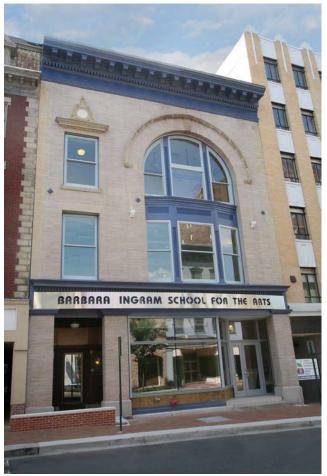
MEETING THE NEED FOR SCHOOL CONSTRUCTION

ANNUAL REPORT ON THE STATUS OF ALTERNATIVE FINANCING, PROCUREMENT, AND PROJECT DELIVERY FOR MARYLAND PUBLIC SCHOOL CONSTRUCTION:

SUPPLEMENT TO THE REPORT OF OCTOBER 3, 2011

SUBMITTED TO THE BOARD OF PUBLIC WORKS Governor Martin O'Malley Comptroller Peter Franchot Treasurer Nancy K. Kopp

September 13, 2013



Barbara Ingram School for the Arts Washington County Public Schools Hagerstown, Maryland

The Interagency Committee on School Construction

Dr. Lillian M. Lowery, State Superintendent of Schools, Chair

Mr. Richard E. Hall, Secretary, Maryland Department of Planning

Mr. Alvin C. Collins, Secretary, Department of General Services

Mr. Timothy F. Maloney, Appointee of the President of the Senate

Mr. Thomas S. Lewis, Appointee of the Speaker of the House

Dr. David G. Lever, Executive Director

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The Interagency Committee on School Construction September 13, 2013

Since the Interagency Committee on School Construction (IAC) submitted its last report in October 2011 on alternative financing, procurement, and project delivery of public schools in Maryland, exploration of the subject has continued. The following report is presented as an update to the October 2011 report.

September 19, 2011: Conference on Alternative Funding and Financing of Public School Facilities, Annapolis, MD

On September 19, 2011, the Public School Construction Program hosted an all-day seminar on alternative financing in collaboration with Anne Arundel County Public Schools. Attended by approximately 150 public officials representing local boards of education, local governments, and the State government, presentations were given on the following topics (available on the PSCP website at www.pscp.state.md.us):

Part I – Overview: Alternative Funding and Financing of Public School Facilities

• Brian Foret, AIA, Director of Facility Services, Wicomico County Public Schools

Part II - Alternative Funding:

- Alex Szachnowicz, P.E., Chief Operating Officer, Anne Arundel County Public Schools
- Boyd Michael, Deputy Superintendent, Washington County Public Schools
- Ray Barnes, Executive Director of Facilities Services, Frederick County Public Schools

Part III - Energy Performance Contracting:

- Cornell Brown, Assistant Superintendent of Operations, Harford County Public Schools
- Keith Scroggins, Chief Operating Officer, Baltimore City Public Schools
- Ken Roey, Executive Director of Facilities Planning and Management, Howard County Public Schools
- Ray Prokop, P.E., Director of Facilities, Carroll County Public Schools

Part IV - Public Private Partnerships:

- The United Kingdom: Glenn Stone, formerly of Grant Thornton LLP
- Alberta, Canada: John Gibson, P.E., Director of Alternative Procurement, Government of Alberta, Canada; and Brian Ast, P3 Business Development Manager, Honeywell Corporation
- British Columbia: Sarah Clark, P.E., President & Chief Executive Officer, Partnerships BC

September 28, 2011: Lieutenant Governor Commission on Public Private Partnerships, Annapolis, MD

The Executive Director of the PSCP presented to the Lieutenant Governor's Commission on Public Private Partnerships, offering information specific to the school environment. The PSCP presentation is attached to this report.

