EDUCATIONAL SPECIFICATIONS

For

Middletown Elementary School and Middle School Co-located Building

FREDERICK COUNTY PUBLIC SCHOOLS

February 22, 2023

BOARD OF EDUCATION OF FREDERICK COUNTY

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February 22, 2023

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PROJECT DESCRIPTION

The Middletown School Campus is located in the heart of the Town of Middletown and hosts three FCPS schools on 71.30 acres. A feasibility study to determine the best way to modernize and meet capacity needs at all three schools on the Middletown campus began in April 2022 and was completed in November 2022 with the assistance of consultant Moseley Architects. The study included educational assessments using the existing educational specifications adapted for each school program, building analysis and evaluation of the existing buildings and development of a concept master plan for the site. Several concept options were developed. At the conclusion of the study the consultant recommended the replacement of all three schools on the existing site. The first project will be a single building housing the elementary school and middle school separately. The second project will be the replacement of the high school building. Replacement of the existing three buildings with two new buildings will address building condition deficiencies and improve the function of the campus overall in the shortest amount of time with least disruption for students.

Middletown Elementary School (ES) is located at 201 E. Green Street. Middletown ES was originally constructed in 1974 and has had no additions or major renovations. The building is approximately 54,854 gross square feet. The school currently serves students in grades 3 through 5 and has a state rated capacity of 480 students. The September 2022 equated enrollment is 440. The school is operating at 92% of capacity. Enrollments at Middletown ES are anticipated to remain stable. The September 2031 enrollment projection is 416 students, or 87% of the current SRC.

Middletown Middle School (MS) is located at 100 Martha Mason Street. Middletown MS was originally constructed in 1953 with additions in 1957, 1976 and 1995. The building is approximately 114,974 gross square feet. The school currently serves students in grades 6 through 8 and has a state rated capacity of 1,052 students. The September 2022 equated enrollment is 788. The school is operating at 75% of capacity. Enrollments at Middletown MS are anticipated to remain stable. The September 2031 enrollment projection is 734 students, or 70% of the current SRC.

The replacement building is expected to have a capacity of 523 elementary school students and 839 middle school students. The two schools will operate independently of one another with separate administrations and distinct facilities. Some core spaces such as the kitchen and building services will be shared. Other spaces such as the media center, administration area and health suite will be located in the central portion of the building to allow staff spaces to be shared with distinct student spaces for each level. The consultant hired for the design of the elementary-middle co-located building will develop a campus master plan along with the building design. It is anticipated that the students, faculty and administration will remain in the existing buildings while the new building is constructed to the east of the existing middle school. Design is expected to begin in July 2023. Construction will follow immediately. The building is expected to open for the start of the 2027-28 school year.

The educational specifications were approved by the BOE at the February 22, 2023. These educational specifications outline the number, size, adjacencies and purpose of spaces within the building. Refer to the “FCPS Preferred Standards for the Design of New and Renovated Facilities” for additional details on design.

THE LEARNING ENVIRONMENT FOR FREDERICK COUNTY ELEMENTARY AND MIDDLE SCHOOL STUDENTS

Public schools exist for the education of all children. Each child is a unique learner with no two children possessing identical physical, intellectual, and emotional characteristics.

The curriculum of the Frederick County Public Schools stresses a common core of essential cognitive and social skills. School activities and teaching methodologies and procedures should be designed to accommodate individual differences among learners in developing skill mastery. The Board of Education believes in educational equity for all students.

The teaching/learning process must consider each learner's uniqueness in these areas:

- Readiness for the learning activity
- Motivation to learn
- Ability to function in a group situation
- Ability to study independently
- The learner's self-concept

Consideration of these questions is basic to all learning experiences in which students participate. Teachers answer these questions for each learner. These answers, considered in the context of the skills and content of the disciplines, provide the basis for educational planning for individual students. Representative educational planning activities are listed below:

- Various diagnostic tools used to determine a student's readiness for the learning activity
- Student instructional level
- Student observation
- Group achievement, based upon criterion-referenced measures
- Individual assessments by specialists such as speech therapists, psychologists, reading diagnosticians, or physicians
- Diagnostic and prescriptive assessments of skill capabilities
- Student choice whenever possible
- Continuous evaluation of skills within the learning situation in order to assure that the student understands why a particular skill/content is being taught and to assure opportunities to develop the capability to transfer the application of skills/content to various problem-solving situations
- Flexible groupings and schedules which allow students to receive direct instruction in whole and small group settings, independent application of skills taught and collaborative opportunities to interact with peers.

A school environment calls upon students to function as social beings. The degree of success throughout the individual's lifetime depends, in large measure, upon the ability to work, study, compete with, cooperate with, and get along with others. The school program should be structured to help students learn to work together by providing the following:

- Social Emotional Curriculum
- School Counseling Curriculum
- Conflict Resolution strategies
- Opportunities for collaboration
- Recognition of growth and achievement
- Interaction in small group activities
- Participation in large group activities
- Participation in activities designed to teach children to appreciate the contributions of others
- Access to technology

Students should be helped to develop independent work habits essential to meet the demands of school and society, and should develop the ability to function independently by the following:

- Working on and completing independent assignments
- Pursuing activities which call for the application of prior learning
- Participate in real life, hands on learning opportunities
- Participating in student-teacher conferences
- Exercising choice in activities
- Using a variety of instructional materials and resource centers as needed
- Using out-of-school resources while completing assignments

Successful development of a positive self-concept encourages further learning. Therefore, the learning environment should provide a wide range of possibilities for success:

- Students receive instruction at a level commensurate with the student's demonstrated previous learning
- Students should be challenged by the tasks to be performed, with sequences planned to lead from the known to the unknown
- Students should learn to select appropriate instructional materials from various sources
- Students should be taught how to cope with a variety of situations
- Students should be encouraged to love learning and to master the skills necessary to enable future learning, and to consider learning as a life-long activity.

INSTRUCTIONAL ORGANIZATION

General

The elementary school and middle school will operate independently. Students will not have access to areas outside their school community unless accompanied by a staff member. The proximity of the two schools will allow for staff collaboration between the two schools to address unique learning needs and assist with the transition from elementary to middle school.

The uniqueness of individual children makes it imperative that the functional organization of each school remains flexible and that a variety of instructional methods be employed to assist students in reaching their potential.

At any given time, the following relationships can be observed in a school:

- students with classroom teachers in a one-to-one relationship, in small groups, or in large groups
- students with students in seminars, doing peer teaching, involved in projects, etc.
- students with other adults, i.e. aide, volunteer, secretary
- students with other professionals, i.e. administrator, librarian, reading teacher, student teacher
- students working independently
- teachers with administrators in consultation
- teachers with parents in conference
- teachers with supervisors and other educational specialists in consultation

As much as possible, the building should have a compact footprint to reduce travel distances for classes to reach centralized areas of the building. The building design should emphasize flexibility, efficiency, and a sense of welcome.

Instructional Organization

At the elementary level, students will be assigned heterogeneously to a home base for administrative purposes, moving to instructional areas that meet their individual needs and instructional levels. At the middle level, students may be assigned a homeroom teacher for administrative purposes and move to instructional areas for all core subject area lessons. Art, music, physical education and the media center programs will be integrated into the curriculum at both levels. Middle school students will have additional opportunities to take classes in career and technology education, family and consumer science and drama.

The staff will be assigned in teams to an area. Teachers and students of grades three through five will be assigned to instructional teams at a ratio of 1 to 24.8. The size of the teams will vary from four to possibly six teachers depending upon the enrollment of the children by year in school and/or instructional level.

Currently, FCPS middle schools follow a 7-period daily schedule that provides the following: time for core content classes to meet daily, flexibility to group and schedule students based on performance data, continuity of instruction, the ability to provide daily

intervention and extension for students and dedicated time for professional learning opportunities for staff. In addition to the seven classes provided, students also have a daily 30-minute Extended Learning Time daily and 4-minutes provided for transitions between each class. Schedules include English Language Arts, mathematics, science, social studies, physical education/health, and fine arts for all middle school students. Other classes offered vary based on the interests and academic needs of students.

FCPS allocates staffing for elementary and middle schools according to the following model below.

Elementary School Staffing	
Positions	**Ratios**
Classroom Teacher (Tier 1)	Kindergarten: 1.0 teacher position per 23.0 full-time equivalent students Grades 1-5: 1.0 teacher position per 24.8 full-time equivalent students
Classroom Teacher (Tier 2 and 3)	Kindergarten-Grade 2: 1.0 teacher position per 22.0 full-time equivalent students Grades 3-5: 1.0 teacher position per 24.8 full-time equivalent students
Art/Music/PE Teacher	3.0 specials teachers for every 15 classroom teachers in grades Kindergarten-Grade 5
Instrumental Music Teacher	0.4 teacher position for each elementary school
English Learner (EL) Teacher	1.0 teacher position per 30 identified students
Special Education Teacher	1.0 teacher for every 10-15 elementary school students (average caseload size)
Middle School Staffing	
Positions	**Ratios**
Classroom Teacher	Calculation uses a value of 25.8 full-time equivalent students adjusted by a factor of 0.746 to allow for teacher planning time, resulting in a student-teacher ratio of 18.5 full-time equivalent students per teacher.
English Learner (EL) Teacher	1.0 teacher position per 30 identified students
Special Education Teacher	1.0 teacher for every 15-20 special education students

School Administration and Support Personnel

Managerial

- Elementary School
  - One non-teaching 12-month elementary principal
  - One 12-month elementary assistant principal
  - One 12-month elementary secretary
  - One 10-month elementary secretary
- Middle School
  - One non-teaching 12-month middle principal
  - Two 12-month middle assistant principal
  - One 12-month middle secretary
  - One 10-month middle secretary
  - One 11-month middle registrar

Operational

- One lead custodian for the first 8,500 GSF and one custodian for each 21,500 GSF of space thereafter for a total of 7-8 custodians
- One cafeteria manager
- Up to seven cafeteria workers

<u>Professional Positions</u>

Elementary schools have the following other staff who may be full or part-time according to the size of the school:

Guidance Counselor
Speech
Behavior Specialist
Math
Learning, Language Support
Literacy Specialist
Advanced Academic Specialist
Media Specialist
Reading
Technology Specialist
Math Specialist

Middle schools have the following other staff who may be full or part-time according to the size of the school:

Guidance Counselor
School Psychologist
Advanced Academic Specialist
Behavior Specialist
General education teacher
Special education teacher
Speech Language Pathologist
Academic support teacher

Literacy Specialist Math Specialist
Media Specialist

The elementary school should have two to four instructional assistants for a school with an enrollment between 450 and 899 students. The middle school should have three to four instructional assistants for a school with an enrollment between 700 and 899 students.

New School Staff Workshop

Prior to the opening of the new building the construction project manager and school administration teams shall hold workshops in the building for the purpose of staff orientation and preparation. The staff will need to consider such topics as how to make maximum use of the physical plant, how to operate efficiently and effectively in teams, the relationship of flexible space and the instructional program, and the organization of students for maximum learning.

All professionals and assistants mentioned above should be involved in the workshop. In-service training should continue throughout the school year under the leadership of the principals.

SUMMARY OF PROJECT SPACE REQUIREMENTS
MIDDLETOWN ELEMENTARY SCHOOL AND MIDDLETOWN MIDDLE SCHOOL COLOCATED BUILDING

SPACE	Total SRC 1362 Shared Spaces				SRC 523 Elementary				SRC 839 Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Administration				**1,500**				**1,020**				**1,560**	**4,080**
Security Vestibule													
Secretarial/Reception Waiting Area					1	400	400		1	400	400		
Workroom	1	300	300										
Storage & Safe Room	1	200	200										
Administration Restroom	2	50	100										
School Resource Officer Office	1	150	150										
Student Restroom (paired)					1				1				
Staff Restrooms (throughout building)					3	50	150		5	50	250		
Principal's Office					1	150	150		1	150	150		
Assistant Principal office					1	120	120		2	120	240		
Conference Room					1	200	200		1	200	200		
Financial Secretary's Office									1	120	120		
Collaboration Room									1	200	200		
Staff Lounge	1	650	650										
Restroom	2	50	100										
Health Suite				**200**				**400**				**400**	**1,000**
Nurse's Office	1	100	100										
Health Suite Waiting Area					1	100	100		1	100	100		
Health Technician Area					1	120	120		1	120	120		
Examination/Isolation Room	1	60	60										
Rest Area					2	60	120		2	60	120		
Health Room Restroom w/ small shower and toilet					1	60	60		1	60	60		
Health Room Storage	1	40	40										

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Media Center				**1,000**				**2,050**				**2,800**	**5,850**
Media Office and Equipment Storage/workroom	1	400	400										
Open Resource Area (w/ informal reading area)					1	1,500	1,500		1	2,000	2,000		
Circulation Desk area					1	200	200		1	200	200		
Small Group Instruction Area					1	350	350						
Group Instruction Room									1	600	600		
Media Production (green screen)/Conference	1	200	200										
User Support Specialist and device storage	1	400	400										
IT Services				**300**				**200**				**200**	**700**
IDF Closet					2	100	200		2	100	200		
MDF Room	1	300	300										
Visual Arts				**0**				**1,130**				**2,160**	**3,290**
Art Studio					1	980	980		2	980	1,960		
Art Studio Storage					1	150	150		1	200	200		
Music/Performing Arts				**0**				**1,750**				**2,530**	**4,280**
Elementary Music Room					2	800	1,600						
Elementary Music Storage					1	150	150						
Middle Chorus Classroom									1	980	980		
Middle Band Room									1	1,150	1,150		
Middle Instrument Storage Room									1	400	400		
Drama				**0**				**0**				**2,510**	**2,510**
Drama Classroom									1	980	980		
Project Area									1	200	200		
Storage									1	150	150		
Stage (cafeteria)									1	1,000	1,000		
Stage storage									1	180	180		

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Physical Education				**800**				**4,250**				**11,440**	**16,490**
Main Gymnasium									1	6,320	6,320		
Auxiliary Gym					1	3,800	3,800						
Cardio Room									1	850	850		
Strength Room									1	850	850		
Health Classroom									1	850	850		
Indoor Equipment Storage	1	400	400										
Indoor Supply Storage	1	200	200										
Outdoor Equipment Storage					1	250	250		1	250	250		
Locker Room (Boys)									1	1,000	1,000		
Locker Room (Girls)									1	1,000	1,000		
Single shower									1	60	60		
Single shower									1	60	60		
Restroom (Boys)	1								1				
Restroom (Girls)	1								1				
Teacher office					1	200	200		1	200	200		
Staff shower/dressing room	2	100	200										
General Classrooms				**0**				**14,700**				**15,700**	**30,400**
General Classroom					18	800	14,400		18	850	15,300		
Planning Room					1	200	200						
Storage					1	100	100		4	100	400		
Science Labs				**0**				**0**				**8,910**	**8,910**
Science Classroom/Lab									6	1,260	7,560		
Science Prep									3	200	600		
Storage Room									3	250	750		
Career and Technical Education				**0**				**0**				**4,100**	**4,100**
General technology education lab									2	850	1,700		
Maker lab									1	500	500		
Fabrication lab									1	1,200	1,200		

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Project storage									3	100	300		
Materials storage									2	200	400		
Family and Consumer Science				**0**				**0**				**1,900**	**1,900**
Food Lab									1	850	850		
General FACS Lab									1	850	850		
Storage									2	100	200		
Specialized Programs				**240**	**Expressions**			**3,500**	**Learning for Life**			**1,050**	**4,790**
Classroom					4	800	3,200		1	850	850		
Sensory Room					1	150	150		1	150	150		
Student Restroom					3	50	150		1	50	50		
Coordinator Office	1	120	120										
Board Certified Behavior Analyst Office	1	120	120										
Student Supporting Services				**0**				**4,250**				**6,200**	**10,450**
Teacher specialist office					1	800	800		3	850	2,550		
Special Education Resource Room					1	800	800		1	850	850		
Collaboration Room					3	200	600		6	200	1,200		
Calming Room					1	150	150		1	150	150		
Itinerant Staff (Psychologist/Social Worker/Behavior Specialist, OT/PT etc)					1	200	200						
Speech/Language and Itinerant Services					1	300	300		2	300	600		
EL Level 1 classrooms					1	800	800		1	850	850		
Parent Work Room					1	200	200						
Reading Specialist/Book Rooms					1	400	400						
Guidance				**0**				**160**				**1,190**	**1,350**
Counselor's Office					1	160	160		2	160	320		
Support Office									1	120	120		
Waiting Room									1	200	200		
Conference Room									1	300	300		

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Storage/Workroom									1	150	150		
Records Room									1	100	100		
Food Service				**3,520**				**0**				**0**	**3,520**
Inside Receiving	1	160	160										
Dry Food Storage	1	400	400										
Refrigerator Storage	1	200	200										
Freezer Storage	1	200	200										
Non-food Storage	1	80	80										
Food Prep Area	1	1,200	1,200										
Serving Area	3	200	600										
Dishwashing Area	1	250	250										
Trash	1	100	100										
Utility	1	50	50										
Manager's Office	1	100	100										
Food service locker room	1	100	100										
Restroom	1	50	50										
Laundry Room	1	30	30										
Cafetorium				**560**				**2,000**				**3,000**	**5,560**
Dining Area					1	2,000	2,000		1	3,000	3,000		
Chair Storage	1	300	300										
Table Storage	1	200	200										
Custodial Room	1	60	60										
Custodial Services				**1,310**				**120**				**120**	**1,550**
Outdoor Storage	1	400	400										
Custodial Office	1	200	200										
Lead Custodian	1	100	100										
Restroom	2	50	100										
Indoor Central Storage	1	400	400										
Washer/Dryer	1	30	30										

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Indoor Satellite Storage	2	40	80		3	40	120		3	40	120		
Maintenance Services				**1,680**				**0**				**0**	**1,680**
Area Supervisor/Foreman Office (enclosed)	1	120	120										
General Office area (11 staff typical)	1	400	400										
Break Room	1	150	150										
Restroom	1	50	50										
Work bench area	1	100	100										
Locker area	1	60	60										
Storage	1	800	800										
TOTAL NET SQUARE FEET				**11,110**				**35,530**				**65,770**	**112,410**
TOTAL GROSS SQUARE FEET				**15,554**				**49,742**				**92,078**	**157,374**
GROSS TO NET RATIO				**1.40**				**1.40**				**1.40**	**1.40**

ELEMENTARY SCHOOL CAPACITY CALCULATION:			
Pre-Kindergarten, @ 20 students (ea)		0	0
Kindergarten, @ 22 students (ea)		0	0
General Classrooms, @ 23 students (ea)		21	483
Special Education @10 students (ea)		4	40
BASE BUILDING STATE RATED CAPACITY			**523**

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MIDDLE SCHOOL CAPACITY CALCULATION:													
Regular Classrooms		37	786.25										
Gym Classrooms		2	42.5										
Special Education Classrooms		1	10										
BASE BUILDING STATE RATED CAPACITY		**40**	**839**										

ADMINISTRATIVE SERVICES

Goals

Goals for those in the administrative services are to facilitate the teaching/learning process by operating the school in an efficient, safe manner, and to establish positive public relations with parents and community members through personal contacts, phone conversations and printed materials.

