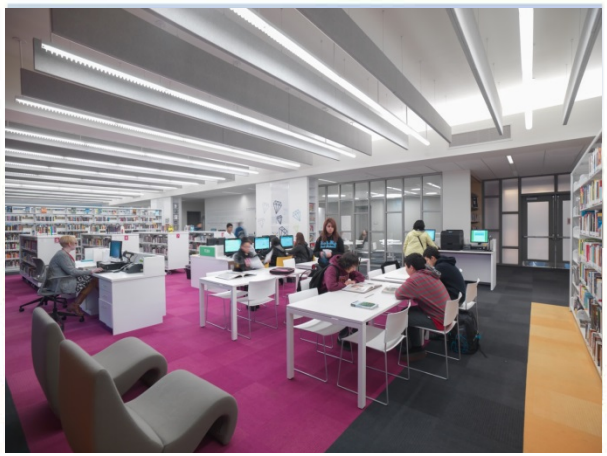
Public Building Commission

Introduction to the PBC

November 7, 2014



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Introduction & Welcome

Erin Lavin Cabonargi,

Public Building Commission

Executive Director

Introduction
to the PBC

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Agenda

- History of the PBC
- Legislative Authority
- Clients
- Performance Metrics
- Development Services
- Benefits of Working with the PBC
- Terms & Tools

Introduction
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History of the Public Building Commission

- Established on July 25, 1956
- Acts as a developer with the ability to finance, acquire property, design, construct or renovate, operate and maintain government facilities
- The 11-member Public Building Commission (PBC) is chaired by Mayor Rahm Emanuel and comprised of representatives from the Chicago Public Schools, Chicago Park District, Cook County Board of Commissioners, Forest Preserve District of Cook County and the Metropolitan Water Reclamation District of Greater Chicago. The remaining five members are appointed by the Chairman to represent commerce, labor and the community.

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to the PBC

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Legacy of Leadership

Past Board Chairs:

- Richard J. Daley
- George W. Dunne
- Harold A. Washington
- Eugene Sawyer
- Richard M. Daley

Current Commissioners:

- Chairman Rahm Emanuel
- Byron T. Brazier, *City of Chicago*
- Martin Cabrera, Jr., *City of Chicago*
- Thomas J. Kotel, *City of Chicago*
- Jose Maldonado, *City of Chicago*
- Toni Preckwinkle, *County of Cook*
- Arnold Randall, *Forest Preserve District of Cook County*
- Samuel Wm. Sax, *City of Chicago*
- Mariyana T. Spyropoulos,
  Metropolitan Water Reclamation District of Greater Chicago
- Bryan Traubert, *Chicago Park District*

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Mission

The Public Building Commission is committed to client service and strong stewardship of public resources. The PBC plans, designs and builds facilities that reflect the highest standards of environmental and economic sustainability.

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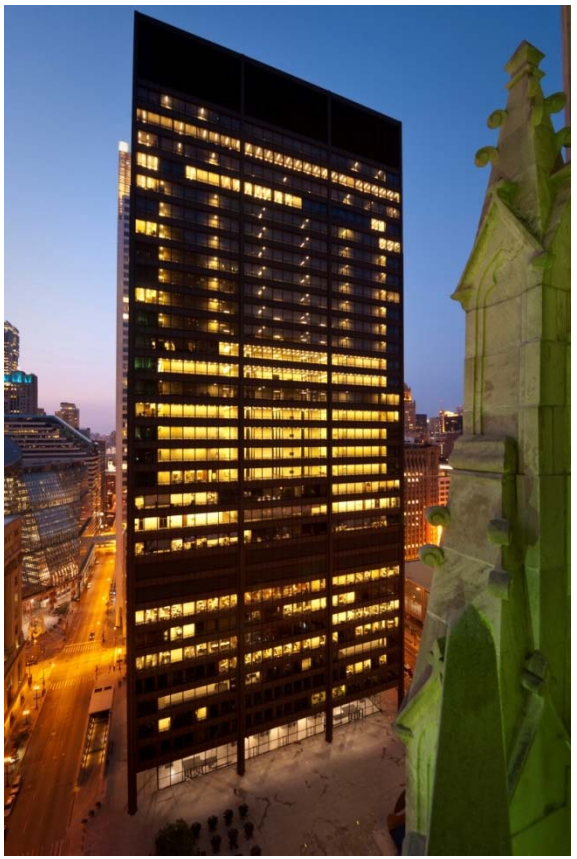
Vision

The vision of the Public Building Commission is a built environment in which function, beauty and sustainability are inherent to every community; where physical surroundings inspire and support achievement of the individual goals of those who live, work and visit Chicago and Cook County; and where people gather to share the common values that truly build our communities.



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Professional Public Program Management

Turn Key Planning & Development Services

- Asset Mapping & Preventative Maintenance Planning
- Prioritized Capital Planning (10 year plan)
- Master Planning / Campus Planning
- Project Planning
- Project Finance Modeling
- Pre-Development Work
- Project Development
- Facility Operation & Maintenance

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Legislative Authority

The Public Building Commission is a **municipal corporation** created pursuant to the provisions to the Public Building Commission Act adopted by the Legislature of the State of Illinois on July 5, 1955.