July 10, 2012: Workshop on Public Private Partnerships, Ellicott City, Maryland

On July 10, 2012, the PSCP organized a full-day seminar in collaboration with Howard County Public Schools for interested officials from school systems and local governments. The meeting agenda is attached to this report. Private vendors contributed their time to discuss the general concepts of P3, with the primary focus given to the Design-Build-Finance-Maintain-Operate (DBFMO) model that has been used in Alberta, Ontario, and British Columbia in Canada as well as in other parts of the English-speaking world. The DBFMO model is described extensively on pages 7 through 10 of the October 3, 2011 report. The vendors represented prominent private companies involved in the P3 market in the United States and Canada:

- Honeywell Corporation: Brian Ast, P3 Business Development Manager
- Brookfield Financial: Kirk Allen Robinson, Partner
- AECOM: Samara Barend, Strategic Development Director for Public-Private Partnerships, North America, and Simon Shekleton, C.E., P3 Advisory's Technical and Commercial Practice
- Freshfields Bruckhaus Deringer: Dolly Merchandani, Partner
- KPMG LLP: Cate Singer, Manager, Infrastructure Advisory Practice, and Guy Wilkinson, Managing Director, Infrastructure Advisory

The highlight of the seminar consisted of a Value for Money (VfM) module in which teams of seminar participants were asked to conduct a risk transfer exercise. Since risk transfer is the essential component of the Value for Money (VfM) calculation that determines if a P3 approach will deliver greater value than conventional public sector delivery, it was felt that the exercise would give Maryland officials a degree of familiarity with the core concepts and practices of P3. Each team was given a listing of possible project risks and was asked to determine if the risk should be held by the public owner, the private vendor, or shared. The exercise included extensive discussion about why individuals had made the choices they did. The LEAs that participated in the table exercise were Allegany, Baltimore City, Frederick, Harford, Howard, Montgomery, and Prince George's. Also present as observers were Carroll, Washington, and Wicomico County Public Schools, as well as State officials.

The exercise and the presentations by the private vendors led to a very lively discussion, with full vetting by the public sector participants of their concerns and questions about P3. These included:

Costs:

- The potential cost of financing a DBFMO project vs. conventional delivery with public sector provision of maintenance and operations.
- o How are potential cost savings allocated between building construction and maintenance/operations?
- o What size of project works best?
- How are availability payments estimated for budgeting purposes?
- o Is it possible for the public to pay for the construction at delivery of the project, with the availability payment addressing only operations and maintenance?

Procurement:

- o How long does it generally take to arrive at the decision to use P3 rather than a conventional approach?
- How to ensure the participation of small businesses, minority businesses, and local businesses in the procurement.
- Ability of the public sector to administer the complex procurement and management of a DBFMO contract.

- o How to ensure competition in the procurement process.
- o Risks that are involved in awarding the contract before the design has been completed.
- o Can the O&M procurement include provision of utilities?
- o Can a P3 be done without establishing a Local Education Partnership (LEP, the term used for Special Purpose Vehicle in the U.K. Building Schools for the Future program)?
- o Is an inter-jurisdictional arrangement possible?
- Quality of Design, Construction and Services:
 - How are design criteria and educational specifications handled in a P3 arrangement?
 - Assurance that the quality of maintenance and operational services will be maintained at
 a consistent level throughout the life of the contract; how to hold the vendors accountable
 for the quality of services and ensure that the facility will be turned over to the public in
 good condition at the end of the contract.
 - o Is it possible to build an operating reserve into the financing?
 - o Is it possible to use prototype and repeat designs?
 - o What happens if changes in demographics or student enrollments change the need for the school in the future; how are the contracts adjusted?
 - Possible loss of operational control of a facility through use of outside vendors for maintenance and operations.
 - Concern that innovation in design or materials (particularly to achieve value engineering) could lead to reduced quality.
- Community Impacts:
 - The possibility that if the standard of maintenance and operations in the DBFMO project were noticeably higher than the level possible in other schools, grievances would mount against the board of education.

These valid concerns were addressed by the representatives of the companies present.

Summer 2012: Exploration of LEA Interest in P3

From among the July 10 attendees, a small group met several times in the summer and early fall of 2012 to identify potential projects that could lend themselves to a P3 approach. The LEAs represented were Baltimore City, Harford, Howard, and Montgomery; Frederick also expressed interest in participating. The objective of these discussions was to compose a potential package of projects that could fall under a P3 procurement, and to determine if there were sufficient interest among the respective boards of the LEAs to pursue this further.

Among the attendees of these smaller meetings, at least \$350 million in work was identified that meets the basic criteria that are believed to be of interest to the P3 investment community:

- Projects that involve new, vertical construction;
- Projects that include a number of central office and support buildings as well as schools;
- Projects that are located within reasonable geographical proximity of one another; and
- Projects that together have a construction value of at least \$100 million.

