

8.0 Building Considerations

In this chapter we present the general organizational building model based on the FirstSchool framework. Here we provide an example of an indoor and outdoor school environment developed through the application of FirstSchool values and evidence-based principles. This includes proposals for the arrangement, size, and occupancy of classrooms, shared spaces, specialized instruction, media center, gym or multi-purpose area, administration and support, family resource suite, health services, lobby and reception, and building and food services.

While this design was not created for a specific site or school district, it is intended as one demonstration of FirstSchool principles. It is important to apply these principles in the relevant context of each project and make appropriate adjustments in the design.





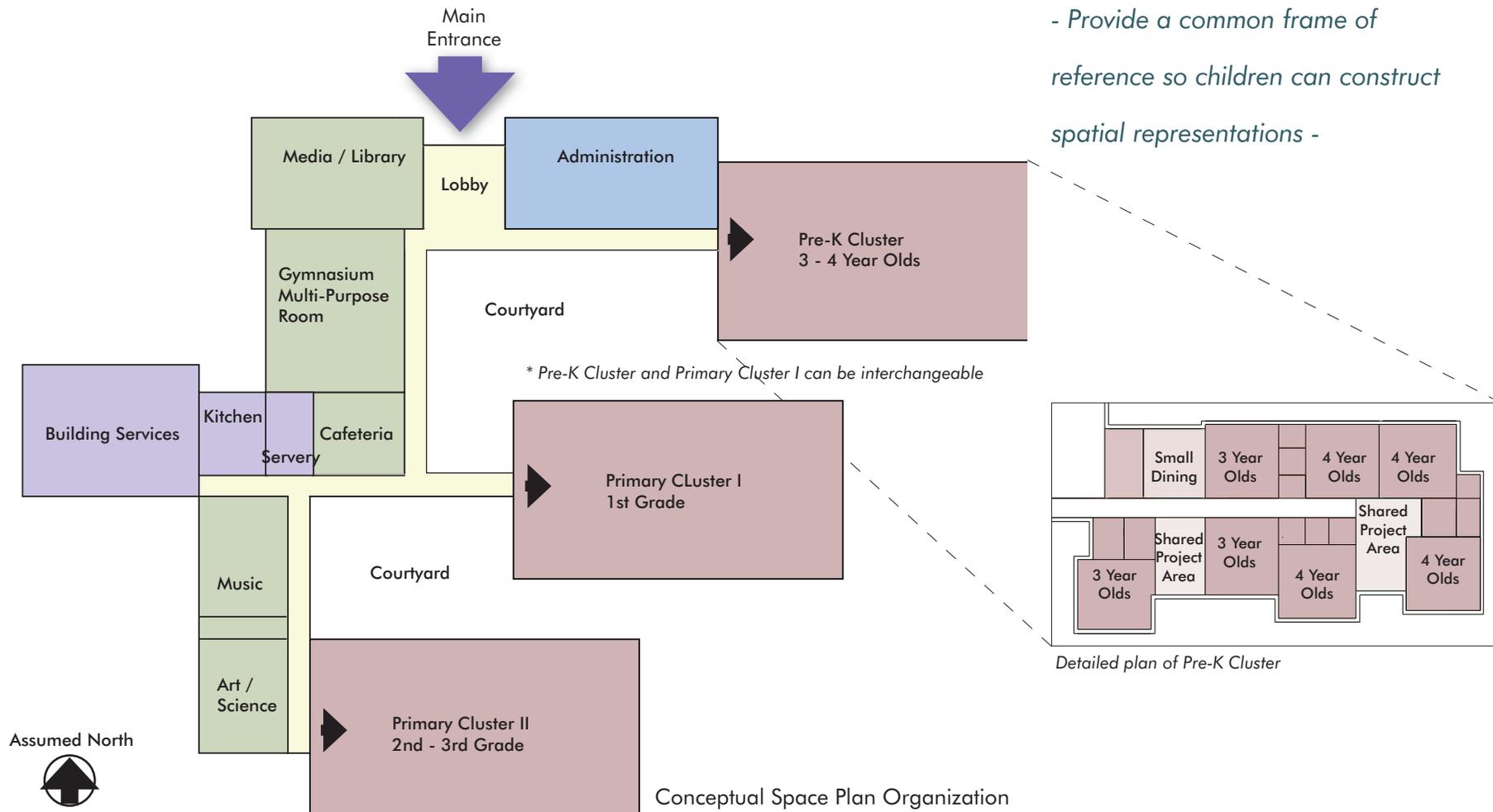
GENERAL ORGANIZATIONAL DIAGRAM

This design assumes:

- A single story facility with direct outdoor access on grade level.
- Classroom clusters located as destinations to limit disruption and promote ownership of shared space.
- The need for personal and professional space for teachers.
- Media Center, Administration, Family Support, Gym/Multi-Purpose and Dining all located near the main entrance for shared community use.
- A variety of shared and age appropriate outdoor learning areas with a secure perimeter.