Pursuant to Section 14 of the Act, the Commission remains an independent agency, separate and apart from any other municipal corporation or public or governmental agency. **Because it was formed through intergovernmental cooperation for the purpose of serving other government agencies, the PBC is uniquely qualified to provide leadership, expertise, service, and support to the capital program of its clients and other public municipalities.**

Legislative Authority

Per the PBC Act, the creation of the Public Building Commission is considered an essential tool to eradicate duplication of services among various government bodies.

- **'…the construction, acquisition or enlargement of such public improvements, building or buildings and facilities, in the manner hereinafter provided in this Act, is hereby declared to be a public use essential to the public interest.'**

Legislative Authority

Opportunities for innovation and expanded services for the PBC can be developed without any additional legislative action.

- Land Acquisition
- Finance
- Design
- Build
- Operate
- Maintain

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Clients

- Chicago Public Schools
- Chicago Public Library
- Chicago Park District
- Chicago Housing Authority
- Chicago Transit Authority
- City Colleges of Chicago
- Metropolitan Water Reclamation District of Greater Chicago
- Cook County
- Forest Preserve District of Cook County
- Various Municipalities

Clients (continued)

- City of Chicago:
  - Office of Emergency Management & Communications
  - Chicago Police Department
  - Chicago Fire Department
  - Department of Family & Support Services
  - Department of Fleet & Facility Management
  - Department of Planning & Development

Introduction to the PBC

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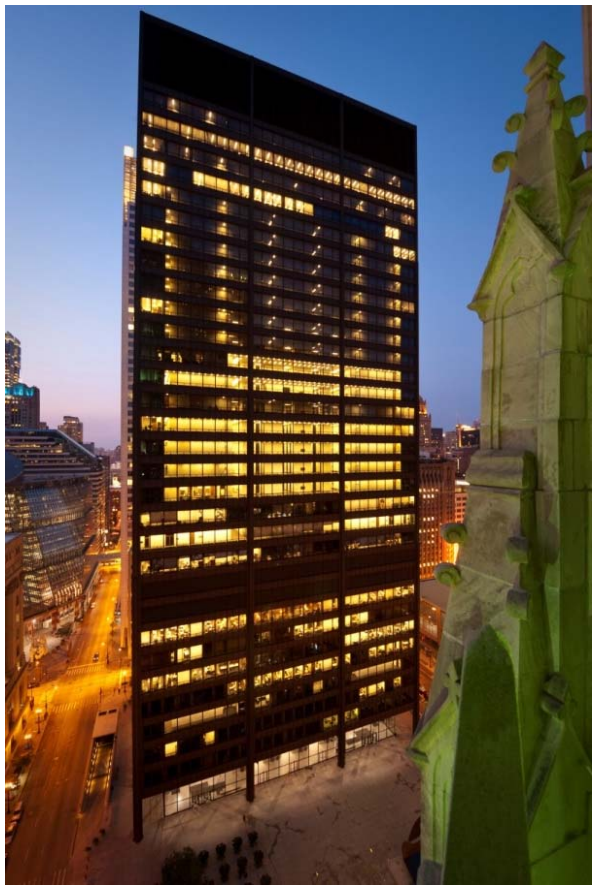
Multijurisdictional Project Development

Richard J. Daley Center and Daley Plaza

- PBC's first project
- Opened in 1966
- Built, owned, and operated by the PBC
- One of the country's largest courthouses
- More than 1,200,000 sq ft, including the 88,000 sq ft exterior Daley Plaza
- 30,000 visitors per day
- Certified LEED Silver in 2012



