



## **I. Policy Statement**

The Board of Education is responsible for providing safe and nurturing educational and work environments for all students and staff. The Board recognizes the continuing need to plan, design, and construct new educational facilities and to renovate or make additions to existing schools that are in accordance with all applicable code, as well as Maryland and federal law. Fulfilling this responsibility requires a comprehensive program that monitors population trends, enrollment trends, educational program spatial requirements, cost/benefit considerations, technologies that support environmentally responsible construction, and an annual six-year capital improvement program.

## **II. Purpose**

The purpose of the policy is to establish guidelines for the administration of the School Planning and the School Construction programs.

## **III. Definitions**

Within the context of this policy, the following definitions apply:

- A. Architect/Engineering Firm (A/E) – A designation usually reserved by law for a person or organization professionally qualified and duly licensed to perform architectural and/or engineering services including, but not necessarily limited to, analysis of project requirements; creation and development of the project design; preparation of drawings, specifications, and bidding requirements; and general administration of the construction contract.
- B. Beneficial Occupancy – The use by the owner of a project or portion thereof before all the terms of the contract are complete.
- C. Bid – The price a contractor commits to for constructing a project.
- D. Bid Procedures – Criteria to determine the award of a contract pursuant to Policy 4050 Procurement of Capital Materials, Supplies, Equipment, and Services.
- E. Bonds – General obligation documents issued by the county to borrow money to fund capital projects.

- F. Capital Improvement Program (CIP) – All capital improvements listed as part of the Board’s annual approved capital budget.
- G. Capital Improvement Project – Any physical betterment or improvement and any preliminary studies and surveys relative thereto, including but not limited to, any property of a permanent nature, and equipment needed in connection with such improvement when first erected or acquired.
- H. Change Order – A written document to the contractor signed by the owner and engineer or architect, issued after the execution of the contract, authorizing a change in the work or an adjustment in the contract sum.
- I. Construction Manager (CM) – A person or organization hired to coordinate and manage the construction phases of a project with the objective of minimizing project construction time and cost while maintaining the quality, function, and aesthetics of the building.
- J. Design Stages – The three phases of an architect’s basic services, which include:
  - 1. Schematic Design (SD) – the first phase of the architect's basic services. In this phase, the architect meets with the project planning team to ascertain the requirements of the project and prepares schematic design studies consisting of drawings and other documents illustrating the scale and relationship of the project components for approval by the Board. A statement of probable construction cost is also submitted at this time.
  - 2. Design Development (DD) – the second phase of the architect's basic services. In this phase the architect prepares, from the approved schematic design studies, the design development documents for approval by the Board. These design documents consist of drawings and other documents to fix and describe the size and character of the entire project as to structural, mechanical and electrical systems, materials and other essentials as may be appropriate. The architect also submits to the Board a further statement of probable construction costs.
  - 3. Construction Documents (CD) – the third phase of the architect's basic services. In this phase the architect prepares, from the approved design development documents, the working drawings, specifications, and necessary bidding information for approval by the Board. A final cost estimate is prepared before the project is bid.
- K. Facility Design – Plans, elevations, sections, and other drawings and specifications that may be necessary for a building or other structure.

- L. Facility Planning – Educational and architectural planning and analysis used to produce and design the concept for school projects.
- M. Final Occupancy – The point at which all or a designated portion of a building complies with the provisions of a contract and all applicable county and state statutes and regulations.
- N. Interagency Committee on School Construction (IAC) – The state agency responsible for the review/approval of construction documents and funding of schools or school construction projects.
- O. Office of Safety, Environment and Risk Management – The office that is responsible for reviewing and monitoring the design and construction phases related to environmental initiatives, such as Integrated Pest Management (IPM), Indoor Air Quality (IAQ), and Asbestos Abatement.
- P. Office of School Construction – The office that is responsible for all phases of planning, design and construction of new schools as well as additions to and comprehensive modernization of existing schools, from planning through occupancy.
- Q. Office of School Planning – The office that is responsible for projecting needs based on demographics for the purpose of assisting the Superintendent in the development of the Capital Improvement Program.
- R. Punch List – List made near the completion of work, indicating items to be furnished or work to be performed by the contractor or subcontractor in order to complete the work as specified in the contract documents.
- S. State of Maryland Public School Construction Program (PSCP) – Program that provides for the funding of public school construction.
- T. Sustainable Design – Design that seeks to reduce negative impacts on the environment and the health and comfort of building occupants, thereby improving building performance. The objectives of sustainability are to reduce consumption of non-renewable resources, minimize waste, and create healthy, productive environments.
- U. Warranty/Guarantee Period – Period of time in which the quality of work and/or satisfactory performance is guaranteed.