The next step would be to engage a consultant to carry out a Value for Money analysis of a P3 approach for these projects, compared to conventional public sector delivery. It is estimated that the cost of such a consultant would be approximately \$600,000; assuming a level of interest, the cost would presumably be shared among the local boards and local governments on a *pro rata* basis. The idea was mentioned of approaching the Lieutenant Governor to determine if the State would also participate in this pilot program.

However, the group recognized that there are large challenges in coordinating a P3 program among several Maryland boards of education, each of which has their own policies and practices with respect to design, project delivery, and project procurement. In Alberta, Canada, the provincial government controlled capital funding and consequently was able to establish considerable design and procurement

uniformity among the local governments and boards of education that participated in the construction of some 28 new schools. By contrast, the State of Maryland has no similar authority over local educational agencies. A simpler approach for a pilot program would involve a single LEA; at this writing, only Montgomery County has a capital program large enough to support a P3 program

Due in part to this difficulty as well as the time and effort that have been given in 2012 and 2013 to the Baltimore City 10-Year Plan, further work has not continued on this subject since the summer of 2012. In the 2013 session of the General Assembly, HB 560 authorized a number of State agencies and public universities to enter into public private partnerships. Chapter 5, Laws of 2013. The Interagency Committee on School Construction was not named in the legislation because the Public School Facilities Act of 2004 had already established a statutory basis allowing local educational agencies to use public private partnerships for school construction. Chapter 306, Laws of 2004. The 2004 law appears to be sufficiently robust to allow further P3 work to proceed, with possible modifications that will be studied at the time that a valid pilot program is developed.

Autumn/Winter 2013: Next Steps

The Governor has established a Subcabinet consisting of representatives of the agencies that are named in HB 560; the IAC, as an agency responsible for the management of State funds for the second largest capital program in the State, will be represented on this Subcabinet. The Subcabinet will provide the opportunity for the IAC to learn from other agencies that have undertaken P3 explorations, and to share the lessons learned from those LEAs that have explored the topic.

Currently, there is considerable interest among representatives of the financial markets in the potential of the Baltimore City Public Schools 10-Year Plan program, funded through HB 860 of the 2013 legislative session, to include P3 projects. HB 860 authorized the Maryland Stadium Authority to issue up to \$1.1 billion in tax-exempt bonds to fund schools within Phase I of the 10-Year Plan; the scope will include 15 replacement schools and up to 20 major renovations. The majority of projects within this large scope will be addressed through conventional design and procurement methodologies. However, the Public School Construction Program is in discussion with City Schools to identify sites and facilities within the Plan that could present opportunities for public private partnership arrangements. The merit of such arrangements, particularly if done under a DBFMO structure, would include the leveraging of existing assets to develop payment revenue streams; the removal of the capital costs from the Stadium Authority bond funding, allowing those revenues to be applied to a broader set of projects; and the guarantee of maintenance and operations for an extended period, reducing the operational burden of City Schools for both its new and renovation facilities built with Stadium Authority funds, and for its existing schools.

PUBLIC SCHOOL CONSTRUCTION: PUBLIC-PRIVATE PARTNERSHIPS



Barbara Ingram School for the Arts Washington County Public Schools Hagerstown, Maryland

Presentation to the Public Private Partnership Commission Lieutenant Governor Anthony Brown, Chair September 28, 2011

David Lever Executive Director, Public School Construction Program

Alternative Funding and Financing

PUBLIC SCHOOL FACILITIES ACT OF 2004:

- Enabled alternative financing for school construction, as well as alternative procurement and project delivery:
 - Competitive negotiation
 - Construction Management at-Risk
- > Types of alternative financing enabled:
 - Lease leaseback
 - Sale leaseback
 - Public Private Partnership
 - Performance based contracting
 - Other
- To date, one true alternative financing project has been executed (Barbara Ingram School for the Arts, Hagerstown)*



Barbara Ingram School for the Arts, Rear Facade Hagerstown, MD

^{*} PSCP Annual Report September 2010, at www.pscp.state.md.us

THE EXPERIENCE ABROAD: UNITED KINGDOM

- Building Schools for the Future (BSF): Initiated mid-1990s to replace or upgrade all secondary schools in the UK within 10-15 years
- Many were carried out under Design-Build-Finance-Operate-Maintain (DBFMO) P3 arrangements called Private Finance Initiative (PFI)
 - Value for Money (VfM) is determined by comparing the PFI alternative to a <u>Public Sector Comparator</u> (PSC) through quantification of all lifecycle costs, including risk factors.*
 - A range of risks can be considered for transferred to the private vendor:

Design
 Construction
 Maintenance
 Operations
 Security
 Finance
 Utilization
 Obsolescence
 Availability
 Residual Value

Alternative Funding and Financing

THE EXPERIENCE ABROAD: BRITISH COLUMBIA

How a PPP Generates Value for Money

- > Robust competition
 - Innovation in design and construction
 - Effective maintenance alternatives
- > Life cycle (not initial costs) approach
 - Integration benefits between capital and operating
- > Efficient financing, competitively sourced
- > Cost-effective risk allocation
 - · Risks borne by most appropriate partner

Source: Presentation by Sarah Clark, CEO, Infrastructure BC September 19, 2011

Note: Infrastructure BC is a crown corporation under the Minister of Finance, not a governmental agency

 ⁽See "Assessing Value For Money: A Guide To Infrastructure Ontario's Methodology" for a clear explanation of this
quantification process)

THE EXPERIENCE ABROAD: BRITISH COLUMBIA

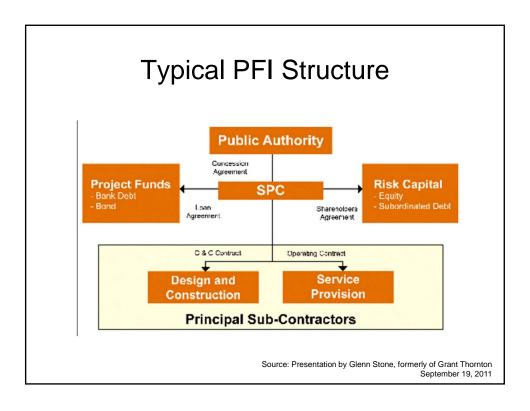
Typical Risk Allocation in a PPP

Public Sector	Shared	Private Partner
Ownership	Environmental	Design
Program Delivery/ Decision-making	Demand Energy Costs	Construction Schedule
Legislative Change First Nations	Industrial Relations	Maintenance
Land Acquisition	Permitting Force Majeure Existing site conditions Geotechnical	Commissioning Commercial
		development Life cycle capital
		Financing

Alternative Funding and Financing

THE EXPERIENCE ABROAD: UNITED KINGDOM

- Private consortium (the <u>Special Purpose Vehicle</u>, SPV) consists of financier, designer, constructor, and facilities management firms that *provide design and construction*, as well as a range of long-term services (maintenance, cleaning, food, operations)
 - Private entity is assured of further construction work by local authority (school district) for a period of 10 years
 - ❖ Services are typically contracted for 25 − 30 years, with penalties in case of poor performance or lack of availability of facility
 - Generally, contracts involve 10% equity and 90% private debt, repaid through long term contracts for services
- Overall record appears to be good: improvement of schools, improvement of services, high level of user satisfaction
- Little trade union opposition as employment transfer protection is provided
- BSF halted by Cameron government in 2010 as part of fiscal austerity measures; we understand that a modified BSF program has just been relaunched under public pressure
- ➤ House of Commons report on PFI in general (July 18, 2011) notes that although performance has been variable, in general PFI has not delivered clear evidence of savings and benefits to offset the higher cost of finance



THE EXPERIENCE ABROAD: NOVA SCOTIA

- 39 schools built 1996 1998 to address rapid demographic shift from countryside to cities, and to consolidate schools with declining enrollment
 - Initial 6 schools contracted as net leases (developer responsible for portion of lease through 3rd party leases)
 - Next 33 schools delivered as turn-key with full service contract support:
 - Building maintenance and custodial
 - Technology provision & support, including computers/labs
 - Technology refresh fund
 - Capital refresh fund
- 2 M square feet approx. (about 9% of total NS square footage)
- ➤ Construction value: \$300 M (Cdn.) approx.
- > Contract to delivery time: 12 months





THE EXPERIENCE ABROAD: NOVA SCOTIA

Program Objectives:	Objective Met?*	
 Financial: Off balance sheet financing 	X	
❖ Speed of delivery	$\sqrt{}$	
❖ Risk transfer:	X	
Ability to abandon school at end of termPrivate sector management of school operations		
 Turn-key schools (boards focus on education) 	X	
Innovative technology solutions & support	X	
> Evaluation:		

