

**Meeting Materials for
21st Century School Facilities Commission
April 28, 2016**

21st Century School Facilities Commission

Martin G. Knott, Jr., Chair

Agenda
Thursday, April 28, 2016
10:00 a.m.

House Office Building
Room 120
Annapolis, Maryland



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- I. Call to Order and Chair's Opening Remarks**
 - II. Introduction of Commission Members**
 - III. Overview of Task Force to Study Public School Facilities 2004 Report**
Hon. Nancy K. Kopp, State Treasurer
Ms. Rachel H. Hise, Department of Legislative Services
 - IV. Overview of Public School Construction Processes**
Dr. David G. Lever, Executive Director, Interagency Committee on School Construction
Ms. Rachel H. Hise, Department of Legislative Services
 - V. Overview of Interim Schedule and Workplan**
 - VI. Chair's Closing Remarks and Adjournment**

**I. Commission Charge Handout to
Accompany
Call to Order and Chair's Opening
Remarks**

21st Century School Facilities Commission

The Commission is charged with:

- Reviewing existing educational specifications for school construction projects and determining whether the existing specifications are appropriate for the needs of 21st century schools
- Identifying best practices from the construction industry to determine whether there are efficiencies that can be made in the construction of public schools and public charter schools
- Identifying a long-term plan for jurisdictions with growing enrollment, as well as maintaining facilities in jurisdictions with flat and declining enrollment
- Identifying areas where innovative financing mechanisms including public-private partnerships, as well as alternatives to traditional general obligation debt can be used for construction and ongoing maintenance
- Determining areas for efficiencies and cost-saving measures for construction and maintenance
- Evaluating the appropriate role for State agencies including the Maryland Department of Planning, Department of General Services, State Department of Education, Board of Public Works, as well as the appropriate statutory structure for the Interagency Committee for Public School Construction
- Reviewing the relationship between State agencies and local governments on school construction projects
- Reviewing the Kopp Commission findings and progress toward implementation

II. Membership Roster to Accompany Introduction of Commission Members

Maryland General Assembly
21st Century School Facilities Commission
2016 Interim
Membership Roster

Martin G. Knott, Jr., Chair

Stephen M. Baldwin
John L. Bohanan, Jr.
Gary Brennan
Galen R. Clagett
Judith "J" Davis
Senator James E. DeGrange, Sr.
Donna S. Edwards
Mel Franklin
Jan H. Gardner
Delegate Jefferson L. Ghrist
Brian J. Gibbons
Barbara A. Hoffman
Jan Holt
Delegate Adrienne A. Jones
Pless B. Jones, Sr.
Senator Nancy J. King
Treasurer Nancy K. Kopp
Donald Manekin
Dr. Kevin M. Maxwell
Delegate Aruna Miller
Richard M. Resnick
Andrew M. Roud
Senator Andrew A. Serafini
Rowena Shurn
Warner I. Sumpter
Alex Szachnowicz
Dr. Clayton M. Wilcox

**III. Powerpoint to Accompany
Overview of
Task Force to
Study Public School Facilities
2004 Report**

Overview of Task Force and Public School Facilities Act of 2004

**Presentation to the
21st Century School Facilities Commission**

**Hon. Nancy K. Kopp, State Treasurer
Ms. Rachel H. Hise**

**Department of Legislative Services
Office of Policy Analysis
Annapolis, Maryland
April 28, 2016**

Task Force to Study Public School Facilities

- Established by the Bridge to Excellence in Public Schools Act of 2002 (also known as Thornton) to evaluate whether school facilities were adequate to sustain the programs and funding levels provided by Thornton legislation
- Also examined equity of the Public School Construction Program and the State/local cost share formula and alternative financing mechanisms among many topics
- Met over the course of nearly two years in 2002 and 2003, and issued final report in February 2004

Facility Assessment Survey

- First comprehensive assessment of the condition of public schools was conducted on behalf of the task force to identify basic minimum facility needs critical to the health and safety of students, to support projected enrollment growth, and to accomplish basic required educational programs
- A survey based on 31 minimum facility standards was completed for every public school in the State by State and local school officials
- Survey found deficiencies in every school system at a total cost of \$3.85 billion (in 2003 dollars)

