the library media center (LMC).

- ☐ The inclusion of lighted showcases to display student work should be provided in the corridors of the main entrance, art, technology education, gymnasium, and in each grade level area. They should be recessed into the wall with access from within a room and have an electric outlet.
- ☐ Staff work areas should be arranged to encourage interdisciplinary interaction.
- ☐ Noise and distracting sounds are to be minimized. In areas such as the cafeteria and classrooms, which may be used for meetings and adult education, the sound of operating fans for ventilation should not interfere with instruction.
- ☐ A MCPS-designed alarm system will provide security for this facility. The architect will provide for this system in consultation with the Division of Construction staff.
- ☐ Some windows must be operable in each space in the building. Transmission of radiation through windows into various portions of the plant is to be considered in relation to heating and ventilating and in relation to planning the building for air conditioning. All instructional spaces should have windows, preferably exterior windows. If the design does not permit exterior windows, windows onto corridors should be provided.
- ☐ All windows should be equipped with window coverings. The specification for the window coverings will be provided by DDC. Screens on operable windows should be installed in all food related areas.
- ☐ Careful placement of glass is required to avoid excess heat gain in occupied areas.
- ☐ The entire school is to be air-conditioned.
- ☐ Zoning the plant for heating and air-conditioning should be related to after-hours use of various areas such as offices, gymnasium, cafeteria, and the instructional media center. Appropriate location of parking, corridor barriers, and toilet rooms is necessary for after-hours use. Some classrooms nearby the cafeteria should be zoned for after hour use as well.
- ☐ Core spaces such as the cafeteria, gymnasiums, and LMC should be easily accessible for community use and secure from the rest of the building after school hours.
- ☐ Special attention should be given to security measures within the building including location of security barriers in corridors, lockable doors to secure various sections of the building for after-hour use.
- ☐ Spaces that serve no real educational function, such as corridors, should be limited while at the same time assuring an easy to supervise and smooth flow of pupil traffic to and from the LMC, cafeteria, gymnasium, auditorium, specialized centers, and support rooms.
- ☐ For security purposes, all doors into classrooms, conference rooms, offices, etc. must be designed with a sidelight window with shades. If a sidelight is not possible, then the door requires a vision panel.
- ☐

- ☐ Noise and distracting sounds are to be minimized. In areas such as the cafeteria, auditorium and classrooms, which may be used for meetings and adult education, the sound of operating fans for ventilation, should not interfere with instruction.
- ☐ Some toilet rooms should be located so that they may be used during after-hour use.
- ☐ Bathrooms for staff and students should be located throughout the building. Some student bathrooms must be located near the cafeteria, gymnasiums, and auditorium.
- ☐ To the extent feasible, at least one inclusive restroom should be provided on each floor and in high-traffic areas for student use. These toilets should be designed with a non-locking door and one individual stall in each toilet room.
- ☐ Electric water coolers should be strategically located throughout the building and close to the restrooms. At least eight of the water coolers should have water bottle filling stations and should be located near high volume areas such as the cafeteria, gymnasium, auditorium, and on each floor.
- ☐ Corridors where lockers are installed must be a minimum of 10' in width.
- ☐ The number of lockers in the corridor should be equal to the 10-20 percent of the student body.
- ☐ The location of the elevator(s) must consider use by the student population, LMC staff, and after-hours users.
- ☐ A public address system is required in the facility. The architect and engineers should refer to the MCPS Facility Guideline Specifications for additional information.
- ☐ A building services call system is required.
- ☐ A room numbering system which is logical and understandable and which lends itself to electronic scheduling of room assignments for students is required.

Site Considerations

- ☐ A covered walkway from the bus loading area to the front door is desirable.
- ☐ The design of the building and grounds must provide for a secure environment for students and staff. Isolated areas should be minimized and natural surveillance encourage by eliminating visual barriers.
- ☐ Exterior lighting is to be shaded from neighboring properties and is to be operable as appropriate from both time and key switches. For major entrances, a doorbell should be installed.
- ☐ Separate controls on a time clock for illumination of walkways and parking lots, including parking areas for the stadium area are required.

☐ Landscaping and provision for outdoor watering are to be included. Planting is to include screen planting and those that may be needed for erosion control. Other landscaping to support energy conservation and to relate the building to the site with aesthetic appeal must be included.

Technology Framework

The latest technology should be integrated into every aspect of building. The architect should consult with the Office of Technology and Innovation (OTI) and the Division of Construction (DDC) for the latest technology requirements. The architect must at a minimum plan for the following elements.

- ☐ Through the use of wireless access, local area and wide area computer and video networks, students should have access to each other, to schools throughout the county with similar capabilities, and to universities and government institutions throughout the world.
- ☐ Each classroom is to have one dedicated 20 amp electrical circuit for a charging mobile laptop cart.
- ☐ Each classroom will have an interactive teaching board at the teaching wall and computer network outlet (CNO) for the teacher's computer.
- ☐ Additional outlets to allow for charging of personal student devices should be provided in the classrooms and throughout the building.
- ☐ CNOs consisting of a flush mounted standard electrical box with 1 1/2" conduit to the ceiling space overhead should be located in all classrooms, offices, and other work locations according to the following general rules:
  - ☐ one CNO per office, staff office, planning room, etc. adjacent to telephone outlet
  - ☐ One CNO for VOIP system in the classroom
  - ☐ Two CNOs for student use located 3' apart along the back or side wall in each classroom.
  - ☐ Multiple CNOs in media center at circulation desk, reference areas, etc.
  - ☐ One CNO at each science lab workstation
  - ☐ All other areas such as the stage, bookstore, dining room, etc., where computers might be used.
- ☐ The number and location of telecommunication closets required to support the building-wide computer network is dependent on the size and geometry of the building. The layout of the telecommunication closets will be determined during the design phase of the project.
- ☐ Outdoor wireless access points need to be provided at the schools.
- ☐ Wireless access point needs to be provided at the main entrance of the school for a message board.
- ☐ CNOs for security cameras are required at the schools. The number and location will be determined during the design process.

Description of Facilities

Please refer to the summary of spaces for the actual number and size for each space described below. Some deviations will be allowed to provide the best program and design solutions consistent with capital considerations.

Standard Classroom

- ☐ Standard classrooms will be distributed throughout the school and must provide for a combination of large and small group activities.
- ☐ Each classroom should be designed to support flexible furniture arrangements that will support a variety of teaching and learning models.
- ☐ The teacher's closet needs to be lockable for general supplies and personal belongings and should include an enclosure for a two-drawer letter-size file cabinet.
- ☐ Book storage should be located along the window wall with half of the cabinets equipped with hinged, lockable doors. A minimum of 60 linear ft. should be provided for book storage.
- ☐ The main teaching wall layout needs to be in accordance with MCPS Facility Guideline Specifications. The main teaching wall will be designed to accommodate an interactive teaching board.
- ☐ Whiteboard should be installed on all the available walls of each classroom.
- ☐ Map rails and tack rails are to be placed above all white boards. One flag holder attachment is to be placed on a map rail and 4–6 map holders placed on all map rails.
- ☐ Classrooms must have access to computer networks, the school's administrative database, LMC information systems, telecommunications options, and PA system. Computer/technology wiring must be in accordance with DDC, MSDE, and OTI guidelines.

Drama Classroom

- ☐ This classrooms should be designed with the same as elements as a standard classroom.
- ☐ Consideration should be this room to paint the walls black.
- ☐ Space should be identified in this room for a portable stage.
- ☐ Storage should be provided for costumes and props in this room.

Developmental Reading Classroom

- ☐ The developmental reading room should be centrally located.
- ☐ This classroom needs 15 computer stations along two walls.
- ☐ A standard teaching wall should be provided per MCPS Facility Guideline Specifications.
- ☐ Tables for 20-25 students should be provided in this classroom.
- ☐ Storage should be provided under the windows.

Project/Collaboration Room

- ☐ Project/Collaboration rooms should be located adjacent to classrooms with interior glass and a door into each classroom (not opposite each other) as well as a door to the corridor.
- ☐ Teachers should be able to easily supervise this space from the adjacent classrooms.
- ☐ A standard teaching wall should be provided in this room with additional magnetic whiteboards along other walls in the room.
- ☐ Some of these spaces can be designed as open areas in the school to create collaborative learning environments in the school.

Workroom

- ☐ The workroom should be centrally located and convenient to each floor where there are general academic classrooms.
- ☐ Cabinetry appropriate for storing a variety of office and school supplies should be designed along one wall of the workroom.
- ☐ A portion of countertop is to be more than 30 inch wide to accommodate a large paper cutter.
- ☐ Space adequate for a large copying machine with necessary electric service and ventilation should be designed, if the school or program requires an additional copying machine.

Staff Office

- ☐ The staff office may serve as the department office at many high schools and should include a 100 sq. ft. office for the Resource Teacher for private meetings.
- ☐ The staff offices also may be designed as collaborative spaces in varying sizes with storage units in the staff offices rather than teacher's wardrobes in each classroom.
- ☐ Space for teacher desks, storage, bookshelves, and filing cabinets for commonly used department or staff supplies and instructional materials should be identified.
- ☐ A work counter with sink and electric outlets is required.
- ☐ Space should be provided for a refrigerator.
- ☐ One four foot magnetic white board are required.
- ☐ Secure storage and electric and data outlets to accommodate computer equipment.

Composition Aid Work Area

- ☐ This area should be located near one of the large staff offices to support the English Department.
- ☐ Space for three or four teacher desks should be provided in this area.
- ☐ Each work area needs electrical and data outlets for computer workstations.
- ☐ One four foot magnetic white board should be provided in this room.

Textbook Storage

☐ Textbook storage should be convenient to the staff offices and is to be equipped with steel shelving for books.

☐ A storage cabinet unit with locking doors for storage of large-size poster and construction paper, and charts so that these items may lie flat is needed.

Special Education

Spatial needs
Classroom
Resource Room
Speech and Language Room
Occupational Therapy/Physical Therapy (OT/PT) Room
Transition Office
Conference Room
Itinerant Staff Office
Support Staff Office
Accommodation Rooms
Large Staff Office
Textbook Storage

- ☐ Special education classrooms should be located with similar departments in the building so that integration with regular students occurs naturally.
- ☐ The specific requirements for the classrooms are the same as the requirements for standard classroom requirements. Please refer to the preceding section for these requirements.
- ☐ Please see the last section of this document for additional special education program requirements specific to this school.

Resource Room

- ☐ This space should accommodate a 15-20 students and should be centrally located to the academic classrooms.
- ☐ The room should be designed with a standard teaching wall per MCPS Facility Guideline Specifications.
- ☐ The resource room should have open shelving, counter space, and closed storage within the room.
- ☐ A teacher's wardrobe should be provided.
- ☐ One or two small testing rooms to accommodate one student and one staff person should be designed in each Resource Room. The room should have a window to allow for supervision.

Speech Language Room

- ☐ This room requires a magnetic whiteboard, open and closed lockable storage, open shelving, and a lockable teacher wardrobe.

- ☐ Room for a teacher's desk, lockable file cabinet, and table to work with small groups of students is required.
- ☐ The speech/language room should be wired for access to one computer workstation each.
- ☐ The speech room must be located on the first floor and be acoustically treated.
- ☐ The speech room needs a 4’ x 4’ mirror mounted to the wall.

Occupational Therapy/Physical Therapy (OT/PT) Room

- ☐ Each room must have whiteboard that is mounted two feet off the floor.
- ☐ A tack board, open and closed lockable storage, open shelving, and a lockable teacher wardrobe are required.
- ☐ A sink with counter space is required in the OT/PT room.
- ☐ Room for a teacher's desk, lockable file cabinet, and assorted-sized furniture with adjustable legs should be provided.
- ☐ The OT/PT rooms should be wired for access to one computer workstation each.
- ☐ The OT/PT requires a ceiling mounted hook, with a 12 foot diameter clear space for hanging swings and other suspended equipment.
- ☐ The OT/PT room requires lockable storage with sufficient area to house large gross motor equipment (minimum of 35 square feet) such as therapy balls, scooter boards, walkers, balance beams, ramps, etc.

Transition Office

- ☐ This office should be designed with two computer outlets.
- ☐ This office should have a desk and table with four chairs for small meetings.
- ☐ A magnetic whiteboard should be installed on one wall.
- ☐ A telephone is needed in this room.

Conference Room

- ☐ This room should accommodate 12-15 people.
- ☐ Data and electric outlets should be provided for a monitor and computer.

- ☐ A magnetic whiteboard should be installed on one wall.
- ☐ A telephone is needed in this room.

Staff Office

- ☐ This office should be designed with two computer outlets.
- ☐ Tack and whiteboard should be installed on one wall.
- ☐ A telephone is needed in this room.

Accommodations Room

- ☐ Space for 10-12 student desks should be provided.
- ☐ Space for 2-3 computer workstations should be provided.
- ☐ Magnetic marker boards should be provided along all the walls in this room.
- ☐ If this room is located adjacent to a classroom or resource room, a window should be provided between the two rooms.
- ☐ A teacher's desk and wardrobe should be provided.

ESOL Department

Spatial needs
Classroom
Small Staff Office
Storage

☐ ESOL classrooms should be designed with same requirements as standard classroom. Please refer to the preceding section for these requirements.

☐ A 100 sq. ft. office for the Resource Teacher should be provided in the office area.

Science Department

Spatial needs
Science Laboratories
Preparation Room
Chemistry Preparation Room
Chemistry Storage Room
Chemicals Storage Room
Storage Rooms
Greenhouse
Greenhouse Preparation Room
Textbook Storage

Laboratories

Each room will serve as a lecture/laboratory space. The laboratories should be designed as described below.

- ☐ One master key for all the science laboratories is required.
- ☐ The laboratories should ideally be 30' x 50' or as squared as possible.
- ☐ Only 28 student workstations may be designed in each laboratory.
- ☐ All science laboratories except for the Chemistry laboratories should be designed with 2' wide perimeter workspace counters to maximize floor space for tables and chairs.
- ☐ Only the Chemistry laboratories should be designed with island workstations or peninsulas. MCPS staff will provide the layout for the Chemistry laboratories in consultation with the school and MCPS curriculum staff.
- ☐ Permanently installed wall cabinets with glass and adjustable shelving above lab work surfaces, but not above the gas outlets, are needed. About half of the casework should be lockable.
- ☐ One flat file cabinet for E-size chart storage with narrow drawers is required.
- ☐ A 3 ' x 5' demonstration table needs to be located at the front of the room. Space for a teacher's desk should be provided next to the demonstration table.
- ☐ The demonstration table should have gas and a sink with hot and cold water with an aspirator/venturi tube.
- ☐ The demonstration desk needs one 220-volt outlet and two 120-volts.
- ☐ A standard teaching wall should be provided behind the demonstration table. The architect should ensure that the demonstration table is not place directly in front of the interactive teaching board.

- ☐ Half of the non-chemistry labs require a rigid non-moving 300 lb. hook.
- ☐ Three 36” W x84”H storage cabinets with adjustable shelves and glass doors that are lockable should be permanently installed in each laboratory.
- ☐ A goggle cabinet is needed for goggle storage and sterilization with adequate ventilation in each laboratory. One dedicated outlet is needed for the goggle sterilization cabinet for 36 goggles.
- ☐ One installed fume hood with full utilities (water, sink, gas, and light) is needed in each laboratory that fits in a standard cabinet (24" x 36").
- ☐ A safety station is to be installed, with shower, automatic shut-off eyewash, and drain with a sloped floor, and should accommodate persons with disabilities. The shower and eyewash should have a spring loaded mechanism.
- ☐ Master cutoff for gas, water, and electricity needs to be easily accessible to the teacher and located so that students can’t get to it. The emergency cut-off key should be removable in the “on” position.
- ☐ The emergency cut-off switch in each classroom for all utilities should be wall mounted high enough not to be accidentally activated and should be placed in at least two locations.
- ☐ The cut-off switch should not be located near the exit door. The reset circuit for science classrooms should be readily available to science staff.
- ☐ The electrical panel box should be easily accessible by science staff.
- ☐ Electric outlets should be wall mounted or face-of-cabinet mounted.
- ☐ One wash-up stone sink, 18" x 18" x 20" deep with hot and cold water should be provided for student use.
- ☐ Student workstations should be made of moisture and chemical resistant material.
- ☐ The student workstation sinks require cold water only.
- ☐ A chemical drain trap is needed in the demonstration and wash-up sink only in all laboratories.
- ☐ Glass display cabinets in the hallway at door entrances should be installed to several of the science laboratories.
- ☐ A map railing installed up high for permanent wall charts should not be located over the whiteboard.
- ☐ Wall drying racks (pegboard) for test tubes, etc. are needed adjacent to the stone sink.
- ☐ A teacher wardrobe is required in each laboratory.
- ☐ Two ceiling mounted electrical cord reels are required in each laboratory.

- ☐ The architect should be asked to visit recently revitalized high schools and use similar designs after consulting with MCPS staff. The architect should work to design for maximum use of laboratory space within each room particularly in the placement of mechanical units.

Preparation Room

- ☐ One lab station with water and electric and computer capabilities should be installed in each project room.
- ☐ Interior glass from project rooms to science laboratories must be installed for visual supervision of spaces.
- ☐ Wall cabinets and under counter cabinets are required.
- ☐ Counter space made of moisture and chemical resistant is required.
- ☐ These rooms should be located between every two laboratories.
- ☐ A wash-up sink, 18" x 18" x 20" deep with hot and cold water, with drain board and drying rack is required.
- ☐ Heat, chemical, and water resistant work surfaces suitable for an autoclaving/drying oven are required.
- ☐ Variable sized storage cabinets are needed.
- ☐ A residential dishwasher with a lab ware rack insert and a full-size refrigerator/freezer for flammable materials is required in each prep room.
- ☐ These rooms must have an exhaust fan and air conditioning in compliance with latest ASHRAE standards.
- ☐ An equipment repair bench with multi-strip outlets and good lighting is required.
- ☐ The chemistry preparation room requires a Barnstead still that with a minimum size of 3 gallons and a 4-liter-per-hour output and reservoir. Separate water and electric sources are needed for the Barnstead still.
- ☐ All prep rooms should have an emergency cut-off switch to all utilities.
- ☐ A telephone is required in all the prep rooms.

Chemical Storage Room

- ☐ The chemistry storage room requires a steel flammable storage cabinet, with outside power vent, and an acid cabinet.

- ☐ This room should be located adjacent to the chemistry prep room.
- ☐ This room must have a 24-hour, 365 day per year exhaust system vented directly to the outside in compliance with the latest applicable codes.
- ☐ Sturdy, wood, and chemical resistant shelves with safety anti-roll lips on each shelf to prevent accidental roll-off.
- ☐ A safety center with shower and eye wash should be provided in the chemical storage room. If the chemical storage room is located adjacent to the prep room the safety center should located close to the chemical storage room.

Storage Rooms

- ☐ The storage rooms should be located adjacent or grouped with the preparation rooms.
- ☐ A storage room is required between every two laboratories.
- ☐ Adjustable steel shelving is required and should be anchored to the wall.
- ☐

Greenhouse

- ☐ The greenhouse should be easily accessible to a science laboratory and preferably should have a southern exposure, if not it should be eastern exposure or western exposure. The greenhouse must not have a northern exposure.
- ☐ The entrance to the greenhouse should be through the greenhouse preparation area. If the school has an agricultural CTE program then the greenhouse should have direct access to the laboratory as well.
- ☐ The greenhouse also require a window for supervision from the science laboratory.
- ☐ It must have its own heat source with a thermostat, and overhead lighting separate from the rest of the school (preferably gas heat), and adequate ventilation.
- ☐ A drain is required in this space.
- ☐ One duplex electrical outlet per wall at bench height is required.
- ☐ A climate control system is required and should include a 50% shade screen and a swamp cooler or misting system to maintain temperature range should between 45 to 95 degrees.
- ☐ Growing benches are required. The architect is to provide the greenhouse layout for the growing benches.
- ☐ Careful attention to keeping spills contained in the greenhouse is required.

Greenhouse Preparation Room

- ☐ A sink is required in the greenhouse prep room.
- ☐ Careful attention to spills and floods is required in this room.
- ☐ A deep prep sink with cold water is required.
- ☐ Lockable storage cabinets under the counter are required.
- ☐ Lockable wall mounted cabinets are required.
- ☐ A 6 foot counter with sink is needed for student work. Counter material must be moisture and chemical resistant.

College, Career, Research, and Development

Spatial needs
Classroom

☐ This classroom will be used for learning skills for actual on-the-job experiences.

☐ An office is required for the teacher to coordinate the students' work activities with their employers. The office should have a glass window for supervision of the classroom and dedicated phone lines.

Art Department

Spatial needs
Ceramic/Sculpture Room
Kiln/Glaze/Clay Prep Room
Ceramic Pug Room
Studio Art Room
Photography Room
Dark Room
Digital Art Room
Digital Photography Room
Department Office
Storage Rooms

Five art rooms are described below. If a school requires less than five art classrooms, than the school may choose among these five classrooms.

- ☐ Each art room should have adequate and appropriate north natural lighting in addition to a visual reference to the outdoors for the purpose of study.
- ☐ Direct or easy access to the outdoors for bringing in large supplies and materials from each room is desirable. Electric outlets and water should be available in the outdoor space.
- ☐ Entrance doors must clear 36 inches.
- ☐ All sinks are to have moveable faucet lever controlled hot and cold water.
- ☐ Six extension outlets should be provided in the ceiling of all art rooms over the tables.
- ☐ One sink in each art classroom should have eyewash with automatic shut-off mechanism.
- ☐ Storage is to be provided for both two- and three- dimensional art projects, for student books, and for reference books and magazines.
- ☐ Blackout facilities are to be included in each classroom on all windows.
- ☐ Extensive electric outlets, approximately 4’ apart, are to be provided in each room.
- ☐ On the teaching wall, a 6’ x 8’ whiteboard and projection screen is to be installed.
- ☐ All available walls are to have tack board from floor to ceiling with picture molding at the top.
- ☐ Ceiling track lights are to be provided and six to ten spotlights are needed per room.
- ☐ One lighted display case lockable from within one of the art rooms, with viewing from the corridor is to be provided near the art suite and another near the main entrance to the building.

- ☐ Good artificial lighting is to be provided.
- ☐ All installed cabinets should be lockable.
- ☐ Classroom supply and project storage should be keyed to the same key.
- ☐ Individual student storage units for flat and 3-D work should have the capacity to be padlocked.
- ☐ Proper air ventilation for clay, chalk dust, with an additional switch control is required in each room.
- ☐ At least five computer outlets with electrical outlets should be provided along one wall.

Ceramics/Sculpture Room

- ☐ Four (28" x 16" x 12" deep) single basin stainless steel sinks with plaster traps are to be provided. One ADA sink is required.
- ☐ The ceramic/sculpture room should have an area for 10 to 12 pottery wheels with electrical drop down and storage for 15 pottery wheels.
- ☐ This space should have a slight slope towards a floor drain and away from the rest of the room, located near an extra deep sink with plaster trap.
- ☐ Lockable 3-D and flat storage for students work, for class projects of various sizes, clay storage, and class supplies is needed.
- ☐ Open shelves for 3-D works in progress (approximately 12" x 12" space per student for 240 students).
- ☐ Space should be provided for a 4' long plaster topped wedging table, and a 4' long slab roller.
- ☐ Exhaust fan for clay dust is needed.

Kiln/Glaze/Clay Room

- ☐ Access to this room must only be through the ceramics/sculpture room.
- ☐ Space and electrical outlets are needed for kilns, a 3' wide spray booth, a jigsaw, and a buffer/grinder.
- ☐ Well ventilated open green ware storage is required.
- ☐ This room should large windows to allow for supervision of the room.
- ☐ The walls must be washable.

- ☐ Countertops should be a light color.
- ☐ A floor drain on the down grade is needed.
- ☐ The sprinkler systems need to be adjusted to go off at higher temperature in the kiln room.
- ☐ Exhaust ventilation above the kilns for ducts to outside is required.
- ☐ A spray booth is to be provided with a ducted exhaust system.
- ☐ The room needs 3-phase, 250-volt, 60-cycle electricity provided in the ceramic area for three 50-amp ceramic kilns under an exhaust hood.
- ☐ An extra deep sink with a drain board is needed for buckets and glazes.
- ☐ Lockable storage for glaze chemicals, prepared glazes, equipment and projects is required.
- ☐ Space or cart to hold kiln furniture or open shelves near the kiln for kiln furniture is required.

Ceramic Pug Room

- ☐ Access to this room must only be through the ceramics/sculpture room.
- ☐ Space for a pug mill (15" x 24" x 54", 115V, 11 Amp) is required.
- ☐ Exhaust ventilation above the pug mill with ducts to outside is required.
- ☐ Space for two slurry buckets is required (size of large garbage can).
- ☐ Space to store boxed clay (each box is 50 lbs.), usually about 1000 lbs., is required.
- ☐ Space to store recycled clay is required.

Studio Art Room

- ☐ Three (28" x 16" x 12" deep) single basin stainless steel sinks with plaster traps are to be provided in the studio art room. One ADA sink is required.
- ☐ Extensive tack boards for visuals and critiques are required.
- ☐ A vertical canvas printing storage rack is required.
- ☐ Floor outlets in the center for still life arrangements (recessed or pull-down) are required.
- ☐ Extensive outlets, approximately 4' apart, around the walls and along the countertops.
- ☐ Computer outlets need to be within proximity to the teaching wall.

- ☐ This room should be designed with flexibility to accommodate changing interior, still life, and figure model setups and frequent moving and shifting of tables
- ☐ The furniture for this room, including tables, stools, and easels, should be modular and easy to move.
- ☐ Storage needs in the classroom include flat drawer storage, open vertical racks for wet canvases, dry canvas storage in a variety of sizes, racks for 25 easels, and open shelves for 3-D student work or still life materials.
- ☐ A separate, locking storage room is needed in the studio art room for art equipment and supplies.
- ☐ At least one countertop and cabinet should be extra deep to allow for a 36" x 36"countertop paper-cutter, rotary trimmer, or Logan mat cutting system, with cabinet shelves for 22"x28" mat board.
- ☐ Storage area for 30 easels (easel dimensions approximately 75”H x 23”W x 25”D) is required.