PUBLIC BUILDING COMMISSION

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Public Schools

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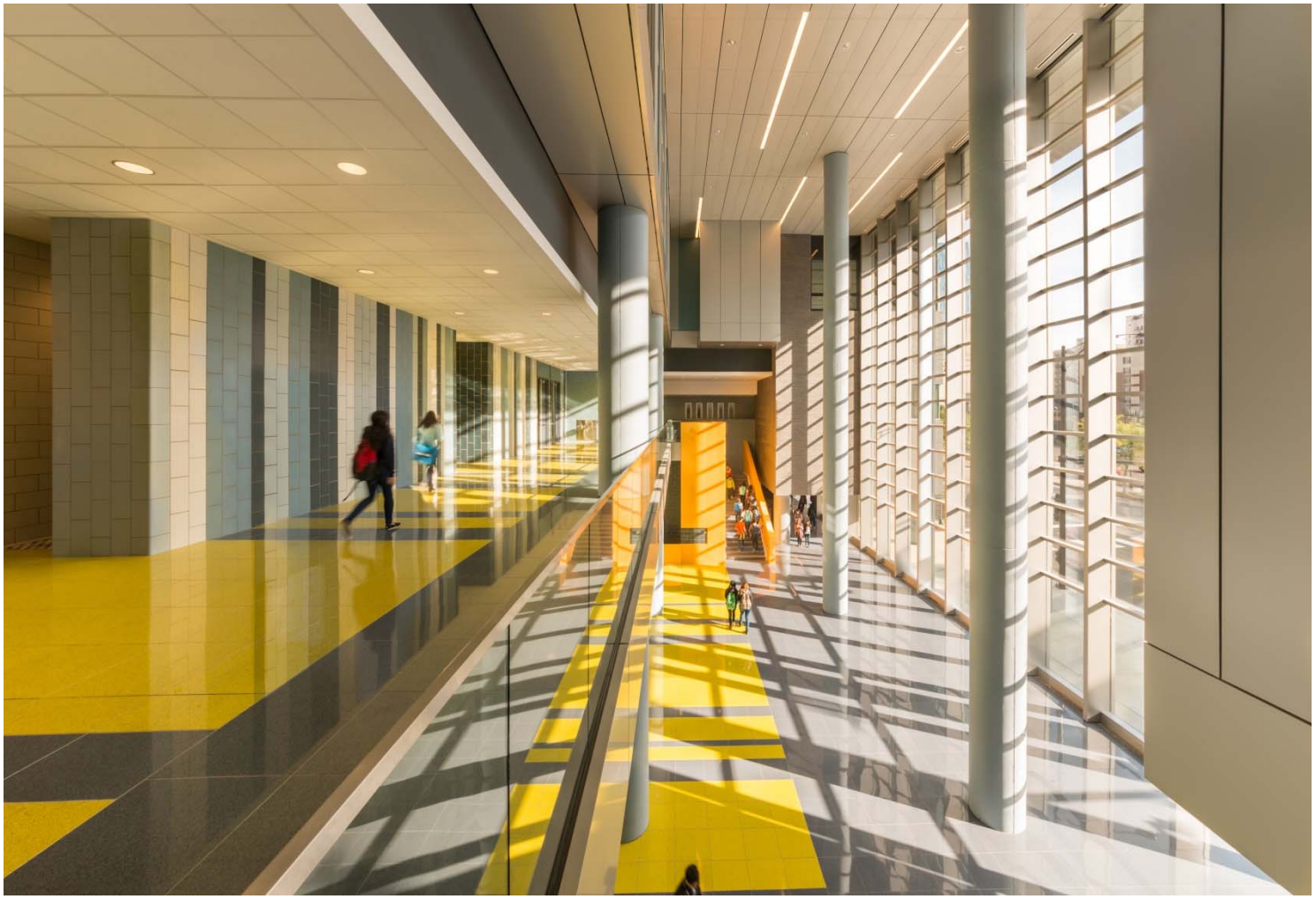

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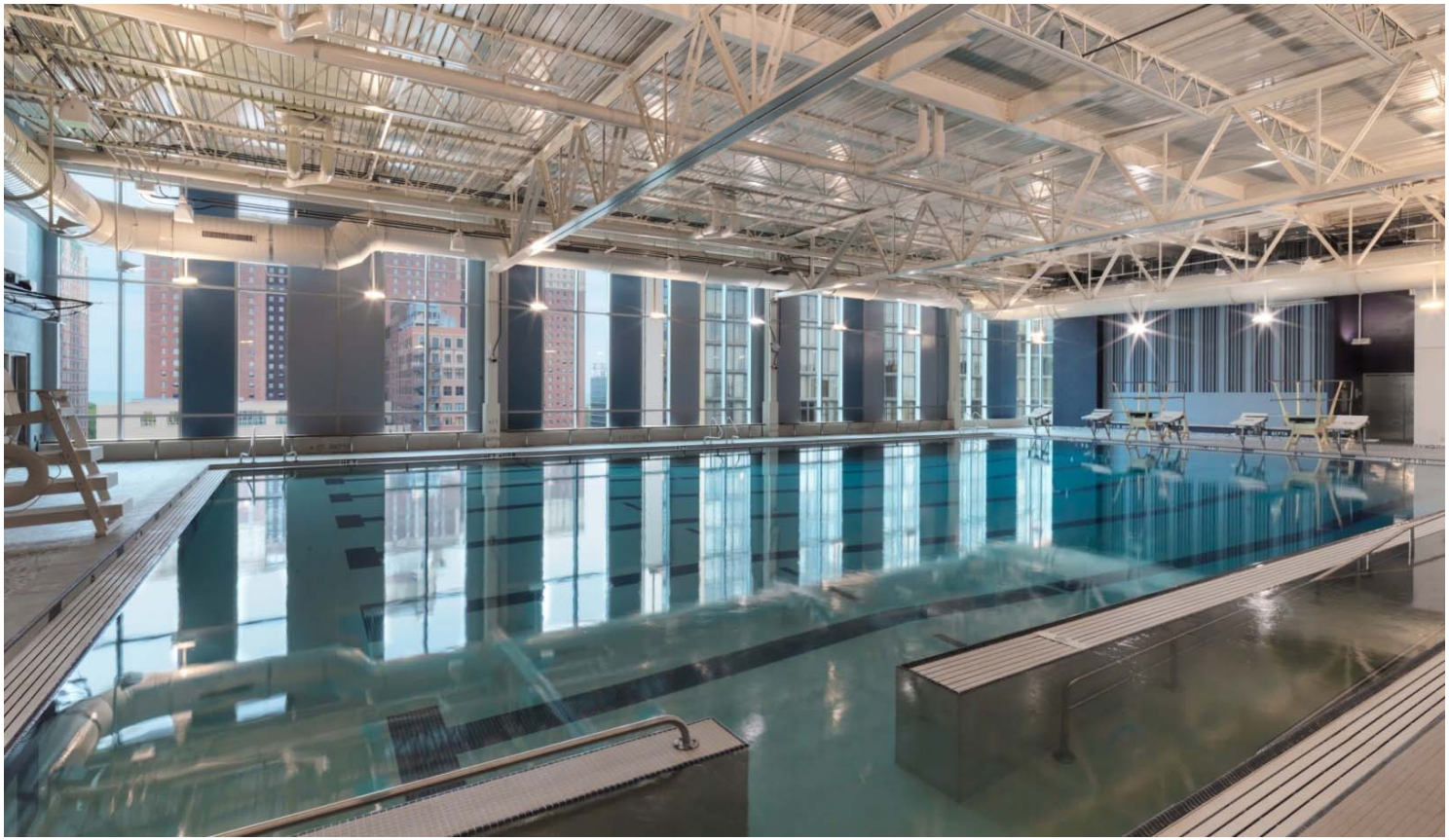