School Construction Funding Goal

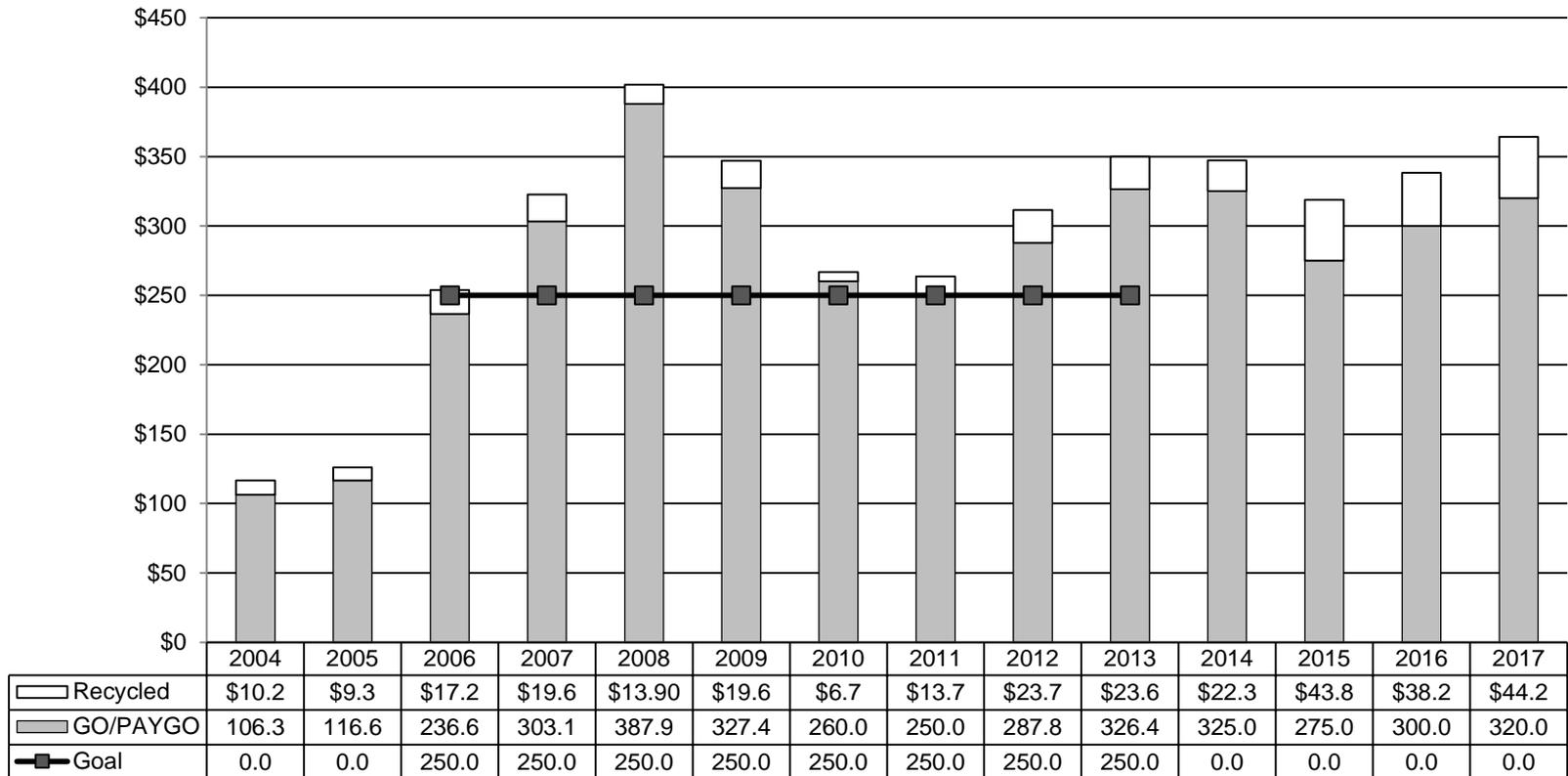
- The task force recommended that the State and local governments provide a minimum of \$3.85 billion for public school facilities over an eight-year period from fiscal 2006 through 2013
- Of the total, \$2.0 billion or \$250.0 million annually for eight years was the State funding goal with the remainder to be provided by the counties
- Chapters 306 and 307 – Public School Facilities Act of 2004 – implemented the task force’s final recommendations including the funding goal

Funding Exceeds Goal

- The State exceeded the funding goal and provided \$2.379 billion in new funds for school construction from fiscal 2006 through 2013
- The State has continued to exceed the goal in fiscal 2014 through 2017, and the State's *Capital Improvement Program* projects \$250.0 million annually in fiscal 2018 through 2021
- County governments provided \$1.974 billion for school construction from fiscal 2006 through 2012
- Chapters 306/307 also required the Maryland State Department of Education to adopt regulations to survey the condition of public school facilities at least every four years, but those regulations have not been implemented