- - Original objectives largely not met
 - Value added opportunities not fully utilized
 - * Both sides did not fully understand school issues
 - * Contractual shortfalls left a legacy of negotiations and dispute resolution
 - Some compromises in quality, but overall, would use this method again if more schools were needed
- 1998 new government withdrew support for P3 for schools

Alternative Funding and Financing

THE EXPERIENCE ABROAD: ALBERTA

Constructed and operational

- Anthony Henday South East (Edmonton)
- North East Stoney Trail (Calgary)
- ASAP I 18 schools (Calgary and Edmonton)

Under construction

- Anthony Henday North West (Edmonton)
- ASAP II 14 schools (Edmonton, Calgary & surrounding areas)
- South East Stoney Trail (Calgary)

In procurement

- Anthony Henday North East (Edmonton)
- ASAP III 13 schools (across Alberta)
- Evan-Thomas Water & Waste Water Treatment Plant (Kananaskis Country)



Source: Presentation by John Gibson, Alberta Infrastructure September 19, 2011



^{*} Source: Dennis Youden, Nova Scotia government, autumn 2006

Alberta Schools Alternative Procurement

ASAP I	ASAP II
Eighteen Schools K-4, K-6, and 2 types of K-9 Schools (DBFM)	Fourteen Schools K-6, 5-9, K-9 (DBFM) and 4 high schools (Design-Build)
Four School Boards	Eight School Boards
Two Municipalities (Edmonton, Calgary)	Six Municipalities (Edmonton, Calgary, Sherwood Park, Spruce Grove, Okotoks, Langdon)

Alberta: ASAP Projects

- Consolidated approach to designing, building, financing and maintaining (DBFM) new schools
 - Note: The province provides all capital funds to the localities
 - In ASAP, Alberta Infrastructure (a provincial department) holds contracts
- Schools designed using a core design with modular classrooms
- LEED™ Silver standard for all schools
- Project includes 30 year maintenance and renewal (M&R) component

Alberta: Ownership and Access

- New schools owned and operated by school boards.
- Private sector will not own or lease schools there will be no 3rd party revenue.
- Use and access to new schools will be the same as existing schools.
- School boards will provide:
 - √ Educational programming
 - ✓ Furniture and equipment (supply and install)
 - ✓ ICT cabling maintenance

Alberta: Transaction Process

- Invite consortia to submit their qualifications (RFQ).
- Short list to 3 consortia.
- Invite short-listed teams to submit detailed proposals (RFP), including designs
- Staged technical submissions during RFP.
- Legal agreement terms and conditions optimized during RFP.
- Opportunity for innovation in design during RFP.
- If proponent passes all stages then submit fully-priced bid.
- Contract awarded on basis of lowest NPV bid only.
- No negotiation after award.

Alberta: Maintenance & Renewal Features

- 30-year life-cycle maintenance:
 - √ 5 year building evaluation
 - √ year 25 evaluation to include renewal plan
 - √ to attain a 30 year old school in good condition
- Custodial services: remain responsibility of school

board:

- ✓ cleaning
- √ operational support (moving desks, etc.)
- √ monitoring boiler cycles
- ✓ scheduling fans



Alberta: Private Financing

- Payments to contractor (over the 30-year contract) depend on availability and performance
- If contractor does not perform province cannot pay lender
- Size of project attractive to institutional investors
- Investors provide oversight to protect their money

Albert: Value for Money

PROJECT	PSC NPV	Bid NPV	VFM
NEST (2006 \$)	\$1.0–1.1 B	\$650 M	\$350 M
NW AHD (2008 \$)	\$1.6 B	\$1.4 B	\$200 M
ASAP I (2008 \$)	\$752 M	\$634 M	\$97 M
ASAP II (2010 \$)	\$358 M	\$253 M	\$105 M

- Compare bids to a Public Sector Comparator, or PSC (cost estimate to deliver using traditional process) to calculate VFM
- All risks must be accounted (some risks were missed in the SE AHD PSC)
- Includes design, construction and O&M/Rehab for the next 30 years on net present value (NPV) basis