Photography Room

- ☐ This room should have access to the digital art room and the darkroom.
- ☐ The room should include storage space for 80 units of flat storage for student work.
- ☐ Computer outlets need to be within proximity to the teaching wall and space for an interactive teaching board should be provided.
- ☐ Extensive countertop space with cabinets below for materials and supplies are needed.
- ☐ Countertop space is required for a large dry mount press, Logan mat cutting system, electric print dryer, paper cutter, and rotary trimmer.
- ☐ Space is required for two electric film-drying cabinets.
- ☐ Three (28" x 16" x 12" deep) single basin stainless steel sinks with the chemical resistant countertops and an eye wash is needed. One ADA sink is required.
- ☐ Additional switch controlled, quiet fan ventilation in the photography classroom is required to remove fumes generated during the film developing process that takes place in the classroom by the sinks.
- ☐ Lockable storage closets with open shelves for film, cameras, and photography equipment such as tripods, spotlights, chemical, and paper storage is required and is not a shared space with other art rooms.
- ☐ Cabinets for storing paper easels, grain magnifiers, negative holders, and poly-contrast filters are needed.
- ☐ Extensive tack boards should cover the walls for visuals, student artwork, and critiques.

Dark Room

- ☐ Access to the darkroom only should be available through the photography room.
- ☐ The dark room should have a cement floor with drains on the down grade.
- ☐ The dark room should include counter space and stalls for 15 enlargers.
- ☐ Two of these spaces should be accessible to persons with disabilities.
- ☐ All stalls should have a shelf, 2' below the counter, two 3' x 6' photo sinks with temperature controlled water, centrally located, back to back, and wet and dry chemical storage cabinets below the sinks.
- ☐ An exhaust hood should be located directly above the sinks where the photographic paper will be developed and controlled by a switch.
- ☐ A lockable maze entrance accessible by students with disabilities is needed.
- ☐ A separate light-tight film-loading room with a 2'x3 'countertop, including electrical outlet at countertop height, with a safety light (on a key switch) in the ceiling
- ☐ Silver filters are to be provided for all sinks.
- ☐ Thomas Duplex lighting and black paint on the walls are required.
- ☐ An observation window with safety filtered plastics needs to be provided from the darkroom into the classroom.
- ☐ A countertop for a 12” x 18” paper cutter should be located away from the entrance, sink, and enlarging stations.
- ☐ An electrical outlet for a timer and a clock should be located on the wall near the sink.

Digital Art Room

- ☐ Lockable cabinet storage for printing supplies, cameras, tablets, external hard drives, computer software, CDs, interactive teaching materials, etc.
- ☐ The teaching wall should be designed with an interactive teaching board.
- ☐ Easy access to the photography art room and studio art room is necessary.
- ☐ The room needs accommodate up to 36 desktop computer stations and other equipment used by students such as printers and scanners.
- ☐ Track lighting for still-life work is needed along one wall.

- ☐ At least 2 large whiteboards and 2 tack boards should be provided, more if wall space permits.
- ☐ Large counter work surface for computer stations should be provided with one small sink.
- ☐ Perimeter countertop space with electrical and data drops for printers and scanners.
- ☐ This room needs some studio space for 4 studio tables.

Digital Photography Room

- ☐ This room should be located adjacent to the photography classroom and modeled like the digital art room with space for 36 computers in the room.
- ☐ The room should include storage space for 80 units of flat storage for student work.
- ☐ Countertop space is required for a large dry mount press, Logan mat cutting system, electric print dryer, paper cutter, and rotary trimmer.
- ☐ Extensive tack boards should cover the walls for visuals, student artwork, and critiques. At least 2 large whiteboards and 2 tack boards should be provided, more if wall space permits.
- ☐ Lockable cabinet storage for printing supplies, cameras, tablets, external hard drives, computer software, CD's, interactive teaching materials, etc.
- ☐ Space for an interactive teaching board is required and all computer outlets need to be within proximity to the teaching wall.
- ☐ Large counter work surface for computer stations should be provided with one small sink.
- ☐ Perimeter countertop space with electrical and data drops for printers and scanners.
- ☐ Digital photo rooms need some studio space for 4 studio tables.

Office

- ☐ The office must provide visual control of adjacent classrooms.

Storage Rooms

- ☐ Each art room needs its own storage room.
- ☐ The number of these rooms will be determined in consultation with the staff depending on the design of the suite.

- ☐ The storage rooms require steel shelving throughout with one 36" wide section that is 24" depth minimum.
- ☐ All walls in the storage room should be filled with shelving.
- ☐ Direct access is needed from the ceramics/sculpture room to the storage room.

Music Department

Spatial needs
Instrumental Music Room
Instrument Storage Room
Percussion Storage Room
Choral Room
Office/Library
Practice Rooms
Robe/Uniform Storage
Ensemble/Keyboard Laboratory

- ☐ Consistent heating, cooling and humidity control are required to maintain the instruments in these rooms. The architect is to ensure that the mechanical system is designed on a separate system to allow for 24 hour control in rooms that store instruments.
- ☐ Storage cabinet facilities such as the Wenger style with locking door for sheet music are needed.
- ☐ Dead storage—considerable space for boxes of materials, costumes, etc., which are used only occasionally is required.
- ☐ These rooms must be acoustically treated for reverberation and isolation.
- ☐ Each room is to be acoustically isolated from the rest of the school and the general/choral and instrumental areas separated by an acoustical barrier or wall with a Sound Transmission Classification (STC) of 50 or more.
- ☐ Listening is an important skill related to music education, and thus the need for quiet ventilation. Therefore, noise criterion (NC) levels of lighting and ventilating systems must not exceed NC 25 for the large rehearsal rooms and NC 30 for the practice rooms.
- ☐ All doors must be at least 4' wide with no center post to accommodate the movement of a grand piano and other large instruments from within the suite and to the auditorium stage.
- ☐ Maximum-security locks must be provided for each room in this suite.
- ☐ Student toilet rooms and other spaces staff toilets should be located near the suite so that they might be used as dressing rooms. Each toilet room should have one stall plus dressing space.
- ☐ Recording and audio equipment with microphones, built in from the ceiling should be designed in each of the music rooms. The technology should be designed so it can be easily upgraded in the future.
- ☐ At least four duplex electrical outlets must be provided along the front wall of each music room.
- ☐ After-hours access to the music suite is required for all the spaces.

- ☐ Multiple operable and reachable windows should be in the music rooms to accommodate for increased aerosols created through music performances.
- ☐ A drinking water fountain should be located in the choral and instrumental music rooms.

Instrumental Music Room

- ☐ The instrumental music room must be located near the auditorium and must be on the same level as the auditorium stage if possible. It should have easy access to the back or side of the stage.
- ☐ This room needs access to the outdoors and should be close to the athletic fields.
- ☐ The floor must be level.
- ☐ No carpet on the floor.
- ☐ Approximately 120 sq. ft. of the room should be devoted to storage of basses and cellos. These racks are to be located in the two rear corners of the room, side by side and not front to back.
- ☐ Acoustical treatment is needed so that the room is sound engineered for a band/orchestra with a maximum size of 100 members and a maximum 50-decibel environment, and reverberation time is to be between 1.2 and 1.6 seconds.
- ☐ A minimum ceiling height of 16' ft. is necessary to obtain the proper volume and acoustics, however
- ☐ No supporting pillars or fabric folding doors should be designed in the room.
- ☐ A standard teaching wall per DDC guidelines should be provided. A double music staff should be painted on one of teaching walls whiteboards.

Instrument Storage Room

- ☐ This room must be adjacent to the instrumental room so that access is from within the instrumental music room only.
- ☐ There should be two access points from the storage point to assist with student flow in and out of the storage room.
- ☐ A 4' wide door with window that is acoustically treated is required.
- ☐ Cabinetry and shelving must be appropriate to store a wide variety of instruments and should all be movable to provide flexibility (Wenger type) with a set of combination padlocks on a master key needs to be included.
- ☐ Consistent heating, cooling, and humidity control are critical within this room.
- ☐ This room should include a work sink for instrument cleaning.

- ☐ The room is to be arranged so that a portion may be used as a practice room.
- ☐ Maximum-security doors with upgraded locks and an alarm system need to be provided.

Percussion Storage Room

- ☐ A percussion storage room with security doors should located adjacent to the back of the room so that heavy equipment can be easily rolled out for daily rehearsals as well as drumline and/or marching band rehearsals.
- ☐ Access to this room after hours is required.
- ☐ Some metal shelving should be provided for drums and other percussion instruments.

Choral Room

- ☐ The room should have a flat floor and a ceiling height of approximately 16' with no supporting pillars. The school may choose to go with portable risers.
- ☐ Heavy-duty ceiling tiles for acoustical treatment should provide a sound transmission loss of at least 50 decibels, and reverberation time should be between 1.2 and 1.6 seconds.
- ☐ A standard teaching wall per DDC guidelines should be provided. A double music staff should be painted on one of teaching walls whiteboards.
- ☐ A minimum of 8-10 feet of mirror should be provided along one wall.
- ☐ Proper ventilation for a large group use is required.
- ☐ A music folder cabinet, horizontally slotted, with locking doors, with at least 150 horizontal compartments (15" deep, 15" high, and 2" wide), and with facilities for numbering each compartment, is required.

Office/Library Room

- ☐ This space should be located between the instrumental and choral rooms with visual contact to each.
- ☐ Visual contact to the small ensemble/keyboard laboratory also is needed.
- ☐ A telephone is to be provided.
- ☐ There needs to be space for Wenger style storage for sheet music.
- ☐ Three teacher’s wardrobes should be provided in this room.
- ☐ A sink for instrument cleaning and a bench for small repairs are needed.

Robe/Uniform Storage Room

- ☐ This room needs racks and cabinets for storage of 200 uniforms and hats.
- ☐ About 200 sq. ft. of storage is necessary for robes.
- ☐ Both the uniform and instrumental storage rooms are to have vision panels and doors well located for student circulation.

Ensemble/Keyboard Laboratory

- ☐ This room needs windows to allow for supervision.
- ☐ This room needs to accommodate small ensemble rehearsals, piano laboratory, computer laboratory, music theory and composition classes, electronic music laboratory, and guitar classes.
- ☐ Storage is needed for guitars.
- ☐ A standard teaching wall per DDC guidelines is to be provided. A double music staff should be painted on one of the magnetic white boards.
- ☐ A separate independent ventilation system is required for this room because it may have up to 32 computers in the room.
- ☐ Ample electrical outlets and power along all of the walls should be provided for maximum flexibility for keyboards, guitars, and computers.
- ☐ This room should be designed to ensure that cables and cords are not running along the floor in the classroom.
- ☐ Two lockable storage cabinets for classroom music, theory textbooks, exemplar CDs, headphones, equipment, etc.
- ☐ Mobile guitar storage unit is required.

Technology Education

Spatial needs
Technology Laboratory
Student Storage
Materials Storage
Applied Engineering Laboratory
Student Storage Space
Material Storage Space
Computer Laboratory
Material Storage Space
Fabrication Laboratory
Office

☐ These labs should be located at on the ground level or near an elevator to easily transport equipment and materials and where the creation of loud noises and occasional vibrations will not affect the instruction going on elsewhere in the building.

☐ Sufficient lighting to have work surfaces without shadows is needed.

☐ Acoustical treatment to walls ceiling and floors is needed. Ceilings should be drop/suspended to cover all structural and air-handling devices.

☐ The main teaching wall layout needs to be designed in accordance with MCPS Facility Guideline Specifications.

☐ Ample electrical service and receptacles to accommodate computers and portable electric tools is needed.

☐ Sufficient service shall be provided to accommodate flexibility within the lab with tabletop machinery.

☐ Extensive electric outlets, approximately 4’ apart, are to be provided in each room.

☐ All floor receptacles need to be flush and include data outlets.

☐ All doors should have windows, including entrance from the hall, and office.

☐ Technology education laboratories and centers need to be protected by alarm with a keypad.

☐ Casework should include storage cabinets with locking doors and drawers for storage of various sized items.

☐ Storage is to be provided for both two- and three-dimensional engineering projects, for student books, and for reference books and magazines.

☐ Classroom supply and project storage should be keyed to the same key.

☐ Teachers should be able to easily supervise the labs from adjacent classrooms.

☐ Computer network outlets (CNOs) consisting of a flush-mounted standard electrical box with 1 1/2" conduit to the ceiling space overhead should be located in all classrooms, offices, and other work locations according to the following rule. The architect should consult with the OTI/DDC for the latest technology requirements.

- ☐ One CNO should be located in the rear of each classroom
- ☐ One CNO in the office adjacent to the telephone outlet
- ☐ CNOs in the applied engineering lab to allow for 32 laptop/desktop computers
- ☐ All other areas where computers might be used

Technology Laboratory

☐ The center/laboratory should be designed with two distinct areas. One area should be equipped with student computer workstations and instruction, while the second area should accommodate an area for fabrication.

☐ The instructional area should accommodate 32 students.

☐ The laboratory should include 2-student workbenches with 2.25 inch laminated maple polyurethane tops with no lockers below to allow for ease of flexibility to move the tables.

☐ The following equipment should be provided in this laboratory:

- ☐ One bench top band saw
- ☐ One bench top drill press
- ☐ One mobile teacher demonstration bench
- ☐ One storage cabinet

☐ The floor covering needs to be non-slip tile.

☐ Ample electrical service should be provided to workbenches through overhead pull-down receptacles for machines and portable electric hand tools.

☐ A goggle cabinet is needed for goggle storage and sterilization with adequate ventilation in each laboratory. One dedicated outlet is needed for the goggle sterilization cabinet for 36 goggles.

☐ Walls facing the laboratory need windows with mini-blinds beginning 36" from the floor.

☐ Because of the types of materials and substances handled in these labs, built-in ventilation systems shall be installed and connected that adequately maintain air quality and will not be shut down prior to the end of the school day.

Material Storage Room

☐ A flammable storage unit should be provided.

☐ Metal shelving should be provided in this room that is 24" deep.

Student Storage Room

☐ A dual tank air vacuum system should be provided.

☐ Metal shelving should be provided in this room that is 24" deep.

Applied Engineering Laboratory

☐ The applied engineering laboratory is designed to accommodate individualized and team instruction for up to 32 students who will work together to apply engineering concepts using the tools of mathematics and science.

☐ The instructional area requires the standard MCPS teaching wall.

☐ The instructional area needs to be hard wired for 32 computers.

☐ The space should be designed so that students each have an individual computer desktop or laptop as well as workspace to work on projects. The furniture should be able to accommodate electrical wiring for tools such as drills to work on engineering and or robotic projects.

☐ A counter with base and wall cabinets should be provided to store supplies in the laboratory.

☐ Location for a mobile charging station should be identified for future use of laptop computers.

Material Storage Room

☐ A lumber rack should be provided in this room if the school has a Project Lead the Way Program.

☐ Metal shelving should be provided in this room that is 24" deep.

Student Storage Room

☐ Metal shelving should be provided in this room that is 24" deep.

Computer Laboratory

- ☐ The computer laboratory should be zoned for independent air-conditioning during times when the rest of the building is closed.
- ☐ The minimum dimensions of the room should provide for an uninterrupted area of 25' x 32' so that the computer laboratory may be designed with the following requirements.
- ☐ Each computer laboratory should accommodate 32 student workstations.
- ☐ The layout should be designed with five to six collaborative groups of computers workstations that cluster around a monitor.
- ☐ File server and printers are to be located near teacher's desk or in office.
- ☐ A teacher's wardrobe and storage cabinets should be provided.
- ☐ The teaching wall should be designed to accommodate an interactive teaching board. The teaching wall layout will be provided by the Division of Design and Construction (DDC).
- ☐ Marker boards should be provided in the laboratory.
- ☐ The architect should consult with the OTI/DDC for the latest technology requirements.
- ☐ Space and outlets should be provided for printers.
- ☐ The storage area is to include shelving and a work counter with electrical outlets and overhead and base cabinets.

Fabrication Laboratory

- ☐ This room should have a wash-up sink with eyewash with soap and paper towel dispenser.
- ☐ The following equipment should be provided in the laboratory:
  - ☐ Wood wall bench
  - ☐ Two mobile planers
  - ☐ Mobile contractor saw
  - ☐ Dual canister dust collector
  - ☐ Mobile machine bench with vacuum system
  - ☐ Bench top band saw
  - ☐ Bench top scroll saw

- ☐ Bench top belt/disc sander
- ☐ Bench top drill press
- ☐ Mobile storage cabinet

☐ An emergency control switch is needed with a key to restore power.

Multipurpose Laboratory

Spatial needs
Laboratory
Office
Storage

- ☐ The multipurpose laboratory should be located near an exit door for easy unloading of food or other deliveries.
- ☐ The laboratory must be designed with perimeter counters around two or three side of the laboratory.
- ☐ Floor space for long tables to seat 32 students in front of the demonstration desk is needed. Tables should be able to seat 2-3 students.
- ☐ The teaching wall should be designed in accordance with the MCPS Facility Guideline Specifications.
- ☐ A safety station is to be installed, with shower, automatic shut-off eyewash, and drain with a sloped floor, and should accommodate persons with disabilities. The shower and eyewash should have a spring loaded mechanism.
- ☐ Keyed master cutoff for gas and electricity to the demonstration science station is needed.
- ☐ Electric outlets should be wall-mounted or face-of-cabinet mounted.
- ☐ The fire emergency cut-off switches for kitchen units should be wall mounted high enough not to be accidentally activated.
- ☐ Re-set circuit should be readily available to the teaching staff.
- ☐ The laboratory should have access to all technology in the building so that computers can be moved around the laboratory.

Kitchen Units

- ☐ Three or four kitchen units are needed along the perimeter counters.
- ☐ The units should include a sink and wall oven. No range or stovetops are required. One of the student kitchen units should be designed with a garbage disposal.
- ☐ Electric outlets should be located above the counter tops.
- ☐ Base and wall cabinets that are lockable should be designed along the perimeter workstations
- ☐ Two residential refrigerators should be provided in the kitchen area.

Storage

- ☐ The storage area should include space for a washer/dryer, a compact mini-refrigerator for chemical storage, and a residential-size refrigerator.
- ☐ Open wire shelving (such as baker's shelving) around the perimeter of the room is needed.
- ☐ The dryer needs to be properly ventilated.

Office

- ☐ The office must have access to the teaching station.
- ☐ Doors and walls will have windows, 42" from the floor for visibility into the teaching station.
- ☐ Computer and telephone service with telecommunication capabilities should be provided.
- ☐ The space should be designed for conventional office furniture, wardrobe, file cabinet, and books and instructional materials storage.

Career Child Development

Spatial needs
Laboratory
Observation Room/Classroom
Office
Storage
Site Requirements
Outdoor Physical Activity Area
Outdoor Storage Shed

☐ The child development laboratory needs to accommodate 10–15 students and 18 preschool students.

☐ The location of this classroom should have convenient access to a play area, parking lot, and a drop-off area.

☐ Standard and handicapped-accessible parking spaces and a drop-off area should be provided adjacent to the main outside entrance of the facility.

☐ Site lighting needs to be provided at the parking and drop-off area and above the main entrance and other areas as required for security. The lighting shall be controlled by photocell or time clock.

☐ Access road to the laboratory must permit passage by emergency vehicles during childcare hours.

Child Development Laboratory

☐ The floor must be tiled.

☐ 6 ' of pegboard, tackboard and whiteboard should be installed 24" from the floor for preschool child use.

☐ 9 sq. ft. of tackboard should be mounted 36" from the floor at indoor hallway entrance door to the room. Another 9 sq. ft. of tackboard should be mounted 36" from floor at the door leading to the outdoor playground.

☐ A 12" wide shelf is needed just under the bottom of the tackboard running the width of the tackboard.

☐ Teacher whiteboard space needs to be provided.

☐ Storage is to be provided for cots or mats.

- ☐ A kitchen area needs the following:
  - ☐ cabinets
  - ☐ countertops that are washable and made from stain and crack resistant material
  - ☐ lockable cabinets
  - ☐ lockable refrigerator
  - ☐ microwave mounted under the wall hung cabinets
  - ☐ sink with disposal and hot and cold water
  - ☐ a dishwasher
- ☐ A child height water fountain that is separate from the sink fixtures should be included.
- ☐ A bathroom area should be designed with the following:
  - ☐ an alcove without a closing door
  - ☐ two preschool child-size toilets with partitions between and around the toilets, and free of closing doors
  - ☐ hot and cold running water with water temperature adjusted not to exceed 120º F
  - ☐ two preschool child size sinks with locking cabinets below, mirrors above, and soap, toilet paper, and towel dispensers installed at preschool child height are needed
- ☐ An art area should have washable, stain and crack resistant flooring with a child size sink and countertop area.
- ☐ Storage should be provided for student notebook/backpacks near the entrance door.
- ☐ Two open shelves, 30" high and 18" deep should be installed around the wall base.
- ☐ 18 preschool storage lockers ("cubbyholes") with hooks for coats should be located inside the door leading to the playground entrance. Storage above and below the coat hook area should be provided. Storage lockers should remain detached from wall.
- ☐ Electrical outlets should be childproof and wall-mounted at 8-ft intervals throughout the room and at 4-ft intervals along the kitchen counter back splash. Outlets are to be provided on all walls, and exceed the number required by applicable code(s). Wiring should be sufficient to handle operations of many appliances simultaneously.
- ☐ No outlets should be provided in the children's bathroom.

- ☐ Technology should include computer and telephone outlets. The architect should consult the OTI for current guidelines.
- ☐ Security of the facility should be integrated into the school's security system.
- ☐ The area in the room designated for napping must have a smoke detector directly above, even if the building has a sprinkler system

Observation Room/Classroom

- ☐ This room should accommodate 30 students and designed with the standard classroom requirements.
- ☐ Three book storage shelves, one tackboard, and one whiteboard are needed at adult height.
- ☐ A cabinet along one wall should be 5' long, 24" deep and 3' high with 3 shelves inside and locking cabinet doors.
- ☐ A large window should be installed from ceiling to half wall height to allow for viewing into the child development laboratory.
- ☐ A writing countertop 29" from floor and 18" deep should be installed under the glass so high school students have a surface for writing. Nothing should be installed under the countertop, such as cabinets, that would prohibit students from sitting at the countertop in order to observe and evaluate children.
- ☐ An effective audio system is needed to hear into the child development laboratory.

Office/Storage

- ☐ This room should have space for a desk with a telephone and computer and teacher wardrobe/storage/file drawer space.
- ☐ A window is needed into the child development laboratory to allow for observation by the staff.
- ☐ The room needs to be secured from within the child development laboratory.
- ☐ Commercial style metal shelving should be installed around the perimeter of the room.
- ☐ Overhead light, with a wall switch, and room ventilation is needed.

Outdoor Physical Activity Area

- ☐ This area should be a total of 2800 sf designed with a soft play area of approximately 1100 sf and hard play area of approximately 1700 sf. MCPS staff will work with the architects to design this space.
- ☐ The outdoor area should have direct access to the child development laboratory area, with a clear window view of the area.
- ☐ The space must be enclosed with a 36" vinyl-coated chain-link fencing with protective piping covering the top of linking.
- ☐ A boxed and soft play area should be provided for playground equipment such as Physical Education Pre-K Bid Items #11272, 11282, or 11292.
- ☐ A bench should be provided in the area.
- ☐ Landscaping plans should include low maintenance, non-poisonous plants that do not have berries or thorns.
- ☐ A grassy area and shade tree should be provided.

Outdoor Storage

- ☐ A brick shed, if economically feasible, with burglarproof doors should be built inside the chain link fencing.
- ☐ Pegboards should be installed on the inside walls to hang riding vehicles.
- ☐ Two 24" shelves along one wall are needed for portable playground equipment storage.
- ☐ Lighting and ventilation should be included.
- ☐ A capped, childproof, approved outdoors electric outlet on one side wall of the brick shed is needed.

Physical Education

Spatial needs
Main Gymnasium
Ticket Booth
Indoor Concessions Area
Second Gymnasium
Dance Studio
Dance Studio Storage Room
Fitness/Cardio-Pulmonary Room
Fitness/Cardio-Pulmonary Storage Room
Wrestling Room
Wrestling Room Storage Room
Functional Fitness Room (2,700 core capacity)
Functional Fitness Storage Room (2,700 core capacity)
Health Classroom
Locker Room
Inclusive Locker Room
Shower/Drying Room
Towel Storage Room
Toilet Room
Staff Office
Common Planning Area
Resource Teacher Office
Outdoor Storage
Storage

☐ The physical education facilities must conform to all national, state, and local safety regulations. The Architect is to refer to the "Mid-Level/High School Physical Education and Athletic Facilities Construction" Checklist, available from the DDC.

☐ There must be audible and visual signals for emergency egress.

☐ Six keys should be tooled for the physical education/athletics area. These keys include:

- ☐ Key #1 should open all indoor physical education offices, closets, and storage areas.
- ☐ Key #2 should open the gymnasiums, wrestling, weight, and dance rooms, locker rooms, and storage areas inside of these areas.
- ☐ Key #3 should open indoor athletic directors and coaches' offices, team rooms, and athletic storage areas.
- ☐ Key #4 should open all school outside doors related to physical education and athletics.

- ☐ Key #5 should open all outside storage areas and the press box/concession complex.
- ☐ Key #6 should open all the CUPF storage closets.

☐ All outside doors related to the physical education/athletic program areas should be keyed for reentry.

☐ The major entrance doors to the gymnasiums and lockers should be double doors with no center post. Non-glazed doors are preferred. If design allows, electronically controlled operable windows should be provided.

☐ All clocks, exit signs, and emergency signs should be caged for protection from sporting events.

☐ An alarm pad should be installed and zoned for the physical education/athletic area.

Main Gymnasium

☐ The Main Gymnasium is to have a hardwood floor. The ceiling should be 25' high.

☐ One of two configurations should be used for the main gymnasium in regard to its relationship with the second gymnasium.

- ☐ First, and most preferable, if possible, the main gymnasium and second gymnasium should be adjacent and separated by a motorized dividing wall with walk through doors, so that when the dividing wall is open, there is an open space of 16,000 sq. ft. (10,000 sq. ft. from main gymnasium and 6,000 sq ft. from second gymnasium). The main gymnasium and second gymnasium should be combined, if feasible. Drop curtains should be provided in both gymnasiums so that when the dividing door between the gyms is closed, the curtains could further divide each of the two gymnasiums into two separate areas.
- ☐ If the main gymnasium and second gymnasium cannot be configured as specified above, then both gyms should have motorized dividing walls with walk through doors to divide each gymnasium into two separate teaching stations. The design must ensure that ventilation is adequate in both gymnasiums and on both sides of the folding wall when walls are closed.