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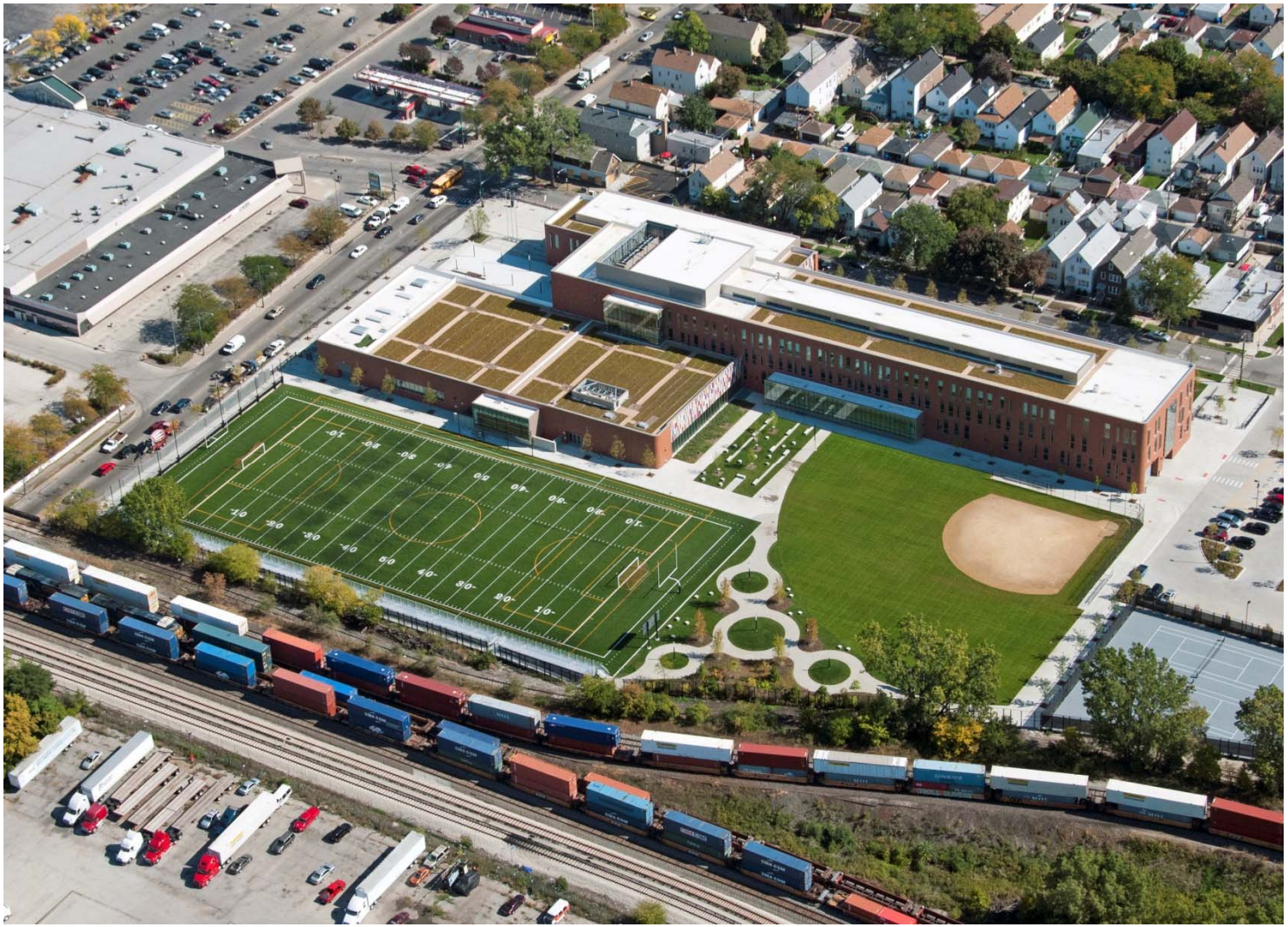