Configuration

The building entrance will provide access to the administrative area for each of the schools. The reception area for each school will be distinct, with the remainder of each school's administrative area adjoining its reception area. If possible, some areas will be shared such as the workroom, administration restrooms and staff lounge.

Planned Activities

Reception Areas:

- Greeting students, parents, guests, salespeople, central office personnel, employees, etc., and providing a waiting place for such persons until their purpose for being in the school can be achieved.

Secretarial Office:

- Twelve-Month Secretaries. The 12-month secretaries will perform such duties as: prepare non-instructional requisitions, receive and distribute mail, maintain staff attendance records, transact financial business, type letters and reports, schedule community use of the school building, register new students, maintain communication throughout the school via the intercom system, answer the telephone, assist parents, greet visitors, temporarily supervise and assist sick students.

- Ten-Month Secretaries. The 10-month secretaries will perform such duties as: reproduce instructional materials for teachers; type instructional materials for teachers; type menus, faculty bulletins, parent bulletins, and reports; maintain files; prepare instructional requisitions; maintain student attendance records; maintain inventories of textbooks and instructional materials for teachers; maintain files of catalogs for use by teacher curriculum committees; assist assistant principal in clerical-type tasks; coordinate student field trips; schedule teacher use of the cafeteria; answer the telephone; using a computer work on attendance and scheduling matters.

- Registrar. The Registrar serves the middle school and will perform such duties as registering new students and maintaining attendance and student records.

Office Workroom:

- reproduction of reports, bulletins, communications to homes, seat work for students, copying items for retention

Principal's Offices:

- receiving and conferring with students, parents, guests, salespeople, central office personnel, teachers, staff, directing activities within the school, using the public address system when appropriate, counseling students, planning, scheduling

Assistant Principal's Offices:

- conferring with teachers and students, individually and in teams, in small groups, working on curriculum, keeping records

Conference Rooms:

- conferences with students, parents, visitors, teachers, other educational specialists

Staff Lounge:

- teachers and other staff taking breaks

Storage and Safe Room:

- Storing printed materials, vertical files, correspondence, etc.
- Storing system forms and office supplies.
- Storing equipment and material orders delivered from vendors on a temporary basis.
- Storing school keys.
- Secure storage of money, documents, tests, etc.

School Resource Officer Office:

- Mentoring of students and other one-on-one interactions
- Restorative circles
- Paperwork

Financial Secretary’s Office:

- Preparing requisitions.
- Maintaining attendance records.
- Preparing attendance bulletins and reports.
- Maintaining budget and financial records and reports.
- Processing data and information.

Collaboration Room:

- A multipurpose administrative planning room
    - A small meeting space for conferences
    - A supervised study room for students assigned by school administration

Participants

Space shall be provided for 8 to 10 visitors.

Staff Required

Elementary School
- 1 Elementary Principal
- 1 Elementary Assistant Principal
- 2 Elementary Secretaries

Middle School
- 1 Middle Principal
- 2 Middle Assistant Principals
- 2 Middle Secretaries
- 1 Middle Registrar

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Administration				**1,500**				**1,020**				**1,560**	**4,080**
Security Vestibule													
Secretarial/Reception Waiting Area					1	400	400		1	400	400		
Workroom	1	300	300										
Storage & Safe Room	1	200	200										
Administration Restroom	2	50	100										
School Resource Officer Office	1	150	150										
Student Restroom (paired)					1				1				
Staff Restroom (throughout building)					3	50	150		5	50	250		
Principal's Office					1	150	150		1	150	150		
Assistant Principal office					1	120	120		2	120	240		
Conference Room					1	200	200		1	200	200		
Financial Secretary's Office									1	120	120		
Collaboration Room									1	200	200		
Staff Lounge	1	650	650										
Restroom	2	50	100										

Design Requirements

Relationships to Other Areas	● The Secretarial/Reception Waiting Areas shall be directly accessible to the main entrance secure vestibule, requiring all visitors to first pass through the reception waiting area, and easily accessible to the rest of the schools. ● The School Resource Officer office shall be as close as possible to the front door and centrally located to serve both schools. ● The Office Workroom shall be directly accessible to the secretaries and shall also have direct access to the hallway for teacher usage. Install card swipe access to this room from the hallway. ● The Staff Lounge shall be centrally located for both schools and adjacent to a staff restroom but separate. ● The Storage and Safe Room shall be located in the Middle School administrative area. ● The paired group student restrooms for each school will be located in the main lobby area and serve the cafeteria spaces. ● Each school shall have distinct administrative areas for the principals, assistant principals, financial secretary (middle school only) and conference rooms.
Spatial/Aesthetics	● Maximize waiting space for visitors. Seating to be provided in the secure vestibule to allow some visitors to wait before check-in. ● Conference rooms must have adequate circulation space around the conference table. ● Initial furniture layout for secretarial and waiting areas to be provided at design document stage to ensure that necessary items fit within the space.
Heating, Ventilating, and Air Conditioning	● No special requirements.
Plumbing	● Provide hot and cold-water service in the Staff Lounge.
Acoustics	● The Principal's Offices, Assistant Principal's offices and the Conference Rooms shall have sound isolation from the rest of the area.
Visual/Lighting	● The Principals' Offices and the Conference Rooms shall have visual isolation from the rest of the area. ● Reception Area and Secretarial Offices shall have visual of the front entrance as well as the entrance to the remainder of the school. ● Lighting in all areas, particularly the Workroom, shall be bright enough to allow close-up and detail work

Communications and Utilities

- The architect shall design a two-way voice communication system to all teaching stations, the faculty lounge, other areas where teaching takes place, the cafeteria, gym, planning rooms, hallways, outside play areas, and boiler room. See FCPS Design Guide.
- Provide vending machines area of approx. 40 NSF in Staff Lounge, with appropriate electrical power. Vendor to provide vending machines with time-controlled functionality to minimize energy consumption.
- Electrical outlets shall be designed into the spaces to support office equipment, lamps, computer hardware, and cleaning of offices, and shall be adequate in number. Provide adequate duplex outlets with surge protection to ensure safe maintenance of computers. Include counter-top duplex outlets in workroom areas for equipment.
- Provide access control and camera phone intercom system outside the main entrance and also within the secure vestibule.
- Provide data and voice to Secretarial Areas, Principal's Offices and Assistant Principals' Offices.
- Provide power, and data for use of TV/monitor in conference rooms.
- Telephones shall be located in following places: Principal's offices, Assistant Principal's offices, Secretaries' desks, Conference Rooms, Staff Lounge.
- System for emergency notifications to be installed in the main office areas. Consider placement of the alarm device in the layout of the secretary and waiting area.
- The School Resources Officer's office shall have adequate radio signal access.

Storage

Secretary's offices (duplicate for each school)

- Two (2) four-drawer cabinets with locks
- Fireproof safe facilities
- Storage for personal items such as coats and umbrellas
- Storage for blank paper forms - 8 1/2" x 11", 11" x 14" and for 5" x 8" and 4" x 6" cards

Office Workroom

- Metal, fireproof, storage cabinets built in for paper, copier and other office equipment supplies
- Storage for instructional materials such as writing paper, tag board, chart paper, sentence strips
- Pigeonhole storage for sheets (8 ½ " x 11") for individualized programs
- Mailboxes for 250 persons with name slots inside dimensions 9" wide, 3" high, 14" deep.
- Equipment needed:
  - Paper cutter – large
  - 3-hole punch – electric
  - Electric stapler
  - Copier – both regular and high capacity
  - "Book" stapler
  - Bulletin board paper roll holder

- Electric pencil sharpener
- Small paper cutter
- Paper shredder
- Heavy duty stapler
- Poster maker

Principal’s Offices
- Storage for coats and personal items

Assistant Principal’s Offices
- Storage for coats and personal items

Reception Areas
- Storage for coats and personal items

Display

Reception Areas
- Bulletin board and built-in tack boards for display of student work

Secretary's Offices
- Bulletin board built-in

Conference Rooms
- Built-in whiteboard and built-in tack board

Secretaries' Workroom
- Built-in tack board

Principal’s Offices and Assistant Principal’s Offices
- Built-in tack board and built-in whiteboard

Workroom
- Built-in counter around two (2) walls of the workroom area w/storage below, built-in tack board and built-in whiteboard

Staff Lounge
- Built-in tack board

Additional Notes

- Conference rooms should be sized to house at least 10 persons

- Administrative restrooms should be either in administrative areas or adjacent to them
- Provide faculty lounge area for relaxation to accommodate 10 persons and provide one refrigerator, space for a microwave, and sink for staff use. It shall be visually and acoustically isolated and shall be designed for year-round use.

HEALTH SUITE

Goals

The health suite is designed to provide emergency and temporary treatment and care for sick or injured students and staff. The school nurse also administers medications and provides health screenings, counseling, and information. An itinerant nurse will staff the nurse's office intermittently. A Health Technician will staff the health room area on a daily basis.

Configuration

The health suite will be shared for both school programs with individual rest areas and waiting areas for each program. The nurse for the health room will be shared by both programs.

Planned Activities

Nurse's Office:
- Used by the Nurse or Health Technician for private consultation with students and/or parents

Health Technician workspaces:
- Staffed daily by the Health Technicians, these areas are for completion of paperwork and storage and distribution of medications

Cot areas:
- At each school level, space for 2 students to rest, with curtains for privacy

Waiting areas:
- At each school level, space for 5-7 students to await medication or for parents/students to await consultation

Exam/Isolation Room
- Space for private consultation with students and/or parents. In the event of contagious illness, this space can be used to isolate a sick individual until they are able to go home.

Restrooms:
- ADA compliant restrooms with shower and ability to accommodate a swing or hydraulic lift if needed in the future.

Storage:
- Space to store wheelchair, health supplies, clothing, and paper products

Circulation:

- Space for circulation amongst the health room components and space for queueing of students waiting for medication

Participants

At each school level, space shall be provided for 2 students seeking care and 2 visitors.

Staff Required

1 school nurse (shared)
1 elementary school health technician
1 middle school health technician

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Health Suite				**200**				**400**				**400**	**1,000**
Nurse's Office	1	100	100										
Health Suite Waiting Area					1	100	100		1	100	100		
Health Technician Area					1	120	120		1	120	120		
Examination/Isolation Room	1	60	60										
Rest Area					2	60	120		2	60	120		
Health Room Restroom w/ small shower and toilet					1	60	60		1	60	60		
Health Room Storage	1	40	40										

Design Requirements

Relationships to Other Areas

- The health suite shall be easily accessible to the administrative areas and easily accessible to the main entrance.
- Provide entrances from the corridor(s).

Spatial/Aesthetics	● As much as possible, maximize queuing space within the health suite to maintain privacy for children receiving daily medications. ● The nurse must be able to see both entrances to the suite. Each health technician must be able to see the entrance for their school's health suite. ● The Health Rooms shall be non-clinical and colorful in appearance. ● Walls shall be painted CMU or tile wainscot to allow for ease of cleaning and sterilization. ● Provide office for nurse and/or health technician, with space for desk, files, chairs, visual access to Health Rooms to monitor condition of students therein.
Heating, Ventilating, and Air Conditioning	● Provide appropriate ventilation to minimize the spread of disease.
Plumbing	● Provide hot and cold-water service and sink in Health Room. ● Provide an ice maker.
Acoustics	● The Health Rooms and Nurse's Office shall have sound isolation from one another and from all other areas.
Visual/Lighting	● The School Nurse shall have visual access to the health areas, with blinds provided for privacy when needed. ● The Health Technician workspaces shall have visual access to the health suite entrances and the cot areas. ● Lighting in all areas shall be bright enough to allow close-up and detail work
Communications and Utilities	● Electrical outlets shall be designed into the spaces to support office equipment, lamps, computer hardware, and cleaning of offices, and shall be adequate in number. ● Electrical outlets shall be provided with surge protection to ensure the safe maintenance of computers. ● Telephones (not wall mounted) shall be located in following places: Nurse's Office, Exam/Isolation Room and Health Technician workspace
Storage	● Within each school's health suite, provide a lockable medical refrigerator, appropriate base and wall storage cabinets and countertops, desk, and space for 3 to 4 file cabinets. ● Provide storage room to accommodate storage of wheelchair, children's clothing articles, paper products, and other health room supplies.
Display	● Provide tack board and clock within each health room.

Additional Notes	● Health Suite restrooms to be designed with adequate structural supports and electrical infrastructure to install a hydraulic or swing lift or other lift device if needed in the future. ● Provide changing tables in Health Suite restrooms. ● Provide cot and chair in Isolation/Exam space

MEDIA CENTER

Goals

The school library media program is designed to meet the informational needs of the school community through a unified learning approach. The program includes both a comprehensive collection of materials and appropriate instruction in its use as an integral part of the total educational program.

Specifically, the student will be able:

- to identify and describe the personnel, services, policies, procedures and physical arrangement of the library media center
- to identify and describe characteristics of print and non-print resources and appropriate technology
- to utilize systems of classification and research strategies for specific needs
- to appreciate and value books and media and to develop lifelong reading habits
- to create materials using multimedia techniques

Configuration

The Media Center will be in the shared area of the building with separate areas for the elementary school and middle school programs. The staff areas within the Media Center will be shared as well as the circulation desk.

Planned Activities

Students will experience:

- individual and small group work including reading, browsing, studying and research
- small and large group instruction
- network, on-line, and remote access to resources
- circulation of materials and equipment
- display of instructional materials and student projects
- teacher research, planning and/or consultation
- management and organizational activities
- individual, small and large group listening and viewing
- media production by individuals and small groups
- television production and broadcasting
- processing and repair of materials
- storage of equipment, materials and supplies

Resource and instruction services offered to staff will include:

- consulting and planning with building and system level staff as well as with other individuals and organizations
- participating in curriculum development, implementation, evaluation and staff development services
- selecting, evaluating and securing materials and equipment in accordance with local board of education policies
- managing and implementing procedures for acquisition, organization and circulation of materials and equipment
- providing reference and information assistance to support existing curriculum
- promoting instructional materials, equipment and services to staff, parents and the community

Participants

- 25 students in the elementary open resource area
- 40 students in the small group instruction area
- 64 students in the middle open resource area
- 15 middle school students for reading, browsing and reference

Staff Required

- 1 certified elementary school library media specialist
- 1 certified middle school library media specialist
- 1 user support specialist

Groupings

Groupings by specific areas:

- The media center will have informal reading areas for each school.
- The small group instruction area in the elementary school area will have seating at round and rectangular tables for approximately 40 students.
- The open resource area at the middle school level shall have seating at round and rectangular tables for approximately 64 students (area should be divided into two equal but distinct area by double-faced, free-standing shelves with partitions).
- The middle school area will need informal seating for reading and browsing for approximately 6-8 students, a reference area for up to 8 students seated at round tables, and seating for four students at computer carrels.

Simultaneous Groupings: Any combination of the above listed groupings can be scheduled with the library media specialist.

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Media Center				**1,000**				**2,050**				**2,800**	**5,850**
Media Office and Equipment Storage/workroom	1	400	400										
Open Resource Area (w/ informal reading area)					1	1,500	1,500		1	2,000	2,000		
Circulation Desk area					1	200	200		1	200	200		
Small Group Instruction Area					1	350	350						
Group Instruction Room									1	600	600		
Media Production (green screen)/Conference	1	200	200										
User Support Specialist and device storage	1	400	400										
IT Services				**300**				**200**				**200**	**700**
IDF Closet					2	100	200		2	100	200		
MDF Room	1	300	300										

Design Requirements

Relationships to Other Areas

- The Media Center shall be centrally located for access from both schools and convenient to instructional areas, shall be adjacent to restrooms and shall be self-contained with doors and walls.

Spatial/Aesthetics

- Media Center and all support areas shall be designed to create an inviting and comfortable feeling for students and staff.
- Distinct areas should be created for each school level. The staff areas and circulation desk will be shared.
- The middle school group instruction area shall have two distinct teaching areas with seating at tables and chairs.
- Circulation desk and distribution area shall be located near the main student entrances.

Heating, Ventilating, and Air Conditioning

- The Computer, TV, Communications Main Distribution “Frame” room shall have an HVAC system independent of the Media Center, to allow for adequate cooling and ventilation of electronics within.

Plumbing

- Hot and cold running water are required in the Equipment Storage/Workroom.

Acoustics	● Acoustical treatment shall be provided in all areas. ● Provide tile (carpet tile use is permitted – see FCPS Design Guide for details) over the floor in the main reading area, including under the free-standing shelves, the small group instruction room and the conference room.
Visual/Lighting	● Circulation desk and media center office must have visual of all areas of the media center to provide supervision. ● Support areas shall be visually accessible to the main reading areas. ● Consideration shall be given to different types of lighting and fixtures which are best suited to the activities taking place in a given area (from 15 to 70 foot candles). ● Lighting levels shall be varied, with a ratio of 70% indirect to 30% direct (also referred to as linear LED direct/indirect lighting). ● Switches for all lights in the main reading areas shall be together and located in the instructional areas of the library media center with a master control switch for all lights at each entrance to the library media center. ● If possible, windows with shades shall be included. ● Teachers shall be able to visually supervise access to restrooms.
Communications and Utilities	Media Office/Workroom ● Provide telephone line and telephone for two Media Specialists in the Equipment Storage/Workroom and a telephone line outlet at the circulation desk and the Media Office. ● There shall be a telephone intercom in the equipment storage/workroom with a speaker in the small group instruction room. MDF Room ● The master antenna television system (CATV) headend will be located in the Main Distribution Frame room, and this room shall have a minimum of 8 independent 20 amp. Circuits, AND a data outlet. Open Resource Area ● Three (3) duplex electrical outlets and four (4) data outlets shall be installed adjacent to the circulation desk. ● Provide a screen for each instructional area. This screen should be sized and positioned (height adjustable if possible) appropriately for the audience. ● One teaching station consisting of electric/data shall be installed in each instructional area. ● Electric outlets shall be liberally installed on the perimeter of all areas of the Media Center, including walls and columns. Consider providing outlets for charging multiple devices at one time. A minimum

of 4 ceiling mounted reels for electrical power in the center of the room is recommended. Permanently connecting equipment to these reels is prohibited.