Alternative Funding and Financing

- > Effectiveness: Projects are carried out when needed, not when public funds are available
- > Risk transfer: Types of risks that can be transferred to private sector :
 - ❖ Design: errors and omissions
 - Construction: cost overruns
 - * Availability: facilities will be available when needed
 - Maintenance: private owner has incentive to maintain facility well
 - ❖ Operations: 30% savings reported over conventional costs
 - Enrollment: Lease can be structured to allow buy-back, or owner can opt out if facility is no longer needed at end of the lease
- > Education: Principal and teachers are left free for teaching
- Off balance sheet: Lease obligations may be considered to be off-line, freeing debt capacity for other purposes
- > Efficiency:
 - In Maryland, would allow investment of discounted State funding into guaranteed interest contract (GIC) account to build a sinking fund (however, only Paygo can be invested)
 - For local governments, may allow normal operating budget to be used to repay capital financing costs
 - Payments are deferred until facility is available
- Funding Source: For investors, attractive and safe haven because longterm, predictable need for facilities and services guarantees a reliable repayment stream

Increased total project cost:

- Private financing is invariably more expensive than public debt
- Transfer of risks involves costs that must be assumed by private entity (although presumably shed by public sector)

Complexity of Contracts:

- Value for Money (VfM) must be established by comparison of Private Finance Initiative (PFI) with Public Sector Comparator (PSC)
- · Risk must be quantified
- Obligations of each party must be clearly spelled out

Remedies must be available if private entity:

- Does not complete projects at adequate quality or on schedule
- Fails to perform services at adequate standard
- . Bails out or goes bankrupt
- School is no longer needed after term is completed
- Community objections: Are the schools still fully available to the public for community purposes?
- Labor objections: What will happen to maintenance and custodial jobs under private management of schools?

Alternative Funding and Financing WHEN IT MAKES SENSE TO USE ALTERNATIVE FINANCING

- > For a massive but short term building task:
 - Local and State funds cannot be concentrated within the period of need
 - Few other large projects are on the horizon within the jurisdiction
- When the local board has an asset that can be leveraged:
 - Historic property
 - Land or building assets can develop long-term revenue stream
- When a critical project is needed, but the normal capital improvement program priorities can not be disturbed:
 - Specialized magnet school
 - Lorton High School, Fairfax County
- > An opportunity presents itself:
 - Developer wishes to end APFO closure by building capacity (typically
 - Developer wishes to promote an economic development project
 - Land can be leveraged to serve public and private uses (e.g. Stafford County, VA: elderly housing and YMCA on same site as schools)
 - Financing opportunity is available (e.g. historic tax credits requires private entity ownership of building)
- When the overall task is greater than the available and anticipated resources

REFERENCES / SOURCES

United Kingdom:

- Commission for Architecture and the Built Environment (CABE) (http://www.cabe.org.uk/publications)
- National Audit Office (NAO) (http://www.nao.org.uk/publications)
- ➤ Department of Education (formerly Department for Children, Schools and Families) (http://www.education.gov.uk/publications)

Canada:

- Infrastructure Ontario, "Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology" (2007) (http://www.infrastructureontario.ca/en/projects/files/VFM-GUIDE-WEB.pdf)
- Canadian Council for Public-Private Partnerships, "Schools: The Case for a Canadian PPP Application", November 2007
- Canadian Council for Public-Private Partnerships, "2010 National Award Case Studies", June 2011

Public-Private Partnerships School Roundtable

AGENDA



Date July 10, 2012

Location Howard County Board of Education Headquarters Building

10910 Clarksville Pike (Route 108), Ellicott City, MD

Time	Item	Presenter
8am	Welcome/Introductions	Dr. David Lever
8:15am	Why consider PPPs for public schools?	AECOM
8:45am	PPPs 101 - Project finance overview - Project structure - When PPP is most suitable	AECOM/Brookfield
9:45am	US & International PPP Experience - Alberta, New Brunswick, New South Wales, - Northern Ireland, UK Building Schools for the Future	KPMG/Brookfield
10:15am	How to determine if a PPP is the right choice? - Value for Money Analysis - Life Cycle Costing - Importance of Risk	AECOM/KPMG/Honeywell
10:45am	Break	
11:00am	Mock Risk Workshop	AECOM/KPMG
12:30pm	Lunch	
1:00pm	Investor Perspective	Brookfield
1:30pm	Best Practices & Lessons Learned	Discussion
2:00pm	Traditional vs. P3 Procurement	AECOM
2:45pm	Break	



3:00pm	Drafting a Project Agreement - Key policy considerations	Freshfields
3:45pm	Schools PPPs in Maryland – Considerations and Next Steps	Discussion
4:15pm	Open Discussion	tbd