☐ The controls are to be located over to the side and at eye level.

☐ Provisions for reducing glare are required.

☐ Shielded metal halide lights, acoustical treatment and high volume ventilation are imperative.

☐ It is particularly important that ventilation function equally and quietly on both sides of the folding partitions.

- ☐ Emergency lights are needed for power outage situations. Emergency lights should be at least 12 ' from the floor.
- ☐ Attention should be given to the design of lighting fixtures and sprinkler heads so that they will not be damaged by indoor ball sports.
- ☐ If there is access to the outdoors from the gymnasium, a concrete landing is needed.
- ☐ White lighting should be used.

Fixed equipment is to include:

- ☐ 14 Senoh insertion-type volleyball floor plates and 10 Senoh insertion-type badminton floor plates re required. Floor plates must be installed per manufacturer's specifications.
- ☐ If the school plans to offer a gymnastics program, floor plates for gymnastics equipment must be provided. The gymnastics floor plates must be compatible with those used in the second gymnasium.
- ☐ 10 basketball backstops, all of which must be electrically key-operated, must be provided.
- ☐ 8 backboards are to cross-court each half of the gymnasium. The crosscourt backboards may be fan-shaped aluminum with a target square.
- ☐ 2 backboards are to serve as the main court. The two main court backboards should be short rectangular glass with safety padding and hydraulic heavy-duty rims.
- ☐ Doors should not be located under any basketball backstop.
- ☐ All baskets should have safety straps.
- ☐ Wall safety padding (6' x 16') in school colors must be mounted under each basketball backstop.
- ☐ Two electrically operable combination wrestling/basketball/volleyball scoreboards with variable 10- to 60-second basketball shot clocks (one with players' names) are to be installed.
- ☐ All electrical connections and outlets should be wall mounted not floor mounted.

- ☐ The Main Gymnasium should have the following striping patterns:
  - ☐ One regulation volleyball court lengthwise, and two regulation cross volleyball courts, one on each side of divider wall, each with two KA 25 volleyball sleeves.
  - ☐ Four regulation 20 x 44 badminton courts on each half of gym, each with two KA 45 badminton sleeves, to use with badminton uprights.

- ☐ Three cross court gym class volleyball courts, 30 x 44, each with two KA 25 volleyball sleeves.

☐ Bleachers are to be installed with 6' scorers' tables located on both sides of the gymnasium. Plug-in service for score table controls shall be provided to both sides of the bleachers and be wall mounted

☐ Bleachers must be motorized, have self-storing end rails and end panels. Consideration must be given for seating for the physically disabled per ADA.

☐ All risers must be equal in height, wall attached, have handrails at aisles, and comply with NFPA 102.

☐ The first step should be the same height as other steps. .

☐ There should be electric clocks in wire cages on each half of the gym.

☐ A high quality public address system and sound system must be provided.

☐ Several electric outlets should be located on all four walls as well as microphone and computer outlets.

☐ One duplex electrical outlet should be installed at the top of each section of the bleachers, placed close to center court.

☐ MCPS staff will provide court diagrams.

☐ Painting and wall graphics selected by staff are to be provided.

☐ All controls, fire alarms, etc. should not be located behind baskets.

☐ Consideration should be given in the design of fixtures/graphics to allow for hanging team award banners.

Main Gymnasium Lobby Area

☐ The lobby should be adjacent to the main gymnasium.

☐ Barriers are to be provided to deny access to other parts of the building from the main gymnasium/lobby area.

☐ School staff should be consulted on location of the security barrier so that offices and storage areas area accessible when the barrier is closed, particularly those related to athletics.

☐ Public toilet facilities and recessed electric water coolers should be available within the gymnasium/lobby area for use for indoor sports activities.

☐ Four recessed trophy cases should be located in hallways near the gymnasium. Two should be lighted.

- ☐ The athletic director's office should be located near the main gymnasium.

Ticket Booth

- ☐ A secure ticket booth must be provided and should be located between the main entrance and the lobby/restroom areas so that a person must pass the ticket booth before entering the lobby/restroom area.

Indoor Concession Area

- ☐ The indoor concession area must be visible from the gymnasium lobby.
- ☐ The concession areas needs the following items:
  - ☐ stainless steel sink with a garbage disposal
  - ☐ locking cabinets
  - ☐ stainless steel table
  - ☐ counters
  - ☐ ice machine (cubed not shaved)
  - ☐ space for a freezer, microwave oven, refrigerator, and popcorn machine
  - ☐ several electrical outlets with separate dedicated circuits

Second Gymnasium

- ☐ As specified in the configuration of gymnasiums section and in the main gymnasium description, there are two possible configurations for the second gymnasium.
- ☐ The preferred configuration would be that the second gymnasium be adjacent to the main gymnasium and separated from it with an electronically controlled folding wall so that one very large space will result when the wall is open.
- ☐ In either design, the second gymnasium is to have a hardwood floor.
- ☐ The Second Gymnasium should have the following striping patterns:
  - ☐ One regulation volleyball court lengthwise, with two KA 45 volleyball sleeves.
  - ☐ Four regulation 20 x 44 badminton courts played across, each with KA 45 badminton sleeves, for use with badminton uprights (this setup allows a high school to host a badminton tournament with 12 regulation courts at the same time).

- ☐ Three non-regulation 30 x 44 gym class volleyball cross courts, with KA 25 volleyball floor sleeves. (this setup allows for nine gym class volleyball courts at the same time).

☐ This facility is to be directly accessible to the outdoors instructional physical education facilities.

☐ There should be a concrete landing.

☐ The ceiling should be 25' high.

☐ An electric folding door (as described in main gymnasium) should be included.

☐ Shielded metal halide lighting, acoustical treatment, and high volume ventilation system are imperative.

☐ It is particularly important that ventilation function equally and quietly on both sides of the folding partition. Emergency lighting is needed for power outage situations.

☐ Emergency lights should be at least 12' from the floor.

☐ Attention should be given to the design of lighting fixtures and sprinkler heads so that they will not be damaged by indoor ball sports.

☐ Paint colors and wall graphic layouts are to be provided by MCPS staff.

☐ All controls, fire alarms, etc. should be located to the side and at eye level, not behind the basketball backstops.

☐ An electric clock with cage should be installed in each side of the gymnasium.

☐ Computer outlets and a communications device outlets must be provided.

Fixed equipment is to include:

- ☐ Basic electric scoreboard with 45-second clock mounted on top of the main backboard should be installed.
- ☐ Two motorized, key-operated, glass, short rectangular basketball backboards with heavy-duty hydraulic rims, safety padding and safety straps should be installed serving the main court.
- ☐ Four bi-fold fan-shaped aluminum basketball backboards with hydraulic lift and safety straps are to be included.
- ☐ Wall safety padding 6' x 16' should be installed behind all basketball backstops.
- ☐ Doors should not be located under any basketball backstop.
- ☐ 10 Senoh insertion-type volleyball standards and 5 Senoh insertion-type badminton standards should be installed per manufacturer’s specifications.

- ☐ Floor plates for gymnastic equipment are an individual school option. If a school plans to offer a gymnastics program, floor plates for gymnastics must be provided. The floor plates must all be compatible with main gymnasium equipment.
- ☐ Two 10' x 42 ' archery nets are to be provided.
- ☐ A batting cage net for baseball and softball with keyed electronic hoist system should be included.

Dance Studio

- ☐ The ceiling should be no less than 16' high.
- ☐ The dance should have a sprung hardwood floor.
- ☐ Colored acoustical panels from the ceiling.
- ☐ An electric deodorizer system and an excellent ventilation system must be provided.
- ☐ Electrical outlets should be provided around the room.
- ☐ MCPS staff will provide paint colors and graphic layouts.
- ☐ The storage room needs to secure stereo sound equipment.
- ☐ A sound system should be installed in the storage closet.
- ☐ A small white board (4' x 6') and tackboard (4' x 6') should be installed.
- ☐ Safety plate glass mirrors are to be provided on two opposite walls.
- ☐ A two-inch diameter ballet barre should be installed on the mirrored walls.
- ☐ A battery operated clock with protective cover should be installed approximately 9' high.
- ☐ Computer outlet and communication device must be provided.
- ☐ A water cooler must be located in the hallway near the room.

Weight Room

- ☐ The ceiling should be a minimum of 16' high.
- ☐ Direct access to the corridor is desired.
- ☐ This room must have an excellent ventilation system as well as an electronic deodorizing system.

- ☐ Electrical outlets should be placed on all walls.
- ☐ An alcove for a mirror, with the mirror installed, should be provided.
- ☐ The floor should be rubber flooring, 5/8 inch thick. This flooring must be glued to the sub-floor.
- ☐ Metal halide lighting, high volume ventilation, and acoustics must be provided.
- ☐ A small secure closet (minimum of 100 sq. ft.) should be provided to store audio equipment, loose weights, bars, and other instructional materials. Shelving should be provided along one wall.
- ☐ MCPS staff will provide paint color and graphics layout.
- ☐ Two large commercial ceiling fans with guards should be provided.
- ☐ A small white board (4' x 6') and tackboard (4' x 6') should be installed.
- ☐ One electric clock with protective cover should be installed approximately 9' high.
- ☐ Computer outlet and a communication device must be provided.
- ☐ Projections, posts, or other hazards are to be avoided.
- ☐ 6'x12' mirror should be mounted on one wall of the weight room.
- ☐ A climbing wall should be installed along the other long wall of this room (need to confirm length of the wall)
- ☐ Functional fitness equipment (such as or comparable to MoveStrong Functional Fitness Equipment) should be installed along one of the long walls to include the following:
    - Monkey bar, cantilevered bridge system with wall mount that is 10 to 20 feet long with the following attachments:
        - Globe balls on end to attach additional pieces of equipment
        - Dip station upright post
        - Pull up bars
- ☐ Monkey bars to extend the climbing walls and/or wall mount bridge
- ☐ Battle rope pull (1-2)
- ☐ Two or three stall bars mounted to the wall with the following equipment:
    - pull-up bars
    - G-loop anchors (4 per stall bar) for resistance bands
    - Ground rotational trainer (1)
- ☐ Double triple-tier pull up bar (such as or comparable to the Wall FTS unit) with the following attachments: (This unit could replace on or two of the pull-up attachments above)

- One or two storage trays (to hold medicine balls and dumbbells)
- Functional training equipment suspended from the wall mount such as ropes, resistance bands, suspensions devices, or other devices

Auxiliary Gym (Wrestling Room)

☐ This room must be 43' x 43'.

☐ The ceiling height should be a minimum of 16' high.

☐ The room must be able to accommodate a 42'x42' wrestling mat, after wall padding is secured to the walls. Generally, wall padding begins a few inches above the floor.

☐ All four walls must have padding from the floor to a height of 6'.

☐ Colored acoustical panels should be provided from the ceiling.

☐ An electric deodorizer system and an excellent ventilation system must be provided.

☐ Electrical outlets should be provided around the room.

☐ MCPS staff will provide paint colors and graphic layout.

☐ A small storage closet is needed to secure stereo equipment.

☐ A sound system with the control panel should be installed in the storage closet.

☐ A small white board (4' x 6') and tackboard (4' x 6') should be installed.

☐ One electric clock with protective cover should be installed approximately 9' high.

☐ Computer outlet and a communication device must be provided.

☐ A keyed electric hoist system must be installed to move and store wrestling mats.

☐ A water cooler must be located in the hallway near this room.

Health Classroom

☐ The health classroom is to be designed as a standard academic classroom per the specifications found in the academic section.

☐ This classroom should be located in the physical education areas since the health and physical education teacher may be the same person and may have locker room supervision duty between class periods.

Locker Rooms

- ☐ The following are requirements for both the male and female locker rooms.
- ☐ The locker rooms should be on the same floor as the gymnasiums. Ideally, there should be direct access from the locker rooms to the gymnasiums.
- ☐ A maze entrance should be designed to block vision from the hallway.
- ☐ The rooms are to be air-conditioned and include a deodorizing system.
- ☐ Barriers or doors are to secure the locker rooms from other areas.
- ☐ All locker room floors are to be skid-resistant VCT. The floor surface must be safe but smooth enough for thorough cleaning.
- ☐ A hose bib is to be located in each locker room. Appropriate drainage is needed.
- ☐ Lockers should be located to provide good visual supervision from the offices.
- ☐ An electric water cooler, clock, board, and a 4' x 8' tackboard should be supplied in each locker room. If not inside, the water coolers should be located as close to the entrances as possible.
- ☐ A programmable locking system should be installed on the locker room entrances.
- ☐ The architect should provide maximum security in the locker areas by use of cages and screens to secure the physical education lockers during after-school use of the area.
- ☐ To the extent feasible, MCPS should provide at least one inclusive changing facility into the design of new schools and school renovations, taking into account safety and confidentiality considerations in the design and location of the inclusive changing facility.

Lockers

- ☐ Each locker room is to have double tier (2 in 1) lockers, 72"H x 12"W x 15"D with built-in combination lockers and ventilation. There should be an equal number of lockers in the male and female locker rooms.
- ☐ The lockers should accommodate student backpacks.
- ☐ Ten lockers with key locks should be provided.
- ☐ The locker colors should reflect the school colors.
- ☐ Locker row are to be a minimum of 7' 6" on the center.

Benches

- ☐ Benches are provided for dressing purposes.

☐ They are to be secured to the floor base with a single bench between each locker row.

Shower/Drying Area

☐ The shower area is to be free from hazardous projections and is to be well ventilated.

☐ Each shower room is to have 4 individual showers with drying area with one ADA compatible shower.

☐ Skid grip flooring must be installed.

☐ All showers should have shower rods and curtain installed.

☐ The shower room should be designed adjacent to space, that if needed in the future, the shower room could be enlarged.

☐ This room should be located adjacent to the towel storage area.

Toilet Room

☐ Male and female toilet rooms must have equal number of fixtures.

Towel Storage Room

☐ This room will be used for towels used primarily by physical education classes.

☐ It should be designed in such a way that a teacher in the room can pass towels to students through a window area that but remains locked for security purposes.

☐ The towel storage room should be adjacent to the shower/drying facilities.

Inclusive Locker Rooms

To the extent feasible, MCPS should provide at least one inclusive changing facility into the design of new schools and school renovations, taking into account safety and confidentiality considerations in the design and location of the inclusive changing facility.

This space should be master planned in the building with the following features:

☐ Interior double door entrances with maze to block vision into space must be designed.

☐ Some shelves should be provided near the entrance to the locker room for student books.

- ☐ The locker rooms should be well ventilated and include a deodorizer system.
- ☐ The locker room should be adjacent and located on the same floor so that the Physical Education Offices can have a connecting door to the offices to allow for supervision of the space.
- ☐ Fifty lockers should be provided in this space with several lockers with key-entry are needed for ADA accommodations.
- ☐ Small private dressing areas are to be provided in the inclusive locker area with one meeting ADA requirements.
- ☐ A full-length mirror is to be provided in the room with a convenient electrical outlet.
- ☐ The locker room should reflect school colors.
- ☐ Plumbing should be roughed in for a future toilet room.
- ☐ The floor surface must be a non-skid surface but smooth enough for thorough cleaning. VCT/rough surface tile is preferred.

Staff Office

- ☐ The two offices should be adjacent and centrally located for access by both male and female students.
- ☐ Each office needs to be separated from the other office by a common planning room and have access to the hallway leading to the gymnasium.
- ☐ There should be direct access to the appropriate locker room.
- ☐ Each office requires a separate shower, toilet, sink, mirror with shelf over sink that is large enough to use as changing areas for the physical education staff.
- ☐ Each office requires 6 full-length lockers.
- ☐ A full-length mirror is required.
- ☐ The office needs windows with blinds for effective supervision of the appropriate locker room.
- ☐ The windows should be placed so that staff in the common planning area cannot see through the staff office into the locker room
- ☐ The space must be air conditioned.
- ☐ The office suite needs voice, data, and video connections.
- ☐ 4 tackboards, 2" wood tack strip (5' high around the perimeter of the room) are needed.

- ☐ The floors should be covered in VCT.

Common Planning Room

- ☐ A common planning room is required and should have access from both physical education offices and the hallway.
- ☐ The space should be large enough to allow for a small conference table with 6-8 chairs.
- ☐ It should be designed with locking cabinets, counters, clock, voice, data, and video connections.
- ☐ This room needs a tackboard and a whiteboard.

Resource Teacher Office

- ☐ This office should be located to the staff offices and have access to the common planning room.
- ☐ This office needs voice, data, and video connections.
- ☐ A tackboard and whiteboard should be installed on one wall.

General Storage

- ☐ General indoor storage for physical education and athletics must be provided in various locations.
- ☐ Five indoor storage closets, approximately 400 sq. ft. each are to be located on the same level and near the gymnasiums.
- ☐ Two of the storage areas are exclusively for athletics and should be rectangular in shape and have wire caging from floor to ceiling along the two long walls.
- ☐ Approximately every 4-5 ', floor to ceiling partitions should be installed to divide the long area into smaller storage spaces. These smaller spaces will be used for storage by separate sport teams.
- ☐ Each small section should have a rod for hanging uniforms and shelves for storing equipment.
- ☐ Each section shall have a door that can be padlocked.
- ☐ Adequate shelving, hooks, and bins for golf clubs, baseball bats, hockey stick, lacrosse sticks, uniforms, and warm-ups are required for physical education use.

☐ One of the storage rooms will be used to store wrestling mats, gymnastic equipment, chairs, and tables.

☐ The main access to the equipment closets should not have center posts. They should be able to be held open for each of equipment movement.

☐ One of the small storage rooms will be used for community use (ICB) and should have straps to store the volleyball standards along one wall (about 10’ long).

Athletics Facilities

Spatial needs
Team Room
Large Team Room
Athletic Director's Office
Athletic Department Storage Room
Coaches' Office
Coaches' Closet
Referee's Office
Football Equipment/Uniform Drying Room
Training Room
Laundry Room
General Storage
Chair and Table Storage
Storage

Team Rooms

- ☐ The large team rooms need to be equipped with 75 lockers, 72" H x 16" W x 15" D, with built-in padlock locks and benches.
- ☐ The small team rooms need to be equipped with 50 lockers 72" H x 16" W x 15" D, with padlock locks and benches.
- ☐ All the lockers must have vented fronts.
- ☐ The team rooms need to be well ventilated and air-conditioned.
- ☐ Each team room needs a mirror, 4' x 6' whiteboard, electrical outlets and tackboard.
- ☐ All the team rooms should be accessible for male and female sports.
- ☐ Door locks shall be of the "key pad" variety.
- ☐ For security purposes, team rooms should be accessible without going through the main locker rooms.

Athletic Director Office and Storage

- ☐ The athletic director's office should be located near the main gymnasium.
- ☐ It must be on the gymnasium side of the security barrier.
- ☐ This office needs voice, data, and video connections.

- ☐ A tackboard and whiteboard should be installed on one wall.
- ☐ A secure closet (60 sq. ft.) and counter with overhead lockable cabinets should be provided.

Coaches Office and Closet

- ☐ Coaches' offices and small closet are to be provided near each team room.
- ☐ A dressing/locker area needs to be provided in the offices, including six full 12" W x 15" D lockers and four double tiered lockers.
- ☐ Electrical outlets as well as voice, data, and video connections are required.
- ☐ A small secure storage closet off each office is needed.
- ☐ Visual supervision of the team rooms is desired.
- ☐ A 24" work counter with locking cabinets above should be provided along one long wall.

Referee Office

- ☐ A referee's office is to be provided with easy access to the staff showers.
- ☐ A dressing/locker area needs to be provided in the offices, including two full 12" W x 15" D lockers.

Football Equipment Drying Room

- ☐ It must have maximum ventilation including an electrical deodorizing system.
- ☐ A hanging rack system shall be installed so that it can be reachable by students during the season and removable for storage near the ceiling during the off-season.

Training Room

- ☐ A co-ed athletic training room needs to be accessible from both girls' and boys' locker rooms and team rooms.
- ☐ A water supply, whirlpool, and ice machine need to be provided.
- ☐ Training tables, sink, locking cabinets, and privacy curtains are needed.

Laundry Room

- ☐ The laundry room must be accessible from each locker room and near the towel rooms.
- ☐ It needs to be well ventilated and have a floor drain.
- ☐ An industrial washer (50 lb. capacity), dryer (50 lb. capacity), and laundry tub are to be installed.

Library Media Center (LMC)

Spatial Needs
Main Learning Environment
Work and Production Area
Storage
Television Studio/Control Room/Editing Rooms
Media Services Technician Office/Storage
Storage (Near the Auditorium)

- ☐ The Library Media Center (LMC) is the information hub of the school.
- ☐ The latest version of the MSDE document, *Facilities Guidelines for Library Media Programs,* may be used as a reference for the design of the LMC.
- ☐ The LMC should be centrally located and easily accessible from the outside to allow the LMC easy access by outside groups during after school hours and in the summer.
- ☐ There should be easy access to the elevator.
- ☐ Toilet rooms should be located nearby the LMC.
- ☐ Sight lines are an important feature in the design of the LMC. Staff should have visual supervision of the entire LMC including the entrance from the LMC circulation desk.
- ☐ Flexible lighting with the ability to darken separate areas of the main resource room without affecting other spaces.
- ☐ If possible, the LMC should not be located below high noise level activities such as music, technology education, cafeteria, or physical education.
- ☐ Multiple charging outlets need to be provided throughout the LMC and can be located in the floor, wall, and counters. Consideration should be given to the location of the circulation desk and seating areas that may require data and or power for the use of computers or staff/student work areas.
- ☐ Ideally, a countertop with outlets above the counter should be provided along one of the walls of the LMC to allow users to plug in portable devices. The counter should be located in an area that can be easily supervised and at a desk top height so that chairs can be interchanged in the library.

Main Learning Environment

This is the main area of the library that includes the stacks, instructional space, and circulation area.

Stacks (the area containing book shelves)

- ☐ The height of the low moveable bookshelves should accommodate three rows of books and the height should be at least 48 inches in order to accommodate picture and nonfiction books.
- ☐ Must be on wheels to allow for flexibility.
- ☐ Lights should be designed to allow for flexible arrangement of shelving in the main reading room.
- ☐ Different materials can be explored based on design and cost factors to include metal and wood shelving.
- ☐ Soft, comfortable seating should be provided for individual and collaborative student work and power should be provided throughout this area.
- ☐ Consideration should be given for shelving for special types of collections such as graphic novels, periodicals, and oversized books including some picture books.
- ☐ Wall shelving should be maximized in this area, where possible.(six feet when possible).
- ☐ Consideration should be given to provide opportunities to display and highlight student work and items in the collection.
- ☐ If there is a special program focus at the school, consideration should be provided for space for a collection that supports the specific program. The design team should consult the School Library Media Program Office for more information.
- ☐ Shelving is to be allocated on the average as follows:

	Linear Feet	Shelving Space
Non-fiction books	530	11”
Fiction Books	670	10.5”
Magazines (adjustable shelving that can accommodate magazine and/or books)	24	N/A
New Book/Interest Display	12	12”
Media Center Storage (20-24” depth)	As space allows	N/A

Circulation Area

- ☐ The architect needs to identify a location for a circulation desk that is large enough to accommodate two computer workstations and a networked printer to access the online catalog system.
- ☐ If space permits, storage cabinets should be provided in the circulation area for miscellaneous activities such as book repairs and holds.
- ☐ The circulation desk furniture package will include the following features:
  - ☐ a storage area for book return carts;
  - ☐ a book return container to catch the books;
  - ☐ supplies drawers;
  - ☐ a writing area unit; and
  - ☐ an area for a laser printer and supplies.
- ☐ The front height of the circulation desk should have an area that does not exceed 39" in height so that elementary students have access.
- ☐ There should be two means of egress for the circulation desk.
- ☐ The work surface for the staff member should meet ADA compliance with optimal ergonomics (keyboard height).
- ☐ Electric and Ethernet needs to be provided

Instructional Areas: Main and Secondary and Collaboration Rooms

Main Instructional Area

- ☐ Sight lines are an important feature in this area. Staff should have visual supervision of the entire LMC from this area.
- ☐ A teaching wall area designed for an interactive board should be included.
- ☐ This area should include table and chair seating as well as soft seating so that the combination of seating totals 32. A variety of heights in the instructional area for students including standing and sitting options should be provided.
- ☐ This area should be carpeted.
- ☐ The space should be easy to reconfigure for a variety of uses and groupings with the use of flexible furniture to support whole class, small group, and project based learning activities.

☐ The instructional areas need access to all forms of technology in the school including wireless access.

Secondary Instructional Areas

☐ Additional informal instructional areas should be identified and located near the entrance of the LMC.

☐ The flooring in this area should be VCT or other hard surface material. This area may also be used during the day for lunch.

Collaboration Rooms

☐ At least two small group collaboration rooms should be provided near the informal instructional area that allows for students to be visually supervised, but work independently.

☐ Data and electrical should be provided to accommodate a collaboration technology table.

☐ These rooms should be glass enclosed.

☐ These spaces should be carpeted.

Work and Production Area

This area was formerly two distinct spaces: the library media specialist office and library media center workroom. The new combined space now supports the library media staff functions and is also used as a multipurpose space to include maker activities for student and school staff use.

☐ The work area should be delineated through the use of a different ceiling height or half wall.

☐ This room requires VCT floor material.

☐ Consideration for a counter for student use is preferable.

☐ Adequate electrical and data outlets are to be designed in consultation with the LM Specialist and central office staff members.

☐ It must contain a sink with hot and cold water, in addition to ample worktops for library media processing, student and teacher use.

☐ Space is needed for three staff work stations. This can be built-in or through furniture.

☐ Three lockable wardrobes need to be provided. See media center specifications available from the MCPS Facility Guideline Specifications.

☐ This space needs to contain open shelving to accommodate materials for student use such as maker space supplies and hands on activities as well as closed lockable cabinets for library media center supplies.

- ☐ Space should be provided for a networked school printer that is accessible by teachers and students.
- ☐ Electric and data should be located on all walls to provide flexibility in the use of the space.
- ☐ The work area includes space for collaborative planning and processing of library media materials.