- Simple wayfinding so children can navigate through complex environments -

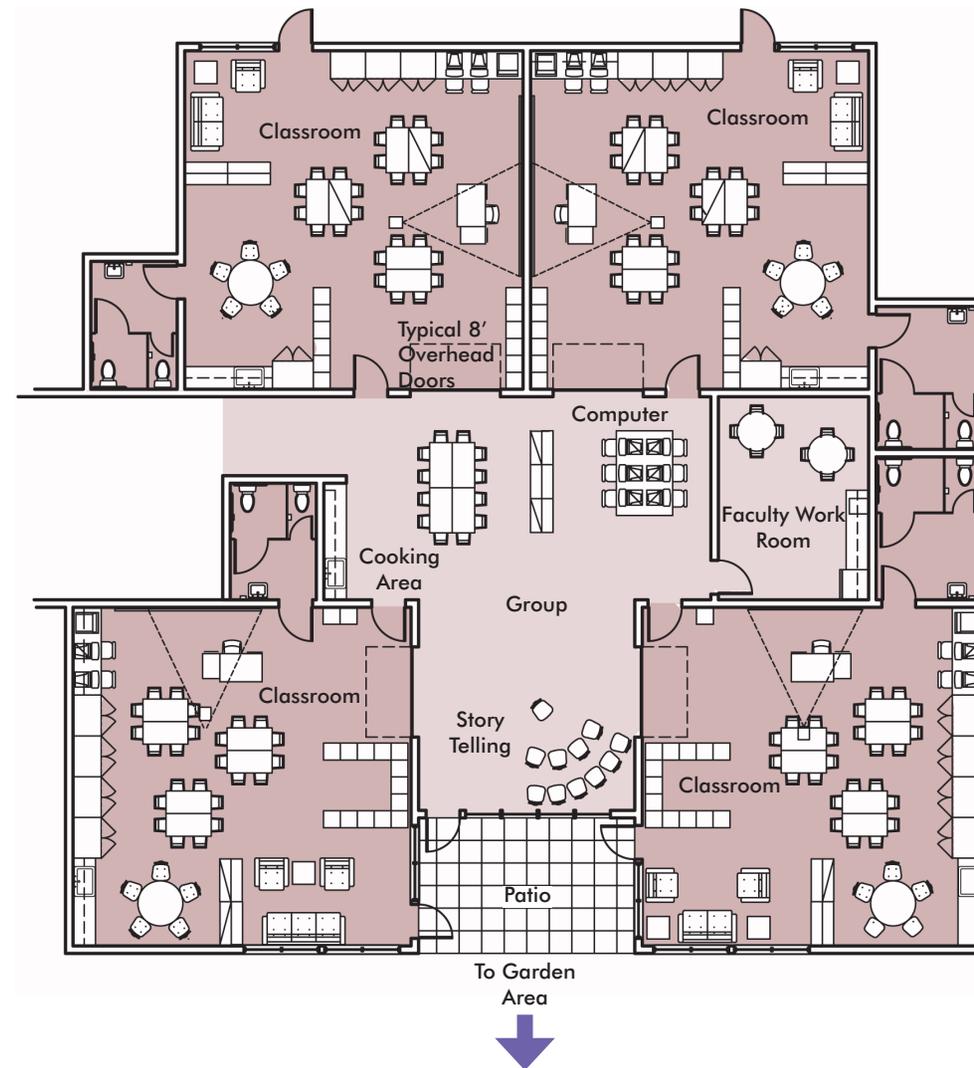
- Provide a common frame of reference so children can construct spatial representations -



- Small group instruction and cooperative peer groups facilitate positive effects on children's learning -



Conceptual Pre-K and Primary Cluster I Classroom Layout



8.1 Room Layouts

Pre-K and Primary Cluster I Classrooms (Pre-Kindergarten, Kindergarten, and First Grade)

The classroom cluster was designed to create small learning communities. They are designed to reduce the scale of the school and to give each age group a sense of arriving at a destination. The classrooms are consistent in size across the grade levels and thus can be used flexibly for different kinds of age groupings. There are three or four groupings of classrooms clustered around a central open room or shared project area. There are shared office spaces for teachers in each cluster. These classrooms all have bathrooms. Dining for pre-kindergarten and kindergarten takes place in small dining areas adjacent to classroom space.