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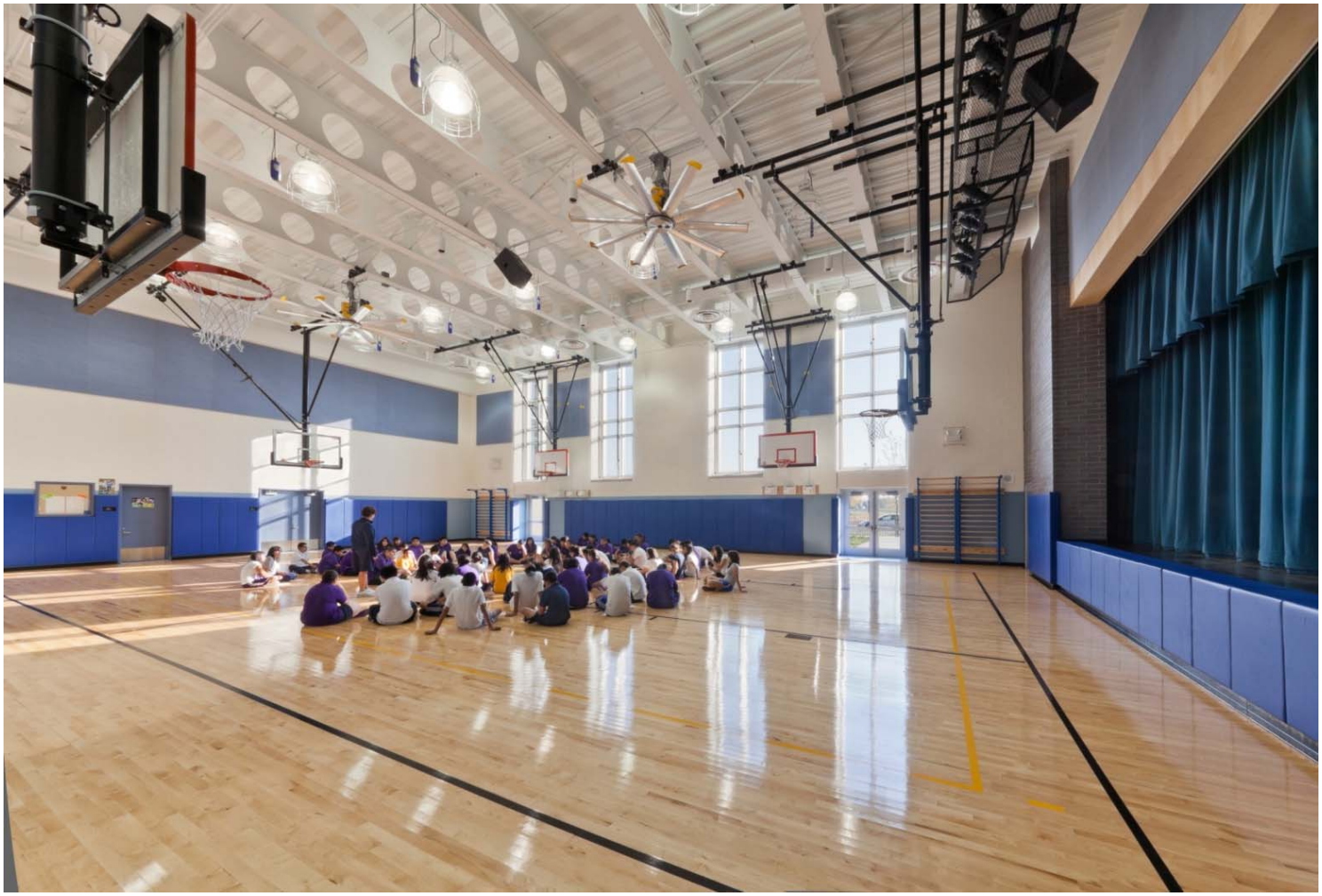