Library Media Storage

- ☐ The library media storage room provides for storage of library media materials, equipment, seasonal materials and supplies.
- ☐ Electric and Ethernet should be provided to accommodate library media technology needs.
- ☐ A variety of shelving should be provided for instructional materials for teacher use such as DVDs, audio book resources, and equipment with some open space to accommodate computer cart storage.
- ☐ Varied depths of shelving should be provided including 6", 12" and 24" deep.

Television Studio/Control Room/Editing Room

- ☐ The studio requires a control room to house audio recording equipment complementing the video equipment. A window from the control room to the studio is required.
- ☐ The studio requires 12' high ceilings for lighting equipment.
- ☐ The studio needs storage for related equipment and is to be easily accessible from the outside through a separate entrance so that it can be isolated from the rest of the building.
- ☐ A pipe grid should be provided for the lighting system. What types of lighting should be provided.
- ☐ Utilities are to be separately metered including air conditioning since the lights can become very hot.
- ☐ A light dimming control system (Such as Colortran) should be provided.
- ☐ No exterior windows are preferred to help control the lights in the room.
- ☐ Adequate ventilation and temperature control is to be provided in the studio.
- ☐ A chroma key screen or green wall should be provided.
- ☐ The ceiling needs to be black. (color of floors and type of flooring)
- ☐ Any type of acoustical panel needed.

- ☐ Any teaching wall needed or instructional wall needed
- ☐ The editing rooms require outlet strips and data above built-in counters.
- ☐ The large editing room must meet ADA requirements for persons with disabilities.
- ☐ A connection/hole in the wall is needed at the floor level between the control room and television room to allow cables to go between the two spaces.

Media Services Technician Office

- ☐ This office should be located near the TV Studio/Storage Room.
- ☐ This office should be designed to accommodate one desk on one side of the office.
- ☐ A work counter with cabinets above and below and a pegboard, mounted to the wall, should be designed on the opposite side of the desk to store cables for a variety of audio and video equipment and as a place to work on equipment.

Auditorium Storage (Near Auditorium)

- ☐ This room should be located adjacent to the auditorium and should be furnished with shelving and cabinetry appropriate for storage of audio and video equipment.

Auditorium

Spatial Needs
House Area
Ticket Booth
Concession Booth
Stage
Orchestra Pit
Orchestra Pit Storage
Scenery Construction/Storage
Stage Office
Make-up Room
Dressing Room
Costume Storage
Projection Room
Lighting Equipment Storage
Costume Construction
Musical Equipment/Piano Storage

☐ The auditorium will be designed with capacity for 900 seats. The ability to provide for a variety of seating capacities (400-900) should be explored. Proper lighting still needs to be provided for the different seating arrangements.

☐ The auditorium will be used by school and community personnel for performing arts, dance, and musical programs, student meetings and programs, lectures, assemblies, films, debates, and large-group instructional activities. The design of the auditorium must permit a desirable acoustic audience experience.

☐ To support several styles of theatrical performances, the auditorium requires proscenium, thrust, modified open, and arena-type stages. One of the important functions of the auditorium is to permit teaching students the aspects of theater.

☐ The electronic and electric systems of the school need to be extended into the auditorium. These include bells, fire alarm, buzzers, telephone, and public address and custodial call systems. However, the ability to turn off bells, buzzers, public address system, etc. is required.

☐ Cable system and wireless internet. Connection between auditorium and TV Studio. Wi-Fi should extend into the lobby.

☐ House lights with control and dimmer are required. Ceiling access to locally maintain the house lights should be provided.

☐ Exterior lights are needed on the auditorium.

☐ Emergency lights need to be installed in the house and backstage. Aisle lights must be provided.

- ☐ There should be an adequate lobby with public toilets (toilets should not share a wall with the auditorium), drinking fountains, and ticket booth, built in area for serving of refreshments, and storage.
- ☐ Security barriers are required to deny access to other parts of the building from the auditorium/lobby area.
- ☐ Ticket booth (box file) with access only from a secured area is required.
- ☐ A billboard and lighted display cases accessible from the rear mounted near the ticket booth.
- ☐ A building service closet with mop sink must be located near the auditorium lobby.
- ☐ Electrical and telephone backup control access doors/panels should not be located in the hallways.
- ☐ A separate area for chairs, acoustic shells, risers, dance floor, scaffolding, near the stage, should be provided.

House Area

- ☐ The auditorium should contain a total of 900 fixed cushioned seats in one main area. Tandem-mounted seats (or riser-mounted if there are risers) permits easier maintenance and cleaning
- ☐ The house may be designed with stadium-style or raked-style seating. (pitch at Watkins Mill HS and stadium seating at QO HS are ideal).
- ☐ No two seats in each row of the house should have the same number.
- ☐ Seating and aisles should be designed with circulation patterns and fire and safety codes in mind.
- ☐ An assistive listening device for the hearing-impaired should be installed in the house area.
- ☐ Wheelchair seating areas in the house area should be provided.
- ☐ Light lock doors should be included at entrances at the rear on both side to ensure that the auditorium can be dark for shows.
- ☐ Doors to the auditorium need to be able to open and close silently. A vestibule is preferred.
- ☐ An electronically operated movie screen in front of the proscenium is required.
- ☐ Controls should be both located in the booth and the wings. No record buttons should be added to the lights that are backstage.
- ☐ Tormentor bars are needed in the house.

- ☐ The architect should provide for a sound table with built-in conduit at the back of the house with appropriate storage. The sound and light boards should be portable so they can be plugged in backstage, in the house, and in the booth.
- ☐ A left and right area designated for follow spots in the house that do not require removal of seats or obstruct sight lines is required.

Ticket Booth

- ☐ A secure ticket booth must be provided and should be located between the main entrance and the lobby/restroom areas so that a person must pass the ticket booth before entering the lobby/restroom area.

Concession Area

- ☐ The indoor concession area must be visible from the house lobby.
- ☐ The concession areas needs the following items:
  - ☐ stainless steel sink with a garbage disposal
  - ☐ locking cabinets
  - ☐ stainless steel table
  - ☐ counters
  - ☐ ice machine (cubed not shaved)
  - ☐ space for a freezer, microwave oven, refrigerator, and popcorn machine
  - ☐ several electrical outlets with separate dedicated circuits

Stage

- ☐ This area should be 40' to 50' deep and 150' wide, with a proscenium opening of approximately 48' to 54' by 17'.
- ☐ A stage apron of approximately 8' with steps from the house is required.
- ☐ Cyclorama and stage curtains are to be provided. Staff, including the arts faculty, will work with the architect to design and choose the appropriate colors.
- ☐ Piano storage should be stage level and lockable.
- ☐ Acoustics of the stage are to be carefully studied.
- ☐ The stage is to be equipped for good sound projection both with and without amplification.

- ☐ Electric outlets should be provided on the floor of the stage.
- ☐ Microphone outlets are to be available front, side, rear of the stage and pit area.
- ☐ The stage flooring should be of edge-grain tongued and grooved pine with a non-reflective black finish.
- ☐ Wheelchair access to the stage must be provided. No mechanical lifts should be provided.

Communications

- ☐ Communications are needed to connect the stage with the backstage, lighting-control, and sound-control areas, and control room at the rear of the auditorium, to the pit, director's office, the dressing rooms and the foyer.
- ☐ Head set communication and a monitor system is needed to connect all stage areas with all technical and performance operations. (i.e. backstage, lighting-control, sound-control areas, spot-ops, control room at the rear of the auditorium, pit, director's office, dressing rooms, and foyer.)

Ventilation

- ☐ Ventilation and air movement for the stage should be separate from the auditorium.
- ☐ Great care must be exercised to avoid introduction of unwanted and otherwise undesirable sounds from ventilating or other air-handling equipment.
- ☐ The requirements for stage lighting and other supporting and related mechanical/electrical systems will be carefully reviewed with the architect as plans progress.
- ☐ A separate HVAC system is needed for control for after-hours use.

Orchestra Pit

- ☐ The orchestra pit must be large enough to accommodate 50 performers.
- ☐ Access other than through the main house area should be provided.
- ☐ Electric outlets should be provided on the floor pit as well as sides and walls.
- ☐ Access to pit must be provided for persons with disabilities.
- ☐ A small amount of lockable storage space is needed off the pit for instrument storage.
- ☐ A cable jack should be located in the pit to the booth and backstage.
- ☐ A pit cover will be provided per DDC design guidelines.

Offstage Area

Scenery Construction/Storage Area

- ☐ This room should have a ceiling height of approximately 20 ft. and easy entrance to the stage area.
- ☐ The exterior entrance should be 8 ft. wide and 10 to 14 ft. high.
- ☐ There should be easy delivery to the stage and stagecraft or scenery shop.
- ☐ A loading DDCk at truck level with access to the stage area is preferable.
- ☐ A sink, lockable tool cabinets, and shelving are needed.
- ☐ This area must be provided with separate ventilation for quickly eliminating paint, dust, and other potentially toxic fumes or materials in the air caused by set construction activities.

Stage Office

- ☐ The office is needed near the stage and workshop.
- ☐ A separate telephone line is required.
- ☐ Data drops are required in this office.

Make-up Room

- ☐ The make-up room needs a sink with hot and cold running water.
- ☐ It should contain lockable storage cabinets, tabletop height work shelves along two sides with mirrors and lights (not fluorescent), and several electrical outlets.
- ☐ The make-up room should have student lockers and 6 portable clothing racks.

Dressing Rooms

- ☐ Separate rooms are required for males and females and an inclusive room that will include the following:
  - ☐ dressing counter
  - ☐ Mirrors
  - ☐ incandescent make-up lights
  - ☐ Tack board

☐ These rooms should be adjacent to the make-up room.

Inclusive Toilet Rooms

☐ Two single use toilet rooms should be located near the dressing rooms.

☐ These rooms should each have a toilet, sink, and mirror.

Costume Storage

☐ The costume storage of needs pipe racks. (12 portable racks)

☐ There is need for large double doors and good ventilation and lighting.

☐ Shelving should also be provided.

Lighting Equipment Storage

☐ Pipe racks for hanging lights are required.

☐ Appropriate storage cabinets are needed.

Costume Construction

☐ An area of 225 square ft. is required with durable floor covering that is easily maintained.

☐ This room should contain work tables, sewing machines, ironing boards, clothes racks, storage cabinets, board, and is to be well lighted with incandescent lighting.

☐ A small alcove is to contain equipment for washing and drying.

Projection Room

☐ Design of this must be coordinated with MCPS Fine Arts Curriculum staff.

☐ Sliding glass will be required on the house side of this booth.

☐ Adjacent to this booth, separate enclosed areas at booth level are needed for spotlights.

☐ Lighting System and Dimmer—Attention is called to established criteria for auditorium stage and house lighting. These guidelines are to be employed by the architect and engineer in close cooperation with facilities management and will be transmitted to you under separate cover.

- ☐ Audio Systems—Theatrical equalizers and three-speaker systems should be considered. It is important to install "limiters" as part of the sound system to prevent power surges and/or equipment misuse. Attention is called to established criteria for auditorium sound systems. These guidelines are to be employed by the architect and engineer in close cooperation with facilities management and will be transmitted under separate cover.
- ☐ Acoustics is an important consideration possibly requiring consultative help.
- ☐ Heating, Ventilating, and Air-conditioning—Zoned or separate; unwanted noise must be minimized.
- ☐ Established criteria for stage house rigging and counter weight systems are to be followed if the budget allows for fly loft space to be built.

Musical Equipment/Piano Storage

- ☐ Locked storage for a concert grand piano should be provided with access to the stage.
- ☐ The entrance to this storage should have a flat floor without a sill.
- ☐ An additional space is needed off stage for musical equipment storage.

Amphitheatre

- ☐ If design and budget allow, an amphitheater or pit, to seat approximately 150, should be designed in a circulation area.
- ☐ The area must be easy to supervise, yet designed so that classroom instruction can take place for a large group.
- ☐ This area will also serve as a gathering place before and after school as well as an eating area at lunch period. This area will not have permanently installed seating.

Student Activities Facilities

Spatial needs
Student Council Suite
School Store
School Store Storage
Journalism Staff Room
Yearbook Staff Room
Literary Magazine Staff Room

Student Council Suite

- ☐ The student council suite needs direct access to a main corridor.
- ☐ Storage cabinets should be built-in. The room should have whiteboard, tackboard, lockable storage and a window into the hallway.
- ☐ A display board for announcements should be located near the door.

School Store

- ☐ The school store should be located near the gymnasium.
- ☐ It needs a counter, shelving and display areas.
- ☐ Special consideration is to be given to security and to accessibility so as not to block the corridor during heavy usage.
- ☐ A storage area should be located adjacent to the student store.
- ☐ A corridor showcase for display should be included.

Yearbook, Journalism, and Literary Magazine Staff Rooms

- ☐ The yearbook, journalism, and literary magazine staff rooms may be located near standard classrooms or near a centrally located area near the cafeteria and main gathering area for students.
- ☐ If these rooms are located adjacent to standard classrooms, the rooms should have an adjoining door to a classroom and a large window between the student staff room and classroom to allow for supervision by staff.

- ☐ If these classrooms are located in a central student area, the rooms should have large windows between the rooms to allow for supervision by staff.
- ☐ These rooms require lockable storage for student work.
- ☐ These rooms should be designed for two-four computer workstations.

Staff Offices

Spatial needs
Signature Coordinator Office
Staff Development Office
School Psychologist Office
Internship Coordinator
IT Systems Specialist Office
Support Staff Offices

Staff Offices

- ☐ All staff offices should be designed with two computer outlets to allow for two staff offices.
- ☐ Each office requires a telephone line.
- ☐ The Support Staff offices furniture layout should be shown with two staff persons, all other offices should be shown with one staff person at this time.
- ☐ No built in cabinets should be designed in these offices.
- ☐ A tack board should be provided in each office.

Administration Suite

Spatial needs
General Office
Principal's Office
Assistant Principal's Office
Administrative Support Office
Principal's Secretary Office
Business Manager Office
Financial Assistant's Office
Business Manager Storage Area
Waiting Area (Business Manager)
Conference Room
Large Team/Testing Room
Testing Room
PTA Storage Room
Storage
Attendance Office
Office Workroom/Storage/Toilet Area
Photocopy Workroom

General Office

☐ There must be special attention given to the flow of traffic, seating, lighting, and fenestration as well as wall color and arrangement of employees' work areas.

☐ Staff mailboxes are to be easily accessible without going through the public waiting area. There are to be a minimum of 150 boxes at least 5.5 inches tall by 12 inches wide plus five additional boxes that are somewhat larger, with space provided for expansion to 200 boxes.

☐ Voice, data, and video connections are needed for all staff in the administrative suite.

☐ The general office area must include a coat closet for administration and visitor use and a small lockable closet (about 2 ft. by 4 ft.) with double doors for PTSA storage.

Principal's Office

☐ This office requires an outside window, a public entrance connected to the main office, and a private entrance.

☐ The principal's secretary is to be located adjacent to the principal's office and have a private office.

☐ These areas are to relate effectively with each other as well as to the general office.

☐ A toilet room should be provided in the principal's office.

Principal Secretary's Office

☐ The principal secretary's office should be located near the principal's office and close to the general office.

☐ The office should be designed with a window to the general office to allow for supervision of the space by the administrative secretary.

Assistant Principal's Office

☐ A student waiting area close to the assistant principals' office should be provided.

Conference Room

☐ The conference room should be located close to the principal's and assistant principals' offices and be directly accessible to the corridor.

☐ Data outlet for a presentation board should be provided.

☐ A telephone is needed in this room.

Large Team/Testing Room

☐ This room requires two dedicated 20 amp electrical circuit for a charging mobile laptop carts.

☐ This room requires an interactive teaching board along one wall and a CNO for the computer.

☐ Wall and base cabinets with a sink should be designed along one wall of the room.

☐ Magnetic whiteboards should be provided in this room.

Testing Room

☐ School and/or central office staff test individual students or small groups of students. Typical testing includes psychological, diagnostic, vision/hearing, gifted, and makeup testing for required standardized tests. This room also will be used to accommodate post-test conferences with teachers and/or parents.

☐ This room should be designed as a secure room for testing materials and should have a counter with lockable cabinets above and below.

☐ This room needs acoustical treatment as well as video, voice, and data outlets.

Attendance Office

☐ The attendance office should be accessible to a corridor and is needed for keeping attendance records.

☐ A window counter to the corridor is needed.

Offices, Workroom, Storage, and Toilet Rooms

☐ These areas should be located to serve the general office employees.

☐ The workroom is to contain cabinetry and sink, shelving, and work space with adequate electrical outlets.

☐ The storage room is to be adjacent to and relate well with the workroom and should not be directly accessible to the corridor. Casework for general office employees is to be provided.

Photocopy Workroom

☐ The photocopy workroom should be located in a location that is convenient for teacher use.

Business Manager and Financial Assistant's Office

☐ These offices should be located adjacent to each other and can be designed as a separate suite with an entrance off the corridor and a door into the main office.

☐ A storage area should be located adjacent to these offices.

☐ The financial assistant's office should have a cashier's window onto the corridor.

☐ A small waiting area should be provided.

Counseling Suite

Spatial needs
Counselor's Office
Waiting Room
Conference Room
Records Room
Registrar's Office
Workroom
Career Information Center

- ☐ The Counseling Suite is to be separated but may be adjacent to the administrative areas.
- ☐ These offices require voice, data, and video connections.
- ☐ Counselor's offices to be carpeted.
- ☐ The Records Room is to be a secure room accessed from the registrar's office.
- ☐ The Records Room is to be 1-hour rated.
- ☐ The Records Room is to have no windows.
- ☐ The Registrar's Office should be adjacent to the Records Room and have hallway access.
- ☐ The Workroom should have secure storage for computer equipment, good ventilation, and adequate wiring for copy machine, refrigerator, word processing equipment, etc.
- ☐ The waiting area is to have space for two secretarial desks with hookups for telephone and computer, and seating for 10-12 visitors.

Career Information Center

- ☐ The career information center should be designed for use by classes of up to 30 students.
- ☐ It should be located near the guidance suite and have direct access to a hallway.
- ☐ It should provide for the collection of print and non-print materials and for individual viewing and listening.
- ☐ The career information center should be bright and inviting with plenty of interior glass into well-traveled corridor spaces.
- ☐ Wiring appropriate for ten computers workstations is required.
- ☐ Tackboards should be provided in the room.

☐ An office of approximately 150 sq. ft. should be designed.

Health Suite

Spatial needs
Waiting Room
Treatment/Medication Room
Office/Health Assessment
Health Assessment/Isolation Room
Rest Area
Storage
Toilet Rooms

☐ A designated school health services professional from the Montgomery County Department of Health and Human Services (DHHS) must be involved in the planning of the health services suite.

☐ The health suite should be located near the administrative area.

☐ Student traffic is to be kept close to the door and cross traffic is to be minimized.

☐ Good supervision of the room from within as well as from the general office is required.

☐ A separate switch to control the ventilation system in the health suite must be provided.

☐ Direct access to a main corridor is needed for emergency access and egress.

☐ Two doors to the suite will facilitate the movement of students through waiting and treatment areas during a mass procedure.

Waiting Area

☐ The waiting area should accommodate ten chairs, a pamphlet rack, and a 24" x 48" table.

☐ Its placement in relationship to the treatment area and to the nurse's office should facilitate triage, enable its supervision, and promote confidentiality in the treatment area.

Treatment/Medication Area

☐ The treatment area should be accessible to the waiting area and toilet rooms.

☐ Its design should promote confidentiality.

☐ The treatment area is to contain the following:

- ☐ a kitchen-type sink and cabinet unit with locking cabinets above and below

- ☐ a clear area of at least 36 inches on the countertop
- ☐ a full-size refrigerator with ice-making capabilities
- ☐ a mirror
- ☐ an area for a hazardous materials trash receptacle
- ☐ Space for a scale, a floor lamp, a step-on covered waste can, an l-shaped desk and chair with space for a computer and printer, a telephone, and three 4-drawer lateral locked file cabinets.
- ☐ Two 4'x4' tack boards should be provided in this area.

☐ The location of the desk, chair, phone, and file cabinets should be placed so that it enables supervision of both the waiting area and the resting areas.

Office/Health Assessment Room

☐ The office should accommodate a double-pedestal desk and chair, a telephone, one lockable file cabinet, a round table to accommodate eight, and eight chairs.

☐ The room is to be enclosed in such a manner as to prevent the passage of voices into or out of the room. A transparent opening in the wall is to be provided to permit supervision of the waiting and treatment areas. Blinds are to be provided for privacy. Two doors should be provided, with one designated for access/egress to the health suite and one designated for access/egress into the administrative area. (An outside window would be appreciated.)

Isolation Room

☐ This room needs to have access and have a door to the corridor.

☐ A window is needed in this room to provide supervision from the treatment area and office. The design of the window also needs to ensure that only staff can see into the room.

☐ This room should accommodate space for a cot and a single pedestal desk and chair, telephone and computer.

☐ This room requires a sink and counter with lockable cabinet.

☐ This area requires supplementary power ventilation capable of 20 changes per hour with control by means of a separate switch within the health suite.

☐ One 4x'4' tack board should be provided.

Resting Areas

- ☐ This area should not fully contained room but rather an area that can provide privacy for each cot with a draw curtain on a ceiling track.
- ☐ The rest area needs space four cots with individual light switches for wall sconces, electrical outlets 16” from the finished floor, and bedside cabinets for each rest area.
- ☐ These areas should be designed to enable supervision from the treatment area.
- ☐ In the rest area and privacy room, supplementary power ventilation capable of 20 changes per hour is to be provided.
- ☐ One 4’x4’ tack board should be provided in this area.

Storage Area

- ☐ The storage area should accommodate cots, two folding wheelchairs, and adjustable shelving for forms and supplies.
- ☐ The storage area is to be secured and should not be smaller than 40 sq. ft.

Security

Spatial needs
School Security Office
In-school Suspension Room

School Security Office

- ☐ This office should accommodate up to 8 staff persons.
- ☐ Space is needed for a table and chairs to meet with students.
- ☐ This office must have lockers and secure storage.
- ☐ This office suite must accommodate the cameras and accompanying communication equipment for a visual monitoring system.

Restorative Justice Room

- ☐ This room should be designed as a small classroom to accommodate student desks.
- ☐ Space should be provided for a teacher's desk space for a table and chairs to meet with students.
- ☐ The room should be designed with a teaching wall per DDC guidelines.

Command Center

- ☐ An interior room in the school needs to be designated as the command center for shelter in place/lock down emergencies. In many schools, the workroom in the administration suite may serve this purpose. The room cannot be on an outside wall.
- ☐ The room designated as the command center must have all data and communication equipment including computer outlet, telephone, and public address (PA) system.
- ☐ The PA console should be located in the room that is designated as the command center.
- ☐ Window coverings such as mini blinds or roller shades must be provided for all windows and doors to the command center.
- ☐ In secondary schools, the security camera monitors should be located in this area.
- ☐ The space designated as the Command Center must be large enough to accommodate up to six staff person storage space is needed for the shelter in place/lock down emergency kit.

Staff Facilities

Spatial needs
Staff Room
Wellness Room
Staff Dining Room

Staff Room

- ☐ Two staff rooms should be provided to allow staff a place to rest, plan, study, and think together and be located near classrooms.
- ☐ Two staff toilet rooms should be located near but not within the each of the staff rooms.
- ☐ The staff rooms should contain a compact built-in kitchen with six linear feet of counter space for a microwave and sink and a space for a refrigerator (NIC).
- ☐ A clock should be provided.
- ☐ An operable window in the staff room is preferred.
- ☐ An area should be designated for a computer outlet and telephone.
- ☐ Space in this area is needed for vending machines.

Privacy Room

- ☐ A small, enclosed room with countertop and space for one chair is needed.
- ☐ An electrical outlet should be provided above and below the counter and the counter should be tall enough to accommodate a small refrigerator.
- ☐ A small sink is needed for hand washing and washing of personal items.
- ☐ A mirror should be provided above the counter.
- ☐ This space needs to be accessible to staff with disabilities.

Staff Dining Room

- ☐ The staff dining room should be easily accessible from the kitchen area.
- ☐ The staff dining room should contain a compact built-in kitchen with six linear feet of counter space for a microwave and sink and a space for a refrigerator (NIC).

Food Services Facilities

Spatial needs
Student Dining Area
Serving Area
Food Preparation
Dry Food Storage
Refrigerated and Frozen Food Storage
Office
Locker/Toilet Room
Loading/Receiving Platform

Student Dining Area

- ☐ The dining should resemble a "Food Court". Booths and "stand-up" tables may be used.
- ☐ The dining area needs to seat approximately one-third of the building's student capacity.
- ☐ It should be designed with flexibility to accommodate several activities.
- ☐ Several distinctive seating areas should be provided. Areas should have different kinds of seating arrangements (small tables, booths, and corner tiers), colors, and lighting.
- ☐ One of the eating areas should be located in the courtyard/patio.
- ☐ Three teaching/lecture areas for 30-50 students each should be provided. These lecture areas require the following:
  - ☐ pull-down screen
  - ☐ voice, data, and video connections
  - ☐ whiteboard
  - ☐ sound proof dividing wall
  - ☐ zoned lighting
- ☐ Attractive decor and an open kiosk activity center should be provided to promote student and social activities.
- ☐ Supervision is an important consideration. Unobstructed sight lines are necessary for one staff member to effectively supervise all of the students.
- ☐ An assistive listening device should be provided for the hearing impaired.
- ☐ Special consideration must be given to the acoustics, ventilation, color and flooring.

- ☐ Trash from the dining area must not flow through the kitchen.
- ☐ An outside entrance to the cafeteria for easy access in the evening and an outside eating area with permanent trash cans (preferably a courtyard) are desirable.
- ☐ Consideration should be given to the use of electronic menu boards.