State School Construction Funding

Fiscal 2004-2017
(\$ in Millions)



Source: Public School Construction Program, Department of Legislative Services

State/Local Cost Share Formula

- The task force recommended, and the 2004 Act implemented, updating the State and local share of eligible school construction costs to reflect more recent local wealth figures and to incorporate several new factors in the formula, including:
 - Enrollment growth
 - Percentage of students eligible for free and reduced price meals
 - Status as a distressed “One Maryland” county
 - Eligibility for the Guaranteed Tax Base Program
 - Local school construction funding or “effort”
- Formula is updated every three years

FY 2016-2018 State/Local Cost Shares

<u>LEA</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>LEA</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>
Allegany	88%	83%	83%	Harford	63%	63%	63%
Anne Arundel	50%	50%	50%	Howard	55%	55%	55%
Baltimore City	93%	93%	93%	Kent	50%	50%	50%
Baltimore	52%	52%	52%	Montgomery	50%	50%	50%
Calvert	53%	53%	53%	Prince George's	63%	63%	63%
Caroline	80%	80%	80%	Queen Anne's	50%	50%	50%
Carroll	59%	59%	59%	St. Mary's	59%	58%	58%
Cecil	64%	63%	63%	Somerset	100%	100%	100%
Charles	61%	61%	61%	Talbot	50%	50%	50%
Dorchester	76%	76%	76%	Washington	71%	71%	71%
Frederick	64%	64%	64%	Wicomico	97%	97%	97%
Garrett	50%	50%	50%	Worcester	50%	50%	50%
				Maryland School for the Blind	93%	93%	93%

LEA: Local Education Agency

Source: Public School Construction Program, Department of Legislative Services

Alternative Financing

- The task force made a number of recommendations that were codified by Chapters 306/307 to authorize alternative financing and contracting methods, including lease-leaseback, sale-leaseback, and other public-private partnerships (P3) to meet immediate school construction needs in counties.
- To date only a few school construction projects in the State have utilized P3 methods

Aging Schools Program

- The task force also recommended that the Aging School Program be updated to reflect pre-1970 square footage of school buildings in each school system (rather than pre-1960)
- Chapters 306/307 implemented this recommendation, which resulted in the loss of program funding for some school systems. Chapter 423 of 2004 (the capital budget bill) implemented hold harmless grants over a three-year period
- The General Assembly increased funding for the Aging Schools Program statutorily in 2006, but that funding was subsequently reduced by budget reconciliation legislation
- The Aging Schools program is currently funded at \$6.1 million in general obligation bond funds for fiscal 2017, but the General Assembly has provided additional funds in some years

Other Recommendations

- Formalize the practices of the Interagency Committee on School Construction and the Board of Public Works in regulation for the Public School Construction Program. This was a multi-year undertaking that was completed in 2007
- Encourage the reuse of school designs both within and across school system boundaries, when appropriate
- Provide financial incentives for projects that include energy conservation, sustainable buildings, green architecture design, or innovative technologies that result in life-cycle savings
- Chapter 124 of 2008 required new schools to be built as high performance buildings, e.g., LEED Silver, with the State providing 50% of the local share of the additional costs for fiscal 2010 through 2014
- Reduce the State Rated Capacity for grade 1 through 5 to 23 students per classroom
- Provide State funding for relocatable classrooms to address critical, short-term space needs and adopt minimum standards for relocatables