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Library Branches

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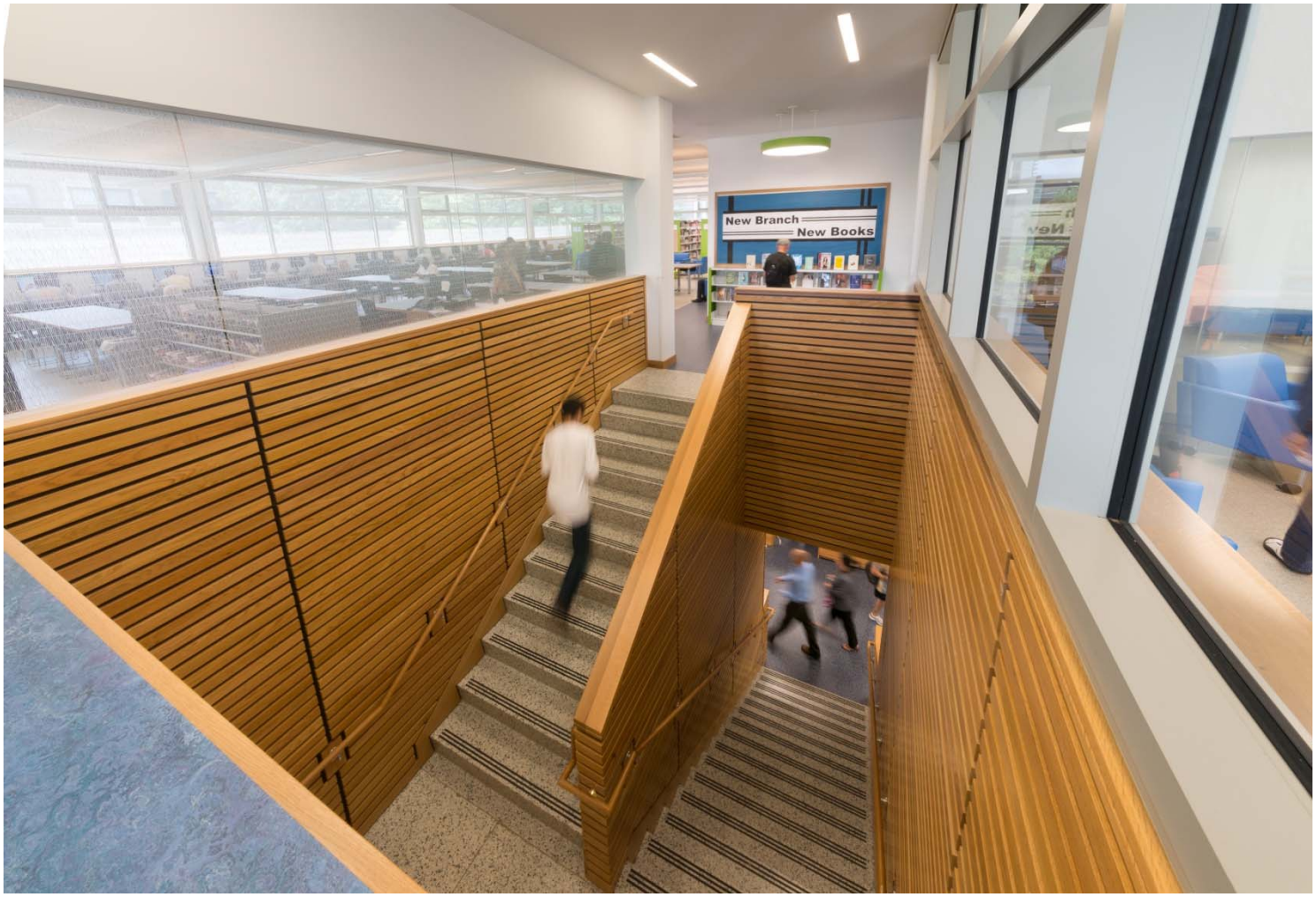