Kitchen

- ☐ The kitchen needs to be directly accessible from the loading DDCk.
- ☐ A walk-in freezer of 240 sq. ft. and walk-in refrigerator of 180 sq. ft. are required.
- ☐ Walls and ceilings should be painted in light color, smooth, impervious to moisture, easy to wash, and easy to keep in good repair. An easy to mop floor such as, slip resistant quarry tile floor or polyurethane cement flooring system is required. If quarry tile is used then the color of grout should be the same or darker than the color of the floor.
- ☐ The kitchen to be linked to the security monitoring system and school intercom.
- ☐ A wall clock at the serving line that is linked to master control should be provided.
- ☐ When designing the kitchen and related spaces, special consideration should be made to temperature and humidity control and traffic.
- ☐ All current health and sanitation codes must be met.
- ☐ Special consideration should be given to the location of floor drains.

Serving Area

- ☐ Control of serving lines should be designed to facilitate rapid serving of food.
- ☐ The serving area should consist of 5 food serving sections
  - ☐ soup, salad, and deli
  - ☐ pizza, burgers, fries
  - ☐ hot lunch of the day
  - ☐ ethnic foods
  - ☐ snacks
- ☐ These stations may be portable and should be dispersed through the dining area to reduce congestion.

- ☐ Stations should be secured when not in use.
- ☐ A dedicated circuit for cash registers is required with under floor conduit for intercommunication link.
- ☐ Control railings may be portable.

Preparation Area

- ☐ The preparation area should include areas for the cook, the baker, and beverage/salad/sandwich prep areas.
- ☐ Trough-type drains at steamers and kettle locations are required.
- ☐ Hand sinks in each prep area with soap and towel dispensers and automatic wash filtered hood are required.
- ☐ Consider of the utility distribution system must be taken into account.

Dry Food Storage

- ☐ The dry food storage area must be adjacent to the prep area and receiving area.
- ☐ Door opening must be a minimum of 3' 8".
- ☐ It must be air conditioned at all times.
- ☐ This area requires mobile shelving and dunnage, key lock for security, and must be free of roof access ladders or electrical panels.
- ☐ The shelving must be ventilated.

Refrigerated and Frozen Food Storage

- ☐ The cooler/freezer storage area should be provided with a common wall and should be located adjacent to the prep and receiving areas.
- ☐ Insulated slab and thickset quarry tile floor is preferred with a minimum of 20 ft. candle lighting.
- ☐ Roof mount compressors, stainless steel mobile shelving and dunnage, and sound alarm for temperature monitoring should all be included.

Office

- ☐ The office should be located to provide visibility to receiving and preparation areas.

- ☐ Adequate lighting is required.
- ☐ Voice, data, and video connections are required.

Toilet/Locker Room

- ☐ This room should include a coat rack and purse lockers/
- ☐ The toilet room requires hot and cold water mixing faucets, with soap and towel dispensers and sanitary napkin disposal unit.
- ☐ An automatic door closure and approved ventilation system is required.

Loading/Receiving Area

- ☐ The loading/receiving area must be totally separate from other school receiving or trash disposal.
- ☐ Dock height of 4 ft. with 22 ft. minimum width slightly recessed roof with minimum 13 ft. header clearance, with protective bumpers, an entry door minimum of 3'8" for pallet loads.
- ☐ A doorbell with screened foyer must be provided.

Building Service Facilities

Spatial needs
Building Service Office
Locker/Shower area
Plant Equipment Operator Office
Compactor/Trash Room
General Storage & Receiving Area
General Storage
Building Service Outdoor Storage
Building Service Closets

Building Service Office

- ☐ The entire building services area should be located adjacent to the general receiving area.
- ☐ The office should be designed as a general office that can accommodate two staff members with two desks and appropriate wiring for computers, phones, etc.
- ☐ If possible, the office should have a window or a sightline to the outside to monitor weather conditions.

Locker/Shower Area

- ☐ A locker area must be located near the receiving area.
- ☐ 20-25 full-size lockers should be provided in the locker area.
- ☐ The locker area should be designed with an enclosed toilet room and shower room for building service staff use.

Plant Equipment Operator Office

- ☐ This office needs to be adjacent to the boiler room.
- ☐ The office needs to accommodate a desk and appropriate data wiring for computer and phone.

Compactor/Can Wash/Trash Room

- ☐ This room needs to be completely separate from the kitchen spaces with no common walls.
- ☐ Trash trucks must have access to this room.
- ☐ The room should be heated and have adequate interior lighting, floor drainage, and easily cleanable surfaces.

- ☐ Hot and cold water should be available for flushing and cleaning.
- ☐ The room should be designed to be pest-free and well ventilated.
- ☐ Floors should be sloped so that wash down stays within the room and goes down the drain.
- ☐ The compactors need to be installed with enough clearance away from the wall to permit staff to access the equipment from all sides.
- ☐ A roll-up door for trash transfer to trucks, steam cleaning equipment, and trash collection containers are needed.
- ☐ The room should be designed with a ramp to allow trashcans to be rolled to the dock.

General Storage

- ☐ Flexible shelving to accommodate books, teaching aids, large size (24" x 36") paper, and other instructional supplies is required.
- ☐ Good lighting and easy access to materials being stored are required.
- ☐ Electrical outlets, upgraded lighting and ventilation must be provided in all large storage rooms for future flexibility.

Building Service Outdoor Storage Room

- ☐ Outdoor storage is to be near the service area and is to be suitable for heavy mowing, snow removal, and other outdoor equipment.
- ☐ The dimensions of the outdoor storage area must be able to accommodate a tractor (7.5’ long by 5.5’ wide).
- ☐ A rolling garage style door and a regular door must be provided
- ☐ A ramped and paved driveway is required for the tractor so that it can access the sidewalk and driveways of the school during snow removal.
- ☐ Electrical service and lighting inside must be provided. Access to the light switches must be available at both entrances.
- ☐ Proper ventilation for storage of gasoline is required.

Building Service Closets

- ☐ At a minimum, there should be a building service closet for each 19,000 gross square of the facility. In addition, there should be a building service closet on each floor and each wing of the facility.
- ☐ The closets should be a minimum of 25 sq. ft.
- ☐ The building service closet must accommodate a minimum of one utility cart.
- ☐ The closet requires shelving for cleaning supplies.
- ☐ The closet requires a floor mop sink with hot and cold running water and a floor drain.
- ☐ A mop/broom holder is required.

Site Requirements

The items listed below are for a school that meets the minimum useable site size of 35 acres that is capable of fitting the instructional program, including site requirements. At schools with smaller sites, the architect is to work with MCPS staff, including the Physical Education Curriculum Coordinator, Safety Director, and school staff to determine layout of the play areas.

- ☐ All designs must be accordance with MCPS Facility Guideline Specifications.
- ☐ The site must conform to all applicable federal, state, and local regulations and laws.
- ☐ The entire site must comply with the most current ADA or COMAR regulations, whichever is more stringent.
- ☐ One play yard, 1000 sq. ft. for the child development classroom is required.
- ☐ One outdoor patio, 500 sq. ft. for the art department is required.
- ☐ Accessible parking spaces should be located near the main entrance, after hours use, and the playing fields.

Driveway

- ☐ The architect/engineer should refer to the MCPS Facility Guideline Specifications for design of the driveway, bus loops, etc.
- ☐ Bus traffic should be separated from car traffic at all times, when possible.
- ☐ Bus loading zones should be able to accommodate the entire student body. The number of busses will be confirmed with the MCPS Department of Transportation.
- ☐ A covered area for students in the bus loading area must be provided.
- ☐ A separate drive for parent drop-off is required.
- ☐ Pedestrian access the school facilities should be designed to make the best use of community right of way.
- ☐ Driveway aprons should be perpendicular to the centerline of the street; and if there is an intersecting street on the opposite side from the proposed driveway, the driveway apron should line up with the intersecting street.
- ☐ Driveways should be located so as not to project headlights into adjacent homes.

Parking

- ☐ Parking for 450 cars with master planning for additional 50 spaces is required.
- ☐ The parking area should be designed to maximize safety and minimize speed.
- ☐ Adequate lighting should be provided.
- ☐ Parking area should have two exits.
- ☐ Guardrails or bollards are to be installed to protect fields and play areas.

Service Drive

- ☐ The architect/engineer should refer to the MCPS Facility Guideline Specifications for the design of the service drive.
- ☐ All driveways must be arranged so that they are not required to cross the service drive to get to the play fields.

Physical Education/Athletic Fields

- ☐ All fields must be designed in accordance with MCPS Facilities Guidelines.
- ☐ Pedestrian access must be provided from the surrounding neighborhoods.
- ☐ All fields should be graded and sifted to remove rock and debris.
- ☐ A 3" water line for future irrigation of playing fields should be installed.
- ☐ All fields must have ADA compliant access.

Stadium Field

- ☐ The field will be designed for natural turf and should be properly crowned to provide adequate drainage. The location of the drains/covers must not interfere with the playing surface.
- ☐ An add alternate should be designed to provide artificial turf.
- ☐ The width and length of the field must accommodate soccer, field hockey, and football.
- ☐ The field should be surrounded by an eight-lane track with a 24-ft wide straightaway, backside, and curves.
- ☐ If the track is separate from the stadium, than dedicated and permanent seating to accommodate spectators should be designed.

- ☐ The straightaway must be located near the home side bleachers.
- ☐ A shot put, long jump and pole vault area is to be included.
- ☐ The discus area must have a required cage.
- ☐ The field should be situated to minimize the effect of afternoon sun glare on the players as they face diagonally, and from spectators in the main bleacher section.
- ☐ An underground water system with 9 zones, four heads each is required for natural turf fields only.
- ☐ Safe stadium seating to accommodate 2000 spectators on home side and 750 on the visitor side is required. They must comply with NFPA 102 and ADA.
- ☐ All risers must be of uniform height with handrails at aisles, all aluminum boards, wheelchair parking, paved runway from track gate to bleacher, and paved under the bleachers.
- ☐ Permanent soccer/football goals with pads should be installed.
- ☐ A scoreboard for football, soccer, field hockey, and track and field events should be included.
- ☐ Lights are to be provided to illuminate and provide security for peripheral areas of the stadium field for evening activities.
- ☐ An outdoor storage shed of approximately 23’ x 30’ should be provided.

Varsity Baseball Field

- ☐ The dimensions of the baseball field should be 325' down each foul line and 360’ for center field.
- ☐ Electrical service, water service, a stainless steel water fountain, hooded backstop, benches with safety fencing, and trash containers are to be provided.
- ☐ Equipment and fields must be in compliance with national, state, and local rules and safety standards.
- ☐ Seating for 50 spectators on each side should be provided including a paved accessible viewing area.
- ☐ Field must be situated with a north-south orientation so that direct evening sun does not interfere directly with batter and fielders.
- ☐ The distance from the backstop to home place must at a minimum comply with NFHS rules and regulations.

Varsity Softball Field

- ☐ The softball field requires a 250' radius.
- ☐ Electrical service, water service, stainless steel water fountain, hooded backstops, safety fences and benches, and trash containers are to be provided.
- ☐ Equipment and field must be in compliance with national, state, and local rules and safety standards.
- ☐ Seating for 50 spectators on each side should be provided including a paved accessible viewing area.
- ☐ Field must be situated with a north-south orientation so that direct evening sun does not interfere directly with batter and fielders.
- ☐ The distance from the backstop to home place must at a minimum comply with NFHS rules and regulations.
- ☐ An outdoor storage shed of approximately 20’ x 20’ should be provided near the baseball/softball fields.

Play Fields

- ☐ Three play fields, a minimum of 120,000 sq. ft. with 150’ width should be provided.
- ☐ Proper drainage should be assured for all of the fields.
- ☐ Two softball non-hooded backstops are to be provided in the corners of the fields if space allows.
- ☐ Two 15’ benches with safety fences on each field should be installed.
- ☐ Permanent trash containers are to be placed by the backstops.
- ☐ Two sets of multipurpose goal posts should be included on the fields—one should be permanent and the other moveable.
- ☐ Bermuda grass is best for all fields.
- ☐ The field hockey field should be should be 60 yards x 100 yards. Bermuda grass is required for this field. This field should not be crowned.
- ☐ Benches, goals, seating for 100 spectators, and permanent trash containers are needed at the field hockey field.
- ☐ A heavy duty vandal-proof outdoor water fountain should be provided adjacent to the practice fields separate from the stadium water fountain.

Paved Areas

☐ Four benches, a stainless steel water fountain, and permanent trash containers are to be provided beside the tennis/basketball courts.

Tennis Courts

☐ Eight full-sized tennis courts with cloth nets are required.

☐ Permanent posts and cranks are required.

☐ The baseline of the court should be perpendicular to the north-south axis.

☐ The playing surface color is green with red out-of-bounds.

☐ Appropriate tennis court markings should be provided.

☐ Fencing 10’ high should surround the courts.

☐ An electrical outlet should be installed on the outside of the fence.

☐ A minimum 60' long and 10' high rebound wall should be located outside the court area.

☐ The tennis courts and wall are to be located near the outside basketball courts.

☐ The tennis court construction should meet the United States Tennis Court and Track Builders Association Guidelines.

☐ If the tennis courts are not located near the outdoor storage area, provision must be made to store maintenance supplies (squeegees), ball machines, and other tennis equipment.

Basketball Courts

☐ Four paved play areas, 80' x 100' with appropriate court markings should be provided.

☐ Each basketball court should be 46’ x 80’.

☐ 8 basketball sets (post, backboard, rim, net) is required.

☐ The posts should be curved “goose neck” with fan-shaped aluminum backboards. Heavy duty double rims with polyethylene or strap nets must be provided.

☐ The basketball courts should be located next to the tennis courts.

Outdoor Concession Stand/Press Box

- ☐ This building needs to be in the stadium area.
- ☐ Restrooms adjacent to this area should include at least four fixtures for each toilet room (male and female).
- ☐ The concession building should have adequate electrical service, drainage, stainless steel sink and tables, shelves and ice machine (cubed not shaved), freezer, garbage disposal, cabinets, plumbing, floor drain, and shelving are required.
- ☐ Permanent trash containers are required.
- ☐ Separate entrances should be provided for the press box and concession stand.
- ☐ An outdoor water fountain and one hose bib should be secured to the concession stand.
- ☐ The press box must provide space for a minimum of 10 people with complete line of sight to the field.
- ☐ The press box requires heat, sliding windows, electrical outlets, and counter space under the window for people to sit. The appropriate length for the press box is 20' however if an upper and lower configuration is used, the press box may be 10' long.
- ☐ One or two outdoor ticket-taking station/booth should be included. The exact site will be determined after fencing and traffic patterns are established.
- ☐ A storage closet (20' x 20') with garage type door should be provided in this building.
- ☐ The location should provide adequate security and orderly entrance to events

Outdoor Shed

- ☐ One outdoor storage shed, 20' x 20' should be attached to the school.
- ☐ This storage area should have a frost proof bib, concrete floors, and ventilation to accommodate gasoline/diesel equipment, and be secure.
- ☐ It requires a 10' x 8' rolling gate.
- ☐ An outside hose bib should be included.
- ☐ A ramp should go from ground level to the doorway for each access of heavy equipment.

Outside Storage Building

☐ An outside storage building should be approximately 20 ft. by 20 ft. and will require a rolling gate 10 ft. by 8 ft. with concrete floor and flush threshold.

Other Program Requirements

APPENDIX C – EXISTING CONDITIONS SURVEY

General Information:

Springbrook High School
201 Valley Brook Drive
Silver Spring, Maryland 20904

Phone: (240) 740-3800
Fax: (301) 622-1875
Cluster: Northeast Consortium
Tax Map and Parcel Numbers: tax map JQ53

The site is bordered to the southeast by residential houses and wooded areas, to the northwest by forest, to the southwest by residential houses and additional wooded areas, and to the northeast by Valley Brook Drive. The property consists of a single parcel with a total area of approximately 108,900 square feet (25 acres). The size is zoned R-200. The site is currently an active high school and includes the school building, bus and parent drop-off and three parking lots. The school has an existing stadium with track and rectangular play field, six tennis courts, three basketball courts and one baseball and softball field.

Site Circulation and Parking:

The site currently has three curb cuts all located along Valley Brook Drive. The most northwesterly curb cut on Valley Brook Drive provides access to a parking area that is near the basketball and tennis courts and provides access to the stadium. The other two curb cuts provide access to the bus loop, loading dock area, and the majority of the on-site parking. The uses of the curb cuts for arrival and dismissal are as follows; the northwestern curb cut is used for student parking, and for some parent drop-off or pick-up. The central curb cut is used as an entrance and exit for buses, and the entrance for staff and visitors, and an exit for the main parent drop-off. The southeastern curb cut is used as an entrance for staff parking and an entrance for the main student drop-off/pickup. The drop-off loop experiences significant congestion during the arrival and dismissal times due to having students, staff, and buses sharing the entrances.

The school has a total of three parking areas. One lot is located near the athletic fields, one is in front of the building, and the main lot is located behind and beside the school building. The main parking lot contains 230 spaces, including 6 designated ADA spaces. The lot located at the athletic fields provides 146 spaces, including 6 ADA spaces. The front lot provides 48 spaces, with 8 designated ADA spaces. Sidewalk is located on the south side of Valley Brook Drive. The curb ramps along the public right-of-way do not appear to be ADA compliant. There is no sidewalk connecting the public right-of-way to the school. An ADA project was performed for the school in summer 2023 to upgrade the ADA parking and sidewalks from the upgraded ADA spaces into the building. There were also multiple projects in the early 2020s to upgrade ADA access to the stadium and ticket booth.

Fire Access:

The school does not appear to have an existing fire access plan or fire lane order for the school.

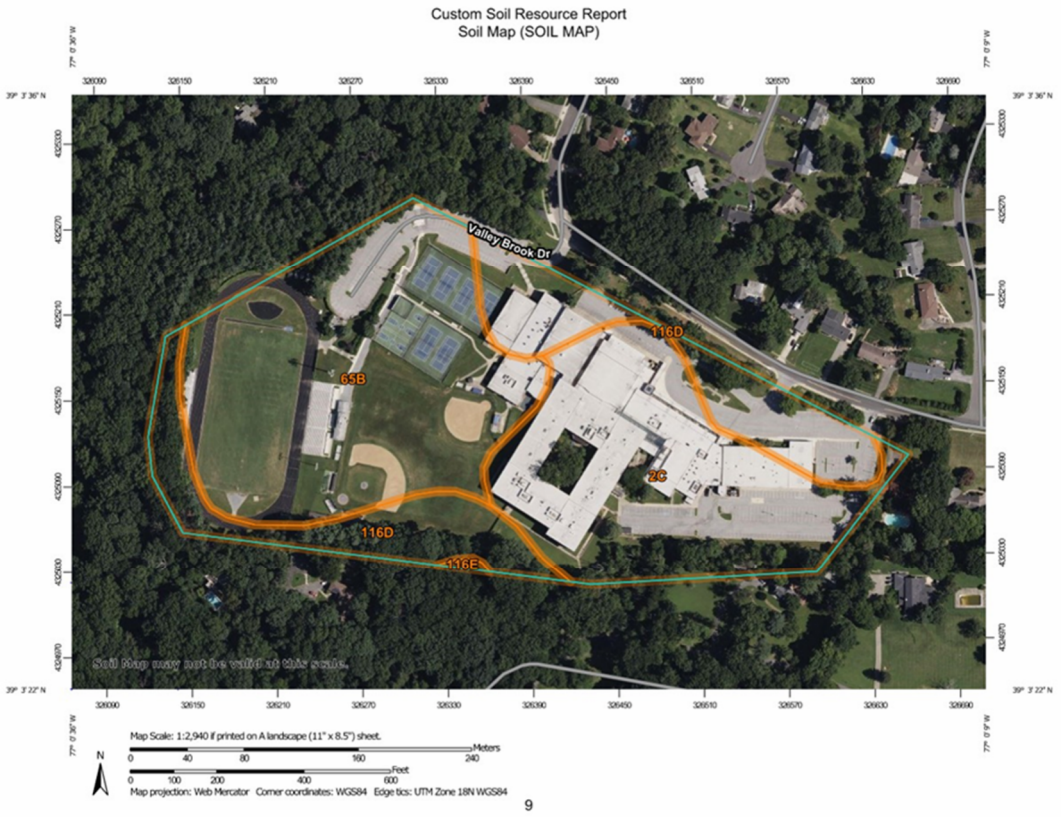
APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Zoning:
The property is zone R-200. Educational uses are allowed in commercial-residential zones. Below are the requirements of the zone:

Lot coverage:	25%
Open Space Required	10%
Building Setback – Front	40’
Building Setback – Side:	12’
Building Setback – Rear:	30’
Building Height:	50’ max

MCPS is allowed leeway in several zoning categories if the building is unable to comply with the zoning requirements. Parking requirements for MCPS projects are not based on zoning requirements. MNCPPC relies on MCPS to determine the appropriate amount of parking based on schools of similar size and staffing. It is anticipated that all staff members will be required to park on site and have space for visitor spaces during the day.

Property Topography:
In general, the property drains from the northeast towards the southwest. The drainage for the site drains to an unnamed tributary to NW Br. Anacostia River, b/t confluence w/Bel Pre Creek and Sligo Creek and is in MDE watershed #02140205 which is listed as use IV water. Class IV waters are designated recreational trout waters.



Soil Boundaries for Property

Soils:
Soils for the site are noted as Wheaton silt loam(65B), Glenelg silt loam (2C), Blocktown channery silt loam (116D) and Blocktown channery silt loam (116E).

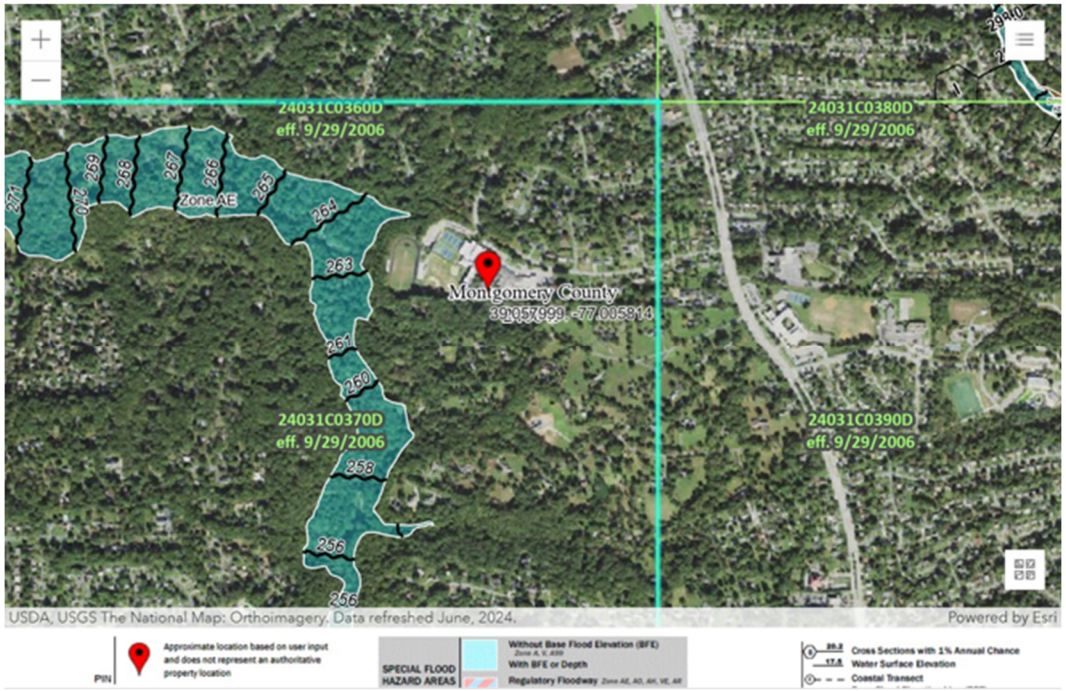
APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Floodplain, Wetlands, and Streams:
The property is located outside the 100-yr floodplain per FEMA maps 24031C0370D (effective as of 9/29/2006).

There is no County mapped floodplain on the site.
There are currently no wetlands or streams on the property but the property is near PFO1C wetland (This is an 8.8 acre Freshwater Forested/Shrub Wetland per the National Wetlands Inventory and based on field observations.

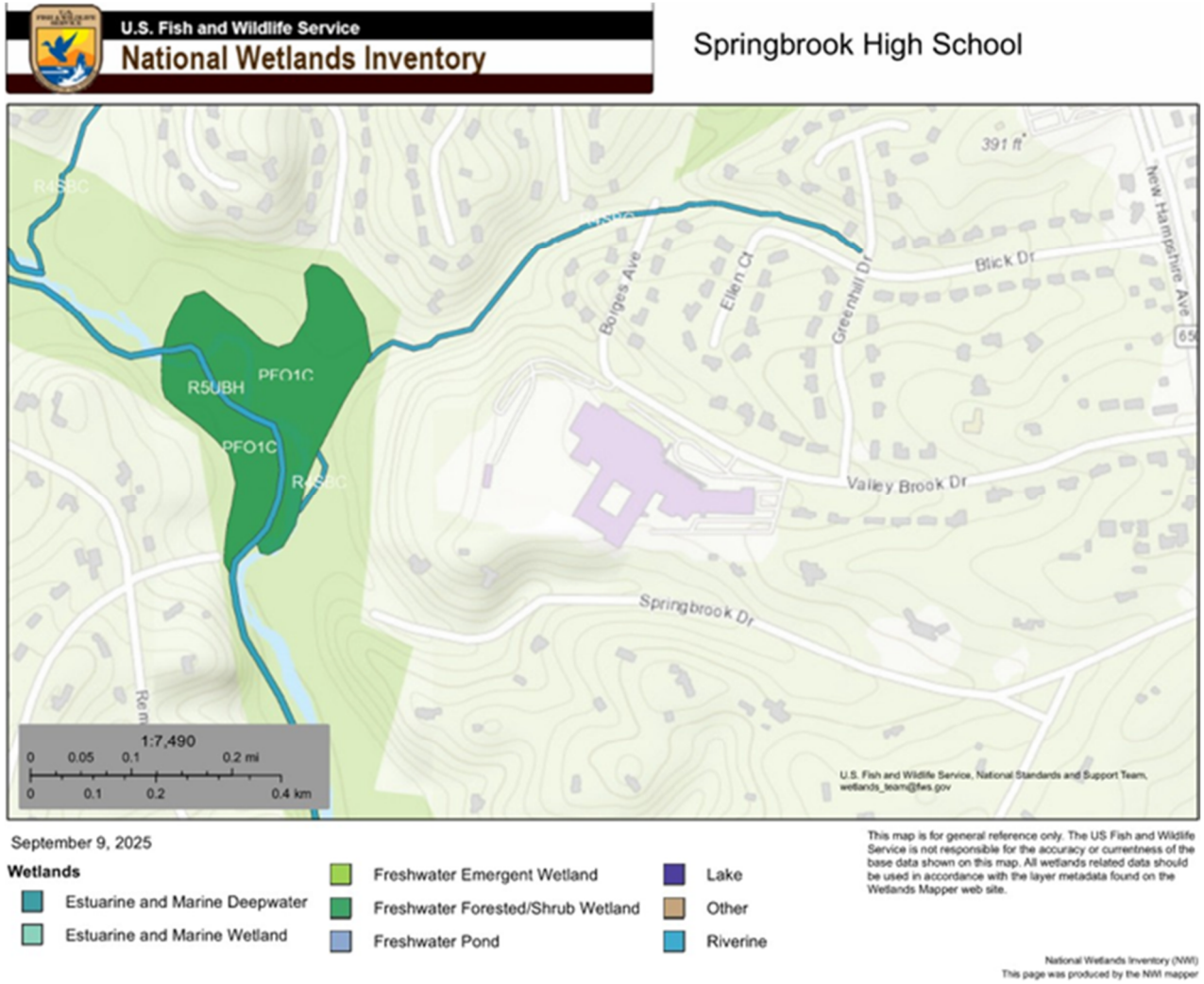
Forest and Landscaping:
Most of the school premises is bordered by trees, except for the side along Valley Brook Drive. Most of the site's vegetation is concentrated near the soccer field and the adjacent parking lot. None of the on-site landscaped areas meet the criteria for designated forest. Additional trees are scattered in front of and behind the school building, and all appear to be in generally good condition.