Storage

Open Resource Area

- Provide stack shelving sized to fit chapter and picture books (stored vertically). Additional details found in the FCPS Design Guide

Media Office/Workroom

- This space shall accommodate materials storage for print and non-print collections, equipment storage space for school audiovisual equipment, office supplies and processing materials storage, and two built-in wardrobes, that can be locked, for coats, bags, and other staff member valuables.
- Equipment needed:
  - Paper cutter – large
  - 3-hole punch – electric
  - Electric stapler
  - Copier – both regular and high capacity
  - “Book” stapler
  - Die-cut machine and supplies
  - Laminator
  - Bulletin board paper roll holder
  - Electric pencil sharpener
  - Small paper cutter
  - Paper shredder
  - Heavy duty stapler

Display

- Provide four recessed, wall-mounted, glass front, and lockable, lighted display cases in the main reading areas.
- Provide dry erase board, large screen, bulletin board and tack board in the group instruction areas. A small tack board for notices, schedules, etc., shall be provided in the equipment storage/workroom.
- Provide screens in the main reading area and in the group instruction areas.

Additional Notes

VISUAL ARTS

Goals

The elementary art program shall provide opportunities for the personal acquisition of skills, understanding of historical relationships, creative and aesthetic expression, and for making visual judgments. This elementary art program shall integrate with the child's basic program and promote interrelated concepts and complete the elementary essential curriculum.

At the middle school level, four major goals guide the curriculum.

Goal I – to develop through the visual arts, the ability to perceive and respond to ideas, experiences, and the environment.

- Develop an awareness that visual form and other phenomena affect perception.
- Learn to identify and name selected aspects of visual form and how changes in them affect one's perception.
- Develop an understanding of how visual art is created as a response to images, forms, and experiences.
- Learn to recognize how visual art may express a concept, tell a story, evoke a mood or emotion, and symbolize an idea.
- Develop comprehension of design concepts in works of art and in the environment.
- Learn to identify the elements of art and design principles and relationships to one another.

Goal II – to develop an understanding of the visual arts as a basic aspect of history and human experience.

- Develop the ability to recognize the visual arts as forms of cultural expression.
- Learn how visual art reflects social, political, and ethical issues of individuals and society develop an understanding of the relationships among works of art, individuals, and societies in which they are created.
- Learn factors which influence artists in specific historical eras and places.
- Develop an understanding and appreciation of the diversity and idiosyncratic quality of individual artistic expression.
- Learn to analyze and classify artists by their styles, subject matter, techniques, etc.
- Develop a comprehension of how the visual arts interrelate with other forms of human creativity, such as the humanities and the sciences.
- Learn to identify the relationships between problem-solving in art and in the humanities and sciences.

Goal III – to develop and organize knowledge and ideas for expression in the production of art.

- Develop coordination and skills for using art tools, materials, and techniques.
- Learn to identify, classify, and select the appropriate tools, materials, and techniques for making art.
- Develop the ability to create visual images.
- Learn to create images based upon observed and imagined experiences.
- Develop the ability to utilize design concepts for visual expression.
- Learn to apply the elements of art, for purposes of planning and executing a visual composition.
- Develop an understanding of health and safety rules in the art classroom.
- Learn to take adequate measures for the protection of eyes, face, skin, etc., when working in art.

Goal IV – to develop the ability to identify, analyze, and apply criteria for making visual aesthetic judgements.

- Develop an understanding of the aesthetic qualities which exist in both natural and human-made environments.
- Learn to describe and interpret the aesthetic quality of a visual form through the use of design concepts.
- Develop the skills and sensitivity to apply aesthetic criteria to works of art.
- Learn to focus upon and emphasize the distinctive aesthetic contributions of various cultural forms.
- Develop the ability to identify, describe, and apply and communicate personal criteria for assessment of one's own work.
- Learn to apply and communicate personal aesthetic criteria in making aesthetic judgements about one's own art work.

Configuration

Each school will have its own visual arts area.

Planned Activities

The full range of art experiences is provided for students. This includes working with 2-dimensional and 3-dimensional media. The art studios must be designed to accommodate furniture and equipment to teach drawing, painting, printmaking, design, ceramics, sculpture, crafts, fibers and architecture.

Participants

All students in grades 3 through 8 shall receive art instruction.

Staff Required

1-2 elementary school art teachers
1-2 middle school art teachers

Groupings

At the elementary level, many different groupings will be used during the school year. There will be basic groups of 24, small groups of 5-15, and also individual instruction, often being conducted simultaneously.

At the middle level, art studios shall accommodate classes of up to 32 students, small groups of 3-6 students and individualized instruction.

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Visual Arts				**0**				**1,130**				**2,160**	**3,290**
Art Studio					1	980	980		2	980	1,960		
Art Studio Storage					1	150	150		1	200	200		

Design Requirements

Relationships to Other Areas

- The elementary school art rooms shall be located in the elementary school area of the building and the middle school art rooms shall be located in the middle school area of the building.
- Art activities may be coordinated and correlated with the rest of the instructional program. The art rooms shall be convenient to the instructional areas and to centralized restroom facilities. If possible there shall be access to an outside door.

Spatial/Aesthetics

- Art studios shall be light and bright.
- Provide non-absorbent floor surfaces with draining capacity in work areas.
- Middle school art studios shall contain 2-dimensional and 3-dimensional work and display/critique areas, including area for computer graphics work and display. These areas shall be designed as one large area which can be subdivided.

Heating, Ventilating, and Air Conditioning

- No hood vents are required. One kiln per art classroom is required and shall be located within the associated storage rooms. Kilns shall be self-vented kilns with 3-5” vent, similar to a dryer vent, and preferably along an outside wall.

Plumbing

- Provide a minimum of two deep sinks with gooseneck faucets and clay traps in each Art Studio.

Acoustics

- No specific requirements.

Visual/Lighting

- Lighting shall be bright and even for a visually oriented program. Northern window exposure is preferred. Provision shall be made for darkening room windows for presentations.

Communications and Utilities

- Provide 110 vac duplex electrical outlets on the work counter and spaced evenly to code around the room. Phasing of electric current to the art room must be identified by engineers prior to kiln purchase.

- Provide multiple duplex outlets for each classroom with a recommended minimum data/power every 4’ in classrooms.
- Instructional spaces shall be provided with an area for lockable technology device storage and charging, approximately 3 feet by 3 feet by 4 feet tall with sufficient power and ventilation.
- Consider a mobile wireless podium for the teacher which holds a laptop, optional digital projector and charging station. Additional counter height power outlets should be provided as well as optional USB ports. Wiring will be provided from the location of the teachers primary work area to the interactive white board to provide audio/video and input/output requirements
- Data drops need to be installed at the white board and 2 data drops at the teacher’s primary work area. Provide rough-in wired connectivity for wireless access points in each classroom and connected wireless access points at designated locations.
- Provide a large screen. This screen should be sized and positioned (height adjustable if possible) appropriately for the audience. Power outlets will be needed at the site of any screen and sturdy support for the screen to be mounted.
  Provide power outlets in any area where cabinets are located to avoid use of extension cords.

Storage

Elementary Storage

- Provide one large locked storage room in or near the Art Studio with shelving to store art materials, with the base shelving providing a 3’ opening and remaining shelving providing 24" clear opening.
- Counter height tote tray storage for 150 tote trays to store student work
- Cabinets for damp clay storage
- Cabinets for art supplies in the rooms
- Cabinets for storage of 3-dimensional projects
- Flat map-like drawers for storage of paper 23" x 36"

Middle Storage

- 2 locked art storage rooms of 200 sq. ft. (one per lab) for materials and supplies with adjustable wood shelving (24” deep) on all walls.
- Storage in each lab:
- 36 linear feet of open shelving for students’ books.
- 150 (12” x 18”) tote trays.
- Tote tray cabinets for 150 totes.
- 2 drying racks for prints, 5 feet high.
- 12 flat paper storage drawers.
- 1 clay storage with moisture-proof lining.
- 1 locked tool storage cabinet.
- 1 5 feet wall and base cabinets for general storage.

Display	● Provide built in white board and tack board. Cork strips shall be incorporated above all white boards and bulletin boards. ● Provide tack board on all open wall space. ● Provide a lighted showcase gallery for 3-dimensional art work in a highly visible area of each Art Studio.
Additional Notes	● None.

MUSIC/PERFORMING ARTS

Goals

The discipline of music education requires a genuine balance among aesthetics, history, culture, creative expression, and criticism. Moreover, music education enhances every learners' capacities to be creative, to appreciate the creativity of others, and to respond to the exceptional ways that various elements of music are creatively interconnected. Therefore, our music programs are designed so that students demonstrate what they have learned by singing, playing, producing compositions, writing prose, responding to questions, delivering oral presentations, participating in community events, and other means of expressing ideas or conveying feelings. The goals of the music program in the Frederick County Public Schools motivate students to combine performing, perceiving, and participating in music with an understanding of the significance, the heritage, the cultural context, the theory, the aesthetic tradition, and the creative aspects of the music being performed.

The elementary school music program shall stimulate individual growth in musical expression; develop in children skills in identifying and using various elements of music; help each child gain enjoyment through understanding, performing, interpreting, and creating music; develop in each child an understanding of the relationship of music to our universal cultural heritage; and develop in children an understanding of the role of music in contemporary society.

Middle school music program goals:

- Aesthetics: develop aesthetic awareness by perceiving, performing, and responding to music.
- History and Culture: developing an understanding of music as an integral aspect of history, culture and the human experience.
- Creative Expression: develop the ability to express ideas and feelings through music in a variety of media.
- Criticism: develop the knowledge and skills necessary to formulate, apply, and communicate criteria for evaluating musical compositions, performances, and other creative endeavors.

Configuration

Each school will have its own music/performing arts area.

Planned Activities

Elementary students will participate in vocal music and learning about music. Instrumental music is elective at the elementary level.

Middle school students will participate in the following activities:
General Music

- Singing and playing in groups of 40 students.

- Listening to music in groups of 40 students.
- Studying independently in areas for stations.
- Exploring a variety of musical experiences individually and in small groups.
- Interpreting music through movement, performance, conducting and composing.
- Area for computer-assisted instruction.
- Area for electronic pianos.

Instrumental Music –

- Large ensemble instruction in groups of 25 to 130 students.
- Instrumental instruction, either individual or in small groups of 2-25.
- Practicing in rooms separate from large instructional area (large ensemble room for 30 students, four practice rooms for 1-2 students and piano).
- Using computer-assisted instruction and multi-media.

Vocal Music –

- Large ensemble instruction in groups of 50-130 students.
- Individual or small group instruction.
- Choreography, including Theater Arts.
- Computer assisted-instruction.

Participants

All students in grades 3-8 shall receive general vocal music instruction. All students who desire string\instrumental instruction shall be given that opportunity. String instruction shall be available to fifth through eighth grade students.

Staff Required

1-2 elementary school vocal music teachers
2 itinerant elementary instrumental teachers
1 middle school vocal music teacher
1 middle school instrumental music teacher

Groupings

Classes as enrollment and space allow, up to 30 at the elementary level and 40 at the middle level. Larger groups may use the cafeteria. Both elementary instrumental teachers come one day a week on the same day and space will be arranged for their classes from other spaces that aren't being used full time. Middle school instrumental classes may have 25 to 130 students.

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Music/Performing Arts				**0**				**1,750**				**2,530**	**4,280**
Elementary Music Room					2	800	1,600						
Elementary Music Storage					1	150	150						
Middle Chorus Classroom									1	980	980		
Middle Band Room									1	1,150	1,150		
Middle Instrument Storage Room									1	400	400		

Design Requirements

Relationships to Other Areas

- The elementary school music area shall be easily accessible to the cafeteria and to centralized restroom facilities.
- The middle school music area shall be easily accessible to the stage and cafeteria, the theater arts area and the technology education area.

Spatial/Aesthetics

- The music area will include a sound system station.
- Doors to music spaces (including the stage) shall accommodate large instruments, such as tympani drums.

Heating, Ventilating, and Air Conditioning

- Pay special attention to minimizing noise levels of HVAC equipment in music areas.

Plumbing

- None needed.

Acoustics

- The music rooms shall have sound isolation from other areas.
- Provide acoustic tiles.
- One of the most critical aspects of designing performing arts facilities is sound isolation. Heavy airtight walls and floors must be used. Care must be taken to make sure the walls, floors, ceilings, ventilation ducts, electrical conduits, etc., do not transfer sound from one room to another. A means of achieving high values of sound isolation is to use double-wall construction with dead air space between walls. Airborne and structure-borne waves can be prevented from traveling from room to room by the addition of resilient materials at critical “bridging” points. In especially critical sound isolation areas, storage rooms between rehearsal areas should be used in addition to double-wall construction.

- Ventilation ducts can transfer sound from room to room if the duct work is not properly lined, baffled, and located. Door louvers cannot be used in most areas of the performing arts complex. Ventilation ducts, electrical conduit or other rigid paths should not be short-circuited to the basic structure of the building, thus causing structure-borne waves.
- Doors must be of special sound isolating construction and should be weather-stripped on all four edges. A small crack or leak will negate the effectiveness of sound isolation.
- While care must be taken in sound isolation, indoor air quality must not be caused to deteriorate.
- A good performing arts complex must be carefully engineered acoustically to achieve maximum effectiveness. Floor area and cubage are extremely important in rehearsal and performance areas. The problem of acoustics does not end with room size, however; a good rehearsal or performance area must combine absorptive and reflective materials in carefully controlled amounts to achieve acceptable acoustics. In addition, all room dividers should be acoustically designed so that sounds do not penetrate. These problems must be worked thoroughly by the acoustical engineer.
- The following rooms are listed according to degrees of sound isolation needed:
- Extremely critical areas:
    - Band room
    - Choral music room
- Semi-critical areas:
    - Office areas
    - Storage areas
- Other factors:
    - Acoustical characteristics assuring maximum one and quality in vocal and instrumental music production.
    - Music practice rooms provided at each teaching station should be acoustically separated from the music instructional area. However, visual access should be provided between music instruction areas.
    - Facilities should be located in an area which will provide maximum sound isolation from regular classes.

Visual/Lighting

- Provide lighting of 75-100 foot-candle range to allow for close reading of finely printed music.

Communications and Utilities

- Provide multiple duplex outlets for each classroom, with a recommended minimum data/power every 4’ in classrooms.
- Instructional spaces shall be provided with an area for lockable technology device storage and charging, approximately 3 feet by 3 feet by 4 feet tall with sufficient power and ventilation.
- Consider a mobile wireless podium for the teacher which holds a laptop, optional digital projector and charging station. Additional counter height power outlets should be provided as well as optional USB

ports. Wiring will be provided from the location of the teachers primary work area to the interactive white board to provide audio/video and input/output requirements

- Data drops need to be installed at the white board and 2 data drops at the teacher's primary work area. Provide rough-in wired connectivity for wireless access points in each classroom and connected wireless access points at designated locations.
- Provide a large screen. This screen should be sized and positioned (height adjustable if possible) appropriately for the audience. Power outlets will be needed at the site of any screen and sturdy support for the screen to be mounted.
- Provide power outlets in any area where cabinets are located to avoid use of extension cords.
- Include flashing lights as well as sound signals for alarms because of the volume of sounds in the music areas.

Storage

Elementary storage:

- Provide countertop and above countertop shelving (mixture of closed and open) in vocal area and practice areas to house books, materials, records and small instruments along one full wall. Provide area for student tote trays. Sink required for washing and sanitizing of instruments. Provide one percussion cabinet on casters for storage of rhythm band instruments.

Middle storage:

- Instrumental Storage Room –
  - Located between the large ensemble room and band rehearsal rooms
  - Large, airtight doors to speed traffic flow and assure good sound isolation
  - Humidity and temperature control to protect sensitive instruments
  - Lockable (w/ padlocks) individual metal compartments for:
    - 50 flutes
    - 6 oboes
    - 50 Bb clarinets
    - 1 bassoon
    - 6 Bb bass clarinets
    - 1Eb contra bass clarinet
    - 24 EB alto saxophones
    - 12 Bb tenor saxophones
    - 3 Eb baritone saxophones
    - 3 EB baritone saxophone
    - 40 Bb trumpets
    - 8 French horns
    - 15 trombones
    - 10 baritone horns

        - 4 tubas
        - 20 violins
        - 10 violas
        - 6 cellos
        - 4 string bass
    - Instrumental Storage Room Access –
        - Two oversized doors at opposite ends to allow moving tympani in and out.
        - Design must allow moving over 100 students in and out quickly.
    - Choral Storage –
        - Closets along the back wall for costume, prop storage, etc., with shelves in half the closets.