**IV. Powerpoint to Accompany
Overview of Public School Construction
Processes**

PUBLIC SCHOOL CONSTRUCTION IN MARYLAND



**Severna Park High School, Anne Arundel County
In construction**



West Side Elementary, PSCP #01.017

**West Side Elementary School, Allegany County
Original 1940, renovated 1977**

21st Century School Commission

Interagency Committee on School Construction

April 28, 2016

*David Lever
Executive Director*

Interagency Committee on School Construction

SCHOOL STATS

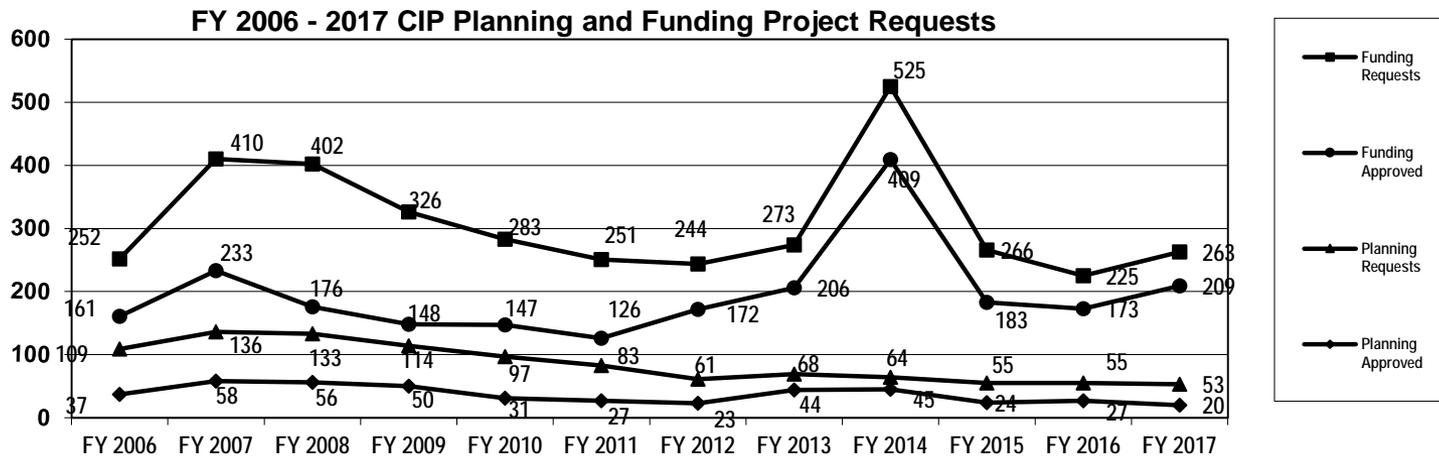
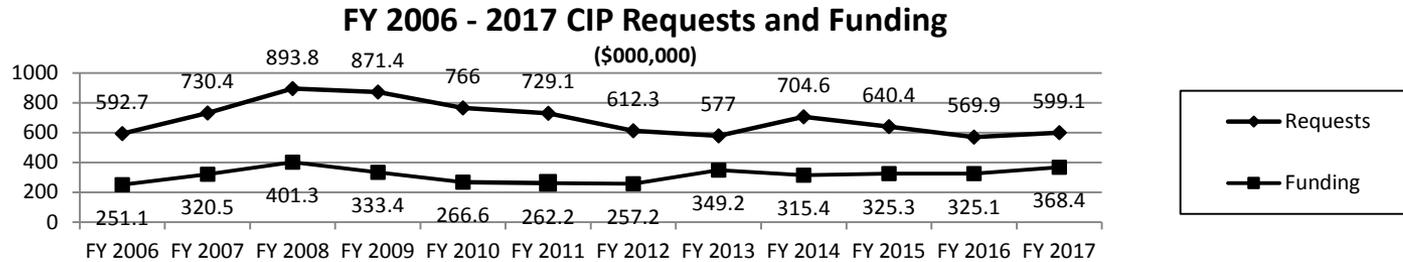
- **24 school systems:**
 - ❖ Geographically co-terminous with counties
 - ❖ Do not have independent taxing authority
 - ❖ Own, operate, and build their facilities under State and local regulations
 - ❖ Capital funds: from State and local governments
 - ❖ Operating funds: from local government, with State per-student assistance

- **848,000 students (Fall 2015; does not include PK):**
 - ❖ School systems range from 1,909 FTE to 152,038 FTE
 - ❖ Vast differences in enrollment growth and decline, FARMS, ELL, demographic profile
 - ❖ Vast differences in staffing of facility departments

- **1,392 Public School Buildings, 138.5 million square feet:**
 - ❖ Average Age of square footage: 28 years
 - ❖ 52% of total pre-dates 1990
 - ❖ 36% of total was built in 1960s and 1970s
 - ❖ Estimated capital need: over \$20 billion (per LEA feasibility studies)

State Funding Capacity

STATE FUNDING CAPACITY VS. NEED



- **Anticipated Five-Year CIP Requests FY 2017 – FY 2022: \$4.5 Billion**
- **Anticipated Five-Year State Funding FY 2017 – FY 2022: \$1.53 Billion**
- **Minimum Anticipated State Shortfall: \$3 Billion**