Each classroom should have a large oversized door which, when opened, extends the classroom into the shared project area, creating flexible break-out space. This allows for interaction among the students and staff from other classrooms and promotes working together in a community setting. The shared project area can be used for multi-purpose events for either the individual classroom or a combination of classrooms working together, and can be transformed throughout the day into a play area, story time, reading nook, construction area, science area, cooking area, or children's theater area.

The classrooms should have direct access to the outdoors, incorporate controlled day-lighting, ceiling fans, and have operable windows for natural ventilation.

These classrooms are composed of the following features:

- 1,000 sf which includes coat, cubby and storage areas
- Classroom capacity of 21 students
- Approximately 43 sf/student
- Share a common project area
- Have direct access to outside
- Have large doors for opportunity to enlarge classrooms into the shared project space

Early childhood programs and kindergarten spaces typically are larger, more flexible, and able to accommodate far more storage than the rooms designed for older students.

~Building Type Basics for Elementary and Secondary Schools, Bradford Perkins



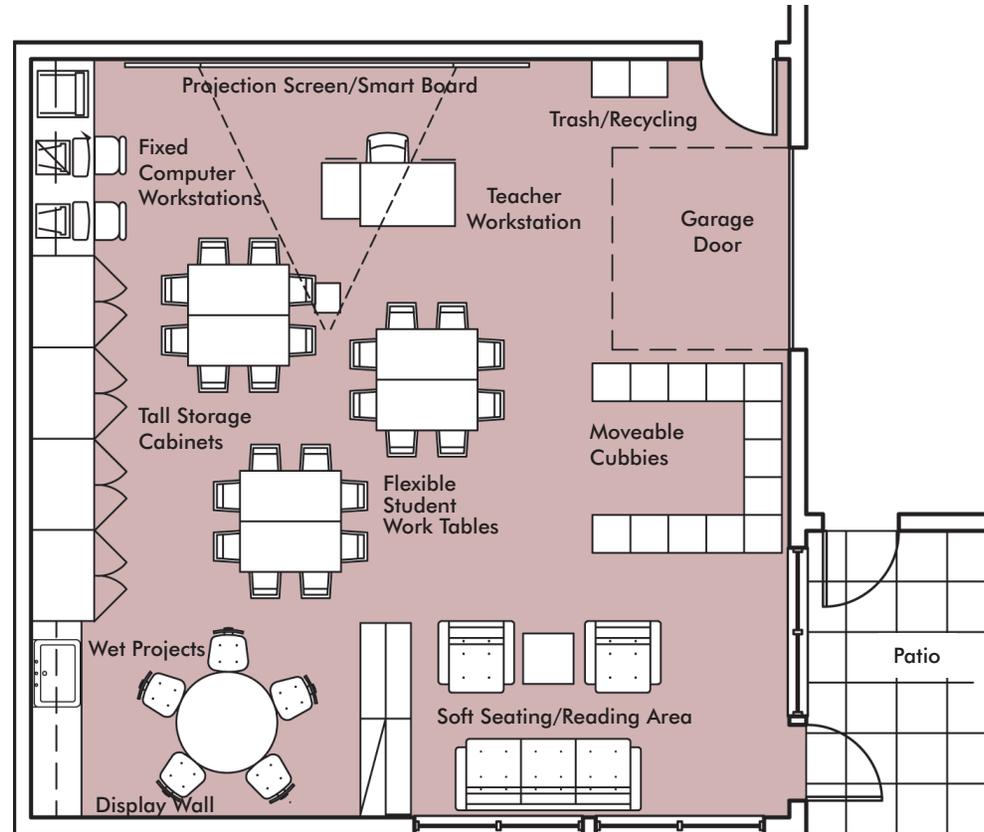
Concordia International School | Elementary School
Photo courtesy of Perkins Eastman | Photographer: Tim Griffith



Stamford High School | 9th Grade Campus
Photo courtesy of Perkins Eastman | Photographer: Woodruff/Brown

- Classrooms should not have excessive reverberation and noise and should pay special attention to the acoustic environment as well as transmission of sound from space to another -

Conceptual Primary Cluster II Classroom Layout



Primary Cluster II Classroom (Second and Third Grades)

This classroom responds to the needs of second and third graders. Four classrooms are clustered around a central open space or shared project area. The classrooms are designed for flexibility, and provide opportunity for exhibit space. There are spaces within each classroom designed for a variety of activities, including areas for small group work, project development, computers, storage, and work table with sink. The classrooms will also provide for use of state-of-the-art technology, including projection screens, magnetic white boards, and smart boards. The classrooms should have direct access to the outdoors, incorporate controlled day-lighting, and have operable windows for natural ventilation.