Display

- White board and tack board

Additional Notes

- Middle School Choral Music Room –
    - Design meets recommendations of qualified acoustical engineer.
    - Accommodates a 100-member chorus, one piano and 9 portable risers.
    - Average ceiling height of 16'. Ceiling design includes a modulated surface to diffuse sound.
    - Sound isolation is critical in the room. Avoid transference of sound from this room to other rooms and hallways. It is suggested that a "buffer" room be included between this room and other rehearsal and practice areas in the department to lessen the likelihood of sound leaks.
    - Since this room will be used by choral groups of varying sizes. It's essential that the acoustical characteristics of the room be adjustable. A heavy adjustable curtain will help in this respect.
    - Proper acoustics in a room of this type depend on carefully planned use of both sound absorptive and reflective materials in the walls and ceiling.
    - Walls must not be parallel in order to avoid harsh echoes.
    - Students will perform choreography at times and will need enough room for dance movements.
    - Install carpet tile flooring.
    - Noise from ventilation equipment must be kept at an absolute minimum. If air in ventilation ducts moves faster than 250-300 feet per minute or if there are sharp bends in ventilation ducts, unwanted hissing noises will result. The ventilation machinery should be located as far from this room as possible. It is strongly recommended that electric heat be used along with an individual air conditioning system for this room to avoid transference of sound from this room to others through duct work.
    - Electronic audio recording and playback equipment is an essential part of this room. It is suggested that a solid, lockable cabinet be built in the wall and that wiring connections between the speakers, receiver, cassette player-recorder and turntable be tamper-proof (by students).
    - Built-ins:

        - Fire alarm with flashing light
        - Class bell with flashing light (w/ option to turn sound off)
        - Whiteboard (staff lined and plain)
        - Large bulletin board (4’ x 16’)
        - 1 full-length mirror

- Middle School Band Room –
    - Consultation with acoustical engineer/consultant
    - Large enough to accommodate a 130-piece band
    - High ceiling to insure proper diffusing of sound
    - Adjustable acoustical characteristics.
    - Non-parallel walls
    - Noise from ventilation equipment kept at absolute minimum.
    - Alcove entrance from hallway to make it possible to lock the hall door and this lock the entire band facility. This arrangement also enables students to get their instruments from the instrument storage room without disturbing a class.
    - Electronic audio recording and playback equipment is an essential part of this room. It is suggested that a solid, lockable cabinet be built in the wall and that wiring connections between the speakers, receiver, cassette player-recorder and turntable be tamper-proof (by students).
    - Built-ins:
        - 1 fire alarm with flashing light
        - Class bell with flashing light (w/ option to turn sound off)
        - Sliding whiteboard (staff lined and plain)
        - Large bulletin board (4’ x 16’)
        - Full-length mirror
    - Built-in Storage:
        - 1 tuba storage room – 5’ x 15’
        - 1 percussion storage room – 5‘ x 15’
- These compartment areas to be accessible through folding partition doors with locks.

DRAMA

Goals

To provide a full-year elective course is open to all sixth, seventh, and eighth grade students. The Theatre Arts course is designed to expose students to a variety of performing arts.

Additionally, the stage will serve the following purposes
- To provide an area for assemblies to be presented during the school day.
- To provide an area for program presentation for the community.
- To provide an area for instruction

Configuration

The Drama areas are for the Middle School program only.

Planned Activities

- Singing, playing musical instruments, dancing, acting, stage crafts.
- Dramatic programs
- Musical programs
- Audio-visual programs for large groups.
- Presentation of speeches and discussions for large groups.

Participants

- Drama Classroom
    - 100 to 200 sixth, seventh, and eighth grade students in groups of 25 to 30.
- Stage
    - 1-80 participants

Staff Required

1 middle school drama teacher

Groupings

Groupings may include large groups of 25-30, small groups of 3-15 and individual students. Plan for simultaneous groupings.

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Drama				**0**				**0**				**2,510**	**2,510**
Drama Classroom									1	980	980		
Project Area									1	200	200		
Storage									1	150	150		
Stage (cafeteria)									1	1,000	1,000		
Stage storage									1	180	180		

Design Requirements

Relationships to Other Areas

- Drama classroom and project area should have direct access to the stage and the exterior of the building. These spaces should be convenient to the technology area.
- Stage should be easily accessible to the music room, and stage storage room.
- Ramp from cafeteria floor to stage level on one wing.
- Stage should be located at the end of or at one side of the dining area.
- Gymnasium and dining area should be such that they can be combined to form a large assembly/auditorium area.

Spatial/Aesthetics

- Drama classroom
  - Wood floor, like a stage.
  - High ceiling, 20 to 25 feet
- Stage
  - Allow for quick and easy clean up
  - Colorful curtains
  - Steps extending across the entire front of the stage.
  - Stage should be 3 feet above the floor.
  - Doors must allow for movement of large instruments such as tympani

Heating, Ventilating, and Air Conditioning

- Automatic controls for stage area.

Plumbing

- None needed.

Acoustics	● Drama Classroom ○ Acoustically isolated from surrounding areas. ● Stage ○ Acoustically isolated from cafeteria noises when the partition is in use. ○ Sound system which can be used independently. ○ Accordion partition in front of stage designed to keep out noises.
Visual/Lighting	● Drama classroom: diffused lighting, with spot lights, capable of being darkened. ● Stage ○ Emergency lighting. ○ Spot lights which may be used independently (ellipsoidal, Fresnel, follow). ○ Stage to be in view from all parts of the cafeteria ○ Front, rear, and wing curtains.
Communications and Utilities	● Provide multiple duplex outlets for each classroom, with a recommended minimum of data/power every 4’ in classrooms. ● Provide power outlets in any area where cabinets are located to avoid use of extension cords. ● Consider a mobile wireless podium for the teacher which holds a laptop, optional digital projector and charging station. ● Additional counter height power outlets should be provided as well as optional USB ports. ● Wiring will be provided from the location of the teachers primary work area to the screen to provide audio/video and input/output requirements. ● Data drops need to be installed at the screen and two data drops at the teachers primary work area. ● Provide rough-in wired connectivity for wireless access points in each classroom and connected wireless access points at designated locations. ● Power outlets will be needed at the site of any screen and sturdy support for the screen to be mounted. ● Stage ○ Outlets every 1’ on back and sides of the stage. ○ 4 floor jacks for microphones. ○ Wall clock. ○ Control for large AC screen (retractable). ○ Controls for sound system, house lights, and curtain.
Storage	● Locker stage with adjustable shelving ● Pegboard storage ● Rods for hanging costumes

Display	● Drama classroom ○ Whiteboard with map rail. ○ Whiteboards should cover 3 walls of the classroom, with a minimum of 48 linear feet for student and teacher use. ○ One screen. ○ Floor to ceiling mirror on one wall. ● Stage: one screen.

PHYSICAL EDUCATION

Goals

Physical education is an integral and vital part of the total educational process. It aims for the same goals that give purpose to all the other learning experiences of the school - the development of the whole child.

Recognizing that each child is a unique individual, with different physical, mental, emotional, and social needs, the purpose for this particular program is to provide a carefully planned sequence of learning experiences designed to fulfill the growth, development, and behavioral needs of each student.

- To develop an acceptable level of physical fitness, an understanding of the components of fitness, and an appreciation of the lifelong value of fitness through personalized physical education activities.
- To develop the skills of movement, the knowledge of how and why one moves, the ways in which movement may be organized, and the value of movement.
- To learn to move skillfully and effectively through exercise, games, sports and dance.
- To develop and demonstrate positive social and emotional behavior, appreciation of individual differences, while focusing on the traits of character.
- To develop an awareness of safety practices and procedures.

Configuration

The Physical Education areas will be within the shared core of the building; however, usage during the day will be divided. The main gymnasium, cardio room, strength room and health classroom will be used by the Middle School. Additionally, the locker room areas including one single-stall shower for each gender will be limited to Middle School use. The auxiliary gymnasium will be used by the Elementary School.

Planned Activities

The physical education program in grades 3 to 5 may include the following kinds of activities:

Activity Zones	Fitness Circuits	Locomotor Movement	Scooterboard Games
Ball Handling Skills	Fitness Testing & Assessment	Net and Paddle Games	Soccer
Basketball	Flag Football	Non-locomotor Movement	Striking w/ Implements
Calisthenics	Floor Hockey	Rhythms and Dance	Track and Field
Cooperative Relays	Gymnastics Stunts and Tumbling	Rope Activities	Volleyball

The middle school physical education program may include the following:

6th grade – physical fitness, soccer, folk and square dance, gymnastics, basketball, softball, track & field.
7th grade – field hockey, football, first aid, volleyball, basketball, softball, track & field.
8th grade – gymnastics, tennis, volleyball, football, basketball, softball, track & field.

In addition to the required activities for each grade level, the department will complete the physical education activities schedule by selecting other grade-level requirements or activities, including lifetime sports, from the following list:

Archery	Fitness	Badminton	Bowling
Handball	Orienteering	Team handball	Recreational games
Table tennis	Paddle ball	Swimming aerobics	Wrestling

Participants

Elementary students participate in a structured physical education program at least two days per week. The number of students involved in an activity or series of activities will range from a small group to a regular class of as many as 30. On some days this school will have 2 physical education teachers, so the gym may need to accommodate up to 60 to 65 students on these days, or an alternate space such as the cafeteria or outdoors may be used.

Middle school physical education (including health classes) is required of all students in all three grade levels. Class enrollment for a health education classroom should not exceed 35 students per teacher.

In accordance with Title IX guidelines and county policy, class enrollment shall be open to students of both sexes. Students assigned to physical education shall be placed, by the staff, in a specific activity involving 30-35 participants. The class may be divided into smaller groups as dictated by the instructional activity for a given class period.

A specific activity may be scheduled simultaneously for a team of teachers. Therefore, students may be engaged in basic groups, small groups and, in some instances, groups of 50 or more participants.

Staff Required

1-2 elementary school PE teachers
1-2 middle school PE teachers

Groupings
Students involved in physical education will arrive with varying degrees of ability and interest. The instructional program should allow for an activity or series of activities to be arranged so that all students become actively engaged for an entire class period. This may be accomplished through individual tasks, pairs of students, small groups, circuit training stations and team sports.

Simultaneous Groupings

During the course of a class period students may participate in a given activity on an individual basis, may be divided into groups, and when appropriate, as an entire class. There may be two classes with as many as 65 students in each gym at one time, depending on enrollment at the school.

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Physical Education				**1,100**				**4,050**				**11,240**	**16,390**
Main Gymnasium									1	6,320	6,320		
Auxiliary Gym					1	3,800	3,800						
Cardio Room									1	850	850		
Strength Room									1	850	850		
Health Classroom									1	850	850		
Indoor Equipment Storage	1	400	400										
Indoor Supply Storage	1	200	200										
Outdoor Equipment Storage					1	250	250		1	250	250		
Locker Room (Boys)									1	1,000	1,000		
Locker Room (Girls)									1	1,000	1,000		
Single shower									1	60	60		
Single shower									1	60	60		
Restroom (Boys)					1				1				
Restroom (Girls)					1				1				
Teacher office	1	300	300										
Staff shower/dressing room	2	100	200										

Design Requirements

Relationships to Other Areas

- The main gymnasium and auxiliary gymnasium shall be located with immediate access to staff offices, rest rooms, storage areas, health suite and outdoor play areas.
- Corridors, entrances, and exits to gymnasiums, showers and dressing areas shall allow smooth

traffic flow.

- Indoor storage areas shall open into gymnasiums or into hall area with ample space for moving large pieces of equipment.
- The main gymnasium and cafeteria shall be separated by an operable partition.
- The staff shower shall be located adjacent to the gymnasiums with access to the hallway to allow for convenient use for PE staff but also use by other staff members as needed.

Spatial/Aesthetics

- Consider the flow of traffic in designing corridors, entrances, and exits to the gymnasiums.
- Main gym
  - Gymnasium and cafeteria floor will need to be on the same level for joint use of space.
  - Main Gymnasium to have 25’ ceiling
  - Movable partition for dividing area into two teaching stations
  - Lines marked for:
    - Regulation interscholastic basketball court which meets the National Federation of High Schools standards.
    - Two basketball courts running the width of the gym
    - Two team-handball courts
    - Three volleyball courts
    - Six badminton courts
    - Three pickleball courts
    - Dot drills
    - Ladders
- Auxiliary gym
  - Gym shall have at least one wall free of obstructions, for the inclusion of a traversing rock wall
  - Gymnasium shall have a clear height below the structure of at least 20 feet.
  - Provide operable divider curtain, ceiling suspended and electrically keyed for raising and lowering and aligned so it is three (3) feet inside of the out-of-bounds lines, for access between spaces when curtain is down.
  - Provide protective matting on the walls under basketball backboards and in other areas where appropriate.
  - Auxiliary gymnasium floor to be appropriately marked i.e. a 30' circle in the middle of the floor and a full-size basketball court, volleyball court, and additional lines specific to each building as shown in the plans and specifications (e.g. magic club, dots and corners). Avoid adding additional markings so that the floor is not too busy.
- Cardio room shall have a 20' ceiling, with an area for strength training and fitness equipment, exer-cycle, pegboards, treadmill, and other related equipment.
- Strength room shall have 20’ ceiling. Provide cinder block walls for anchoring of equipment.
- Locker rooms (Boys and Girls) –

- Must be ADA accessible
- Each locker room accommodates one-half of the total middle school population (450 to 500 each)
- Lockers constructed of heavy metal mesh
- Lockers provided in a battery of six small (9” x 12” x 20”) and one large (12” x 12” x 60”)
- Lockers attached to walls and in freestanding rows running the length of the room.
- Permanent benches, floor attached and solid pedestal slab to which lockers are attached, installed in each locker room.
- Provide one individual shower room within each locker room.
- Restrooms to be adjacent to locker rooms.

- Teacher offices –
  - Space for both male and female teachers.
  - Direct access from middle school offices for both male and female teachers to respective locker rooms
  - Middle School office adjacent to main gymnasium, Elementary School office adjacent to auxiliary gymnasium
  - Visual access to student activities area from planning offices
  - Locker storage provided for each teacher within the offices.

Heating, Ventilating, and Air Conditioning	● Additional ventilation must be provided to the locker/shower areas to counteract the formation of mold and mildew.
Plumbing	● Provide two (recessed) mounted drinking fountains in each gym located to allow access to each when the room is divided. ● Provide 4 full size lockers in the office area. ● Provide 1 water closet, hand sink, shower, mirror, soap and towel dispensers in the staff shower room. ● Provide two water closets and 3 urinals for boys, five water closets for girls in gymnasium restrooms.
Acoustics	● No special treatment needed.
Visual/Lighting	● Visual access between the physical education planning office and teaching areas. ● Protective guards on all lighting fixtures. ● Provide lighting with a minimum of 30-foot candles. ● Office doors and windows shall have breakage resistant safety glass.
Communications and Utilities	● Provide electrical outlets on all four walls of the gymnasiums to allow for safe operation of custodial gym-floor maintenance.

- Offices and gymnasiums shall have multiple data outlets and connection to the school's network.
- For gymnasiums, and for teacher's offices, provide data, and voice outlets, plus multiple electrical outlets, the exact number and location of outlets to be determined during project design and to meet FCPS requirements.
- Provide connection to school-wide network.
- Provide a PA sound system for each gym, suitable for use by teachers with the type and location of controls, outlets, mixers, amplifiers and speakers to be determined during project design process and to meet FCPS requirements**.**
- Technology and audiovisual controls for gymnasiums shall be accessible from the gyms.
- Cardio room must have adequate electrical capacity to plug in any equipment that requires power.

Storage

- Indoor supply storage –
  - Located near the planning office and available for use by all teachers.
  - Secured by a Dutch door or retractable, metal partition.
  - Equipped with adjustable shelving on all sides.
- Indoor equipment storage –
  - Accessible to the main and auxiliary gymnasiums
  - Shelving to be provided on two walls.
- Outdoor storage –
  - Located on the outside wall with access from in or outside the building.
  - Equipped with double metal doors to outside
  - Shelving on one wall only. Racks for hanging and storing equipment installed in remaining spaces.
- Storage areas shall have 10-foot ceilings and shall be located with direct access to the instruction areas, and designated storage areas shall have double 8-foot-high doors to be installed on storage and activities areas to allow for movement of large pieces of equipment.
- Storage space to accommodate folding chairs (500) to be used for large group activities with spectators.

Display

- White boards, bulletin boards and marker boards, where installed must face the gym side of the room and must be height adjustable 7 to 10 feet and free of any pen ledges.
- Provide screens for teaching in gymnasiums, health room, cardio room and strength room.

Additional Notes

- Provide two (2) chin-up bars of adjustable height on opposite walls of each gym.
- Provide an 8-foot high by 40 foot long transverse climbing wall in the auxiliary gym with mat locking system.
- All basketball backboards shall be ceiling suspended and electrically keyed for raising and lowering hoops for forward fold, basket height adjustment and shall be aligned at three (3) feet inside the out-of-bounds line. Safety straps shall be provided to prevent uncontrolled lowering.
- Provide basketball baskets and backboards, ceiling suspended, electronically keyed for forward-fold, including safety straps; wall safety padding 5'x10' located behind each basket.
- Elementary All Weather Play Areas:
  - Intermediate hard surface area 110' x 175' to be equipped with four basketball backboards, with 6" goose-neck posts with no adjustment mechanisms
  - Shall include paved walkways between paved play areas and between school and play areas.
- Elementary all weather areas shall contain markings for hopscotch; four-square; 20, 30, and 40-foot diameter circles; basketball; volleyball; and kick ball as specified by county drawings, and space permitting a painted oval 1/10-mile simulated running track with 4 four lanes around the perimeter.
- Playground Apparatus Areas and Pieces:
  - These areas shall be designed to provide adequate area for free and safe play around installed equipment, with consideration for efficiency of material usage and maintenance.
  - Exact specifications for this area provided by Facilities Services Division.
- Athletic Fields (if space is available):
  - One elementary soccer field 150' x 240'
  - One elementary flag football field 150' x 240'
  - One middle school soccer field 150' x 240'
  - One middle school flag football field 150' x 240'
  - Space for conducting track and field events
- All athletic fields for each school shall be located on same side of building as their respective gymnasium
- Provide a hard surface area approximately 150’ x 300’ dedicated to middle school usage equipped with basketball hoops. Markings should allow for basketball, volleyball, tennis and pickleball play using portable nets.

GENERAL CLASSROOMS GRADES 3 – 8

Goals and Planned Activities

Elementary School
Elementary teachers and students will be assigned to instructional teams at a ratio of 1 to 24.8. The size of the teams will vary from 5 to possibly 8 teachers depending upon the enrollment of the children by year in school and/or instructional level.

Classroom teachers will be responsible for all subjects and will have supplemental assistance from other professionals such as the literacy specialist and math specialist, speech therapist, resource room teacher and from paraprofessionals, i.e. Assistants and volunteers, all of whom will function in the team area much of the time.