Drivers of Educational Facility Needs

➤ **Educational Programs:**

- ❖ New educational initiatives: Full-day kindergarten, prekindergarten, STEM and STEAM, magnet programs
- ❖ Programs for children with special needs: Special education, English language learners, FARMS

➤ **Enrollment Growth and Decline:**

- ❖ Montgomery County Public Schools: 11,100 new students, 2015 – 2025
- ❖ Carroll County Public Schools: 1,861 fewer students, 2015 – 2025

➤ **Aging of the Building Plant: ***

- ❖ Mechanical systems: 20 – 30 years
- ❖ Roofs : 20 – 25 years
- ❖ Windows: 20 - 40 years
- ❖ IT: Less than 10 years

➤ **Community Programs:** School as community center

* Assumes typically used systems

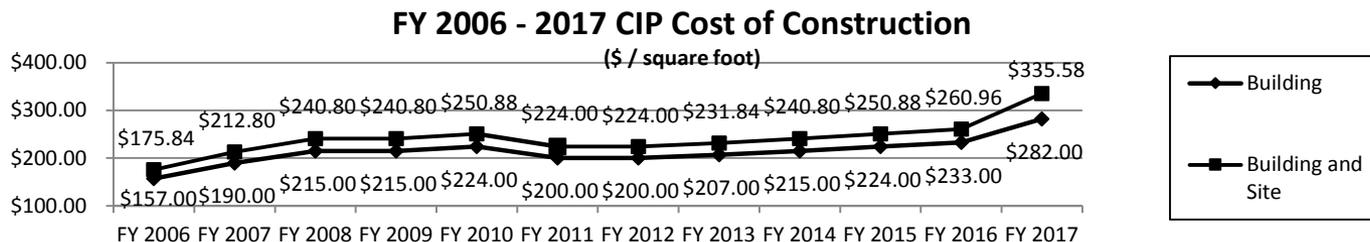
Cost of Construction

➤ Unanticipated 2015 Cost Increase:

- ❖ **Building cost:** \$233 / s.f. projected, actual \$271 / s.f.
- ❖ **Sitework:** 12% projected, actual 19% minimum
- ❖ **Considerable uncertainty about current situation**

➤ Drivers of the cost increases:

- ❖ **Recovering Economy:** Reduced competition
- ❖ **Effects from Recession:** Decreased plant capacity and labor force, recovery of contractor margins
- ❖ **Regulatory Environment - Direct Effects:**
 - *HVAC: energy and ventilation requirements*
 - *Prevailing wage rates: 11% - 14% increase*
 - *High performance school requirement (LEED Silver): 3% - 5%*
 - *Stormwater management: New regulations from 2011*
- ❖ **Regulatory Environment – Indirect Effects:** Discourages contractors and subcontractors from participating
- ❖ **Baltimore City 21st Century Building Program will affect Baltimore-DC Metro area**



Maryland Public School Construction Program

Board of Public Works (BPW)
Governor, Treasurer, Comptroller

Interagency Committee on School Construction (IAC)
State Superintendent, Secretaries of MDP & DGS, two members of the public appointed by the General Assembly; Executive Director

**Maryland State
Department of
Education (MSDE)**

**Designee to the State
Superintendent:**

- Review funding & planning applications
- Review educational specifications
- Review design
- Develop educational facility guidelines
- Design advice to IAC and LEAs

**Maryland
Department of
Planning (MDP)**

**Designee to the
Secretary:**

- Review funding & planning applications
- Develop annual enrollment projections
- Review Educational Facility Master Plans
- Site reviews & recommendations
- Planning advice to IAC and LEAs

**Department of
General Services
(DGS)**

**Designee to the
Secretary:**

- Review funding & planning applications
- Review design development & construction documents
- Review change orders & ineligible items
- Technical advice to IAC and LEAs

**Public School
Construction
Program (PSCP)**

**Independent agency
reporting to BPW:**

- Review funding & planning applications
- Manage programs
- Maintain fiscal records
- Maintain facilities inventory database
- Maintenance inspections
- Monitor MBE compliance
- Recommend contract awards

The Capital Improvement Program

- **Funded at more than \$3.4 billion, FY 2006 – FY 2017**
- **Eligible project categories:**
 - ❖ Major projects, small renovations and additions, systemic renovations
 - ❖ No repair or maintenance projects
- **State participates only in *eligible* costs:**
 - ❖ Fixed asset costs with 15 year life
 - ❖ Eligible gross area allowance is determined by student enrollment projections, allowable s.f./student
- **State funding for each project is determined by formula:**
 - ❖ Different formulas apply to different project types
 - ❖ There is no formula for the total funding each LEA will receive annually
- **Local funding match is required:**
 - ❖ Covers local share, ineligible items and miscellaneous project expenses
 - ❖ State-local cost share calculated every 3 years: local wealth and local funding effort; enrollment growth; Free and Reduced Price Meal Plan student population