These classrooms are composed of the following features:

- 1,000 sf which includes coat, cubby and storage areas
- Classroom capacity of 21 students
- Approximately 43 sf/student

Storage, small project areas, extensive display areas, varied floor surfaces, and other features are important design elements.

~Building Type Basics for Elementary and Secondary Schools, Bradford Perkins

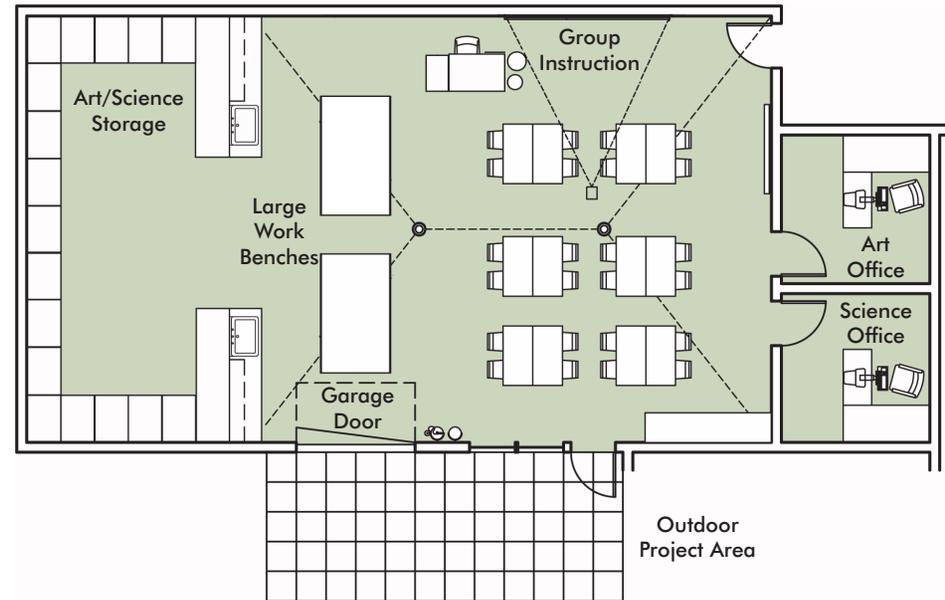


Princeton Day School
Photo courtesy of Perkins Eastman | Photographer: Tom Crane

- There should be options for creating small indoor spaces which make children feel big and impacts roles they choose in their play -



Fairfield High School | Ludlowe Campus
Photo courtesy of Perkins Eastman | Photographer: Woodruff/Brown