Learning experiences must be provided by an instructional team which considers the learning potential, rate, style and setting for each individual within the team. To meet the differing needs, teachers must use many techniques and methods through which all children may experience success. Some movement of students will take place within each team and between teams to ensure correct placement for each child.

Middle School
At the middle school level, language arts, social studies, mathematics, and science (see section below for details) are core content of the general education program. As part of the general education experience, each student receives experiences each year in each of the above disciplines. Foreign language instruction is also provided in general education classrooms. The specific educational goals for each of the core subjects vary. The general classrooms must be designed for the flexibility to accommodate any of the core subjects from day to day or year to year.

Configuration

The general classroom areas will be separate for each school.

Planned Activities

Language Arts

The ultimate goal of the language arts program is the development of each student to his/her optimum level in the communication skills of listening, speaking, reading, and writing. The emphasis is on the fusion of these skills as a total communication process taught through a comprehensive, specifically identified, instructional sequence that will develop each student's ability to comprehend and communicate to the degree that she/he may deal effectively with the problems of today's world. An additional goal will be the concomitant nurture and development of critical thinking skills that will permit students to develop the competencies necessary for living in and contributing to a language-oriented society.

FCPS is committed to ensuring that all students become independent readers and writers for many different purposes. Students will use their literacy skills to negotiate an increasingly complex and information-rich world. Students will refine and apply their knowledge of reading, writing, speaking, and listening by engaging in a variety of diverse texts and writing for authentic purposes and audiences. Students will find joy in reading and writing.

The FCPS elementary language arts program is based on research and best practices for instruction and assessment. The goals and objectives of FCPS elementary language arts program are to:

- Produce independent and strategic readers and writers.
- Provide students with the necessary foundational skills in reading and writing.
- Accelerate the reading and writing achievement of all students in language arts.
- Differentiate for students who are not yet meeting language arts expectations.
- Provide teachers curricular resources and assessments that are aligned to the MCCR frameworks.

In order to meet these essential discipline goals and objectives, the following kinds of experiences must be provided:

- develop pre-reading skills
- listening experiences which incorporate a variety of messages and input sources
- language experiences which utilize multi-sensory activities
- reading experiences which incorporate a variety and quantity of types of reading materials
- writing experiences which allow one to consider purpose, audience and genre in a variety of written formats which would involve editing and spelling skills
- speaking experiences which consider purpose, audience, tone, and mood and involve different organizational formats

Mathematics

The mathematics program has three major goals: teach children to develop mathematical skills and reasoning abilities needed for problem solving, teach children to choose appropriate technological tools to solve problems and teach children to demonstrate positive attitudes towards mathematics in school, culture, and society. An emphasis will be on solving problems through practical applications of mathematics and using concrete experiences to construct conceptual understanding of mathematics. Technology (computers and calculators) will be fully utilized to supplement direct instruction as appropriate for every student.

The mathematics curriculum must be adjusted to meet the special needs of all children. Attention shall be focused on flexible grouping and cooperative learning strategies to meet the favored learning styles of a diverse population.

Standards in mathematics include:

- apply problem solving skills, communications skills, reasoning skills, and connections to solve a variety of problems
- show, describe, and use numerical concepts and relationships using concrete, pictorial, and symbolic representations

- estimate and apply measurement skills using standard/non-standard and metric/customary units in mathematics and other disciplines
- predict and demonstrate congruency, similarity, symmetry, and reflection using one, two and three dimensional objects as appropriate to solve problems
- collect, organize, and display data; interpret information in oral and written form
- demonstrate basics concepts of probability such as predicting and finding outcome
- describe, extend, and create a variety of patterns and functional relationships

Science (Elementary School only - see Science Labs for Middle School)

The main goal of the science program is for students to apply science and engineering practices and cross-cutting concepts in the life, physical, and earth/space sciences.

In the elementary science program, lessons from a variety of science units will involve students in hands-on investigations of age appropriate concepts to build the foundation necessary to understand the Maryland State Science Standards (MSSS).

In order to meet these goals, the following kinds of activities must be provided:
- hands-on exploration of major concepts
- vocabulary and concept development based on the hands-on experiences
- application of concepts through hands-on activities in new situations
- opportunities to read and write about science
- use of instructional technology
- integration of skills and concepts with other subject disciplines
- field trips to the Earth & Space Science Laboratory (ESSL), school grounds, local sites and grade-level field trips

Social Studies

The goal of social studies is the promotion of civic competence--the knowledge, intellectual processes, and democratic dispositions required of students to be active engaged participants in public life. The primary purpose of social studies is to help young people make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world. Concepts and tools in each of these disciplines; civics, economics, geography and history are applied as students study specific content described in state standards. These disciplinary ideas are the lenses students use in their inquiries throughout the grades to lead to deep and enduring understanding. Social studies instruction provides experiences that develop in students the knowledge, concepts, strategies, and skill needed to promote citizenship in a diverse and changing world. Social studies instruction is meaningful, engaging and challenging.

In order to meet these goals, the following kinds of activities must be provided:
- develop questions and plan inquiries

- apply disciplinary tools and concepts
- develop and use domain specific vocabulary
- gather and evaluate sources
- read and write about civics, economics, geography, and history
- develop claims and use evidence
- communicate and critique conclusions
- use instructional technology and tools
- integrate skills and concepts of other subject disciplines
- take informed action

Computer Education

Learning to use the computer is an integral part of a student's education. The computer is also an excellent instructional tool. Computers will enable students to extend academic abilities and will assist them in mastering basic skills. Students will use the computer as a tool for:

- reinforcement, remediation, and extension of specifically targeted curriculum objectives
- activities which will develop students' mathematics problem-solving skills and strategies
- developing writing process skills
- simulated experiences that could not be addressed by other means
- collecting and managing information
- creative expression in the areas of art and music

Computer experiences planned may include:

- large group learning activities using a projection device to view computer and video images
- individual learning activities for remediation, reinforcement and extension.
- use of software, extensions, and applications that address objectives in content areas
- use of software that fosters the growth and development of problem-solving skills and strategies
- production of materials, displays, and projects which enhance or supplement curriculum objectives. These activities with a computer will provide another means of student creative expression

Students will:

- become comfortable, competent and self-sufficient using computers and associated peripherals.
- develop keyboard awareness and proficiency.
- use computers as tools for accomplishing tasks.
- select appropriate applications software to assist with a specific task.
- Integrate software use into lessons.

Summary

The general classrooms must allow students and teachers to complete the following tasks:

- Support a variety of teaching and learning methodologies including writing, reading, presentation, audio and visual media
- Acquire the necessary knowledge, understandings, mastery of skills, which they will need to develop critical thinking, and problem-solving
- Use a variety of technological tools including calculators, computers, and other electronic devices to support the educational program
- Work together in small and large groups
- Provide opportunities for additional support from specialists

Participants

Approximately 24.8 students per elementary school classroom

Approximately 30 students per middle school classroom

Staff Required

1 teacher per classroom

Groupings

Home base groups of the whole class, small groups of 3-15, team groups, pairs of independent workers

Space Requirements

	Shared Spaces				Elementary				Middle				TOTAL
SPACE	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
General Classrooms				**0**				**14,700**				**15,700**	**30,400**
General Classroom					18	800	14,400		18	850	15,300		
Planning Room					1	200	200						
Storage					1	100	100		4	100	400		

Design Requirements

Relationships to Other Areas

Elementary

- Grades 3 through 5 areas will be grouped together. All grades shall be directly accessible to collaboration rooms.
- Each elementary grade should be clustered in groups of six classrooms, if possible.
- All grade 3 - 5 classrooms shall be conveniently accessible to:

Media Center	Health Room
Gymnasium	Principal's Office
Music Room	School Office
Cafeteria	Art Room
Assistant Principal's Office	

Middle

- The general classrooms shall be adjacent to one another and to the science laboratories.
- The general classrooms shall be directly accessible to the collaboration, office, storage, and student restroom areas.
- There shall be a classroom area for each of the grade levels with storage, collaboration, and office spaces divided evenly amongst the three grade level areas.

Spatial/Aesthetics

- Each classroom shall be scaled to meet the physical needs of its occupants.
- The classroom area shall be light and bright.
- The classrooms shall allow for placement of up to 30 desks and chairs at the elementary level and 35 desks and chairs at the middle level.
- Each classroom shall have a mobile desk for the teacher.
- The middle school offices will host one specialist and should have one teacher station as well as a variety of flexible furnishings to allow the specialist to work with groups of students or staff.

Heating, Ventilating, and Air Conditioning

- See FCPS Design Guide for specific requirements.

Plumbing

- Elementary classrooms shall include a “wet” area, with sink enclosed in usable cabinetry, water, cabinets, etc., of 300 square feet. Sink shall be provided with a fully enclosed base cabinet. Water will be required in sinks (sinks with clay traps and gooseneck faucets) in the wet area.
- Provide a sink in three general middle school classrooms to allow for possible use of the space for art or science classes if needed.
- Group restrooms to be located convenient to all general classrooms.

Acoustics

- Each classroom shall be acoustically isolated in so far as possible.

Visual/Lighting	● Teachers shall be able to visually supervise access to all centers; any partitions shall be at student height providing clear sight lines ● Glare shall be avoided ● Provide individual lighting control with the ability to darken an area within the classroom.
Communications and Utilities	● Provide multiple duplex outlets for each classroom, with a recommended minimum data/power every 4’ in classrooms. ● Instructional spaces in elementary classrooms shall be provided with an area for lockable technology device storage and charging, approximately 3 feet by 3 feet by 4 feet tall with sufficient power and ventilation. ● Consider a mobile wireless podium for the teacher which holds a laptop, optional digital projector and charging station. Additional counter height power outlets should be provided as well as optional USB ports. Wiring will be provided from the location of the teachers primary work area to the interactive white board to provide audio/video and input/output requirements ● Data drops need to be installed at the white board and 2 data drops at the teacher’s primary work area. Provide rough-in wired connectivity for wireless access points in each classroom and connected wireless access points at designated locations. ● Provide a large screen. This screen should be sized and positioned (height adjustable if possible) appropriately for the audience. Power outlets will be needed at the site of any screen and sturdy support for the screen to be mounted. ● Provide power outlets in any area where cabinets are located to avoid use of extension cords.
Storage	● Instructional storage, enclosed, for instructional materials, kits, paper of all sizes, science and AV equipment, pre-prepared learning stations, pictures, charts. Provide several (4-6 needed, depending on standard cabinetry available) blueprint type files for flat paper storage. Examples of items stored here: ○ storage for texts, workbooks, and supplemental books - 2 36"x48" bookcases with adjustable shelving ○ storage shelves for paper of varying sizes: 8 1/2 x 11, 11 x 18, 18 x 24, 24 x 36, 36 x 52, including materials for learning stations ○ storage for instructional materials such as kits, games and concrete materials for mathematics ○ Provide storage amongst each classroom for supplemental materials not in use that may be shared by multiple classes. ○ teacher shall have locked storage for personal belongings ○ teacher shall have storage for professional books; supplies to make stations such as scissors, paste, pens, tape, etc.; storage for typing paper and other supplies ○ built-in closed storage at wet area for science and art materials

	○ built-in open front storage area beneath the counter top in the wet area, a minimum of 26" high, 36" wide, and 16" deep ○ Provide dedicated space for classroom library ● Built-in classroom storage to be located only on the corridor wall with all other storage provided by mobile units. ● Elementary school size student lockers, standard in size throughout the school, shall be provided in the corridors just outside each elementary classroom whose students the lockers serve and shall include a horizontal shelf above the lockers for student temporary storage of book bags, books, etc. ● Middle school lockers to be located in the corridors near the middle school classrooms.
Display	● Provide at child's eye level, non-reflecting, magnetic white boards, map rails and 2 flag holders. Every classroom needs built in white boards and tack boards. Cork strip shall be incorporated above all white boards and bulletin boards. Provide additional map hooks for vinyl pocket charts (at least 6 additional clips per room). ● Grip-a-strip shall be placed in the hallways.
Additional Notes	● Provide an elementary planning room to allow 8-10 staff to gather for planning or professional learning activities. Provide a table with adequate seating, whiteboard, and tack board.

SCIENCE LABS

Goals

Science laboratories must be able to provide the same functions as general classrooms while also providing additional functions specific to the science curriculum.

Configuration

The science labs will be located only in the Middle School area.

Planned Activities

Experiences will include:

- direct, hands-on experiences with materials and equipment
- classroom instruction, including advance preparation of experiments and demonstrations in prep room
- laboratory activities research
- engage in discussions, reading and research, reporting, writing

Participants

All middle school students will participate in science. Each classroom shall accommodate up to 30 students

Staff Required

See general classroom staffing.

Groupings

From small groups of 3 to 5 to 30 plus students in classroom

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Science Labs				**0**				**0**				**8,910**	**8,910**
Science Classroom/Lab									6	1,260	7,560		
Science Prep									3	200	600		
Storage Room									3	250	750		

Design Requirements

Relationships to Other Areas

- Two science laboratories, one prep, and one storage room shall be in each of the grade level classroom areas.
- Science laboratories shall be immediately adjacent to the science prep room and science equipment storage room.

Spatial/Aesthetics

- The area should be light and bright.
- Science instructional areas should be 100% closed instructional space in order to contain potential irritating fumes generated during laboratory work and to fully utilize wall space for science related cabinetry and peripheral laboratory work space. At least one wall should provide for white board and tackboard utilization.
- All ceiling heights will be maintained at a minimum of 9'6"
- Teacher demonstration and desk station to be located four feet off the instructional wall and to be ADA compliant.
- All wall, countertop, and floor materials to be of acid-resistant material to a minimum height of 6' above floor level

Heating, Ventilating, and Air Conditioning

- Provide appropriate ventilation to meet ASHRAE guidelines.
- The instructional areas shall be planned for year round use with individually controlled temperature controls for each area.
- Special consideration must be given to ventilation in science classrooms, the preparation area and the storage area. All science spaces must be independently ventilated with no shared return air with the rest of the building and fume hoods must be provided.
- A continuous flow, full room exhaust system for fume removal to the outside to be installed in each classroom and capable of being operated by a switch accessible to the classroom instructor

Plumbing	● Life Safety/Building Code - Provide an emergency safety shower with floor drain in each lab where corrosive chemicals or flammable materials are used. A plumbed eyewash fountain, fire blanket, and fire extinguisher will be installed in all science classrooms and preparation rooms. ● Provide 7 student work station sinks in each science classroom with hot and cold water, acid resistant plumbing (minimum sink size 10"W x 15" L x 8" D). ● Provide one large preparation sink with wall mounted glassware drying rack and hot and cold water in each classroom, located preferably in a perimeter corner, (minimum sink size 30" L x 24" W x 15" D). ● All sinks to be provided with devices to keep unwanted materials from entering the sink drain. ● Provide one teacher demonstration table with electric, hot and cold water, and acid resistant plumbing in each classroom (minimum sink size 17"L x 14"W x 12"0). ● Natural Gas: ○ Provide 1 double gas cock at teacher demonstration desk in science classrooms. ○ Provide 1 double gas cock at student stations only in the 8th grade science classrooms. ○ Provide 2 solenoid-type, emergency gas shut-off master controls in the science classrooms (key controllable for return to service) and readily accessible in case of emergency - 1 control to be located near the teacher demonstration station with the second location in the laboratory area but away from exits from the classroom.
Acoustics	● Each science classroom shall be acoustically isolated in so far as possible.
Visual/Lighting	● Each classroom should have views to the outside and be placed with a southern exposure whenever possible ● Dual-mode motion-sensor lighting control. ● Provide individual lighting control and the ability to darken each instructional area with separate circuits that control the room by thirds. Teacher should have the ability to dim or turn off lights in various areas of the classroom. ● Screens or blinds should allow teacher to darken the room.
Communications and Utilities	● Provide power outlets in any area where cabinets are located to avoid use of extension cords. ● Duplex electrical outlets to be provided at each student lab station to accommodate a minimum of 28 outlets; 4 duplex outlets to be provided in preparation room ● All student work stations will be provided with ground fault circuit protection ● One 200 volt outlet to be provided for autoclave in preparation area ● Teaching station must accommodate a laptop, optional digital projector and charging station. ● Wiring will be provided from the location of the teachers primary work area to the interactive white board to provide audio/video and input/output requirements.

- Data drops need to be installed at the white board and 2 data drops at the teacher's primary work area.
- Provide rough-in wired connectivity for wireless access points in each classroom and connected wireless access points at designated locations.
- Power outlets will be needed at the site of any white board and sturdy support for the white board to be mounted.
- Utility and hardwire connections from the teacher station may be housed in a slab trench with removable cover

Storage

- All cabinetry in science classrooms and prep room to be of the same wood type.
- Provide solid wood base and wall cabinets with adjustable shelving. Locations to be determined during design. All countertops, sinks, backsplashes and accessories to be acid resistant epoxy.
- Sturdy, metal (and wood for caustic materials), adjustable shelving units for storage should be provided in the science storage room for the following:
  - Sturdy, metal (and wood for caustic materials), adjustable shelving units for storage should be provided in the science storage room for the following:
  - large equipment and bulk materials
  - items requiring special care and security, volatile materials and preserved specimens should be provided with a secure, properly ventilated storage area
  - glassware
- Provide adequate solid wood base and wall cabinets in each science preparation area with glass doors for ease of viewing the contents.

Display

- Provide non-reflecting, magnetic white boards, map rails and 2 flag holders. Every classroom needs built in white boards and one tack board. Cork strip shall be incorporated above all white boards and bulletin boards.
- Animal care cages, terraria, and aquaria will be used in science areas.
- Wall recessed display cases (lockable) shall be located in the corridor near science classrooms.

Additional Notes

- Science laboratory design must be in compliance with all State of Maryland guidelines and regulations.
- Provide one overhead demonstration mirror to be installed at the teacher demonstration area
- Science preparation rooms are to be shared by all science areas.

CAREER AND TECHNICAL EDUCATION

Goals

- Demonstrate knowledge of the relationships of technical achievements and their impact on the environment, the advancement of science, and individual and society.
- Demonstrate the ability to solve problems with technology using systems approach, high order thinking skills, individual and collaborative ingenuity and a variety of resources including information, tools, and materials.
- Demonstrate the safe, effective and creative use of resources – including tools, machines, and materials in performing technological processes.
- Develop technological and computational interest and literacy.
- Develop Financial Literacy Skills in order to plan, manage, and effectively identify financial goals and develop spending plans.
- Explore career choices and related pathways in order to develop an academic and career plan.
- Become proficient with computational thinking in order to develop an interrelated set of skills and practices for solving complex problems.