#### IV. Standards

- A. This policy and associated implementation procedures apply to the capital improvement projects that are listed as part of the Board's annual approved capital budget requiring contracts and consultant agreements.
- B. The Howard County Public School System (HCPSS) employs sustainable design construction that supports educational program needs and creates a safe and nurturing environment for students and staff within allotted budgetary resources.
- C. The school planning/school construction program involves a sequential plan of action and is divided into ten general categories, each requiring professionally trained and experienced staff to plan and carry out the requirements of the program consistent with the Superintendent's Safety Guidelines for Renovation and Construction Projects and all applicable regulations.
  - 1. Long-Range Planning and Student Population Projection
    - a. This category involves the annual projection of pupil population and general population growth by the Office of School Planning. Short-range demographic studies to support the Capital Improvement Program, school attendance area studies, transportation planning, and other special needs are also included.
    - b. By state regulation the Board is also required to develop, maintain, and annually update a master plan for the school system for submission to the IAC. This plan has as its basis a variety of population studies which guide the decision making for school facilities on both a long and short-term basis.
  - 2. Capital Improvement Program
    - a. The Capital Improvement Program is a projection of the school facility needs for the next fiscal year (Capital Budget) and the following five-year period. The Capital Improvement Program is based on needs to support the educational program of the system with new schools, modernizations, and other construction projects.
    - b. The local Capital Improvement Program serves as the basis for state funding requests through the Interagency Committee for School Construction and the State of Maryland Public School Construction Program.

3. Site Selection

Procedures for site selection and summarization of site size criteria for elementary, middle and high schools are addressed in Policy 6000 Site Selection and Acquisition. As part of the selection process, the Office of School Construction produces studies including site layouts and environmental assessments.

4. Architect/Engineering Firm and Construction Manager Selection

Procedures for architectural/engineering and construction management services selection are addressed in Policy 6030 Procurement of Architectural/Engineering and Construction Management Services.

5. Facility Planning and Facility Design

The facility planning and design process allows for orderly and systematic design of school facilities. This process is conducted using either the Board-approved General Elementary Educational Specifications for New Schools, General Educational Specifications for New Howard County Middle Schools, General Educational Specifications High Schools, or the Board approved Guidelines Manual for Renovations and Modernizations of Existing Schools as the basic references for the facility in question. These documents describe the basic educational philosophy, instructional program, and spatial requirements needed to implement the planning and construction program.

6. Bid and Award

The bid and award procedures for school construction projects conform to those used for the procurement of other goods and services which are addressed in Policy 4050. In addition, these procedures comply with the requirements of the State of Maryland Public School Construction Program.

7. Contract and Construction Administration

The Office of School Construction is responsible for monitoring construction work and administering the schedule, budget, and change orders that affect the scope and/or cost of the work. A school construction progress report which includes these topics is submitted monthly to the Board.

In accordance with the provisions of Policy 6030, a construction manager may be hired to manage the construction process.

8. Official Acceptance of Capital Improvement Projects

Capital improvement projects may be designed to be accepted in stages or upon total completion of work, based on staff recommendation to and approval by the Board.

9. Post-Acceptance Evaluation

Use, occupancy, and evaluation by staff may occur only after the project has been officially accepted. The Board will receive a final report following the walk-through.

10. Temporary and Relocatable Facilities

Relocatable classroom units should be considered under the following conditions and within the context of Policy 6010 School Attendance Areas:

- a. Where school population growth occurs
- b. Where school capacity is near maximum
- c. When boundary lines are adjusted
- d. Where population is projected to remain high for at least one year
- e. Where school construction or renovation projects require the provision of swing space to accommodate the student population and minimize the impact on instruction.

Where excess population is projected to remain beyond four years, consideration should be given to an addition or new construction.

- D. To the extent possible, school facilities and sites should be available for after school use by the community. The possibility of joint use development of school and recreational facilities, including joint construction of school and recreational space, is encouraged on a case-by-case basis.

**V. Compliance**

- A. The Superintendent/Designee is responsible for the administration of the school planning and construction programs.
- B. The Office of School Planning and the Office of School Construction are responsible for collaboration in order to obtain the efficient implementation of this policy.
- C. For Capital Improvement Projects, the Principal is responsible for communicating project information to the parent community in a timely manner.

**VI. Delegation of Authority**

The Superintendent is authorized to develop appropriate procedures to implement this policy.