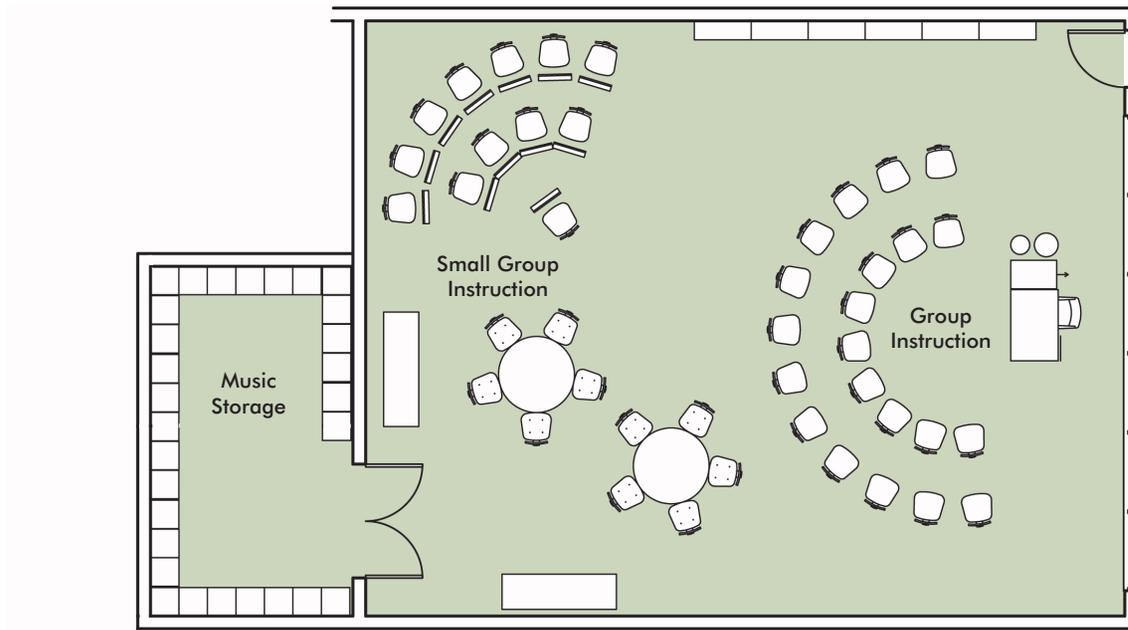


Arts and Science Classrooms

The arts/science room is designed for use as both an art and science room. This choice was made because of like needs for sinks, drains, and storage. This is a possible way to consider space restriction, but may not meet the needs for all school programs. The room is designed to be maintenance friendly and includes durable walls, floors, and floor drains for wet projects and cleaning. The space includes several counters with sinks, built-in drawer storage, pre-mounted drying racks and tackable wall surfaces, and space for several computers. Storage room(s) will be provided separately for art and science equipment and supplies. There will be an office for the art instructor and one for the science instructor adjacent to the classroom. The room should have direct access to outdoor project areas with hose bibs. The classrooms should incorporate controlled day-lighting, have operable windows for natural ventilation and should include a large "garage" type door to facilitate movement of projects and furnishings.

The art/science classroom is composed of the following features:

- 1,600 sf which includes offices and storage areas
- Classroom capacity of 21 students
- Approximately 48 sf/student



Music Room

The music room is designed to provide for both large and small groups and open floor space for different kinds of activities, such as performance, dance, and band practice. The space includes built-in storage areas, magnetic white boards, display boards, one mirrored wall for dance classes, and age appropriate furniture.

The music classroom is composed of the following features:

- 1,400 sf which includes storage room
- Classroom capacity of 21 students
- Approximately 57 sf/student
- Acoustic separation from the rest of the school
- Mirrored wall for dance



Byram Hills School District | Wampus Campus
Photo courtesy of Perkins Eastman | Photographer: Tom Crane



Byram Hills School District | Wampus Campus
Photo courtesy of Perkins Eastman | Photographer: Paul Rivera/ArchPhoto

Music rooms require special acoustic treatment, and their location in a building should be carefully considered.

~Building Type Basics for Elementary and Secondary Schools, Bradford Perkins

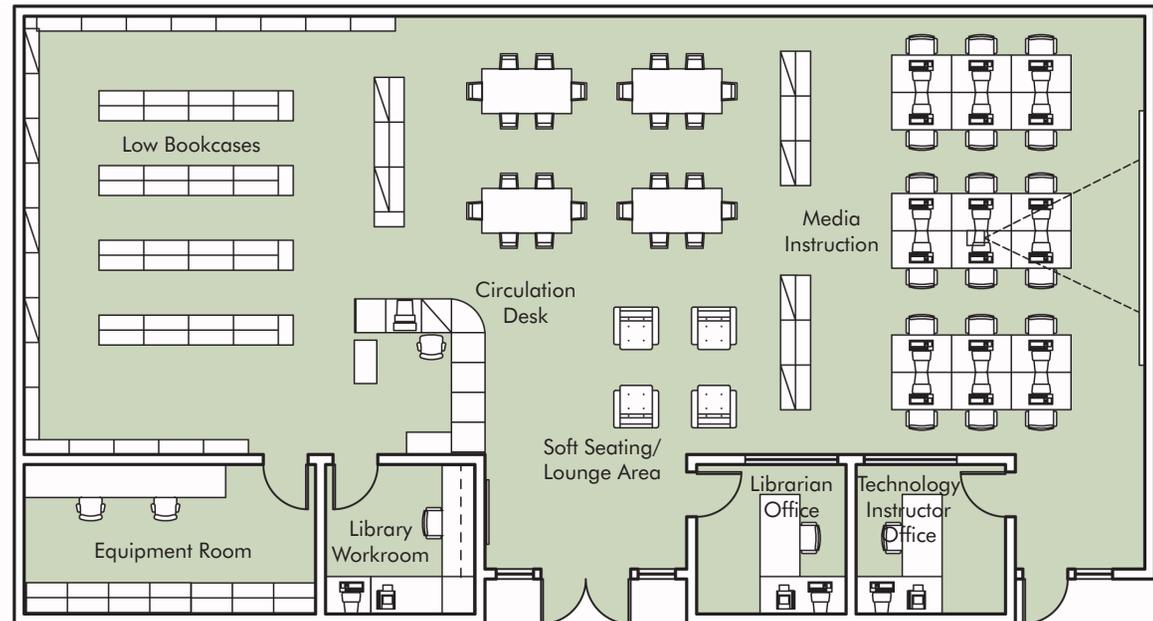


Helen S. Faison Academy
Photo courtesy of Perkins Eastman | Photographer: Denmark Photography