Configuration

The Career and Technical Education area will be located in the Middle School.

Planned Activities

General Technical Education Labs and Maker Space

- Students' experiences will be exploratory, centering around two major areas: Engineering Design and Computational Thinking
- Students will be doing individual, small group, and total class activities.
- Students will participate in activities and experiences which include construction of projects. They will develop appreciation for safety and understanding of how to work with hand and machine tools.
- Specific Subject Areas for Activities in the General Labs and Maker Space –
    - Problem solving
    - Design
    - 3D printing and CNC machine
    - Modeling and Prototyping
    - CAD
    - Computer Science
    - Robotics

Applied Engineering Lab

- Students' experiences will be exploratory, centering around major areas such as : Design, Problem Solving, Applied Engineering, modeling, and prototyping, and basic industry trades concepts
- Students will be doing individual, small group, and total class activities.
- Students will participate in activities and experiences which include construction of projects. They will develop appreciation for safety and understanding of how to work with hand and machine tools.
- Specific Subject Areas for Activities in the Applied Engineering Labs –
    - Engineering Material
    - Electricity/electronics and robotics
    - Rapid prototyping and advanced fabrication
    - Computer applications
    - Audio/video production

Participants

The number of participants will be 25-30 per laboratory, a total of 75-90 students per class period in the three labs.

Staff Required

3 Career and Technical Educators

Groupings

Groupings may be individual, whole group instruction, and small group instruction.

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Career and Technical Education				**0**				**0**				**4,100**	**4,100**
General technology education lab									2	850	1,700		
Maker lab									1	500	500		
Fabrication lab									1	1,200	1,200		
Project storage									3	100	300		
Materials storage									2	200	400		

Design Requirements

Relationships to Other Areas	● If possible, locate on an exterior wall. ● Career and Technical Education area shall be adjacent to Family and Consumer Science area ● The maker lab shall be located between the general labs with access from both rooms. ● The fabrication labs shall be located adjacent to the general labs. Each of these four labs shall have a project storage room. One materials storage room will be associated with each pair of labs.
Spatial/Aesthetics	● General Technical Education Labs ○ Provide an area for group instruction with a white board, bulletin boards, data drops similar to those provided in a typical classroom, bookshelves, screen, and teacher and student tables. ○ Provide small group centers with multipurpose furniture where portable equipment can be configured to support the lessons. ○ Provide an extra wide door to the outside (not an overhead door). ○ The laboratory should have a ten foot high acoustical tile ceiling. ○ Shared Maker lab should be have glass walls visible from the general labs ○ The laboratory should provide 8 collaboration tables with a medium computer screen monitor for each mounted to a stand with necessary HDI/Power hookup. ○ Locking storage cabinets with countertops appropriately sized and located for hand tools, portable tools. ○ Large Project Storage cabinets ● Applied Engineering Lab ○ There should be small group centers with multipurpose furniture where portable equipment can be configured to support the lessons. ○ Provide an extra wide door to the outside (not an overhead door). ○ The laboratory shall have a ten foot high acoustical tile ceiling. ○ The laboratory should provide eight workbenches with 4 vices each (accommodating 32 students), locking storage cabinets with countertops appropriately sized and located for hand tools, portable tools, and finishing materials. ○ Include a small finishing booth that is vented appropriately to the outside ○ Adequate spacing for safe use of at least 10 different pieces of equipment needing 4-8 SF each.
Heating, Ventilating, and Air Conditioning	● Provide appropriate ventilation. ● The instructional rooms should be planned for year round use. Fresh air exchange and dehumidification at all normal temperatures is important.

	● The laboratory area should include an exhaust system for removal of smoke, paint fumes, and excessive odors. Provide air scrubbers to filter out dust. ● Provide ability to remove fumes from the Maker Lab.
Plumbing	● Provide two utility sinks with hose connections for additional equipment connections in the Applied Engineering Lab. ● Provide a deep sink with clay/sediment trap in the Maker Lab.
Acoustics	● Due to the use of noisy equipment, the career and technical education spaces should be acoustically isolated as much as possible from other surrounding teaching areas. ● Provide sound detonating panels on walls above bulletin boards to reduce noise when equipment is running.
Visual/Lighting	● Individual controlled zoned lighting should be provided in each area of the labs. All lighting should have diffusers and consideration given for ease of cleaning and changing of lights.
Communications and Utilities	● Provide multiple duplex outlets for each classroom, with a recommended minimum data/power every 4’ in classrooms. ● Provide power outlets in any area where cabinets are located to avoid use of extension cords. ● Consider a mobile wireless podium for the teacher which holds a laptop and charging station. ● Provide a screen in the teaching area. Consider using a portable screen. ● Additional counter height power outlets should be provided, as well as optional USB ports. ● Wiring will be provided from the location of the teacher's primary work area to the interactive screen to provide audio/video and input/output requirements. ● Data drops need to be installed at the white board and 2 data drops at the teacher's primary work area. ● Provide rough-in wired connectivity for wireless access points in each classroom and connected wireless access points at designated locations. ● Power outlets will be needed at the site of any screen and sturdy support for the screen to be mounted. ● Adequate electrical service for stationary tools requiring single and 3 phase 110 and 230 VAC circuits should be provided in the labs. Provide a designated outlet for each machine. ● Adequate 110v service for workbench stations and flexible-use portable tools including (1) retractable 110V AC drop cord at each workstation.
Storage	● Storage facilities for storing materials used in the program and for student projects. ● Provide a tool storage area to keep special hand tools and portable tools. ● Adjustable storage racks, shelves/cabinets in storage areas.

	● Provide a small finishing booth/exhaust hood with a replaceable filter. A flammable storage cabinet is required.
Display	● Bulletin board on all walls. ● Magnetic whiteboards on all walls. ● Display area for student projects.
Additional Notes	● Compressed air should be supplied (preferably through an electric 2hp compressor) should be provided in the Applied Engineering Lab. Compressor should be housed within a storage room for minimal noise interference

FAMILY AND CONSUMER SCIENCE

Goals

The food lab is part of the Family and Consumer Science program but also the Career and Technical Education Program and is used for the instruction of nutritious food preparation as well as basic culinary concepts. The General FACS Labs must be versatile enough to accommodate a variety of traditional FACS Concepts such the use of sewing machines but also have the ability to accommodate CTE topics such as agriculture and sustainability, child development, marketing and entrepreneurship, financial literacy, and career exploration.

Configuration

The family and consumer science area will be located in the Middle School.

Planned Activities

To provide opportunities for:

- Instruction and practice in food preparation and related life skills.
- Discussions.
- Collaboration Work.
- Other activities designed to deal with all aspects of foods and food preparation.
- Instruction in nutritious food preparation, sanitation, and proper handling of food, and how foods and culture connect.
- Planning meals using budgets and health stipulations.
- Hands on basic sustainability, horticulture, hydroponics and related agriculture concepts
- Business, marketing, financial literacy, and entrepreneurship

Staff Required

2 Family and Consumer Science teachers

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Family and Consumer Science				**0**				**0**				**1,900**	**1,900**
Food Lab									1	850	850		
General FACS Lab									1	850	850		
Storage									2	100	200		

Participants

The number of participants will be 25-30 per FAC laboratory (Food and General), a total of 50-60 students per class period in two labs.

Design Requirements

Relationships to Other Areas

- The General FACS Lab should be adjacent to the food lab
- Located on an exterior wall to be accessible to the outdoors for horticulture lessons.
- FACS Labs shall be located near the Career and Technical Labs

Spatial/Aesthetic

- The General FACS Labs should be large enough for 8 large collaboration tables for 4-6 students each table.Tables should be big enough for 4-6 sewing machines to be used at the same time.
- The Food Lab should have room for 6 complete kitchens in which the students will complete hands-on food labs. These kitchens must be large enough to accommodate as many as 6 students at a time and should include dishwashers, double sinks, microwaves, stoves, storage cabinets, counter space and exhaust hoods.
- Each Station should have a large movable collaboration table to accommodate 4- 6 students
- Space should include room for a teacher demonstration area with similar equipment/capability as the 6 kitchens.

Heating, Ventilating, and Air Conditioning

- Provide appropriate ventilation.
- A manually operated demo mirror and hood shall be installed over the food demo prep area with appropriate fire suppression equipment.

	● Each Kitchen should have a Range hood for proper ventilation. ● Whole room ventilation/fume extraction is recommended for the food lab.
Plumbing	● Foodlab must have 1 clothing washer and 1 clothing dryer, preferably behind a panel wall/double door to minimize noise (Accessible from the General lab would be idea) ● General FACS Lab should have at least 2 deep sinks with hose hookup ● Clay/sediment trap under each sink.
Acoustics	● No specific requirements.
Visual/Lighting	● Provide adequate lighting for all student work areas in the food lab. ● Provide adequate lighting for detailed work such as sewing in the general labs.
Communications and Utilities	● Provide a camera above the teacher station in the food lab that projects to multiple screens in the kitchen. ● Provide multiple duplex outlets for each classroom, with a recommended minimum data/power every 4' in classrooms. ● Consider a mobile wireless podium for the teacher in the General FACS lab which holds a laptop, optional digital projector and charging station. Additional counter height power outlets should be provided as well as optional USB ports. Wiring will be provided from the location of the teachers primary work area to the interactive white board to provide audio/video and input/output requirements ● Data drops need to be installed at the white board and 2 data drops at the teacher's primary work area. Provide rough-in wired connectivity for wireless access points in each classroom and connected wireless access points at designated locations. ● Provide a large screen. This screen should be sized and positioned (height adjustable if possible) appropriately for the audience. Power outlets will be needed at the site of any screen and sturdy support for the screen to be mounted. ● Provide power outlets in any area where cabinets are located to avoid use of extension cords. ● Retractable or ceiling drop outlets are requested for the General FACS lab.
Storage	● Cabinets in the six kitchens should be lockable. ● A lockable pantry/storage area should be included in the foods lab. ● In addition, the lab must also provide room for 1 commercial size lockable refrigerator and 1 commercial size lockable freezer. It is requested that 1 standard fridge/freezer combo be shared between each kitchen station. Total of 3 refrigerator combos for the 6 stations.

	● General FACS Lab - Large cabinets to accommodate sewing 30 machines ● General FAC Lab Storage Closet with shelving to accommodate misc. supplies.
Display	● Whiteboard located at one end of the room so that students can easily see the screen or board and not be blocked by the kitchen area.
Additional Notes	●

SPECIALIZED PROGRAMS

Goal

FCPS provides special education services at schools throughout the county. The purpose of this add-alternative would be to set aside space for a specialized program. This space is needed to accommodate growth in the population of students required specialized educational programs and/or to provide services that cannot otherwise be provided by FCPS.

Configuration

The Expressions program and associated spaces will be located in the Elementary School. The Learning for Life program and associated spaces will be located in the Middle School.

Experiences Planned

- Instructional space for up to 12 students
    - Inclusion of storage areas within the rooms
    - Kitchenette space in Learning for Life room
    - Consideration of needs for adding lifts for physical impacted students in Learning for Life
- 2 sensory rooms for student regulation
- 1 movement room

Elementary School Expressions Program

Expressions provides integrated and enhanced special education support for students with functional communication needs. Students are provided with a variety of communication methods as they develop verbal speech and/or a functional communication system in a small, structured classroom with opportunities for inclusion also provided. The program uses a variety of instructional strategies and evidence based practices, including principles aligned with Applied Behavioral Analysis. Programs are staffed with a high adult-to-student ratio. Designed for students who exhibit deficits most prominently in Functioning Communication, as well as Cognitive Functioning, Adaptive Functioning, Academics.

Middle School Learning for Life Program

Learning for Life provides integrated and enhanced special education support for students with significant cognitive impairments and other disabilities. The program uses a variety of instructional strategies and evidence based practices. Programs are staffed with a high adult-to-student ratio. Designed for students who exhibit deficits in the following areas: Cognitive Functioning, Adaptive Functioning, Communication, and Academics.

Staff Required

- 1 coordinator

- 1 Board Certified Behavioral Analyst
- 4 elementary school special education teachers
- 1 middle school special education teacher
- Minimum of 11 special education instructional assistants

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Specialized Program				**240**	**Expressions**			**3,500**	**Learning for Life**			**1,050**	**4,790**
Classroom					4	800	3,200		1	850	850		
Sensory Room					1	150	150		1	150	150		
Student Restroom					3	50	150		1	50	50		
Coordinator Office	1	120	120										
Board Certified Behavior Analyst Office	1	120	120										

Space Features Requirements

- Classrooms, coordinator office and sensory rooms should be directly accessible to one another
- Classrooms should be identical to spaces provided for the respective levels, except a kitchen space should be provided in the Learning for Life room.
- Provide offices for coordinator(s) and BCBA. Coordinator office shall have space to accommodate a second desk if needed.

STUDENT SUPPORTING SERVICES

Goals

Supporting services are services provided by school personnel outside and also within the traditional classroom setting. These services are provided to students in consultation with classroom teachers.

The following programs comprise the total area of supporting services:

- Speech/language and itinerant services
- Occupational/physical therapy itinerant services
- Special education resource
- Language Learning Services
- Math Collaboration
- Reading Collaboration
- Reading services
- English Learners
- School counselor
- Behavioral specialist services
- Psychology and social work services
- Community Liaison

Personnel providing supporting services will form a team to coordinate efforts in working with individual students, to facilitate the keeping of records, to reduce duplication of effort and to reach as many students as possible. Some spaces will be flexible, allowing for a variety of supporting services and collaborations to take place in the same space either simultaneously or concurrently.

Supporting services provides services to children who do not need major curricular adjustments, but who need some form of consultative services to help them function more effectively. Its goal is to provide counseling and liaison between pupils, parents, teachers and community agencies through the psychologists, pupil personnel workers, public health nurses, and social workers who comprise the staff.

The goal will be accomplished through:

- conferences with teachers
- conferences with parents, and home visits
- conferences with children
- conferences with any combination of the above persons
- contacts with other agencies
- testing

- conferring with other personnel in supporting services

Configuration

The Elementary School and Middle School will have their own distinct student supporting services spaces.

Planned Activities

Speech/Language and Itinerant Services

The function of this program is to further the objectives of the Essential Curriculum. The program is integrated with the regular instructional program whenever possible.

The goals of the speech/language and itinerant services programs are:
- to conduct assessments necessary for program placement
- to write and implement Individualized Education Programs (IEPs) for use in both the speech/itinerant room and the regular classroom
- to deliver speech/language therapy and itinerant services (hearing impaired services, vision services, and Occupational Therapy/Physical Therapy services)
- to provide consultative services to parents and classroom teachers of students who receive speech/itinerant services
- to provide appropriate materials for instruction

The goals will be accomplished through:
- informal and standardized testing
- small group and individual instruction
- conferences with students, teachers, and parents
- record keeping/planning
- provision and storage of appropriate materials/equipment

Special Education Resource

Special education resource provides programs for those children who need a minimal amount of assistance in order to succeed in regular classes. The goal of the program is to give to the child the educational and social support which he or she needs to make progress commensurate with his or her ability. At all times, maximum effort will be made to educate the child with his non-disabled peers.

For a period of time each day or intermittent days during the week, a student with a disability may receive special education instruction in a collaboration space, if this environment is specified on the IEP. The teacher will provide the instructional service defined in the children's individualized education plans.

Goals will be accomplished through:

- yearly planning for Type I activities for the entire school, as well as individual class or grade-level groupings (filed with principal) which reflects school-wide philosophy and long-range planning
- regular in-service activities involving all school staff on effective implementation of all three levels of activities
- maintenance of materials and equipment for efficient and effective student and staff use
- maintenance of records outlining use of room, materials, activities, etc.
- increased one-to-one facilitation with students as Type III activities are identified and implemented within curriculum compacting
- significant increase of Type II activities within the collaboration rooms and individual classrooms
- training of teachers and students in independent research and product-creation strategies
- increased parental and community involvement in development of resource room, available resources, and product creation

Elementary Calming Room

Teachers and support personnel work with students to identify times when the student may need to step aside from the learning area to calm down rather than resorting to disciplinary measures. In general, it should have light colors, an ability to lower the lighting level and little to no furnishings.

English Learning Program

English learning (EL) programs are mandated by COMAR and Title III of Every Student Succeeds Act. Instructional models do vary somewhat from school to school. Choosing the most appropriate instructional model will depend on several factors such as the number and distribution of EL students in a school, the school's instructional schedule, the number of EL instructors servicing the school, student proficiency levels based upon LAS Links scores, and so on. In all cases, EL teachers should collaborate with classroom teachers to ensure that EL instruction and classroom instruction are aligned and coordinated.

Instructional settings for EL students will vary. Level 1 students will spend most of their time in an EL classroom. EL instructors typically work with Level 2 and 3 EL students in the general classroom or in groups no larger than 6-8 students at a time.

Reading and Math Specialist services

The role of reading and math collaboration services is to work individually or with small groups of students, no larger than 8 students at any one time. The specialist works daily with students in an approved collaboration that requires anywhere from 30-45 minutes of instruction. Generally, most specialists work with approximately 6 groups a day in the collaboration rooms. Although the collaborations are short term in nature the specialist changes groups throughout the year and carries a full case load.

Outside therapy/testing and Behavior Support

School counselors, psychologists, and other student support personnel are integral members of the staff at all schools, where they serve to monitor and promote student success from the time they enroll through graduation. There are times when students require additional supports and services beyond those received within the regular school program. When this occurs, school staff will often coordinate with parents and their outside therapy agencies and service providers to comprehensively meet the needs of students for their continued success. This coordination may include outside therapists coming into the school environment to provide these services. By doing this, not only will the supports and services to students be coordinated, but also the amount of time students are out of school is diminished because students will not have to leave school for travel to appointments.