Existing Athletic Facilities:
The site currently contains several athletic facilities, including one multi-sport rectangular play field, six tennis courts, and three basketball courts. There are ADA-compliant routes providing access to the fields; however, some areas of the athletic facilities remain without accessible routes, limiting access for individuals with disabilities. The fields are situated at varying distances from the main parking areas and primary pedestrian circulation routes, which affects ease of access during periods of high use.



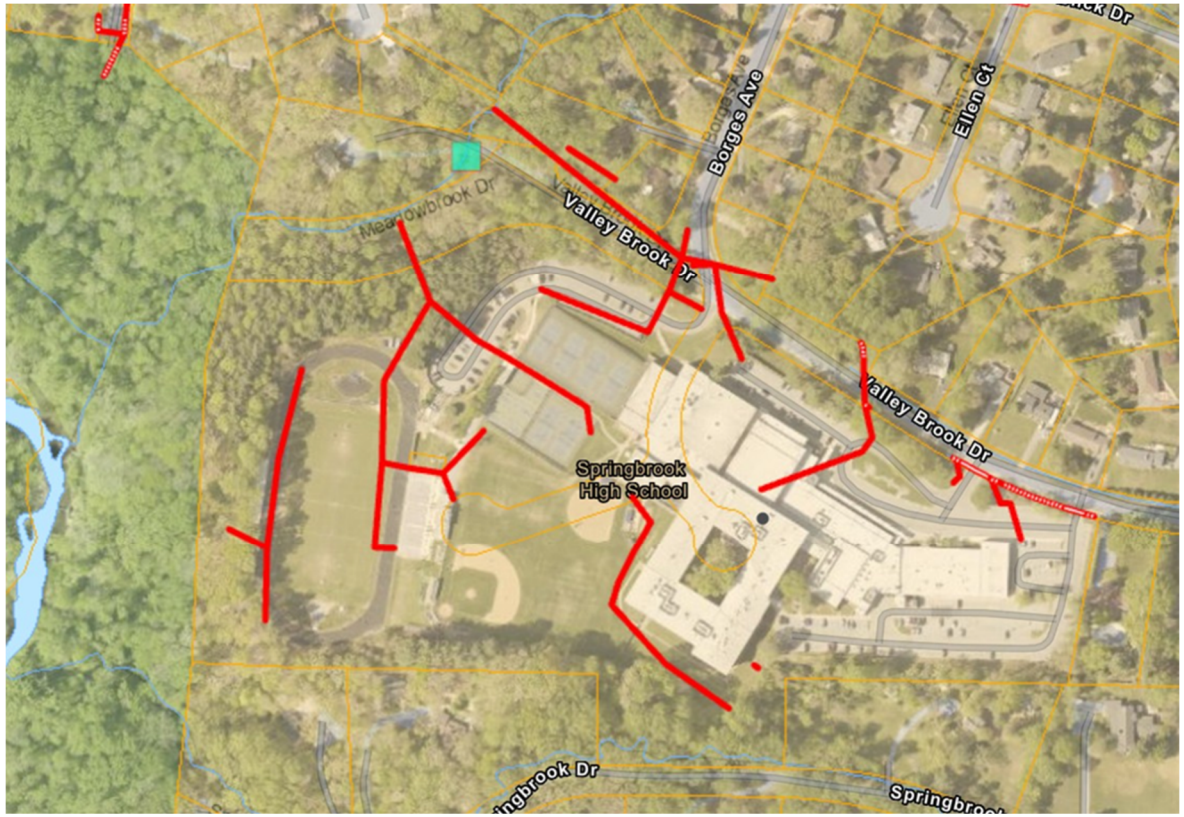
FEMA Floodplain Map of Surrounding Area

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*



APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Storm Drainage:
The site is served by six major underground storm drainage systems located at key points around the property. One system is located in front of the parking lot near the athletic fields and consists of 32" reinforced concrete pipe (RCP) that conveys flow through Valley Brook Drive. Another system is located between the basketball and tennis courts and consists of 18" corrugated metal pipe (CMP) that extends beneath the soccer field, through a portion of the parking lot, and discharges into the adjacent wooded area. A third system is located at the football field and consists of 12" CMP that runs perpendicular to the field. Behind the school building, the storm drain system consists of 10" polyvinyl chloride (PVC) that collects runoff from the main parking lot. In front of the school building, the storm drain system consists of 15" RCP that runs beneath the front parking lot. The final system is located at the second curb cut near the bus loop and consists of 15" RCP that conveys stormwater beneath the access road.



Existing Storm Drainage Map

Stormwater Management:
There are currently six stormwater quality structures installed in the 1990s. All six structures appear to be oil grit separators.

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Electric, Gas, Water and Sanitary Sewer:
Electric service is provided via overhead electric lines that run along Valley Brook Drive. The existing transformer is at the west end of the bus loop. Gas service is extended to the site; the meter is located outside the building near the ground floor Boiler Room. A generator was recently installed which included an above ground fuel tank. The site is served by an 8-inch waterline that comes from an 8-inch Cast Iron or Sand Spun in Valley Brook Drive; it appears the line was installed in 1991. WSSC Map grid 216NE01. The anticipated high and low hydraulic grades for the water system are: HHG = 580, LHG = 519. The site drains to an 8-inch C-Plain Concrete sanitary sewer main located in Valley Brook Drive. Based on available MCPS and utility records, no known utilities are located beneath the proposed. However, a utility location survey should be performed if an addition concept is selected for the project.

Grading:
The site should be designed to have a balance between cut and fill to limit the amount of export or import for the site if possible. All grass areas should be stabilized with sod.

Forestation:
The project will not be clearing any forest. Large trees near the public sidewalk or along residential properties should be maintained when possible. The property will need to go through with a forest conservation exemption or a full forest conservation plan depending on the amount of work being proposed. All work will be reviewed by the Maryland National Capital Park and Planning Commission. Any work which extends onto Parks property will require a park permit and should limit tree impacts as much as is practical.

Existing Water and Sewer Map

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

STRUCTURAL SYSTEMS

The existing building is a 3-story high school that was built in many phases/additions. The original structure dates to 1959. Major additions were constructed in 1963, 1970, 1985, and 1992.

The original structure consists of the single-story art classroom wing, cafeteria, main gym, music wing, and two stories of the classroom wings. The current courtyard between the classroom wings was not enclosed at this time. In general, the original building is framed with open-web steel joists spanning from exterior walls to corridor walls. The corridor and exterior walls feature a combination of concrete and steel beams that are in turn supported by steel columns. Columns are supported by traditional concrete spread footings. 5" thick concrete slab-on-grade forms the lowest level floors. The original building structural drawings were prepared by J. G. Wilson Jr., PE. Per those drawings, the design roof live load was 30 psf, classroom live load was 70 psf, and corridors and stair live load was 100 psf.

In 1963, a two-story addition to connect the two classroom wings of the building was constructed. A small one-story addition to the cafeteria was also built at this time. The construction of this addition is similar to the original building, with open-web steel joists spanning between exterior and corridor walls, supported by concrete beams and steel columns. The foundations are traditional concrete spread footings, and the lowest floor is a 5" thick concrete slab-on-grade. The 1963 addition structural drawings were also prepared by J. G. Wilson Jr., PE. Per those drawings, the design roof live load was 30 psf, classroom live load was 70 psf, and corridors and stair live load was 100 psf.

The 1970 addition featured the school's auditorium. Portions of the earlier construction were demolished to make way for the auditorium. The auditorium roof is supported with long-span steel joists that span across the auditorium width to steel beams and columns. Columns are supported by traditional concrete spread footings. The floor of the auditorium is sloped concrete slab-on-grade. The 1970 addition structural drawings were prepared by James B. Sullivan Jr., PE. Per those drawings, the design roof live load was 30 psf, classroom live load was 100 psf, and corridors and stair live load was 100 psf.

In 1985, a gymnasium was added to the northwest side of the existing school. The gymnasium is a single-story structure, with open-web steel joists spanning the width of the gym. The joists are supported by steel beams and columns. Columns are supported by traditional concrete spread footings. The floor of the gym is a 5" thick slab-on-grade. The 1985 addition structural drawings were prepared by Dragan-Areng Associates. Per those drawings, the design roof live load was 30 psf.

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Finally, in 1992, a major construction project added a single-story area to the art classroom wing, cafeteria, and a third story vertical expansion on the primary classroom wings surrounding the courtyard. The original building roof structure was removed to install the new third-floor framing. Portions of the existing courtyard were also taken to construct additional classroom spaces on all three stories. In general, the new additions and vertical expansion is framed with open-web steel joists spanning between exterior walls and corridor walls. The joists are supported by steel beams and columns. At the new additions, columns are supported by traditional concrete spread footings. The vertical expansion columns are bearing on the original building columns below. The 1992 addition structural drawings were prepared by Jolles Associates, PA. Per those drawings, the design roof live load was 30 psf, classroom live load was 40 psf plus 20 psf for partitions, and corridors was 80 psf.

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

MECHANICAL SYSTEMS

General

Springbrook High School was originally constructed in 1960, underwent a facility modernization project in the early 1990's, and has undergone a number of alterations since then. The following is a description of the existing mechanical systems.

Heating Water Infrastructure Systems

Two gas-fired boilers produce heating water for Springbrook High School. Both boilers are located within the ground-floor boiler room. Manufactured by Cleaver Brooks (Model CBE) and installed around 1990, each boiler has a gross output rating of 4,130 MBH. Individual flues extend from each boiler and connect to a common header before rising through the roof. The existing boilers are functioning adequately to satisfy the existing school, and will support the renovation concept. There does not appear to be surplus capacity to support any significant additions without losing standby capacity in the event that one boiler fails. However, as the Wellness Center spaces will each be served by stand-alone systems, they will not add to the load on the existing system. Combustion air enters the boiler room through a wall-mounted louver positioned at the perimeter wall near the boilers. This combustion air approach does not comply with the current International Mechanical Code (IMC) and CSD-1 requirements for combustion air. Both boilers appeared to be in fair condition and are nearing the end of their useful service life.

Existing Boilers #1 and #2 and Combustion Air Louver Beyond

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Heating water is supplied to the building's two-pipe (dual temperature) heating and chilled water piping system through two base-mounted end-suction pumps located within the ground-floor boiler room. Manufactured by Taco, these two constant speed pumps are each provided with 100 horsepower motors, variable frequency drives (manufactured by Yaskawa), and arranged in a lead/lag setup, with only one pump operating at any time. These existing pumps appeared to be in fair condition and are nearing the end of their useful service life. While the exact age of these pumps is not known, it is anticipated that they were installed with the existing boilers in 1990. Additional equipment connected to the dual temperature piping loop includes an air separator and expansion tank.

Existing Base-Mounted Heating Water Pumps

Chilled Water Infrastructure Systems

A single water-cooled centrifugal chiller produces chilled water for the school. The chiller is located within the ground floor boiler room. Manufactured by Trane (model RTHA450), this equipment has an available output capacity of approximately 400-tons, was installed around 1990, and appears in fair condition but is nearing the end of its anticipated useful life. The existing chiller is functioning adequately to satisfy the existing school, and will support the renovation concept. There does not appear to be surplus capacity to support any significant additions.

Existing Water-Cooled Chiller

Heat rejection from the water-cooled chiller is accomplished by a single counterflow, induced draft cooling tower located outdoors and positioned adjacent to the ground floor boiler room. The cooling tower is mounted on a concrete pad. Manufactured by Evapco (model AT 12-712B), the tower was installed around 1990 and is approaching the end of its anticipated useful life. Outdoor condenser water piping is constructed from PVC. Two constant speed base-mounted end-suction condenser water pumps are installed in the ground floor boiler room to circulate condenser water between the water-cooled chiller and the cooling tower. The pumps are arranged in a lead/lag setup, with only one pump operating at a time.

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Chilled water is distributed throughout the school by the dual temperature piping system described within the *Heating Water Infrastructure Systems* section of this document.

Existing Cooling Tower and Condenser Water Pumps

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

HVAC Systems

The heating, ventilating, and air conditioning (HVAC) systems serving Springbrook High School vary slightly throughout the school. Generally, areas are served by two-pipe vertical unit ventilators and two-pipe rooftop air handling units. Select rooftop units are also installed with direct expansion cooling coils and split air-cooled condensing units. Heating only, natural gas-fired, make-up air units provide additional ventilation throughout the school.

Existing Unit Ventilator and Make-Up Air Unit

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Automatic Temperature Control (ATC) / Energy Management Systems (EMS)

The existing ATC/EMS system is comprised of both pneumatic and direct digital control (DDC) system components, with a Hi Solutions energy management system currently provided. Major valve and damper components are provided with either pneumatic or electronic actuation. A simplex air compressor, complete with a horizontal storage tank, is located within the ground-floor boiler room and serves the building's pneumatic control components. The air supplied from this compressor is fed through a refrigerated dryer system. Both the air compressor and refrigerated dryer appeared to be in good to fair condition during our site visit.

Existing ATC Air Compressor and Refrigerated Air Dryer System

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

PLUMBING SYSTEMS

Domestic Cold Water and associated Domestic Water Piping

Springbrook High School is served from the county water system through a 4-inch domestic water service, entering the building within the ground floor boiler room. The domestic water service is provided with two shut-off valves and a check valve where the piping enters the boiler room. It is anticipated that limited surplus capacity exists within the existing 4-inch domestic cold water main. However, the existing main has adequate surplus capacity to serve the Wellness Center under all design approaches presented in this study.

The school's domestic water piping systems (including cold water, hot water, and hot water return piping) vary in age, with the majority of this piping installed during the school's 1960 original construction. These piping systems and associated piping components (valves, fittings, and piping insulation) have exceeded their useful service life.

Domestic Water Service Entrance

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Domestic Hot Water Equipment

Domestic hot water is generated by three water heaters that are located within the ground-floor boiler room. Manufactured by Jetglass (Model D80T1993N), A.O. Smith (Model BTR-400A-118), and State (Model SBD-100-390NEA-118). The water heaters by A.O. Smith and State are provided with 390 MBH gas burners, capable of 378 gallons per hour recovery, and complete with integral 100-gallon hot water storage tanks. The water heater by Jetglass is provided with a 200 MBH gas burner, capable of 194 gallons per hour recovery, and complete with an integral 80-gallon hot water storage tank. While the exact age of this equipment is not known, it appeared to be in good to fair condition. A circulation pump located within the ground floor boiler room maintains continuous hot water flow throughout the building. Existing drawings indicate the water meter is located in a vault located between the bus loop and Valley Brook Drive. It is anticipated that minimal surplus capacity exists for the existing hot water heaters.

Domestic Water Heaters

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Natural Gas Service

The 2 PSI incoming natural gas service and associated rotary meter is located outdoors and positioned outside the building adjacent to the ground floor boiler room. This gas service supplies MEP equipment throughout the school, including the existing boilers, water heater, make-up air units, and the emergency generator. Gas turrets within science classrooms and cooking equipment are also fed from this gas service.

Sanitary Waste, Vent, and Storm Water Piping

A majority of the existing above- and below-grade sanitary waste, vent, and storm water piping systems were installed when the building was originally constructed. Existing drawings show sewage ejector basin/pumps in the Boiler Room and in a Mechanical Room in the basement. Most piping systems are anticipated to be 45-years or older and have exceeded their useful service life.

Incoming Natural Gas Service

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Fire Protection Services

Springbrook High School is currently provided with automatic sprinkler coverage throughout. The building is provided with a dedicated incoming 6-inch fire service, complete with a backflow preventer and a fire department connection. The incoming fire service is located within the ground floor boiler room. The existing FDC is located near the northeast corner of the Set Shop at the Auditorium.

A fire line extends from the discharge of the backflow preventor and serves a series of zone valve assemblies located throughout the school. Sprinkler mains extend from each zone valve assembly and serve sprinkler heads located throughout their respective zone. Sprinkler system components appeared to be in good to fair condition during our site visit.

Fire Detection and Alarm System

The fire detection and alarm system, installed in 2023, is by Notifier / Honeywell with a fire alarm control panel (FACP), voice evacuation panel, and three notification appliance circuit (NAC) panels are located in Building Service Office adjacent the Main Mechanical Room. A fire alarm annunciator panel (FAAP) is located in the main entrance vestibule. Fire alarm devices include manual pull stations, smoke detectors, and audible and visual notification devices. The fire alarm system is in good condition and will be modified as necessary to support the Wellness Center project.

Incoming Fire Service/Backflow Preventer

Existing Fire Detection and Alarm System Panels

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

ELECTRICAL SYSTEMS

General
The following is a detailed description of the existing electrical, communications, and electronic safety and security systems.

Power Distribution
The school's electrical service comes from the north side of the school from an underground Pepco primary utility line along Valley Brook Drive. A primary utility feeder is routed underground to the primary section of a Pepco utility transformer pan mounted in a dedicated equipment yard. The secondary service feeders run underground from the secondary section of the Pepco utility transformer to the CT cabinet section in the main switchboard located in the main electrical room.

Existing Pepco Utility Transformer

The main service entrance equipment, located in the main electrical room, is a Type QED switchboard manufactured by Square D, type QED, rated at 277/480 volts, 3-phase, 4-wire, with 3000-ampere bus. The main switchboard consists of four sections. From left to right, the first section is a C/T cabinet. The second section houses a bolted pressure switch, rated at 1600-amperes, that serves as the connection point for the building's solar photovoltaic (PV) system. The third section houses a bolted pressure switch, rated at 3000-amperes, that serves as the main service disconnect for the building. The fourth section is a distribution section with molded case circuit breakers that serve distribution panels, branch circuit panels, and equipment throughout the building. The switchboard appears to be in fair condition and replacement parts are readily available from the Manufacturer.

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Branch circuit panelboards are typically recessed-mounted in the corridors.

Existing Main Switchboard

Typical Recessed Mounted Branch Circuit Panelboards

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Generator Power

Emergency and Optional Stand-by power is provided by a natural-gas, outdoor generator manufactured by Kohler Power Systems located just outside the auditorium, rated at 400 kW, 277/480 volts, 3-phase, 4-wire. Installation of the generator was completed in Summer 2025.

Generator

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Lighting and Lighting Controls

Fluorescent lighting is primarily used throughout the school. 2'x4' fluorescent lighting fixtures are used in the classrooms, corridors, and main office area. Back of house spaces such as the boiler rooms, storage rooms, and building services spaces utilize either fluorescent 1'x4' industrial pendants or fluorescent strip lighting fixtures. There is track lighting in the art classrooms utilizing compact fluorescent lamps.

Classrooms use line-voltage toggle switches zoned to allow light levels to be reduced in the space by turning off certain lighting fixtures completely. There are no occupancy sensors or dimming controls in any of the classrooms.

Typical Art Classroom Lighting Fixtures

Lighting Controls Switches in Classrooms

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Exterior lighting consists of pole-mounted lighting fixtures, building-mounted wall packs, and canopy lighting fixtures utilizing high-intensity discharge lamps and LED light engines.

Exterior Pole-Mounted, Building-Mounted, and Canopy Lighting

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

COMMUNICATIONS SYSTEMS

Data, Voice, and Video
A Category 5/5e cabling distribution system is installed in the school to provide network connectivity. Each typical classroom has both teacher and student outlets. Wireless access points by Aerohive are mounted on the ceilings.

Intercommunications (Public Address)
The public address/intercom equipment is a Telecenter V system manufactured by Rauland, located in the main office area. The system has the capability to perform select local calls to classrooms or paging throughout the entire school. Each classroom has a ceiling mounted speaker and a wall mounted call switch. Ceiling or wall speakers are located in the corridors. There are Rauland administration control station handsets in the main office area.'

Electronic Safety and Security Systems
The intrusion detection system control panels are located in the main office area. There are three (3) security system keypads located in the main office area. There are ceiling mounted and wall mounted intrusion detection motion detectors/sensors in the corridors. There is a door card access control panel located adjacent to the intrusion detection control panel.

Intercom Main Console

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Photographs – Exterior

Main Entrance

Secondary Exit, Main Entrance & Bus Loop

Secondary Exit

Rear Facade

Bus Loop

Side and Bus Loop

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Photographs – Interior

B101

B102

B103

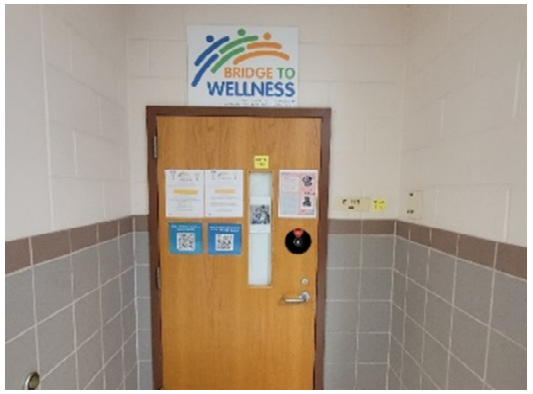
B107

B108

B109

APPENDIX C – EXISTING CONDITIONS SURVEY *(Continued)*

Photographs – Interior



Bridge to Wellness

School Health Room

APPENDIX D – COST ESTIMATES

FEASIBILITY STUDY COST ESTIMATE GUIDE - PREVAILING WAGE

The purpose of this file is to provide general guidance for the preparation of a Cost Estimate (which is to be submitted with a Feasibility Study) that allows for detailed comparison of the impacts of the options being considered. All items listed here are for the purposes of providing an example and the format and existing rows may be altered, removed, or added to in order to provide the most pertinent and useful information for analysis of the specific project at hand. IAC staff do not require that this form be used for the Cost Estimate that is submitted with a Feasibility Study.

	Approach 1.1 Renovation			Approach 1.2 Renovation			Approach 1.3 Renovation			Approach 2 Renovation/Addition			Approach 3 Addition		
	GSF/QTY	$/SF or %	TOTAL	GSF/QTY	$/SF or %	TOTAL	GSF/QTY	$/SF or %	TOTAL	GSF/QTY	$/SF or %	TOTAL	GSF/QTY	$/SF or %	TOTAL
I. TOTAL COST OF CONSTRUCTION															
A. BUILDING AND SITE CONSTRUCTION COSTS															
1. BUILDING CONSTRUCTION COSTS															
New Construction/New Building															
New Construction/Addition															
Renovation Type 1															
Renovation Type 2															
Demolition															
Selective Demolition															
Hazardous Material Abatement															
Other															
SUBTOTAL BUILDING ONLY COSTS															
2. SITE CONSTRUCTION COSTS															
Sitework, Typical															
Sitework, Exceptional Conditions (lf)															
Sitework, Exceptional Conditions (cy)															
Other															
SUBTOTAL BUILDING ONLY COSTS															
3. EXCEPTION CONSTRUCTION COSTS															
Portable Classrooms															
Phasing Costs															
Multiple Mobilizations															
Road Improvements															
Other															
SUBTOTAL EXCEPTION CONSTRUCTION COSTS															
TOTAL BUILDING AND SITE CONSTRUCTION COSTS															
B. ADDITIONAL CONSTRUCTION COSTS															
Bonds & Insurance															
Prevailing Wage															
Construction Management Fee															
Construction Contingency															
Design Contingency															
Escalation to Midpoint															
SUBTOTAL ADDITIONAL CONSTRUCTION COSTS															
TOTAL COST OF CONSTRUCTION															
II. TOTAL PROJECT COSTS															
TOTAL COST OF CONSTUCTION (Section I.)															
A. COSTS OUTSIDE OF COST OF CONSTRUCTION															
A/E Services															
CM Precon															
Additional Design & Engineering Fees															
FF&E															
Data Equipment															
Security															
Telephone															
Permits/Utilities															
Comissioning															
Other															
TOTAL COSTS OUTSIDE OF COST OF CONSTRUCTION															
TOTAL PROJECT COSTS (Section I and II)															
III. ADDITIONAL INFORMATION															
A. ESTIMATED PROJECT LIFE CYCLE COSTS															
1. Estimated Annual Energy Cost															
2. Estimated Annual Maintenance Costs															
3. Unique Annual Maintenance Costs per Option															
4. Estimated One Time Operations Costs															
5. Unique Annual Operations Costs per Option															
ESTIMATED 30 YEAR LIFE CYCLE COSTS															
B. ADDITIONAL PROJECT INFORMATION															
Total Project Duration															
Total Number of Phases															
Other															

REDACTED

FEASIBILITY STUDY COST ESTIMATE GUIDE - NON PREVAILING WAGE

The purpose of this file is to provide general guidance for the preparation of a Cost Estimate (which is to be submitted with a Feasibility Study) that allows for detailed comparison of the impacts of the approaches being considered. All items listed here are for the purposes of providing an example and the format and existing rows may be altered, removed, or added to in order to provide the most pertinent and useful information for analysis of the specific project at hand. IAC staff do not require that this form be used for the Cost Estimate that is submitted with a Feasibility Study.