- The physical environment must be designed to promote relationships among staff and with families by providing spaces that support privacy, comfort and access to resources -



Princeton Day School
Photo courtesy of Perkins Eastman | Photographer: Tom Crane

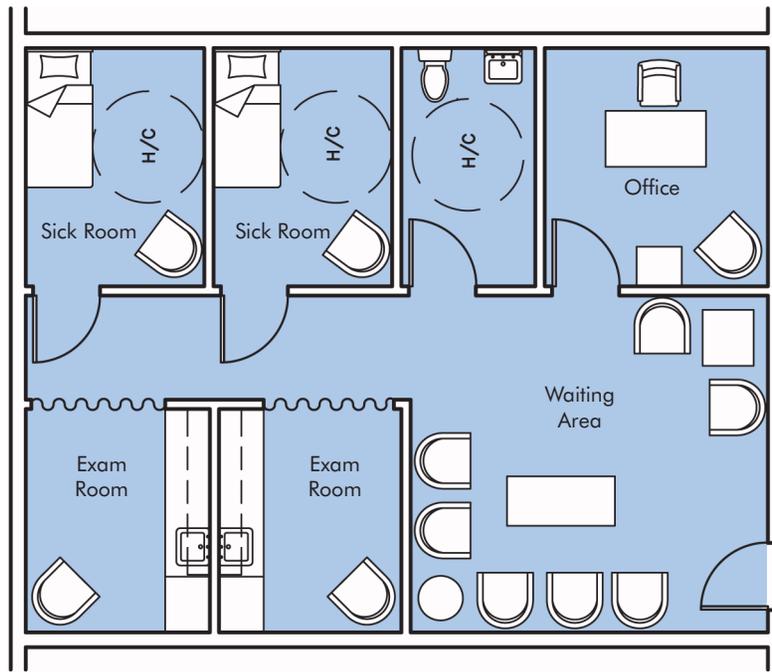


Media Center

The media center is designed as the hub for resources and technology for the school. The media center will be home to library books, journals, newspapers, and magazines. It will also serve as a place to work with computers and will include web access. There will be reading tables and chairs arranged in small study, reading, and instruction areas. The media center is located off the building's main entrance to provide easy access to children and their families.

The media center is composed of the following features:

- 2,950 sf which includes a librarian's office, library work room, technology/equipment room, and a technology instructor's office
- Designed acoustically as a quiet area
- Daylight with control to eliminate any direct sunlight
- Open computer instruction area
- Controlled/secure outdoor reading porch or terrace
- Area for informal instruction with technology support such as projection screen or flat panel monitor; wireless network; powered work tables; etc.



Health Services Suite

The health services suite is designed to meet the health needs of children in the school. It is placed near other administrative areas to insure constant supervision; it provides for privacy and comfort for children who are ill or distressed; and is designed to provide basic services such as screenings for vision, dental, and hearing. The suite is comprised of an exam room with sink and supply storage, sick room with day bed, accessible toilet, office, and waiting area.

The health services room is composed of the following features:

- 400 sf
- Waiting Area
- Accessible Toilet Room
- 2 Exam Rooms
- 2 Sick Rooms



Children's Home of Pittsburgh
Photo courtesy of Perkins Eastman | Photographer: Denmark Photography



AnMed Health System
Photo courtesy of Perkins Eastman | Photographer: Dennis Nodine

The health suite is generally located near, or within, the main offices of the school.