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Campus Parks

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City Colleges

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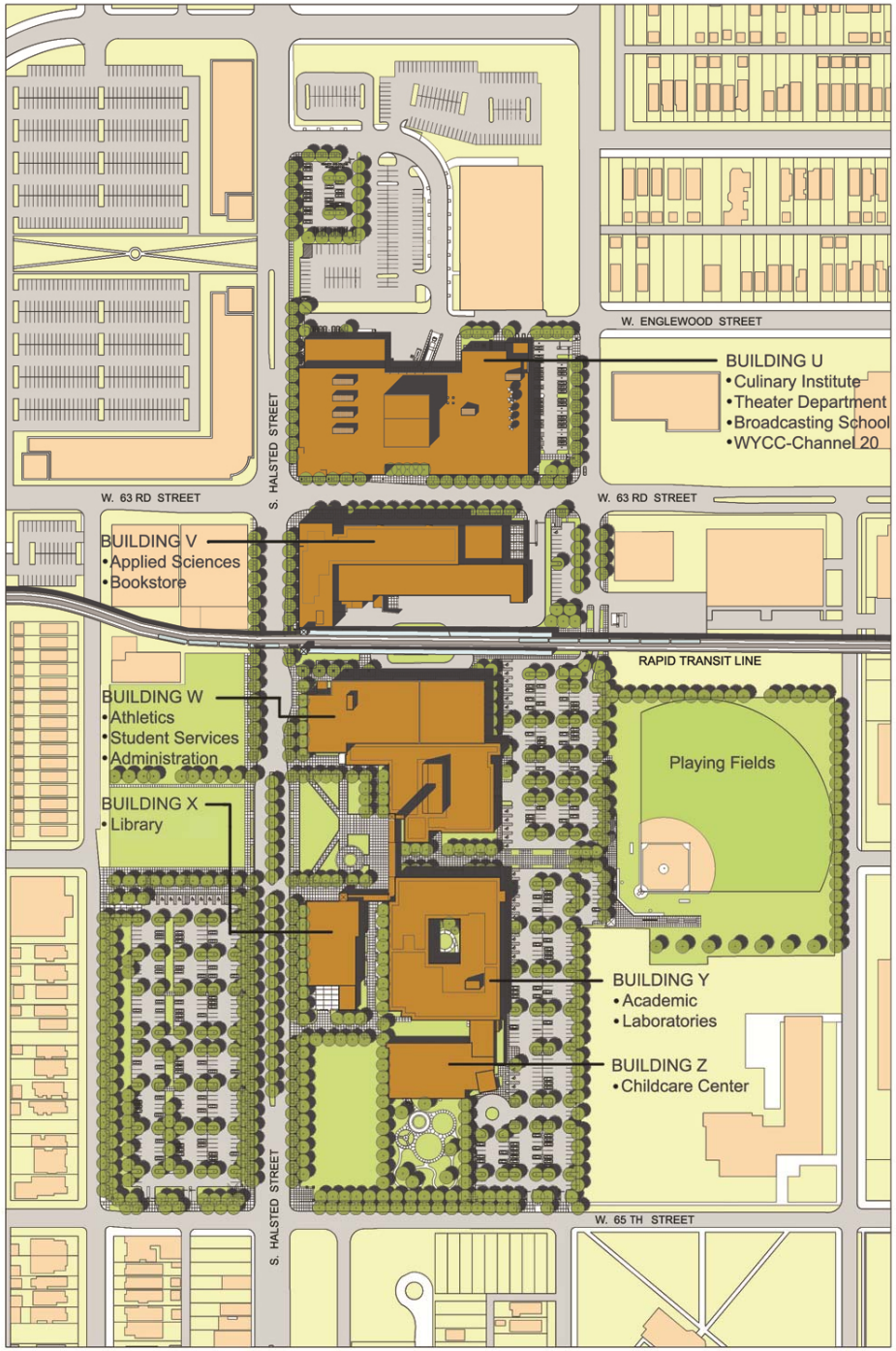

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Municipal Parks

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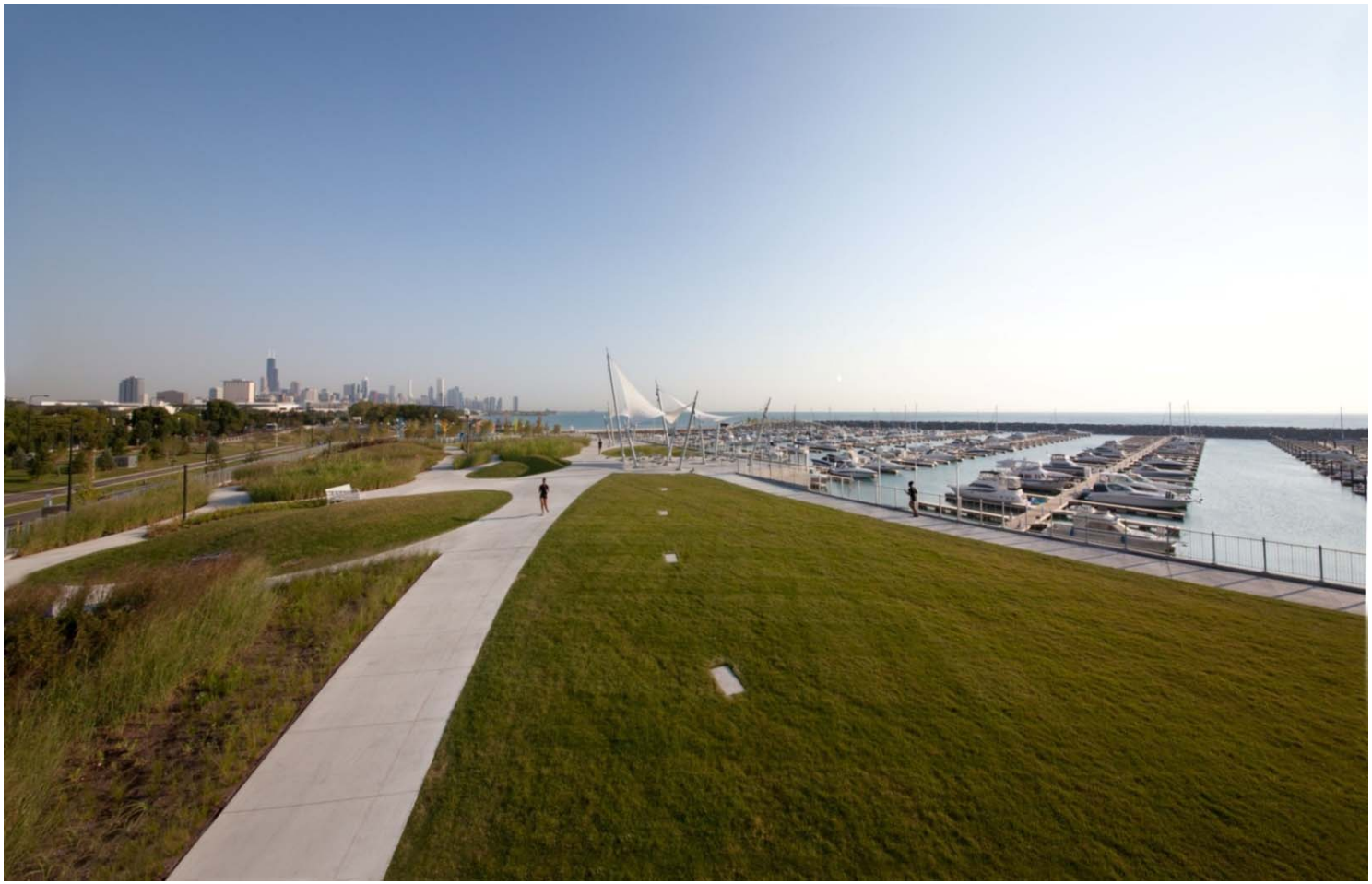