The Capital Improvement Program

STATUTORY ANNUAL PROCESS

➤ **Pre-Submission: Summer through September**

➤ **Preliminary CIP: October to January**

- IAC staff reviews projects for eligibility and provides recommendations to IAC
- IAC recommends to BPW projects for 75% of Governor's preliminary capital budget
- BPW approves projects for *not more than* 75% of Governor's preliminary capital budget

➤ **Interim CIP: January to March**

- IAC *recommends* additional projects for 90% of Governor's submitted capital budget
- No action taken by BPW on these recommendations until after May 1

➤ **Final CIP: April to May**

- IAC recommends additional projects based on capital allocation, reverted funds, special funding sources
- BPW approves additional projects for 100% of final approved capital budget after May 1

Searching for Solutions:

FUNDING/FINANCING: PUBLIC PRIVATE PARTNERSHIPS

➤ **Availability Payment Approach:**

- ❖ Design Build Finance Maintain Operate (DBFMO):
- ❖ Used extensively in U.K., Canada
- ❖ Availability payment covers construction, finance, and selective M&O services

➤ **Asset Leveraging Approach (Oyster School Model)**

- ❖ Public owner leverages property or another asset to finance a school improvement
- ❖ May require supplemental financing: capital investment, TIF, dedicated sales tax, etc.

➤ **Value-Capture Approach:**

- ❖ Costs avoided through capital improvement establishes revenue stream to repay capital and finance cost
- ❖ Energy is most common form (Energy Performance Contract – EPC)
- ❖ Very attractive to investment community: low risk, long track record of success.

Searching for Solutions:

FUNDING/FINANCING: VALUE CAPTURE APPROACH

- **May 2014:** Executive Order: IAC to study increased funding, leveraging local funds, alternative financing
- **Summer 2014:** *A value-capture approach* based on energy savings
- **Sources of savings:**
 - ❖ Reduced financing costs
 - ❖ Reduced procurement costs
 - ❖ Reduced project development costs
 - ❖ Reduced project delivery costs
- **Next Steps:**
 - ❖ Collaboration with Maryland Clean Energy Center, Department of General Services, and 9 Eastern Shore LEAs
 - ❖ Develop “Strawman” bundle of projects:
 - ❖ Develop list of items that can be standardized
 - ❖ Discuss with energy service companies (ESCOs)
 - ❖ Discuss with financiers
 - ❖ Consider organizational issues
 - ❖ Develop recommendations

Searching for Solutions: INNOVATION AND COST CONTAINMENT

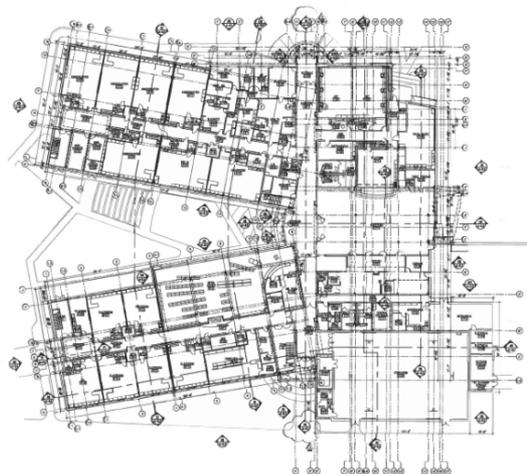
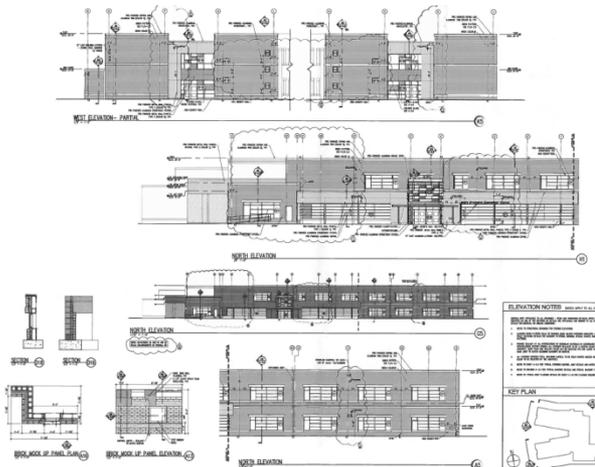
➤ Challenges:

- ❖ Innovate, without compromising the educational program or future maintenance and operations
- ❖ Achieve building performance standards for less
- ❖ 50 year building with potential for modification

➤ Major Areas to Study:

- ❖ Educational Program
- ❖ 44 alternate building systems in 9 areas: 1st and life-cycle cost, pros and cons

➤ Need for a differentiated scale of educational requirements and building technologies suited to local needs and resources



*North Frederick Elementary
School
Prototype Design*

**IV. Construction Costs Handout to
Accompany Overview of
Public School Construction Processes**

Construction Costs for New and Renovated Schools

- The cost to replace and renovate public school buildings in Maryland varies considerably, both within and between school systems.
- Building costs are driven primarily by the size of the school, *e.g.*, square footage and educational specifications for the programs to be offered in the school. Building materials, design decisions, and local policies also affect costs, among other things.
- Based on a sample of 25 projects, which is about one-third of the projects approved by the IAC in the fiscal 2014 through 2016 Capital Improvement Programs, the average cost for a new school was \$37.2 million and varied substantially by type (and size) of school:
 - Elementary \$26.5 million (range from \$19 million through \$37 million)
 - Prek-8 \$26.3 million (Baltimore City)
 - Middle \$38.7 million (one project)
 - High \$68.9 million (range from \$59 million through \$87 million)
- For renovations, average costs were lower, totaling \$25.2 million statewide but still varied by type (and size) of school:
 - Elementary \$20.9 million (range from \$15 million through \$27 million)
 - Middle \$25.8 million (range from \$18 million through \$34 million)
 - High \$41.4 million (range from \$41 million through \$42 million)
- Data for each project used in the sample is attached.

Public School Construction Program Recent Approved Replacement Projects

<u>LEA</u>	<u>School Name</u>	<u>Project Type</u>	<u>State Rated Capacity</u>	<u>Square Footage</u>	<u>Sq. Ft. per Student</u>	<u>Construction Cost</u>	<u>Cost per Student</u>	<u>Cost per Sq. Ft.</u>
Allegany	Allegany High	Replacement	857	143,374	167	\$58,935,346	\$68,769	\$411
Baltimore County	Westowne Elementary	Replacement	700	90,040	129	29,590,000	42,271	329
Calvert	Northern High	Replacement/Renovation	1500	286,664	191	60,558,000	40,372	211
Frederick	Frederick High	Replacement	1826	270,618	148	87,054,000	47,675	322
Frederick	North Frederick Elementary	Replacement	725	93,605	129	24,399,428	33,654	261
Harford	Youth's Benefit Elementary	Replacement	1130	149,694	132	36,926,232	32,678	247
Montgomery	Candlewood Elementary	Replacement	359	61,804	172	21,365,000	59,513	346
Montgomery	Brown Station Elementary*	Replacement	658	107,448	163	31,912,000	48,498	297
Montgomery	Wayside Elementary*	Replacement	641	74,182	116	21,980,000	34,290	296
Montgomery	William H. Farqujar Middle	Replacement	796	135,626	170	38,712,000	48,633	285
Washington	Bester Elementary Graceland Park/O'Donnell	Replacement	608	71,671	118	19,017,000	31,278	265
Baltimore City	Heights PK-8*	Replacement	580	78,350	135	26,315,000	45,371	336
Baltimore City	Holabird PK-8*	Replacement	580	78,350	135	26,393,000	45,505	337
Average – Replacements			843	126,264	147	\$37,165,924	\$44,084	\$294
Average – ES			689	92,635	137	\$26,455,666	\$38,413	\$286
Average – PK-8			580	78,350	135	\$26,354,000	\$45,438	\$336
Average – MS			796	135,626	170	\$38,712,000	\$48,633	\$285
Average – HS			1,394	233,552	169	\$68,849,115	\$49,378	\$295

LEA: Local Education Agency

Note: Square footage includes the total amount of new, additional and renovated square footage. Construction cost includes the total estimated cost for site development and construction, including contingencies.

*All projects bid in fiscal 2012-2015 except those marked with an asterisk, which will be bid in fiscal 2016.