~Building Type Basics for Elementary and Secondary Schools, Bradford Perkins



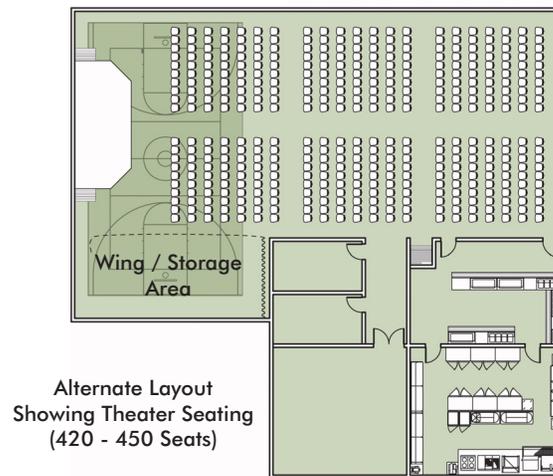
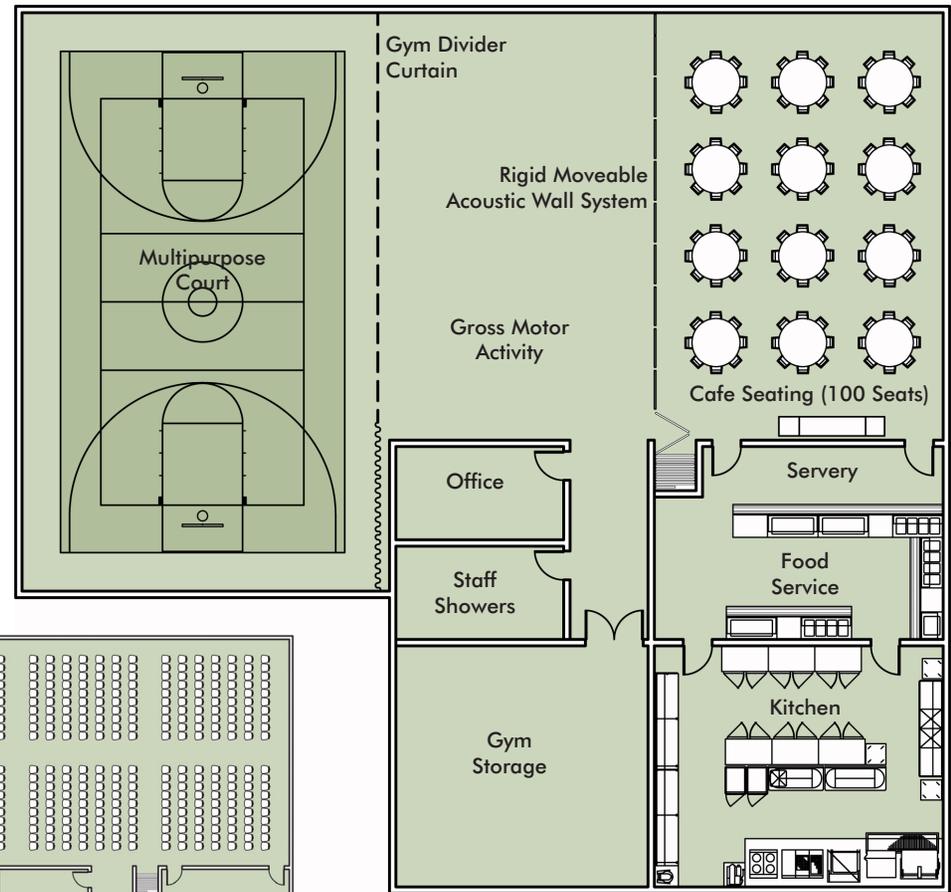
Byram Hills School District | Crittenden Campus
 Photo courtesy of Perkins Eastman | Photographer: Paul Rivera/ArchPhoto



Byram Hills School District | Wampus Campus
 Photo courtesy of Perkins Eastman | Photographer: Chuck Choi

- Health is promoted through staff and children's daily need for physical activity, sensory stimulation, fresh air, rest and nourishment -

Conceptual Gym and Multipurpose Room/Main Dining Layout



**Alternate Layout
 Showing Theater Seating
 (420 - 450 Seats)**

Gym and Multipurpose Room/Main Dining

The gym and multi-purpose room is designed for a variety of activities for all age groups. Activities may include seminars, science fairs, community meetings and gatherings, social events, performances, and after school activities. The space is large and open with high ceilings and windows, is pre-wired for a sound system, has a wood or synthetic gym floor, and maintenance friendly durable walls.

The gym and multipurpose room is located adjacent to the cafeteria where a folding partition separates the two spaces. At any time the folding partition can be opened and the two spaces can be used as a larger multi-purpose room.

The dining area is designed to seat 90 students in 4 separate dining periods throughout the day. The dining chairs can be folded and moved to the edge of the cafeteria or into storage. There is also direct access to the outside.

The gym and multi-purpose room is composed of the following features:

- 4,600 sf which includes the gym/multi-purpose room, gym storage, physical education office, and staff change shower
- 3,200 sf which includes the main cafeteria, cafeteria servery, commercial kitchen, food storage, and food service office.

NOTE: Dining for pre-kindergarten and K takes place in small dining areas adjacent to classroom space. Facilities are designed for moving the food between the main area and the satellite areas and for proper temperature control and sanitation.