			Approach 1.1 Renovation			Approach 1.2 Renovation			Approach 1.3 Renovation			Approach 2 Renovation/Addition			Approach 3 Addition		
			GSF/QTY	$/SF or %	TOTAL	GSF/QTY	$/SF or %	TOTAL	GSF/QTY	$/SF or %	TOTAL	GSF/QTY	$/SF or %	TOTAL	GSF/QTY	$/SF or %	TOTAL
I. TOTAL COST OF CONSTRUCTION																	
A.	**BUILDING AND SITE CONSTRUCTION COSTS**																
	1.	**BUILDING CONSTRUCTION COSTS**															
		New Construction/New Building															
		New Construction/Addition															
		Renovation Type 1															
		Renovation Type 2															
		Demolition															
		Selective Demolition															
		Hazardous Material Abatement															
		Other															
		SUBTOTAL BUILDING ONLY COSTS															
	2.	**SITE CONSTRUCTION COSTS**															
		Sitework, Typical															
		Sitework, Exceptional Conditions (lf)															
		Sitework, Exceptional Conditions (cy)															
		Other															
		SUBTOTAL BUILDING ONLY COSTS															
	3.	**EXCEPTION CONSTRUCTION COSTS**															
		Portable Classrooms															
		Phasing Costs															
		Multiple Mobilizations															
		Road Improvements															
		Other															
		SUBTOTAL EXCEPTION CONSTRUCTION COSTS															
TOTAL BUILDING AND SITE CONSTRUCTION COSTS																	
B.	**ADDITIONAL CONSTRUCTION COSTS**																
		Bonds & Insurance															
		Prevailing Wage - Not Included															
		Construction Management Fee															
		Construction Contingency															
		Design Contingency															
		Escalation to Midpoint															
		SUBTOTAL ADDITIONAL CONSTRUCTION COSTS															
TOTAL COST OF CONSTRUCTION																	
II. TOTAL PROJECT COSTS																	
		TOTAL COST OF CONSTUCTION (Section I.)															
A.	**COSTS OUTSIDE OF COST OF CONSTRUCTION**																
		A/E Services															
		CM Precon															
		Additional Design & Engineering Fees															
		FF&E															
		Data Equipment															
		Security															
		Telephone															
		Permits/Utilities															
		Comissioning															
		Other															
TOTAL COSTS OUTSIDE OF COST OF CONSTRUCTION																	
TOTAL PROJECT COSTS (Section I and II)																	
III. ADDITIONAL INFORMATION																	
A.	**ESTIMATED PROJECT LIFE CYCLE COSTS**																
	1.	Estimated Annual Energy Cost															
	2.	Estimated Annual Maintenance Costs															
	3.	Unique Annual Maintenance Costs per Approach															
	4.	Estimated One Time Operations Costs															
	5.	Unique Annual Operations Costs per Approach															
ESTIMATED 30 YEAR LIFE CYCLE COSTS																	
B.	**ADDITIONAL PROJECT INFORMATION**																
		Total Project Duration															
		Total Number of Phases															
		Other															

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APPENDIX E – LIFE CYCLE COST ANALYSIS

Energy Model Output Report

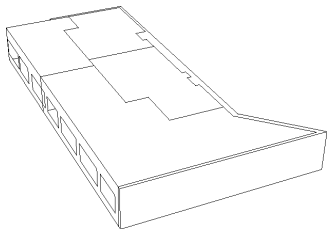
Project:	SHS Wellness Center - Approach 1
Address:	
Climate File:	Baltimore_TMY2.fwt
Simulation:	Springbrook HS - Approach 1.aps

Design Team:	JPA
Energy Analyst:	JPA
Owner:	MCPS
Conditioned Area (ft²):	5304.7500

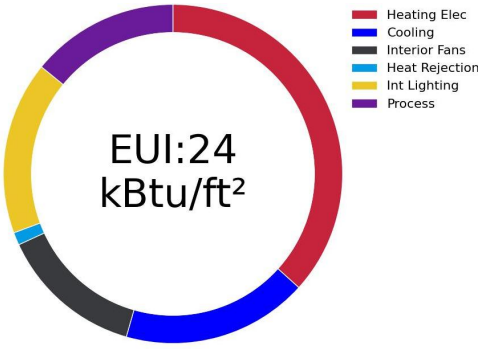
Annual Energy Consumption (kBtu/ft²/year) & CO2 KgCO2/ft²/yr

Energy End Use	Site Energy	Source Energy	CO2 Emissions
Heating Fossil Fuel	0.0	0.0	0.0
Heating Electricity	9.1	14.4	0.4
Space Cooling	4.4	6.4	0.2
Fans Interior	3.4	5.2	0.1
Heat Rejection	0.3	0.4	0.0
Pumps	0.0	0.0	0.0
DHW Fossil Fuel	0.0	0.0	0.0
DHW Electricity	0.0	0.0	0.0
Interior Lighting	4.1	6.3	0.2
Exterior Lighting	0.0	0.0	0.0
Receptacle	0.0	0.0	0.0
Data Center	0.0	0.0	0.0
Cooking Fossil Fuel	0.0	0.0	0.0
Cooking Electricity	0.0	0.0	0.0
Elevators & Escalators	0.0	0.0	0.0
Refrigeration	0.0	0.0	0.0
Process	3.5	5.4	0.1
TOTAL (ex renewables)	**24**	**38**	**1**

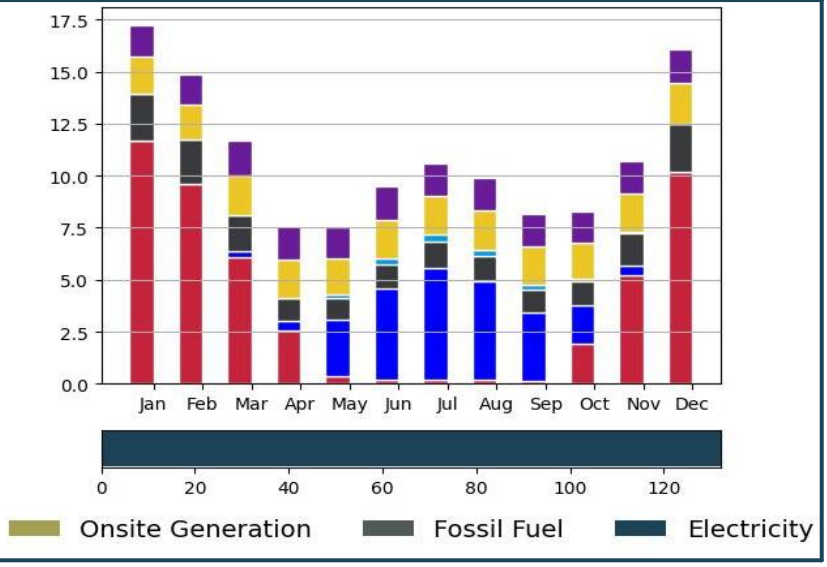
Project Viewer - 3D Model



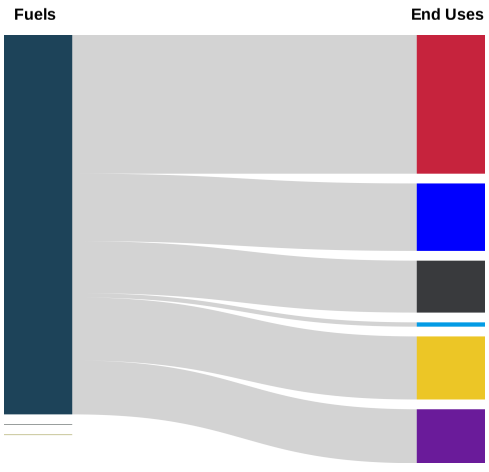
Site Energy Use Intensity



Site Energy Dashboard (MBtu)



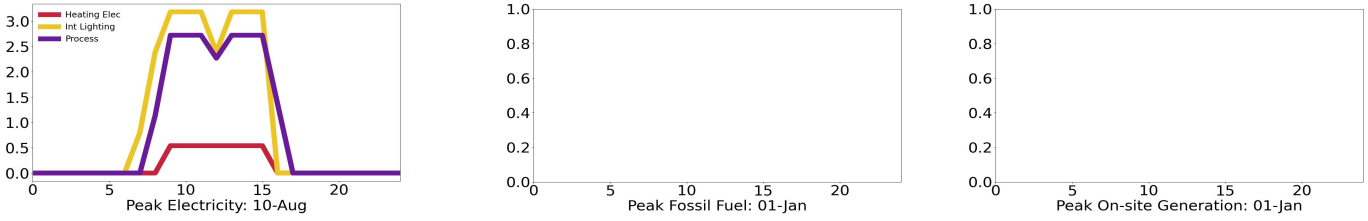
Site Energy Flows – Sankey Diagram



Annual Fuel Costs and Peak Demands

Fuels	Cost ($)	Peak Day	Peak Time	Peak Demand
Electricity	7,068.00	10-Aug	9:00	19.0 kW
Fossil Fuel	0.00	01-Jan	0:00	0.0 kBtu/h
Total	7,068.00	01-Jan	0:00	

Peak Energy Sources for Electricity (kW), Fossil Fuel (kBtu/h) and Onsite Power Generation (kW): Top 3 Contributors



MAINTENANCE AND OPERATION COSTS ESTIMATE

A. OPERATION

	Systems	Quantity	Units	Total Cost
1	Two-pipe Chilled/Heating Water System	0	SQUARE FOOT	
2	Four-pipe Chilled Water and Heating Water System	0	SQUARE FOOT	
3	Heat Pump System	0	SQUARE FOOT	
4	Condenser Water System	0	TON	
			Total Operation Cost	

B. MAINTENANCE - REPAIR

	Equipment	Quantity
1	Air Cooled Condenser; Repair condenser, air cooled, 20 ton	1
2	Fan Coil; Repair fan coil unit, 3 ton	20
3	Multi-Zone Air Conditioner; Repair multi-zone rooftop unit, 15 ton	1
4		
5		
6		
7		
8		
9		
10		
		Subtotal

C. MAINTENANCE - FILTERS

	Equipment	Quantity
1	Particulate Air Filtration, Supported Type, 1"	20
2	Particulate Air Filtration, Supported Type, 2"	2
3	Particulate Air Filtration, Supported Type, 4"	1
4	Particulate Air Filtration, Supported Type, 12"	0
		Subtotal

D. MAINTENANCE - PREVENTATIVE MAINTENANCE

	Equipment	Quantity
1	Condensing Unit, Air Cooled	1
2	Air Handling Unit	1
3	Fan Coil Unit	20
4	Controls	1
5		
6		
7		
8		
9		
10		
		Subtotal
		Total Maintenance Cost

REDACTED

ONE TIME OPERATIONS COSTS ESTIMATE

		REPLACEMENT #1	REPLACEMENT #2
A. EXISTING[1]			
	Estimated Remaining Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Equipment Cost		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
B. RENOVATION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
C ADDITION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
D NEW CONSTRUCTION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
	Subtotal Cost	REDACTED	

Notes:
1. HVAC equipment not replaced as part of scope of work
2. Values from or calculated based on cost estimate
3. Below the Line Costs include general conditions, overhead & profit, bonds & insurance, prevailing wage requirement, design contingency, and esclation

Energy Model Output Report

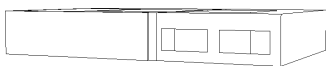
Project:	SHS Wellness Center - Approach 2
Address:	
Climate File:	Kew.fwt
Simulation:	Springbrook HS - Approach 2 - New Windo…

Design Team:	JPA
Energy Analyst:	JPA
Owner:	MCPS
Conditioned Area (ft²):	5159.0000

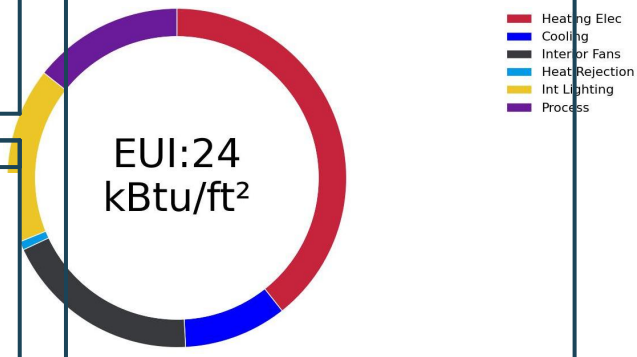
Annual Energy Consumption (kBtu/ft²/year) & CO2 KgCO2/ft²/yr

Energy End Use	Site Energy	Source Energy	CO2 Emissions
Heating Fossil Fuel	0.0	0.0	0.0
Heating Electricity	9.6	14.9	0.4
Space Cooling	2.4	3.5	0.1
Fans Interior	4.6	6.9	0.2
Heat Rejection	0.2	0.2	0.0
Pumps	0.0	0.0	0.0
DHW Fossil Fuel	0.0	0.0	0.0
DHW Electricity	0.0	0.0	0.0
Interior Lighting	4.1	6.3	0.2
Exterior Lighting	0.0	0.0	0.0
Receptacle	0.0	0.0	0.0
Data Center	0.0	0.0	0.0
Cooking Fossil Fuel	0.0	0.0	0.0
Cooking Electricity	0.0	0.0	0.0
Elevators & Escalators	0.0	0.0	0.0
Refrigeration	0.0	0.0	0.0
Process	3.5	5.4	0.1
TOTAL (ex renewables)	**24**	**37**	**1**

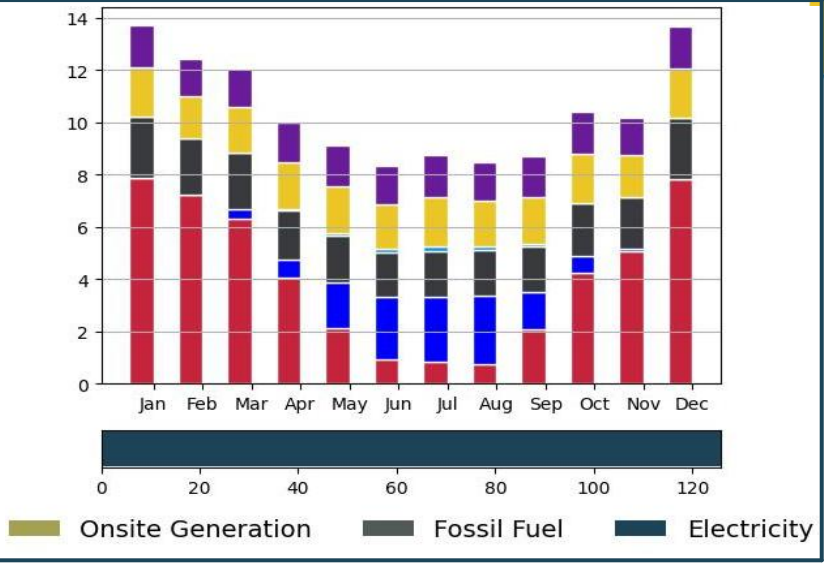
Project Viewer - 3D Model



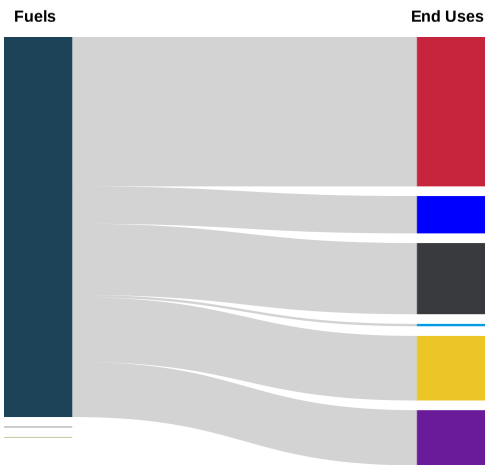
Site Energy Use Intensity



Site Energy Dashboard (MBtu)



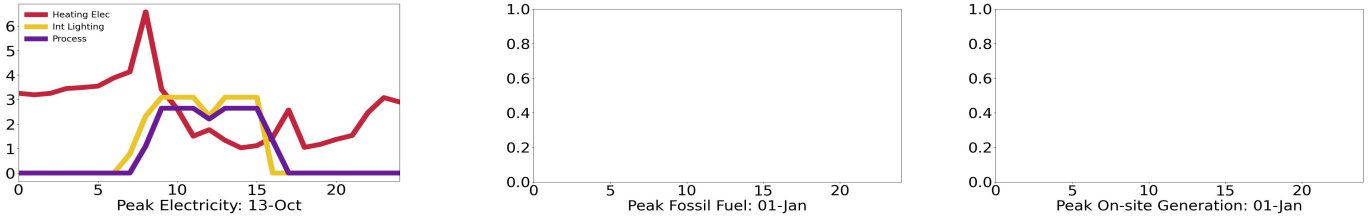
Site Energy Flows – Sankey Diagram



Annual Fuel Costs and Peak Demands

Fuels	Cost ($)	Peak Day	Peak Time	Peak Demand
Electricity	6,727.00	13-Oct	15:00	14.2 kW
Fossil Fuel	0.00	01-Jan	0:00	0.0 kBtu/h
Total	6,727.00	01-Jan	0:00	

Peak Energy Sources for Electricity (kW), Fossil Fuel (kBtu/h) and Onsite Power Generation (kW): Top 3 Contributors



MAINTENANCE AND OPERATION COSTS ESTIMATE

A. OPERATION

	Systems	Quantity	Units	Total Cost
1	Two-pipe Chilled/Heating Water System	0	SQUARE FOOT	
2	Four-pipe Chilled Water and Heating Water System	0	SQUARE FOOT	
3	Heat Pump System	0	SQUARE FOOT	
4	Condenser Water System	0	TON	
			Total Operation Cost	

B. MAINTENANCE - REPAIR

	Equipment	Quantity
1	Air Cooled Condenser; Repair condenser, air cooled, 20 ton	1
2	Fan Coil; Repair fan coil unit, 3 ton	20
3	Multi-Zone Air Conditioner; Repair multi-zone rooftop unit, 15 ton	1
4		
5		
6		
7		
8		
9		
10		
		Subtotal

C. MAINTENANCE - FILTERS

	Equipment	Quantity
1	Particulate Air Filtration, Supported Type, 1"	20
2	Particulate Air Filtration, Supported Type, 2"	2
3	Particulate Air Filtration, Supported Type, 4"	1
4	Particulate Air Filtration, Supported Type, 12"	0
		Subtotal

D. MAINTENANCE - PREVENTATIVE MAINTENANCE

	Equipment	Quantity
1	Condensing Unit, Air Cooled	1
2	Air Handling Unit	1
3	Fan Coil Unit	20
4	Controls	1
5		
6		
7		
8		
9		
10		
		Subtotal
		Total Maintenance Cost

REDACTED

ONE TIME OPERATIONS COSTS ESTIMATE

		REPLACEMENT #1	REPLACEMENT #2
A. EXISTING[1]			
	Estimated Remaining Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Equipment Cost		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
B. RENOVATION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
C ADDITION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
D NEW CONSTRUCTION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
	Subtotal Cost	REDACTED	

Notes:
1. HVAC equipment not replaced as part of scope of work
2. Values from or calculated based on cost estimate
3. Below the Line Costs include general conditions, overhead & profit, bonds & insurance, prevailing wage requirement, design contingency, and esclation

Energy Model Output Report

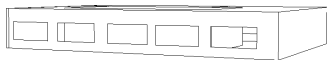
Project:	SHS Wellness Center - Approach 3
Address:	
Climate File:	Baltimore_TMY2.fwt
Simulation:	Springbrook HS - Approach 3 - New Windo…

Design Team:	JPA
Energy Analyst:	JPA
Owner:	MCPS
Conditioned Area (ft²):	6450.5000

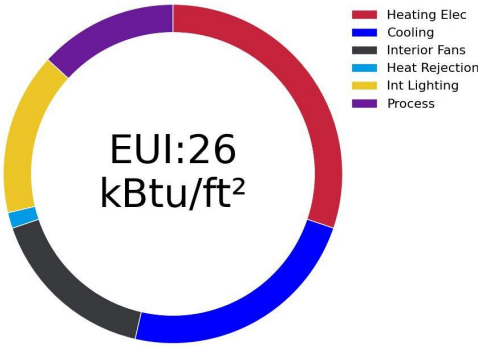
Annual Energy Consumption (kBtu/ft²/year) & CO2 KgCO2/ft²/yr

Energy End Use	Site Energy	Source Energy	CO2 Emissions
Heating Fossil Fuel	0.0	0.0	0.0
Heating Electricity	8.0	12.5	0.4
Space Cooling	6.2	9.1	0.2
Fans Interior	4.3	6.6	0.2
Heat Rejection	0.4	0.6	0.0
Pumps	0.0	0.0	0.0
DHW Fossil Fuel	0.0	0.0	0.0
DHW Electricity	0.0	0.0	0.0
Interior Lighting	4.1	6.3	0.2
Exterior Lighting	0.0	0.0	0.0
Receptacle	0.0	0.0	0.0
Data Center	0.0	0.0	0.0
Cooking Fossil Fuel	0.0	0.0	0.0
Cooking Electricity	0.0	0.0	0.0
Elevators & Escalators	0.0	0.0	0.0
Refrigeration	0.0	0.0	0.0
Process	3.5	5.4	0.1
TOTAL (ex renewables)	**26**	**40**	**1**

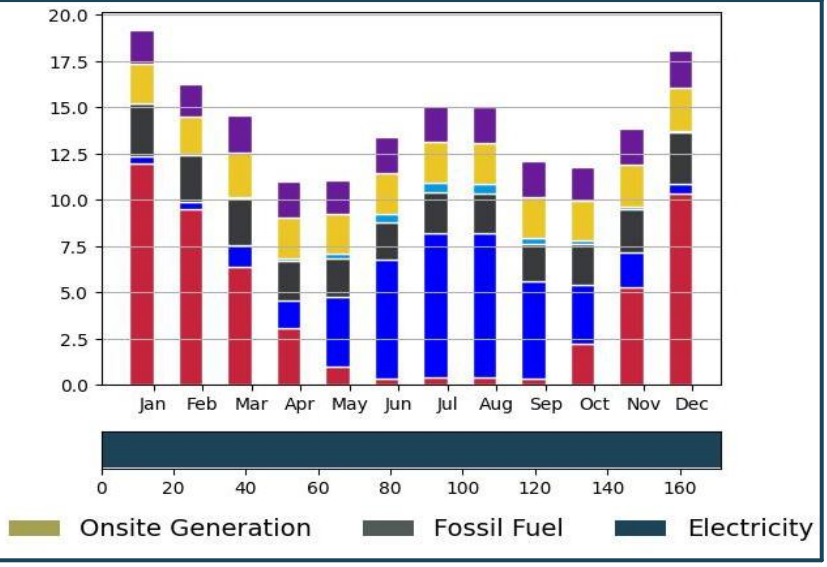
Project Viewer - 3D Model



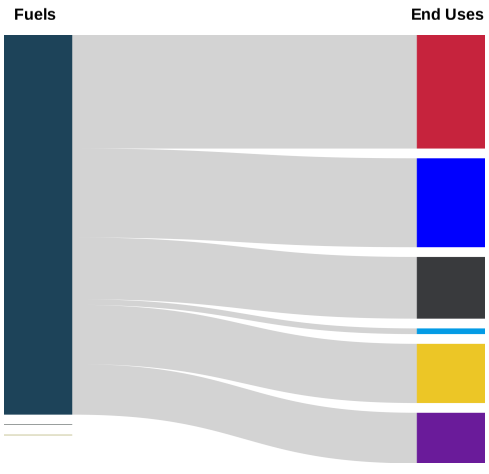
Site Energy Use Intensity



Site Energy Dashboard (MBtu)



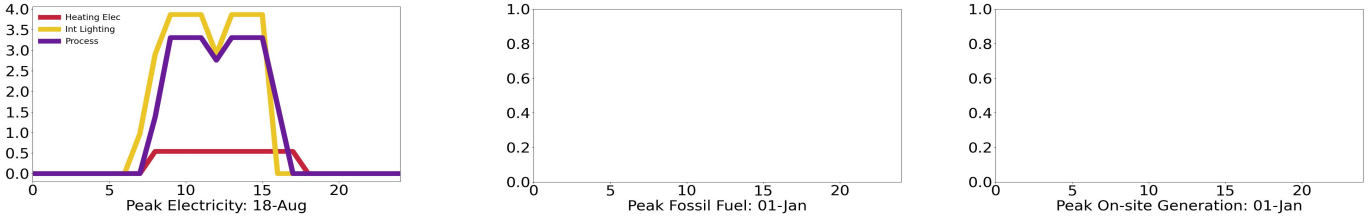
Site Energy Flows – Sankey Diagram



Annual Fuel Costs and Peak Demands

Fuels	Cost ($)	Peak Day	Peak Time	Peak Demand
Electricity	9,165.00	18-Aug	14:00	21.7 kW
Fossil Fuel	0.00	01-Jan	0:00	0.0 kBtu/h
Total	9,165.00	01-Jan	0:00	

Peak Energy Sources for Electricity (kW), Fossil Fuel (kBtu/h) and Onsite Power Generation (kW): Top 3 Contributors



MAINTENANCE AND OPERATION COSTS ESTIMATE

A. OPERATION

	Systems	Quantity	Units	Total Cost
1	Two-pipe Chilled/Heating Water System	0	SQUARE FOOT	
2	Four-pipe Chilled Water and Heating Water System	0	SQUARE FOOT	
3	Heat Pump System	0	SQUARE FOOT	
4	Condenser Water System	0	TON	
			Total Operation Cost	

B. MAINTENANCE - REPAIR

	Equipment	Quantity
1	Air Cooled Condenser; Repair condenser, air cooled, 20 ton	1
2	Fan Coil; Repair fan coil unit, 3 ton	20
3	Multi-Zone Air Conditioner; Repair multi-zone rooftop unit, 15 ton	1
4		
5		
6		
7		
8		
9		
10		
		Subtotal

C. MAINTENANCE - FILTERS

	Equipment	Quantity
1	Particulate Air Filtration, Supported Type, 1"	20
2	Particulate Air Filtration, Supported Type, 2"	2
3	Particulate Air Filtration, Supported Type, 4"	1
4	Particulate Air Filtration, Supported Type, 12"	0
		Subtotal