School Support and Elementary Guidance

The school support program has been in existence for some time and was originally designed as a pro-active, preventative program to deal with potential student problems at their inception. Since 1986 elementary guidance has been a legislatively mandated program. Elementary guidance is developmental in nature and helps all children in the areas of personal and academic growth, educational and career decision making skills, and interpersonal relations. While guidance focuses on developmental programs for all students, school support focuses on behavioral programs for a small number of children. There are indications that these two programs will work together where appropriate, but the focus for each program is distinct.

Instructional settings will vary from large group development of problem-solving skills to small group interpersonal conferencing, and to individual counseling where appropriate.

Participants

- diagnostic and adjunctive services - completely individualized on a need basis
- speech and hearing services - small group sessions
- special education resource - small group sessions
- English learners services – small groups
- Math and reading collaboration services – small groups, individualized
- guidance - large group, small group, individualized
- reading services - large group, small group, individualized
- enrichment services - large group, small group, individualized
- calming room - individualized

Staff Required

- part-time pupil personnel workers (itinerant)

- part-time psychologists (itinerant)
- full-time speech and hearing therapists (itinerant)
- part-time itinerant teachers (hearing, vision, occupational therapist, physical therapist)
- special education resource teachers as needed based on identified students
- 3-5 elementary reading and math specialists and 3-5 middle reading and math specialists
- 1-2 elementary school ELL teachers and 1-2 middle school ELL teachers
- 1-2 elementary school Instructional Assistants and 1-2 middle school Instructional Assistants
- visiting services from the Social Worker

Groupings

- independent workers, one-to-one, small groups of 2 to 6 or 7 to 15, whole classes

Simultaneous Groupings

- It shall be possible to organize all of the above groupings simultaneously.

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Student Supporting Services				**0**				**4,250**				**6,200**	**10,450**
Teacher specialist office					1	800	800		3	850	2,550		
Special Education Resource Room					1	800	800		1	850	850		
Collaboration Room					3	200	600		6	200	1,200		
Calming Room					1	150	150		1	150	150		
Itinerant Staff (Psychologist/Social Worker/Behavior Specialist, OT/PT etc)					1	200	200						
Speech/Language and Itinerant Services					1	300	300		2	300	600		
EL Level 1 classrooms					1	800	800		1	850	850		
Parent Work Room					1	200	200						
Reading Specialist/Book Rooms					1	400	400						

Design Requirements

Relationships to Other Areas	● All supporting services spaces shall be dispersed throughout both schools to provide convenient access for all classrooms. Collaboration rooms shall be dispersed throughout the classroom areas to provide access from each grade level. ● When possible, group smaller supporting services rooms and keep the wall in between rooms free of conduit or piping to allow for the wall to be removed in the future if larger spaces are desired. ● The various staff providing supporting services will have desks in centralized offices. These spaces will be identical to classrooms (see general learning area) to allow for flexibility in space usage from year to year. ● A calming/de-escalation room shall be provided in each school.
Spatial/Aesthetics	● Restroom facilities shall be accessible to all students in the area ● Rooms should be designed for flexibility of use as they may be used for different purposes from day to day or year to year. ● Book rooms must be at least 400 square feet to accommodate the book storage and reading specialist activities.
Heating, Ventilating, and Air Conditioning	● No specific requirements.
Plumbing	● No plumbing is required in any of the supporting services spaces.
Acoustics	● Each of the supporting services rooms shall be acoustically separated from each other and from other areas.
Visual/Lighting	● Glare shall be avoided. ● Individual lighting control and ability to darken the collaboration rooms are needed ● Individual rooms shall be visually separated from each other and from other areas
Communications and Utilities	● Provide multiple duplex outlets for each room, with a recommended minimum data/power every 4’. ● For each collaboration room provide 2 data, 1 voice outlet plus appropriate electrical power. ● For each office provide 12 data, 12 voice outlets plus appropriate electrical power. ● Computers shall be connected to the school-wide network. ● Instructional spaces (of 800 sf or greater) shall be provided with an area for lockable technology device storage and charging, approximately 3 feet by 3 feet by 4 feet tall with sufficient power and ventilation. ● Consider a mobile wireless podium for the teacher which holds a laptop, optional digital projector and charging station. Additional counter height power outlets should be provided as well as optional

USB ports. Wiring will be provided from the location of the teachers primary work area to the interactive white board to provide audio/video and input/output requirements

- Data drops need to be installed at the white board and 2 data drops at the teacher's primary work area. Provide rough-in wired connectivity for wireless access points in each classroom and connected wireless access points at designated locations.
- Provide a large screen. This screen should be sized and positioned (height adjustable if possible) appropriately for the audience. Power outlets will be needed at the site of any screen and sturdy support for the screen to be mounted.
- Provide power outlets in any area where cabinets are located to avoid use of extension cords.
- Provide infrastructure necessary for a large screen in collaboration rooms.
- Provide infrastructure for two interactive white-boards or screens in each office. These boards should be sized appropriately for the instructional program.
- Collaboration rooms - duplex outlets and data wiring
- Guidance Rooms - duplex outlets, include data wiring
- Book Room - duplex outlets, include data wiring, telephone outlet
- Small Conference Rooms – duplex outlets, include data wiring

Storage

Offices:

- Provide shelving, to be shared by Enrichment and the Resource Room teachers, to include shelving for books, kits, tapes, labs, stations and games
- Provide adjustable shelving to store language arts textbooks, materials of instruction (such as charts, kits, games, and literature units), teacher's guides, assessment materials, and professional books and journals.
- Portable storage is needed for tote trays in the offices.

Speech/Language and OT/PT Room

- shelving in rooms used by adjunctive services, and speech therapist shall be provided for books, audio recorders and projectors

Book room:

- Built-in storage with cabinets, closed shelves and drawers to house learning stations, charts, paper, art supplies, games, teacher resources, kits, and tapes; two bookcases to cover one wall, approx. six feet high and 12" deep with adjustable shelves
- Portable storage is needed for tote trays in the book room.

Display

- In collaboration rooms, provide teaching areas at child's eye level, with non-reflecting, magnetic white boards and tack boards. Cork strip shall be incorporated above all white boards and bulletin boards. Provide additional map hooks for vinyl pocket charts (at least 6 additional clips per room).

- Provide an area near the main entrance with storage/display for fliers and other resources as well as a bulletin board for display of upcoming events.

Additional Notes

- Offices – provide systems furniture to accommodate up to 12 staff in each office space.
- Speech/Language and OT/PT Rooms: ceilings to be provided with a means of hanging hammocks, ball nets, similar.

GUIDANCE

Goals

Goal I – guidance programs in Frederick County shall facilitate the personal and academic growth of all students.
Goal II – guidance programs in Frederick County shall ensure the development of educational and career decision-making skills for all students.
Goal III – guidance programs in Frederick County shall promote the development of interpersonal skills among all students.

The students will –

- Understand all facets of their school environment.
- Understand their own individual rights and responsibilities.
- Demonstrate effective study skills.
- Use appropriate coping responses during times of personal stress.
- Engage in appropriate classroom behavior.
- Comprehend their aptitudes, interests, and experiences as related to their own career development.
- Apply the steps of decision-making to any situation.
- Analyze various careers that are appropriate to their aptitudes, interests, and experiences.
- Identify appropriate career opportunities.
- Select the most relevant educational and/or vocational training program.
- Understand the effect of their behavior on others.
- Demonstrate effective interpersonal communication skills.
- Possess the knowledge and skills for resolving interpersonal conflict.

Configuration

The middle school guidance suite will be located near the administration area. The elementary guidance room will be located amongst the classroom area for easy access to students.

Planned Activities

Generally –

- Group guidance and counseling activities
- School teaming, ARD, staff planning meetings, and community agency meetings.
- Private and individual counseling sessions.

By Area –

Reception Area –

- Greeting parents, students, psychologists, pupil personnel workers, guests, and others.
- Providing a comfortable waiting area.
- Providing coat storage for visitors.

Guidance Counselors' Offices –

- Counseling for individuals and small groups
- Assessing and diagnosing students' needs
- Meeting with parents and professional personnel.
- Planning guidance activities and career activities.
- Professional planning and reading.
- Analyzing test assessment data
- Scheduling new students and managing the scheduling needs of enrolled students.
- Updating and storing student records and files.
- Preparing guidance-related documents, papers, announcements, etc.

Conference/Small Group Counseling Room –

- Meeting with parents and students
- Counseling small groups of students.
- Scheduling of guidance and school support activities.
- Meeting of counselors, school support teachers, and other professionals.
- Displaying and using career guidance materials.

Secretary's Office –

- Preparing guidance-related documents, papers, etc.
- Receiving and distributing mail.
- Typing letters, reports, and bulletins.
- Receiving students, parents, and others.
- Coordinating appointments for guidance and school support staff.
- Updating permanent records.
- Managing and completing schedule changes, report cards, etc.

School Support Teacher's Office –

- Counseling individuals and small group of students
- Assessing and diagnosing individual student needs.
- Meetings with parents, teachers and other school-related staff.
- Planning school support services and activities.

- Professional planning and reading.
- Analyzing student data and records.
- Updating student records.
- Completing required documents, reports, etc.
- Monitoring behavioral management plans.

Records Room –
- Filing student permanent records, testing materials, report cards, etc.
- Filing and securing confidential records.
- Updating records.

Workroom/Storage Room –
- Storing information/materials
- Storing office supplies, paper, etc.
- Reproducing bulletins, reports, letters, etc.
- Copying documents.

Participants

All identified students.

Staff Required

1 elementary school counselor
2 middle school counselors
1 middle school support teacher

Groupings
Individual, small group (2-4) and large group (5-12).

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Guidance				**0**				**160**				**1,190**	**1,350**
Counselor's Office					1	160	160		2	160	320		
Support Office									1	120	120		
Waiting Room									1	200	200		
Conference Room									1	300	300		
Storage/Workroom									1	150	150		
Records Room									1	100	100		

Design Requirements

Relationships to Other Areas

- Elementary school guidance room conveniently accessible to classrooms.
- Middle school
  - Guidance and school support facilities are conveniently accessible to administrative office complex.
  - Guidance office complex is directly accessible to the hallway and easily accessible to the main entrance.
  - School support room is indirectly accessible to guidance offices and directly accessible to the reception area.
  - Secretarial office directly accessible to the reception area.
  - Records room indirectly accessible to counselors, school support teacher, and secretary.
  - Conference room is indirectly accessible to all counselors and school support teachers.
  - Guidance complex indirectly but easily accessible to health room and restroom facilities.

Spatial/Aesthetics

- Middle School conference room shall have a table and seating for up to 8 users. Furnishings must allow for adequate circulation.

Heating, Ventilating, and Air Conditioning

- Workroom to have separate ventilation to remove fumes from reproduction and lamination activities.

Plumbing	● Provide hot and cold water in the workroom/storage room. ● Drinking water fountains shall be easily accessible.
Acoustics	● Sound isolation for counselor offices, support teacher's office and conference room.
Visual/Lighting	● Ceiling and peripheral lighting in offices, conference room, and reception area. ● Solid office doors. ● Natural light used when possible. ● Mild and soothing color schemes.
Communications and Utilities	● Provide multiple duplex outlets for each classroom, with a recommended minimum data/power every 4' in classrooms. ● Provide power outlets in any area where cabinets are located to avoid use of extension cords. ● Consider a mobile wireless podium for the teacher which holds a laptop, optional digital projector and charging station. ● Additional counter height power outlets should be provided as well as optional USB ports. ● Wiring will be provided from the location of the teachers primary work area to the interactive white board to provide audio/video and input/output requirements. ● Data drops need to be installed at the white board and 2 data drops at the teachers primary work area. ● Provide rough-in wired connectivity for wireless access points in each classroom and connected wireless access points at designated locations. ● Power outlets will be needed at the site of any white board and sturdy support for the white board to be mounted. ●
Storage	● Walls and base cabinets ● Counter space for assembly and temporary storage of materials. ● Shelving to store guidance supplies, booklets, testing materials, etc. Records Room – ● one 2 four-drawer file cabinets with locks ● wall-mounted shelving above file cabinets Conference Room – ● Built in wall and base cabinets.
Display	Reception Area –

- 1 bulletin board.
- Display case with shelves.

Guidance Counselors' Offices –
- 2 bulletin boards.

School Support Teacher's Office –
- 1 bulletin board.
- 1 whiteboard.

Conference Room –
- 1 bulletin board.
- 1 whiteboard.

Additional Notes

FOOD SERVICE

Goals

The food service facility includes a full-service kitchen, a covered dock area, and a cafeteria dining area. The kitchen facilities and equipment shall be adequate for finishing (completion of cooking or heating) preparing and serving meals.

The dining area shall be a light, attractive place for students. Select colors that are light for ceiling, walls and floors. Careful attention needs to be given to traffic patterns for students in relationship to serving, seating, dish return, and exits. The most congested areas will be the lines of students waiting to be served. Provide a means to control the serving lines and to avoid the crossing of serving lines, or the exit of students from the serving lines with food on their trays, by students returning dirty trays to the dishwashing room.

The use of sound absorbing materials in walls and ceilings is desirable. However, all floors shall be non-porous, non-slippery tile for easy cleaning.

Specific goals include:

- to serve the most nutritious meals to the greatest number of students for the least cost
- to "safeguard the health and well-being of the nation's children" (National School Lunch Act)
- to provide for improved nutrition education for students
- to make meal time a pleasant and relaxing time for students
- to use the meal time as a time for fostering the social development of the student
- to be able to serve the meals in an appealing and expeditious manner

Configuration

The food service area will serve both schools. The serving lines will be accessed by both dining areas.

Planned Activities

- Finishing and serving meals

Participants

1362 students (523 elementary and 839 middle)

Staff Required

- 1 Site Assistant Employee and 6-7 staff workers

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Food Service				**3,510**				**0**				**0**	**3,510**
Inside Receiving	1	160	160										
Dry Food Storage	1	400	400										
Refrigerator Storage	1	200	200										
Freezer Storage	1	200	200										
Non-food Storage	1	80	80										
Food Prep Area	1	1,200	1,200										
Serving Area	3	200	600										
Dishwashing Area	1	250	250										
Trash	1	100	100										
Utility	1	50	50										
Manager's Office	1	100	100										
Food service locker room	1	100	100										
Restroom	1	40	40										
Laundry Room	1	30	30										

Design Requirements

Relationships to Other Areas

- Convenient to instructional area
- 3 serving lines
- Directly accessible to outdoor entrance-especially bus unloading area
- Kitchen directly accessible to covered loading platform
- Loading platform is to be accessible at all times for deliveries without being a disturbance to any student activities
- Kitchen is directly accessible to an adequate food service parking area with 4-5 parking spaces.

	● Kitchen is directly accessible to personnel lockers and restroom area (includes washer/dryer area) ● Storage area directly accessible to kitchen and to contain no control panels; facilities to maintain the temperature at 70 degrees F or below at all times ● Maintenance and operations easily but not directly accessible to kitchen ● No through traffic ● Dumpsters easily accessible from dining area ● Removal of trash from the cafeteria without going through kitchen ● The office should be able to see the loading dock.
Spatial/Aesthetics	● The serving area shall be light and bright to create a non-institutional environment. ● The design shall allow for quick and easy clean-up. ● Provide serving area for a triple line (inside kitchen area)
Heating, Ventilating, and Air Conditioning	● Provide separate heated and air-conditioned office area. ● Storage facilities shall maintain proper temperatures and have a thermometer prominently displayed. ● The walk-in refrigerator and freezer need to be temperature monitored by a computer. ● Ventilation in the kitchen must be a separate system from the rest of the school, to avoid cooking and other odors from spreading throughout the remainder of school. ● Provide for free circulation of air at workers' level. ● Provide induction hoods over the cooking area and over the dishwashing equipment (Cooking hood equipped with filter). ● Provide venting for clothes dryer.
Plumbing	● Provide hot and cold water in kitchen and employee area ● Provide drainage and waste lines with accessible cleanouts large enough to eliminate splash-down area ● Provide hot and cold water for a washer and dryer ● Provide male/female connections for all gas or water equipment
Acoustics	● The kitchen shall be acoustically isolated from the dining area. ● The dining area shall be acoustically treated to help with sound reduction. ● Adequate sound and security system established for safety and well being of the students.
Visual/Lighting	● Adequate lighting shall be provided with capability for individual control in all areas. ● Lighting in serving areas so designed to enhance the appearance of the food. ● Emergency lighting shall be provided in the kitchen area. ● Office shall have a visual of the receiving area and kitchen area.