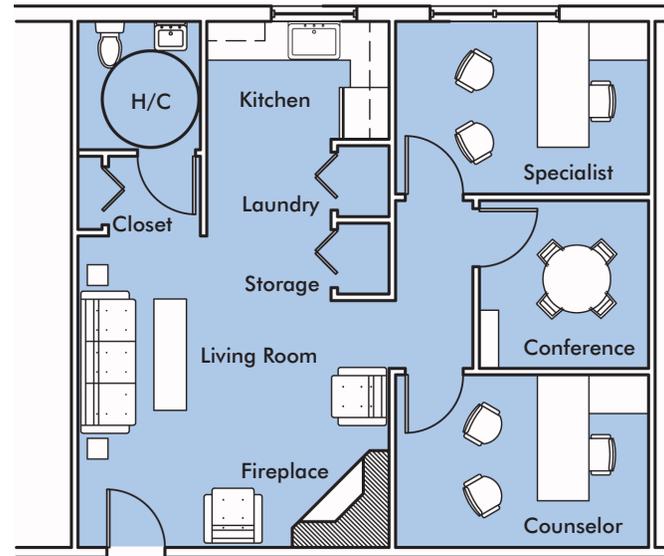


Winthrop University | PICU
Photo courtesy of Perkins Eastman | Photographer: James Shanks



Children's Home of Pittsburgh
Photo courtesy of Perkins Eastman | Photographer: Denmarsh Photography

*- Spaces must promote relationships
among school staff and family
members that foster parent
involvement in their child's school
success -*



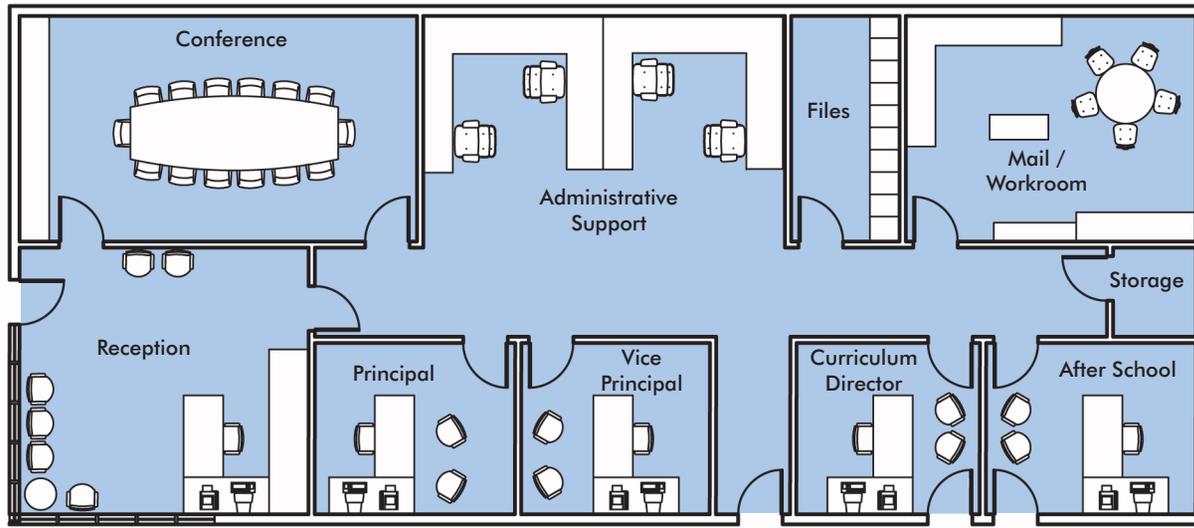
Family Suite

The family suite is designed as dedicated space for parents, siblings, and other family members. It should be a warm and inviting space, similar to one's own home. It is a place where parents, teachers, staff, family, and students interact in a friendly and social environment. It also serves as a resource room for parents and includes computers, network access, books, and magazines. Family Service staff offices are immediately adjacent to this area.

The suite includes a living room furnished with chairs, tables, and couches; kitchen and laundry with stackable washer and dryer; coat closet; a small conference/tutorial room; a counselor's office; and a family specialist office centrally located and near the school entrance.

The family suite is composed of the following features:

- Living room with home-like atmosphere
- Kitchen and Laundry facilities



Administrative Offices and Conference Rooms

The administrative offices are clustered near the entry of the school. The entry is easily recognized and accessible and there is immediate access to staff. Conference and meeting rooms are in the administrative areas as well as throughout the building to allow for private conversations among staff, small tutoring sessions, as well as parent-staff conferences and meetings.

The Administrative offices and conference rooms are composed of the following features:

- Located adjacent to main public entrance
- Easily visible from lobby area



IUP Living Learning Center
Photo courtesy of Perkins Eastman | Photographer: Massery Photography



IUP Living Learning Center
Photo courtesy of Perkins Eastman | Photographer: Massery Photography



Children's Home of Pittsburgh
Photo courtesy of Perkins Eastman | Photographer: Denmark Photography