D. MAINTENANCE - PREVENTATIVE MAINTENANCE

	Equipment	Quantity
1	Condensing Unit, Air Cooled	1
2	Air Handling Unit	1
3	Fan Coil Unit	20
4	Controls	1
5		
6		
7		
8		
9		
10		
		Subtotal
		Total Maintenance Cost

REDACTED

ONE TIME OPERATIONS COSTS ESTIMATE

		REPLACEMENT #1	REPLACEMENT #2
A. EXISTING[1]			
	Estimated Remaining Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Equipment Cost		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
B. RENOVATION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
C ADDITION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
D NEW CONSTRUCTION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
	Subtotal Cost	REDACTED	

Notes:
1. HVAC equipment not replaced as part of scope of work
2. Values from or calculated based on cost estimate
3. Below the Line Costs include general conditions, overhead & profit, bonds & insurance, prevailing wage requirement, design contingency, and esclation

Energy Model Output Report

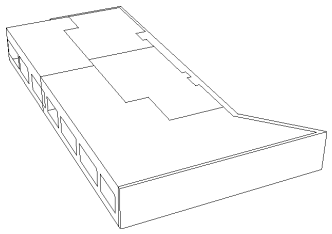
Project:	SHS Wellness Center - Approach 1
Address:	
Climate File:	Baltimore_TMY2.fwt
Simulation:	Springbrook HS - Approach 1.aps

Design Team:	JPA
Energy Analyst:	JPA
Owner:	MCPS
Conditioned Area (ft²):	5304.7500

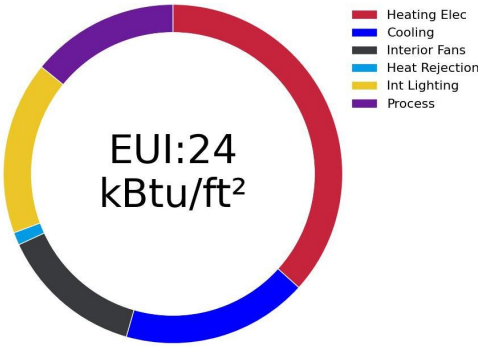
Annual Energy Consumption (kBtu/ft²/year) & CO2 KgCO2/ft²/yr

Energy End Use	Site Energy	Source Energy	CO2 Emissions
Heating Fossil Fuel	0.0	0.0	0.0
Heating Electricity	9.1	14.4	0.4
Space Cooling	4.4	6.4	0.2
Fans Interior	3.4	5.2	0.1
Heat Rejection	0.3	0.4	0.0
Pumps	0.0	0.0	0.0
DHW Fossil Fuel	0.0	0.0	0.0
DHW Electricity	0.0	0.0	0.0
Interior Lighting	4.1	6.3	0.2
Exterior Lighting	0.0	0.0	0.0
Receptacle	0.0	0.0	0.0
Data Center	0.0	0.0	0.0
Cooking Fossil Fuel	0.0	0.0	0.0
Cooking Electricity	0.0	0.0	0.0
Elevators & Escalators	0.0	0.0	0.0
Refrigeration	0.0	0.0	0.0
Process	3.5	5.4	0.1
TOTAL (ex renewables)	**24**	**38**	**1**

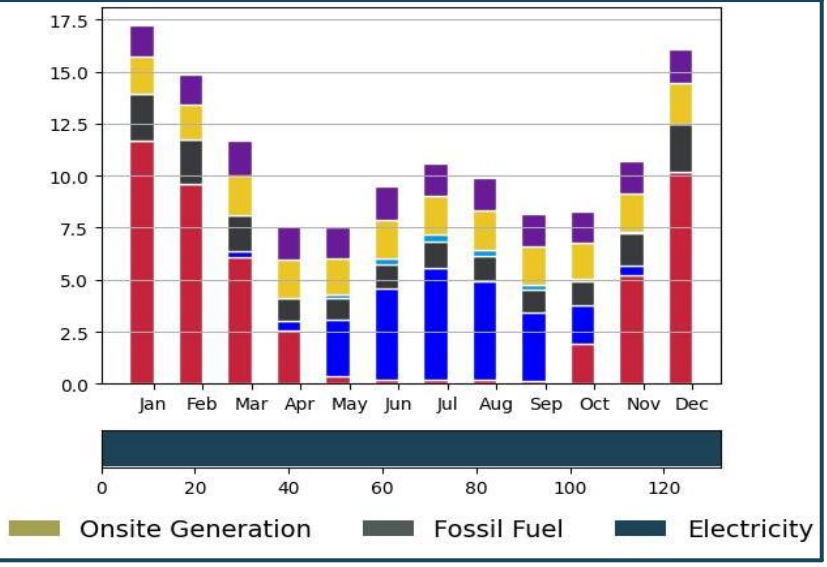
Project Viewer - 3D Model



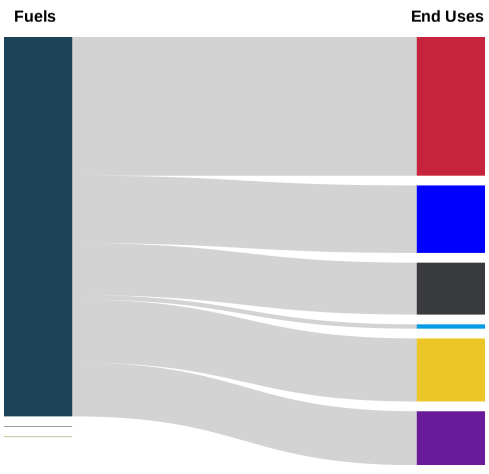
Site Energy Use Intensity



Site Energy Dashboard (MBtu)



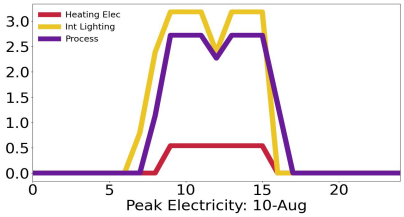
Site Energy Flows – Sankey Diagram

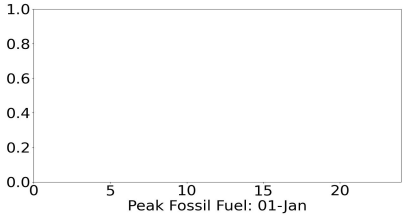


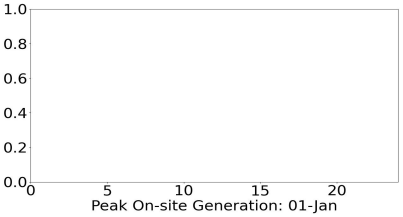
Annual Fuel Costs and Peak Demands

Fuels	Cost ($)	Peak Day	Peak Time	Peak Demand
Electricity	7,068.00	10-Aug	9:00	19.0 kW
Fossil Fuel	0.00	01-Jan	0:00	0.0 kBtu/h
Total	7,068.00	01-Jan	0:00	

Peak Energy Sources for Electricity (kW), Fossil Fuel (kBtu/h) and Onsite Power Generation (kW): Top 3 Contributors







MAINTENANCE AND OPERATION COSTS ESTIMATE

A. OPERATION

	Systems	Quantity	Units	Total Cost
1	Two-pipe Chilled/Heating Water System	0	SQUARE FOOT	
2	Four-pipe Chilled Water and Heating Water System	0	SQUARE FOOT	
3	Heat Pump System	0	SQUARE FOOT	
4	Condenser Water System	0	TON	
			Total Operation Cost	

B. MAINTENANCE - REPAIR

	Equipment	Quantity	
1	Air Cooled Condenser; Repair condenser, air cooled, 20 ton	1	
2	Fan Coil; Repair fan coil unit, 3 ton	20	
3	Multi-Zone Air Conditioner; Repair multi-zone rooftop unit, 15 ton	1	
4			
5			
6			
7			
8			
9			
10			
		Subtotal	

C. MAINTENANCE - FILTERS

	Equipment	Quantity	
1	Particulate Air Filtration, Supported Type, 1"	20	
2	Particulate Air Filtration, Supported Type, 2"	2	
3	Particulate Air Filtration, Supported Type, 4"	1	
4	Particulate Air Filtration, Supported Type, 12"	0	
		Subtotal	

D. MAINTENANCE - PREVENTATIVE MAINTENANCE

	Equipment	Quantity	
1	Condensing Unit, Air Cooled	1	
2	Air Handling Unit	1	
3	Fan Coil Unit	20	
4	Controls	1	
5			
6			
7			
8			
9			
10			
		Subtotal	
		Total Maintenance Cost	

REDACTED

ONE TIME OPERATIONS COSTS ESTIMATE

		REPLACEMENT #1	REPLACEMENT #2
A. EXISTING[1]			
	Estimated Remaining Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Equipment Cost		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
B. RENOVATION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
C ADDITION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
D NEW CONSTRUCTION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
	Subtotal Cost	REDACTED	

Notes:
1. HVAC equipment not replaced as part of scope of work
2. Values from or calculated based on cost estimate
3. Below the Line Costs include general conditions, overhead & profit, bonds & insurance, prevailing wage requirement, design contingency, and esclation

Energy Model Output Report

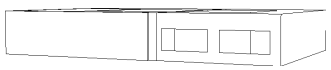
Project:	SHS Wellness Center - Approach 2
Address:	
Climate File:	Kew.fwt
Simulation:	Springbrook HS - Approach 2 - New Windo…

Design Team:	JPA
Energy Analyst:	JPA
Owner:	MCPS
Conditioned Area (ft²):	5159.0000

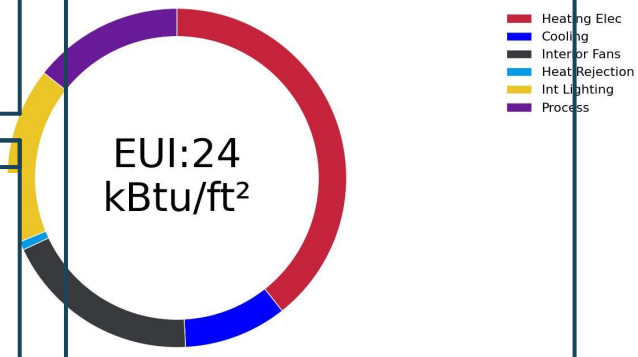
Annual Energy Consumption (kBtu/ft²/year) & CO2 KgCO2/ft²/yr

Energy End Use	Site Energy	Source Energy	CO2 Emissions
Heating Fossil Fuel	0.0	0.0	0.0
Heating Electricity	9.6	14.9	0.4
Space Cooling	2.4	3.5	0.1
Fans Interior	4.6	6.9	0.2
Heat Rejection	0.2	0.2	0.0
Pumps	0.0	0.0	0.0
DHW Fossil Fuel	0.0	0.0	0.0
DHW Electricity	0.0	0.0	0.0
Interior Lighting	4.1	6.3	0.2
Exterior Lighting	0.0	0.0	0.0
Receptacle	0.0	0.0	0.0
Data Center	0.0	0.0	0.0
Cooking Fossil Fuel	0.0	0.0	0.0
Cooking Electricity	0.0	0.0	0.0
Elevators & Escalators	0.0	0.0	0.0
Refrigeration	0.0	0.0	0.0
Process	3.5	5.4	0.1
TOTAL (ex renewables)	**24**	**37**	**1**

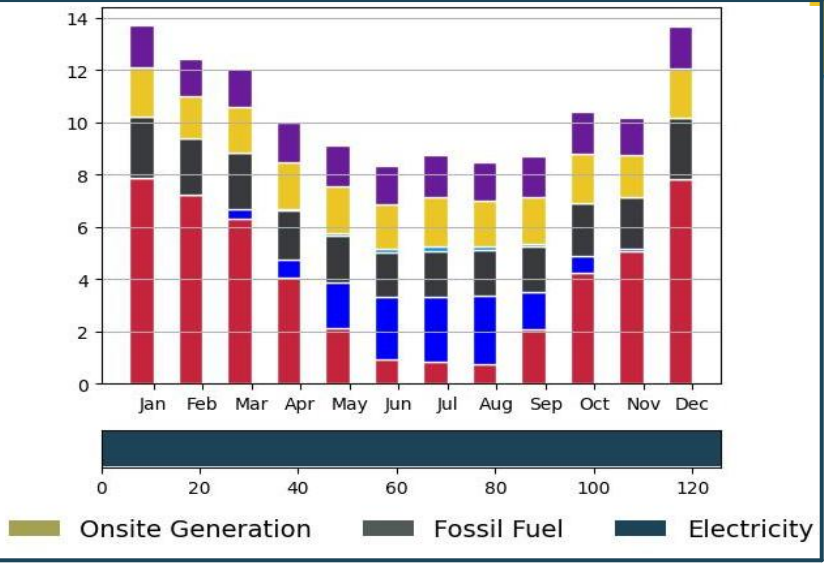
Project Viewer - 3D Model



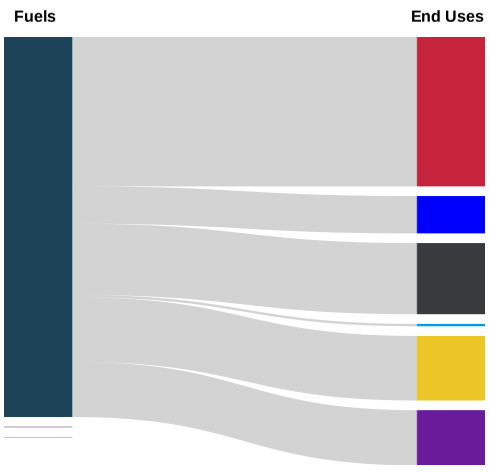
Site Energy Use Intensity



Site Energy Dashboard (MBtu)



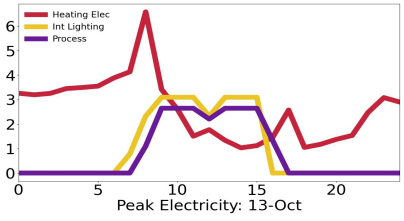
Site Energy Flows – Sankey Diagram

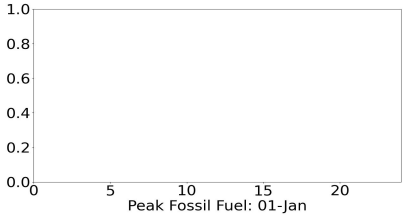


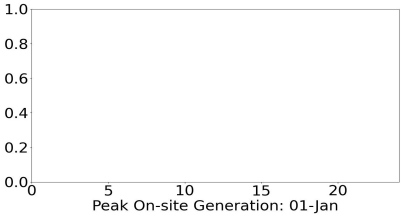
Annual Fuel Costs and Peak Demands

Fuels	Cost ($)	Peak Day	Peak Time	Peak Demand
Electricity	6,727.00	13-Oct	15:00	14.2 kW
Fossil Fuel	0.00	01-Jan	0:00	0.0 kBtu/h
Total	6,727.00	01-Jan	0:00	

Peak Energy Sources for Electricity (kW), Fossil Fuel (kBtu/h) and Onsite Power Generation (kW): Top 3 Contributors







MAINTENANCE AND OPERATION COSTS ESTIMATE

A. OPERATION

	Systems	Quantity	Units	Total Cost
1	Two-pipe Chilled/Heating Water System	0	SQUARE FOOT	
2	Four-pipe Chilled Water and Heating Water System	0	SQUARE FOOT	
3	Heat Pump System	0	SQUARE FOOT	
4	Condenser Water System	0	TON	
			Total Operation Cost	

B. MAINTENANCE - REPAIR

	Equipment	Quantity	
1	Air Cooled Condenser; Repair condenser, air cooled, 20 ton	1	
2	Fan Coil; Repair fan coil unit, 3 ton	20	
3	Multi-Zone Air Conditioner; Repair multi-zone rooftop unit, 15 ton	1	
4			
5			
6			
7			
8			
9			
10			
		Subtotal	

C. MAINTENANCE - FILTERS

	Equipment	Quantity	
1	Particulate Air Filtration, Supported Type, 1"	20	
2	Particulate Air Filtration, Supported Type, 2"	2	
3	Particulate Air Filtration, Supported Type, 4"	1	
4	Particulate Air Filtration, Supported Type, 12"	0	
		Subtotal	

D. MAINTENANCE - PREVENTATIVE MAINTENANCE

	Equipment	Quantity	
1	Condensing Unit, Air Cooled	1	
2	Air Handling Unit	1	
3	Fan Coil Unit	20	
4	Controls	1	
5			
6			
7			
8			
9			
10			
		Subtotal	
		Total Maintenance Cost	

REDACTED

ONE TIME OPERATIONS COSTS ESTIMATE

		REPLACEMENT #1	REPLACEMENT #2
A. EXISTING[1]			
	Estimated Remaining Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Equipment Cost		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
B. RENOVATION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
C ADDITION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
D NEW CONSTRUCTION			
	Estimated Equipment Life		
	Below the Line Costs Multiplier[2,3]		
	Subtotal HVAC Cost[2]		
	Total HVAC Cost		
	Subtotal HVAC Equipment Cost[2]		
	Total HVAC Equipment Cost		
	Single Payment (P/F) Present Worth		
	Subtotal Cost	REDACTED	

Notes:
1. HVAC equipment not replaced as part of scope of work
2. Values from or calculated based on cost estimate
3. Below the Line Costs include general conditions, overhead & profit, bonds & insurance, prevailing wage requirement, design contingency, and esclation

Energy Model Output Report

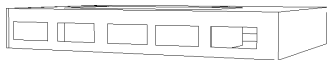
Project:	SHS Wellness Center - Approach 3
Address:	
Climate File:	Baltimore_TMY2.fwt
Simulation:	Springbrook HS - Approach 3 - New Windo…

Design Team:	JPA
Energy Analyst:	JPA
Owner:	MCPS
Conditioned Area (ft²):	6450.5000

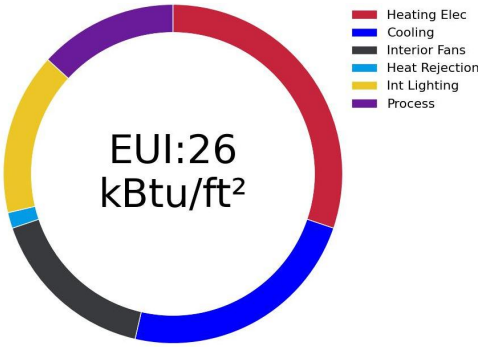
Annual Energy Consumption (kBtu/ft²/year) & CO2 KgCO2/ft²/yr

Energy End Use	Site Energy	Source Energy	CO2 Emissions
Heating Fossil Fuel	0.0	0.0	0.0
Heating Electricity	8.0	12.5	0.4
Space Cooling	6.2	9.1	0.2
Fans Interior	4.3	6.6	0.2
Heat Rejection	0.4	0.6	0.0
Pumps	0.0	0.0	0.0
DHW Fossil Fuel	0.0	0.0	0.0
DHW Electricity	0.0	0.0	0.0
Interior Lighting	4.1	6.3	0.2
Exterior Lighting	0.0	0.0	0.0
Receptacle	0.0	0.0	0.0
Data Center	0.0	0.0	0.0
Cooking Fossil Fuel	0.0	0.0	0.0
Cooking Electricity	0.0	0.0	0.0
Elevators & Escalators	0.0	0.0	0.0
Refrigeration	0.0	0.0	0.0
Process	3.5	5.4	0.1
TOTAL (ex renewables)	**26**	**40**	**1**

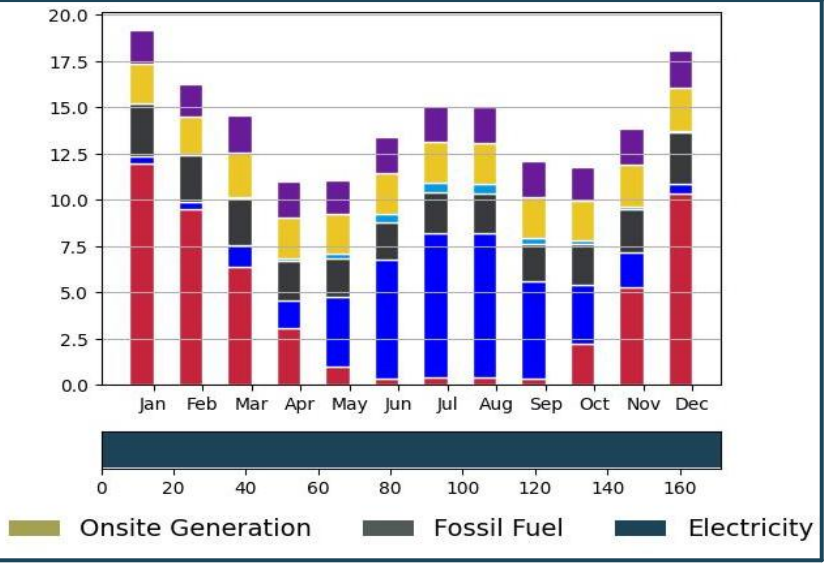
Project Viewer - 3D Model



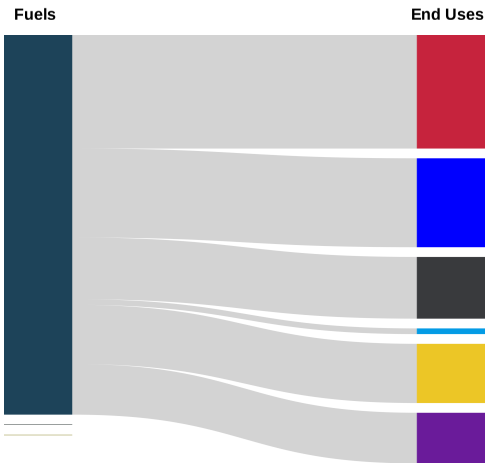
Site Energy Use Intensity



Site Energy Dashboard (MBtu)



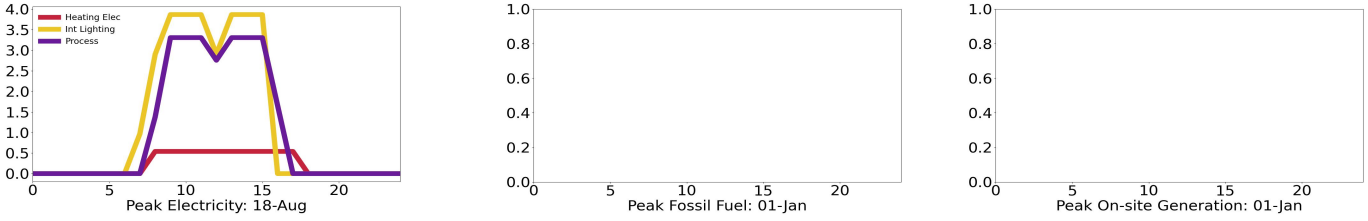
Site Energy Flows – Sankey Diagram



Annual Fuel Costs and Peak Demands

Fuels	Cost ($)	Peak Day	Peak Time	Peak Demand
Electricity	9,165.00	18-Aug	14:00	21.7 kW
Fossil Fuel	0.00	01-Jan	0:00	0.0 kBtu/h
Total	9,165.00	01-Jan	0:00	

Peak Energy Sources for Electricity (kW), Fossil Fuel (kBtu/h) and Onsite Power Generation (kW): Top 3 Contributors



MAINTENANCE AND OPERATION COSTS ESTIMATE

A. OPERATION

	Systems	Quantity	Units	Total Cost
1	Two-pipe Chilled/Heating Water System	0	SQUARE FOOT	
2	Four-pipe Chilled Water and Heating Water System	0	SQUARE FOOT	
3	Heat Pump System	0	SQUARE FOOT	
4	Condenser Water System	0	TON	
			Total Operation Cost	

B. MAINTENANCE - REPAIR

	Equipment	Quantity
1	Air Cooled Condenser; Repair condenser, air cooled, 20 ton	1
2	Fan Coil; Repair fan coil unit, 3 ton	20
3	Multi-Zone Air Conditioner; Repair multi-zone rooftop unit, 15 ton	1
4		
5		
6		
7		
8		
9		
10		
		Subtotal

C. MAINTENANCE - FILTERS

	Equipment	Quantity
1	Particulate Air Filtration, Supported Type, 1"	20
2	Particulate Air Filtration, Supported Type, 2"	2
3	Particulate Air Filtration, Supported Type, 4"	1
4	Particulate Air Filtration, Supported Type, 12"	0
		Subtotal

D. MAINTENANCE - PREVENTATIVE MAINTENANCE

	Equipment	Quantity
1	Condensing Unit, Air Cooled	1
2	Air Handling Unit	1
3	Fan Coil Unit	20
4	Controls	1
5		
6		
7		
8		
9		
10		
		Subtotal
		Total Maintenance Cost

REDACTED

ONE TIME OPERATIONS COSTS ESTIMATE

	REPLACEMENT #1	REPLACEMENT #2
A. EXISTING[1]		
Estimated Remaining Equipment Life		
Below the Line Costs Multiplier[2,3]		
Subtotal HVAC Equipment Cost		
Total HVAC Equipment Cost		
Single Payment (P/F) Present Worth		
B. RENOVATION		
Estimated Equipment Life		
Below the Line Costs Multiplier[2,3]		
Subtotal HVAC Cost[2]		
Total HVAC Cost		
Subtotal HVAC Equipment Cost[2]		
Total HVAC Equipment Cost		
Single Payment (P/F) Present Worth		
C ADDITION		
Estimated Equipment Life		
Below the Line Costs Multiplier[2,3]		
Subtotal HVAC Cost[2]		
Total HVAC Cost		
Subtotal HVAC Equipment Cost[2]		
Total HVAC Equipment Cost		
Single Payment (P/F) Present Worth		
D NEW CONSTRUCTION		
Estimated Equipment Life		
Below the Line Costs Multiplier[2,3]		
Subtotal HVAC Cost[2]		
Total HVAC Cost		
Subtotal HVAC Equipment Cost[2]		
Total HVAC Equipment Cost		
Single Payment (P/F) Present Worth		
Subtotal Cost	REDACTED	

Notes:
1. HVAC equipment not replaced as part of scope of work
2. Values from or calculated based on cost estimate
3. Below the Line Costs include general conditions, overhead & profit, bonds & insurance, prevailing wage requirement, design contingency, and esclation