Communications and Utilities	● Provide 110- and 220-volt duplex outlets as required by the kitchen area - additional outlets for added flexibility and future growth ● Provide duplex outlets flush to walls and floor, provide telephone in manager's office and serving area, 3 wall clocks ● Provide an electronic display board for information on menus/coming events to be controlled from the Food Service Office. ● Provide a doorbell at the loading dock with a bell located in the food preparation area able to produce a tone loud enough to be heard over operating equipment. ● Provide dedicated computer line for three computer cash registers on serving lines and one in Manager's office as well as a computer line for FCPS email service ● Provide a secondary computer network between the serving line cash registers and the office computer in the kitchen manager's office. This network will be in addition to the FCPS network connection within the manager's office. ● Provide utility meters to record food service energy use, with meters to be located in open kitchen area. ● Bell or buzzer for phone to be heard in kitchen area ● Consider providing electronic menu boards or touchscreen menus for ordering food in the cafeteria area to allow for easy update of food options and easy selection for those who aren't able to read ● Provide FCPS Timeclock
Storage	● Provide storage for dry food, non-food items, food requiring refrigeration, and food required to be stored frozen. ● Provide locker area for cafeteria employees with restroom facilities and washer/dryer area
Display	● Provide a bulletin board in the manager's office, bulletin board in the personnel locker area and bulletin board in the kitchen area. ● Provide areas for food service information and student work and well-being displays and posters.
Additional Notes	**Food Preparation Area must meet or exceed the county and state health sanitation requirements and building codes.** ● Provide covered loading dock with not more than 18" tailgate height and enough space to accommodate two trucks at one time and with ramp and steps ● Loading dock shall not be shared by other, non-food service trucks ● Provide shielded storage area for trash until pickup - dumpsters advisable - away from loading dock

- Provide Inside receiving area
- Provide utility area
- Provide washer/dryer area
- Grease trap area shall provide access for the pump truck to clean out

Equipment:
The following equipment must be accommodated within the facility:

Storage Areas
- dry Food Storage – Metro Max Shelving – Mobile
- non-food Storage – Metro Max Shelving – Mobile
- refrigerated Storage – Metro Max Shelving – mobile
- freezer Storage – Metro Max Shelving – Mobile

Office Area
- 1 bulletin Board
- 2 desks, Lockable
- 4 chairs
- 1 file cabinet w/lock
- 2 printers (accountability system and email access)
- 1 calculator
- 1 bookcase
- 1 telephone
- 1 clock
- 1 waste can
- 1 window blind (if outside window is available)
- 1 computer FCPS – networked
- 1 Accountability Managers station (Accountability Computer)

Locker/Dish room/Washing & Dryer Area
- 8 lockers
- 1 full-length mirror
- 1 bench
- 1 toilet
- 1 hand sink
- 1 small mirror
- 1 hot air hand dryer
- 1 soap dispenser

- 1 mop sink & rack
- 1 washer
- 1 dryer
- 1 closed metal cabinet
- 1 dryer vent
- 1 wall-mounted shelf
- 1 Metro Max Shelving – Mobile

Inside and Outside Unloading/Receiving Area
- 1 water outlet
- 1 hand truck
- 2 dunnage racks

Serving Area (mobile)
- 3 cashier stands
- 3 Accountability work stations (Accountability Computers)
- 3 milk coolers
- 3 utility carts
- 3 condiment bars
- 4 tray caddies – mobile
- 3 serving counters – mobile with front solid inter-lockable tray slides and back with foldable prep counter
- 3 hot food counters – mobile with lights, with five wells and drains
- 3 cold food counters – mobile w/refrigerated cold pan (flat top preferred)
- 3 heated cabinets – mobile

Dishwashing Area
- 1 booster heater
- 1 exhaust hood
- 1 three-compartment sink (pot washing w/over shelf)
- 1 hose and reel
- 3 trash cans
- 1 scrape hole
- 1 counter top
- 1 hand sink
- 1 utility cart
- 1 dish machine
- 18 racks for dish machine
- 1 storage cabinet – mobile

- 1 soiled dish table
- 1 clean dish table
- 1 tray dryer
- 2 pot & pan shelving – mobile

Preparation Area
- 2 each double combi/steamer oven
- 1 double cavity convection steamer
- 2 pan storage racks
- 2 tray carts
- 2 pan racks – mobile
- 4 utility carts
- 1 double Crescor hot unit
- 1 walk-in refrigerator
- 1 double convection oven
- 1 prep sink with two compartments
- 1 utility raceway
- 1 work table with bottom shelf, sink and drawers
- 2 work tables with bottom shelf and drawers
- 1 work counter w/sink and drawers
- 3 pass-thru refrigerators
- 3 pass-thru warming cabinets
- 1 reach-in refrigerator – mobile
- 3 trash cans
- 2 hand sinks
- 1 Crescor heated half-size transport carts
- 6 Metro Max Shelving – mobile
- Walk-in freezer
- Floor model drink coolers on wheels

Provide 4-5 parking spaces for kitchen staff.

CAFETERIA

Goals

- to provide an area for assemblies or special programs especially when combined with the gymnasium
- to make meal eating time a pleasant and relaxing time for students
- to use the meal time as a time for fostering the social development of the student
- to provide additional space for PE classes
- to utilize the space to its maximum capabilities

Configuration

Each school will have a distinct dining area but if possible they could be connected by a moveable partition for large events. Storage and custodial functions may be shared.

Planned Activities

- eating meals
- large group assemblies
- chorus and other musical performances
- stage productions
- community adult activities, especially public meetings
- alternate classrooms, especially PE

Participants

Up to 200 elementary school students to be seated simultaneously. Up to 300 middle school students to be seated simultaneously.

Staff Required

See Kitchen section. Other staff to be assigned for supervision as required.

Groupings

The Cafeteria shall be adjacent to the gymnasium, separated by a moveable wall, to allow for large group assemblies.

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Cafetorium				**560**				**2,000**				**3,000**	**5,560**
Dining Area					1	2,000	2,000		1	3,000	3,000		
Chair Storage	1	300	300										
Table Storage	1	200	200										
Custodial Room	1	60	60										

Design Requirements

Relationships to Other Areas

- Convenient to instructional area
- The main Gymnasium shall be adjacent to one dining area of the cafetorium and separated from it by a movable partition. The stage should be located at the opposite end of the Dining Area from the movable partition.
- The floor of the stage shall be 30" above the floor of the cafeteria or gym. The gym and cafeteria floor surfaces must be level. This will allow an additional number of people to view activities on the stage by simply opening the partition and expanding the audience into the gymnasium.
- Directly accessible to kitchen serving areas
- Easily accessible to student restroom facilities. Provide restrooms directly across from primary egress from the cafeteria to allow for supervision and also for use by specials classrooms nearby.
- Easily accessible to music rooms
- Easily accessible to outside activity area
- Directly accessible to outdoor entrance - especially bus unloading area

Spatial/Aesthetics

- The stage and dining area shall be capable of being subdivided into instructional areas.
- Stage area shall be accessible to the main floor and designed for conversion into a classroom with a hallway entrance.
- The cafeteria should be located so that daily trash can be routed to the outdoor receptacles without passing through the kitchen area.
- The dining area shall be light and bright to create a non-institutional environment.
- The design shall allow for quick and easy clean-up to allow area to be easily used for other purposes.

Heating, Ventilating, and Air Conditioning	● No special requirements.
Plumbing	● Provide hot and cold water source in Custodial Room; provide cold water drinking fountains in dining area, placed low enough and in the proper position for 6-10 years olds
Acoustics	● The stage shall be acoustically isolated to allow activities which will not be hampered by activities in the main room or kitchen. ● The dining area shall be acoustically treated to help with reduction of sound during meals but also to assist in sound projection during presentations. ● Adequate sound system for stage productions or assembly activities.
Visual/Lighting	● Special lighting shall be provided for the stage. ● Adequate lighting shall be provided with capability for individual controls in all areas. ● Provide LED lighting. ● Emergency lighting shall be provided in the dining and stage areas. ● Design to allow stage performances to be seen and heard from all areas in the dining room. ● Design mounts and connections for four (4) wall mounted TV monitors in each cafeteria to improve visibility for the audience during presentations.
Communications and Utilities	● Sufficient duplex electrical outlets in Dining and Stage areas - flush with walls and floor ● Provide for public address system, data for TV, two clocks, motorized projection screen
Storage	● Doors to storage rooms must be high and wide enough to accommodate chair trucks, cafeteria tables, and band risers.
Display	● Bulletin boards in the dining and stage area. ● Provide areas for food service information and student work and well-being displays and posters.
Additional Notes	

CUSTODIAL OPERATIONS

Goals

- to maintain a clean, healthful, and pleasant facility which is conducive to quality learning and teaching.
- to maintain the continued high-quality appearance and operation of a significant public investment.

Configuration

The custodial services team will be shared between the two schools. The centralized custodial functions will be located in the shared area of the building with satellite storage areas distributed throughout the building.

Planned Activities

- daily operation of the school facility
- daily and periodic maintenance of the school facility
- meetings and training sessions for updating of procedures

Staff Required

- 7-8 persons (person-years) for this school

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Custodial Services				**1,270**				**120**				**120**	**1,510**
Outdoor Storage	1	400	400										
Custodial Office	1	200	200										
Lead Custodian	1	100	100										
Restroom	2	30	60										
Indoor Central Storage	1	400	400										
Washer/Dryer	1	30	30										
Indoor Satellite Storage	2	40	80		3	40	120		3	40	120		

Design Requirements

Relationships to Other Areas	● Centralized custodial areas to be located in the shared portion of the building. ● Custodial spaces shall consist of custodial office, central indoor storage area, small locker room and several small indoor satellite storage spaces conveniently located throughout the building.
Spatial/Aesthetics	● All spaces shall be ADA compliant. ● Provide a conference table with seating for six in the custodial office. ● Custodial closet doors shall open outwards to maximize use of floor sinks and allow for storage of necessary equipment.
Heating, Ventilating, and Air Conditioning	● All spaces except the outdoor storage area shall have HVAC; outdoor storage shall be minimally heated and cooled to avoid temperature extremes.
Plumbing	● Provide unisex restroom. ● Provide washer and dryer in central indoor storage area for laundering of mop heads and rags. ● Satellite storage areas to have hot and cold water, floor sink, drain, chemical dispenser with back-flow prevention, and waste/water drainage tanks.
Acoustics	● No specific requirements.
Visual/Lighting	● No specific requirements.
Communications and Utilities	● Custodial office will require Data, telephone and fax. Provide an FCPS networked computer. ● Provide ample duplex outlets in the office, storage rooms, and outdoor storage area. ● Provide duplex outlets (outside mount) at HVAC penthouses.
Storage	● Provide shelving and workspace in the central indoor storage area. ● Provide shelving and mop tacks in satellite storage areas. ● Custodial office will require a lockable desk with desk chair, lockable file cabinet, bookcase, waste can, recycle can.
Display	● Provide bulletin board, tack board and whiteboard in the custodial office.
Additional Notes	● Locate outside storage area for outdoor equipment within the building with direct access to the fields. Provide a 10’ wide roll up door as well as a pedestrian door and 24” shelving units in the rear of the space. It should also include overhead lighting and electrical outlets.

MAINTENANCE AREA OFFICE

Goals

To provide a centralized hub for maintenance of a geographic area of the county. This office will be located within a school building and will also serve the maintenance needs of its host building. The Maintenance and Operations Department aims to maintain and repair facilities, systems and equipment to ensure their long life, economical operation and excellent condition that are conducive to quality learning and teaching, and protective of the significant public investments. Maintenance staff ensure the safety and comfort of the building occupants through both scheduled maintenance activities and unscheduled repairs and modifications.

Configuration

The maintenance area office will be located in the shared area of the building and serve both schools as well as providing centralized maintenance management for schools throughout the maintenance service area.

Planned Activities

- daily and periodic maintenance of the facilities and its systems and equipment
- meetings and training sessions for the staff to update maintenance procedures
- supervision of maintenance activities happening in buildings throughout the geographic area

Staff Required

- 1 Supervisor
- 1 Foreman
- 4 HVAC specialists
- 2 plumbers
- 2 electricians
- 2 general tradesmen
- 1 apprentice

Space Requirements

SPACE	Shared Spaces				Elementary				Middle				TOTAL
	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	SHARED NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	ELEM NSF	NUMBER OF SPACES	NET SQUARE FEET (NSF) /SPACE	SUBTOTAL NSF	MIDDLE NSF	SECTION TOTAL NSF
Maintenance Services				**1,680**				**0**				**0**	**1,680**
Area Supervisor/Foreman Office (enclosed)	1	120	120										
General Office area (11 staff typical)	1	400	400										
Break Room	1	150	150										
Restroom	1	50	50										
Work bench area	1	100	100										
Locker area	1	60	60										
Storage	1	800	800										

Design Requirements

Relationships to Other Areas

- The maintenance office shall be in proximity to the utility area of its host school and will house EMS systems, plans, equipment operating manuals, and maintenance system records and forms as outlined in the maintenance handbook.
- A dedicated parking area for maintenance vehicles and staff shall be located outside the Maintenance Area Office. Access to parking and local road should be significant considerations in the siting of a Maintenance Area Office.
- If possible, locate the storage area on an exterior wall and provide a double-wide door to allow for movement of equipment and supplies.

Spatial/Aesthetics

- Architect will design the utility area to allow sufficient space for the building systems equipment and sufficient space around the equipment to allow convenient access to it for the proper repair and maintenance of it.
- Provide two lockable desks with chairs, two lockable file cabinets, two bookcases, waste can and recycle can in Supervisor/Foreman Office.
- Workstation area shall provide tables and chairs for up to 12 users.
- Break room should accommodate up to six staff

Heating, Ventilating, and Air Conditioning

- Provide appropriate ventilation.

	● Storage area does not need to have full heating and air conditioning if isolated from other spaces. A unit heater and exhaust fan could be provided.
Plumbing	● Provide one unisex restroom within the Maintenance Area Office suite. ● Provide a counter height utility sink.
Acoustics	● Work bench area should be acoustically isolated as much as possible from the academic area of the host school.
Visual/Lighting	● Utility area will have sufficient ceiling and wall-mounted lighting for visibility around equipment.
Communications and Utilities	● Provide duplex outlets in the office and utility area and outside mount duplex outlets at all HVAC penthouses and pads. ● Provide an EMS system terminal and printer in the maintenance office. ● Provide two computers, two data, two telephone, and fax in the Maintenance Supervisor/Foreman Office. ● Provide an FCPS networked computer for shared use in the workstation area and outlets convenient to each seat to be used for charging tablets.
Storage	● Work room and storage area will provide areas for Area Maintenance staff to repair equipment and tools, store materials for other school maintenance. ● Consideration must be made for the storage of hazardous materials in the storage room. ● Storage room should accommodate 1-2 scissor lifts or Genie lifts. ● Provide 13 full-height lockers for storage of employees' personal items. ● Provide a secured area for storage of valuable materials and equipment (could be chain link).
Display	● Provide bulletin board and whiteboard in the general office area. ● Provide bulletin board and whiteboard in Supervisor/Foreman office.
Additional Notes	● Cooling tower, if applicable, shall have integral railings and catwalks. ● Rooftop mechanical units elevated more than 24" from the roof deck shall have integral ladders and catwalks. ● Provide aluminum ladders to transit between roof sections when the roof elevations are separated by 24" or more, or where parapet walls are present. ● Provide permanent means of ensuring OSHA-compliant fall protection for post-construction (ie, maintenance) inspection and maintenance of the roof surface, roof-mounted equipment and skylights. ● Mechanical rooms shall have overhead doors or panels to allow for installation and removal of equipment without dismantling. ● All mechanical equipment shall be placed to allow individual units to be removed without the removal of adjacent units. ● Provide approximately 30 parking spaces for Maintenance vehicles (work and personal vehicles).

RESTROOMS

Goals

Restrooms are to be located throughout the school building to accommodate students and staff in all areas.

Student Restrooms
- group restrooms located outside the main office near the lobby, media center, and elementary art rooms
- group restrooms within the elementary gymnasium
- group restrooms on each wing of each floor for easy access and supervision from classrooms and support spaces

Staff Restrooms
- gender neutral single-occupancy restrooms to be distributed throughout the school

Design Requirements

Relationships to Other Areas	● Locate staff restrooms throughout the school so that each classroom area has convenient access to a restroom. ● One group restroom should be located on each floor of each wing.
Spatial/Aesthetics	● Walls should be arranged in group restrooms such that privacy is maintained.
Heating, Ventilating, and Air Conditioning	● No specific requirements.
Plumbing	● Provide 1 water closet, 1 hand sink with mirror, 1 soap dispenser, and 1 towel dispenser per staff restroom ● Provide 3 water closets for the girl's restrooms, 2 urinals and 1 water closet for the boy's restroom. Sink area to be located in an alcove in the hallway.
Acoustics	● No specific requirements.
Visual/Lighting	● No specific requirements.
Communications and Utilities	● None required.

Storage	● No specific requirements.
Display	● None required.
Additional Notes	● Provide infant changing tables in one paired restroom for visitor usage.

GENERAL BUILDING DESIGN REQUIREMENTS

A. GENERAL CONSIDERATIONS

Design Requirements

Relationships to Other Areas	● Building design shall be compact and efficient, avoiding the use of curves or angles as much as possible.
Spatial/Aesthetics	● Generally aesthetics shall be light and bright.
Heating, Ventilating, and Air Conditioning	● The HVAC system shall be planned to enable year-round use of all spaces, with full air conditioning, humidity control and with maximum energy efficiency and insulation. ● Individual spaces shall have individual temperature controls. ● Provide appropriate ventilation to meet local and state codes.
Plumbing	● Provide plumbing fixtures to meet local and state codes.
Acoustics	● Provide a reasonable level of sound isolation. See Design Guide for details.
Visual/Lighting	● All lighting must meet the minimum standards of the authority having jurisdiction. ● Lighting control and the ability to darken individual areas shall be provided.
Communications and Utilities	● Communications and utilities to be confirmed with the Department of Technology Infrastructure at the time of design.
Storage	● See sections for details.
Display	● See sections for details.
Additional Notes	●

B. REFERENCES

References. Design professionals are referred to the partial listing of resources below.

Maryland High Performance Green Building Program: The school shall be designed and constructed to meet requirements of the Maryland High Performance Green Building Program with the exception of obtaining an independent, third-party certification as an element of one of the proprietary rating systems described in the Program. The architect or engineer of record shall indicate in the construction documents, the selected high-performance rating system used for design and construction with which, the project is

compliant. The LEA may obtain a Letter of Opinion from an Independent Third Party to be submitted as a compliance document in accordance with Appendix B of the Program.

Universal Access. The architect shall design the building with "universal access" pursuant to Title II of the Americans with Disabilities Act, either the Uniform Federal Accessibility Standards (UFAS) or the ADA Accessibility Guidelines (ADAAG) whichever is chosen to apply **and** the *Maryland Accessibility Code* (COMAR05.02.02) revised March 18, 2002. See Maryland Building Codes" links at the Maryland Department of Housing and Community Development (DHCD) web site, www.dhcd.state.md.us. Information on the design of building facilities for children, such as drinking fountains, sinks, water closets, is also found in ADAAG, as is information on newly constructed or altered play areas. Also refer to the *Handbook for Public Playground Safety,* published by the U.S. Consumer Product Safety Commission.

Architects and engineers shall comply with the *Administrative Procedures Guide* of the Maryland Public School Construction Program, dated 1994 and as subsequently amended, for all phases of design and contract review and approval, including life cycle and roof analysis.

The State of Maryland adopted the International Building Code on October 15, 2001, as an amendment to the Maryland Building Performance Standards (MBPS), and design professionals should contact Frederick County to determine whether any amendments have been adopted to account for local conditions.

Design professionals are referred to two publications of the Maryland Department of General Services: *Procedures for the Implementation of Life Cycle Cost Analysis and Energy Conservation,* and *DGS Statewide Roofing Policy.*

Design professionals are also referred to the Frederick County Public Schools *Standards for the Design of New and Renovated Facilities*. The latest copy can be obtained from the FCPS project manager.