Source: Public School Construction Program, Department of Legislative Services

Public School Construction Program Recent Approved Renovation Projects

<u>LEA</u>	<u>School Name</u>	<u>Project Type</u>	<u>State Rated Capacity</u>	<u>Square Footage</u>	<u>Sq. Ft. per Student</u>	<u>Construction Cost</u>	<u>Cost per Student</u>	<u>Cost per Sq. Ft.</u>
Anne Arundel	Annapolis Elementary	Renovation	314	70,475	224	\$25,564,000	\$81,414	\$363
Anne Arundel	Mills-Parole Elementary	Renovation/Addition	673	89,767	133	27,235,000	40,468	303
Baltimore County	Catonsville Elementary at Bloomsbury	Renovation/Addition	700	103,603	148	24,827,000	35,467	240
Baltimore County	Pikesville High	Renovation	979	186,520	191	41,910,000	42,809	225
Caroline	Preston Elementary	Renovation/Addition	523	64,952	124	14,783,000	28,266	228
Cecil	Perryville Elementary	Renovation	434	69,649	160	18,763,000	43,233	269
Howard	Deep Run Elementary	Renovation/Addition	840	94,570	113	16,604,000	19,767	176
Prince George's	Eugene Burroughs Middle	Renovation	1087	133,544	123	33,848,703	31,140	253
Prince George's	Glenarden Woods Elementary	Addition/Renovation	500	73,822	148	21,326,137	42,652	289
Prince George's	Tulip Grove Elementary*	Addition/Renovation	382	64,830	170	18,627,693	48,764	287
Queen Anne's	Stevensville Middle	Renovation/Addition	712	86,670	122	17,740,844	24,917	205
Worcester	Snow Hill High	Renovation	598	121,076	202	40,901,000	68,396	338
Average – Renovationss			645	96,623	155	\$25,177,531	\$39,025	\$261
Average –ES			546	78,959	153	\$20,966,229	\$38,417	\$266
Average – MS			900	110,107	122	\$25,794,774	\$28,677	\$234
Average – HS			789	153,798	196	\$41,405,500	\$52,512	\$269

LEA: Local Education Agency

Note: Square footage includes the total amount of new, additional and renovated square footage. Construction cost includes the total estimated cost for site development and construction, including contingencies.

*All projects bid in fiscal 2012-2015 except those marked with an asterisk, which will be bid in fiscal 2016.

Source: Public School Construction Program, Department of Legislative Services

**V. Handout to Accompany
Overview of Interim
Schedule and Workplan**

21st Century School Facilities Commission ***Draft 2016 Interim Schedule and Work plan***

All meetings will be held in Room 120 House Office Building, Annapolis. Meetings will generally be followed by work sessions for interested members on the topic(s) of the meeting.

1. Organizational Meeting/Background Briefings *April 28th, 10am*
 - Overview of Task Force to Study Public School Facilities 2004 report
 - Overview of Public School Construction Processes and Needs

2. Stakeholder Input/School Maintenance *July 21, 10 am*
 - Hear from counties and interested stakeholders on school construction needs and ideas
 - School Maintenance, preventive maintenance, and best practices

3. Construction Efficiency *August 25, 10 am*
 - Best Practices for Education Facility Master Plans, Capital Improvement Programs, Facility Condition Assessments, and Project Management in Maryland and other states
 - Construction methods and best practices in procurement

4. Needs of Facilities to Meet Needs of Students *September 15, 1pm*
 - Educational specifications
 - Long-term planning for jurisdictions with growing and declining enrollment

5. Funding Needs and Mechanisms *October 13, 10 am*
 - Alternative financing mechanisms: P3s and other alternatives
 - Identifying efficiencies and cost-saving measures for construction and maintenance
 - Innovative financing mechanisms: value-capture/performance contracts
 - State Capital Budget and School Construction
 - School construction needs and priorities
 - State/Local cost share formula and eligible/ineligible costs
 - Structure and funding of public school construction programs in other states

6. Organizational Structures and Roles of School Construction Partners *October 27, 10 am*
 - Roles of State and Local Government:
 - Department of Planning
 - Department of General Services
 - Interagency Committee for Public School Construction
 - Maryland State Department of Education
 - Board of Public Works
 - General Assembly
 - County governments/school systems
 - Roles of Industry Partners:
 - Construction contractor/subcontractor
 - Architect/Engineer
 - Private sector
 - Apprenticeships/Certification

7. Work Session *November 10, 10 am*
 - Discuss Draft Recommendations

8. Work Session *December 1, 10 am*
 - Discuss Draft Recommendations

9. Decision Meeting *December 15, 10 am*
 - Finalize Recommendations