**VII. References**

**A. Legal**

The Annotated Code of Maryland, Education Article

§ 3-602.1 (requirements to design high performance buildings)

§ 4-115 (right to acquire land, school sites or buildings)

§ 4-116 (land use approval procedures)

§ 4-117 (construction and remodeling conformance to state and county building codes)

§ 5-301 (Board of Public Works role and procedures in school construction)

§ 5-302 (composition and role of the IAC in school construction)

§ 5-303 (procedure for determining the cost of renovating existing schools)

§ 5-312 (state funding support related to high performance buildings)

§ 7-108 (guidelines for community use of public school facilities)

§ 7-109 (use of public school facilities as day care centers)

COMAR 13A.01.02.03 (requirements for obtaining State Superintendent's approval for school construction projects)

COMAR 15.05.02 (regulations pertaining to integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds)

Americans with Disabilities Act (ADA)

Occupational Safety and Health Act (OSHA)

Maryland Occupational Safety and Health Act (MOSHA)

**B. Other Board Policies**

Policy 4050 Procurement of Capital Materials, Supplies, Equipment, and Services

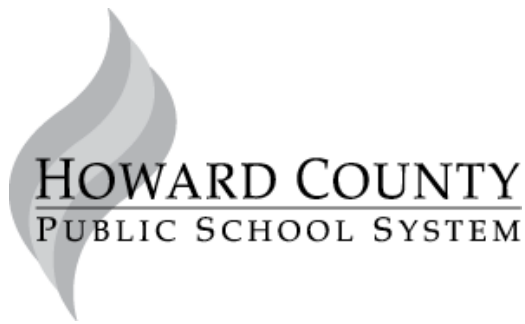
Policy 6000 Site Selection and Acquisition

Policy 6010 School Attendance Areas

Policy 6030 Procurement of Architectural/Engineering and Construction Management Services

- C. Other  
General Elementary Educational Specifications for New Schools  
General Educational Specifications for New Howard County Middle Schools  
General Educational Specifications High Schools  
Guidelines Manual for Renovations and Modernizations of Existing Schools  
Safety Guidelines for Renovation and Construction Projects

ADOPTED: September 4, 1968  
AMENDED: September 13, 1990  
January 14, 2010  
EFFECTIVE: July 1, 2010



**POLICY 6020-PR**  
IMPLEMENTATION PROCEDURES  
**SCHOOL PLANNING/SCHOOL**  
**CONSTRUCTION PROGRAMS**

Effective: July 1, 2010

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These procedures apply to the construction of new schools and the modernization/renovation of existing facilities that are included in the Board's Capital Improvement Program.

**I. Long-range Planning and Student Population Projection**

The Office of School Planning will:

- A. Gather enrollment, population, and housing data from appropriate sources
- B. Provide an annual projection using the cohort survival method or other established demographic methodology
- C. Provide an annual report of projection accuracy to the Board of Education.

**II. Capital Improvement Program**

The Office of School Planning and the Office of School Construction will:

- A. Develop the Capital Improvement Program based on population growth and anticipated needs of that population
- B. Present the Board's requested six-year Capital Improvement Program, which includes a request for the next fiscal year (capital budget) and the following five-year period
- C. Prepare the State of Maryland Public School Construction Program (PSCP) budget funding request
- D. Incorporate the state budget request with the Board six-year Capital Improvement Program to determine the annual county Capital Improvement Program request
- E. Select and analyze site(s).

**III. Site Selection**

Site selection and acquisition is recommended to the Board after being analyzed for appropriateness for a school. (See Policy 6000 Site Selection and Acquisition.)

#### **IV. Architect/Engineering Firm and Construction Manager Selection**

Procurement of architectural/engineering and construction management services are recommended to and approved by the Board in compliance with Policy 6030 Procurement of Architectural/Engineering and Construction Management Services.

#### **V. Facility Planning and Facility Design**

A facility planning team is convened, consisting of school and community members, personnel from the Office of School Construction, a designee from the Office of Safety, Environment and Risk Management, other central office personnel, the project architect, and others who may be named by the Superintendent/Designee. The planning team provides input to the architect in developing a series of three design studies that meets Board policy as well as the objectives of the applicable educational specifications or renovation guidelines.

The series of three design studies is as follows:

- A. Schematic Design Phase
  - 1. Planning team named by the Superintendent/Designee
  - 2. Description of conceptual design
  - 3. Initial cost analysis
  - 4. Presentation to and approval by the Board.
  
- B. Design Development Phase
  - 1. Description of the design
  - 2. Detailed layouts of subject areas
  - 3. Cost analysis
  - 4. Presentation to and approval by the Board.
  
- C. Construction Documents Phase
  - 1. Description of the final design
  - 2. Cost analysis and cost reduction
  - 3. Final review of drawings and specifications
  - 4. Presentation to and approval by the Board
  - 5. Preparation of bid documents.

The above steps may be combined. In each phase, the effect on the occupants, the building structure, and/or systems is considered. Each phase is submitted for review and approval by the Board and the Interagency Committee on School Construction (IAC). Copies of the Howard County Public School System (HCPSS) response to the design

submission review letters from the IAC approving agencies will also be submitted to the Board

## **VI. Bid and Award**

Pursuant to Policy 4050 Procurement of Capital Materials, Supplies, Equipment, and Services, these procedures call for a publicly announced bid period during which interested bidders examine the bid documents and submit a sealed bid by the date and time required. The bid documents are opened in public and the price submitted for each bid item is read aloud. At a subsequent meeting of the Board, the results of the bid are presented and a recommendation to award to the lowest responsible and responsive bidder is made.

The final decision is made by the Board. Upon submission of all documents, bonds, and other matters required in the contract, a formal contract is signed.

## **VII. Contract and Construction Administration**

### **A. Office of School Construction**

The project architect serves as the Board's representative and administers the contract, answers technical questions, approves submittals, and initiates change orders and requests for proposals subject to the Board's approval. The Office of School Construction coordinates the completion schedule with the principal/designee and other school system personnel to ensure that furniture and equipment deliveries, technology services, and food services satisfy the requirements for their respective sections. Prior to the opening of school, the Office of School Construction monitors each project to resolve any last minute problems and continues this supervision during the warranty period.

The Office of School Construction supervises the construction, budget, schedule, and quality of work, administers change order requests, and administers the warranty period. When school projects are technically complex, have a very short construction time, or require staff attention beyond the time available, a construction manager may be hired to manage the construction process.

### **B. Office of Safety, Environment and Risk Management**

The Office of Safety, Environment and Risk Management monitors the design and construction phases at regular intervals and in response to specific concerns. Consistent with all statutory requirements, monitoring includes Integrated Pest Management (IPM), Indoor Air Quality (IAQ), and abatement of potentially hazardous materials.

### **VIII. Official Acceptance of Capital Improvement Projects**

New facilities and other Capital Improvement Projects may be accepted in several ways. If conditions permit, the school system will wait until all major and minor building system corrections are fully complete and all minor repairs, deficiencies and discrepancies (punch list items) have been corrected. The project architect will then certify that the building is complete and has been constructed according to the drawings and specifications. This marks the beginning of the warranty period for the building. School facilities are typically scheduled so that all construction will be complete and the building ready for acceptance in early summer. Final inspection and acceptance involves a review of the project at substantial completion of construction, which includes listing items to be adjusted, corrected, or completed by the contractor's "punch list." In most cases, the project is complete except for minor system work and completion of the punch list items by late summer.

The Office of School Construction is responsible for certifying, as applicable, beneficial occupancy, final occupancy, move-in, punch list, and warranty/guarantee.

### **IX. Post-Acceptance Evaluation**

- A. After project acceptance, furnishings and movable equipment can be installed, supplies can be delivered and stored, and the staff can occupy the facility for operation. At this time, the construction project enters into a one year guarantee and a two year mechanical/electrical guarantee period during which time discrepancies in the workmanship, materials, and equipment supplied under the contract are noted and corrected. Some specifically identified warranties/guarantees may be longer than one to two years.
- B. Following the move-in, the Office of School Construction works closely with the school administration and maintenance personnel to correct any problems that arise during the warranty period.
- C. After the first instructional year following construction, a walk-through of the facility is conducted to evaluate the success of the facility as a teaching environment and the success of the educational concepts in the General Elementary Educational Specifications for New Schools, or General Educational Specifications for New Howard County Middle Schools, or General Educational Specifications High Schools or Guidelines Manual for Renovations and Modernizations of Existing Schools in effect at the time the project was designed. The facility is also evaluated as to use of materials, building systems, construction quality, and other aspects pertaining to the building.

- D. A walk-through of the building by a representative team of stakeholders may include a:
1. Teacher representative
  2. Administration personnel
  3. Custodian
  4. PTA representative
  5. School facilities representative(s)
  6. Designee from Safety, Environment and Risk Management.

**X. Temporary and Relocatable Facilities**

Placement of temporary and relocatable portable facilities is determined by and implemented as follows:

- A. Presentation of current population projections
- B. Identification of where new units are needed
- C. Evaluation of site plans
- D. Evaluation of cost implications
- E. Presentation to and approval by the Board
- F. Reassignment or procurement of units
- G. Installation of units
- H. Post installation inspection by the Office of School Construction.

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