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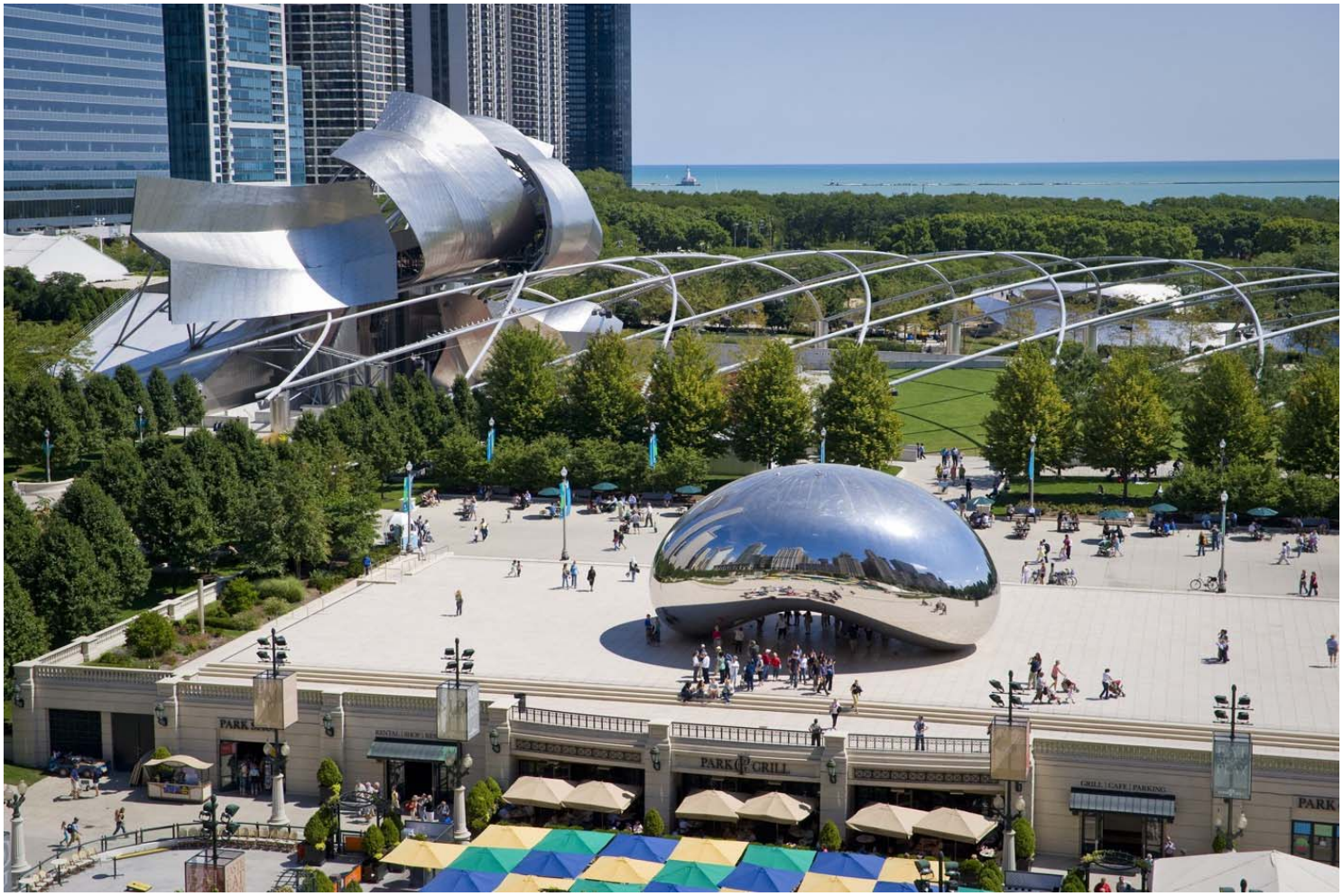

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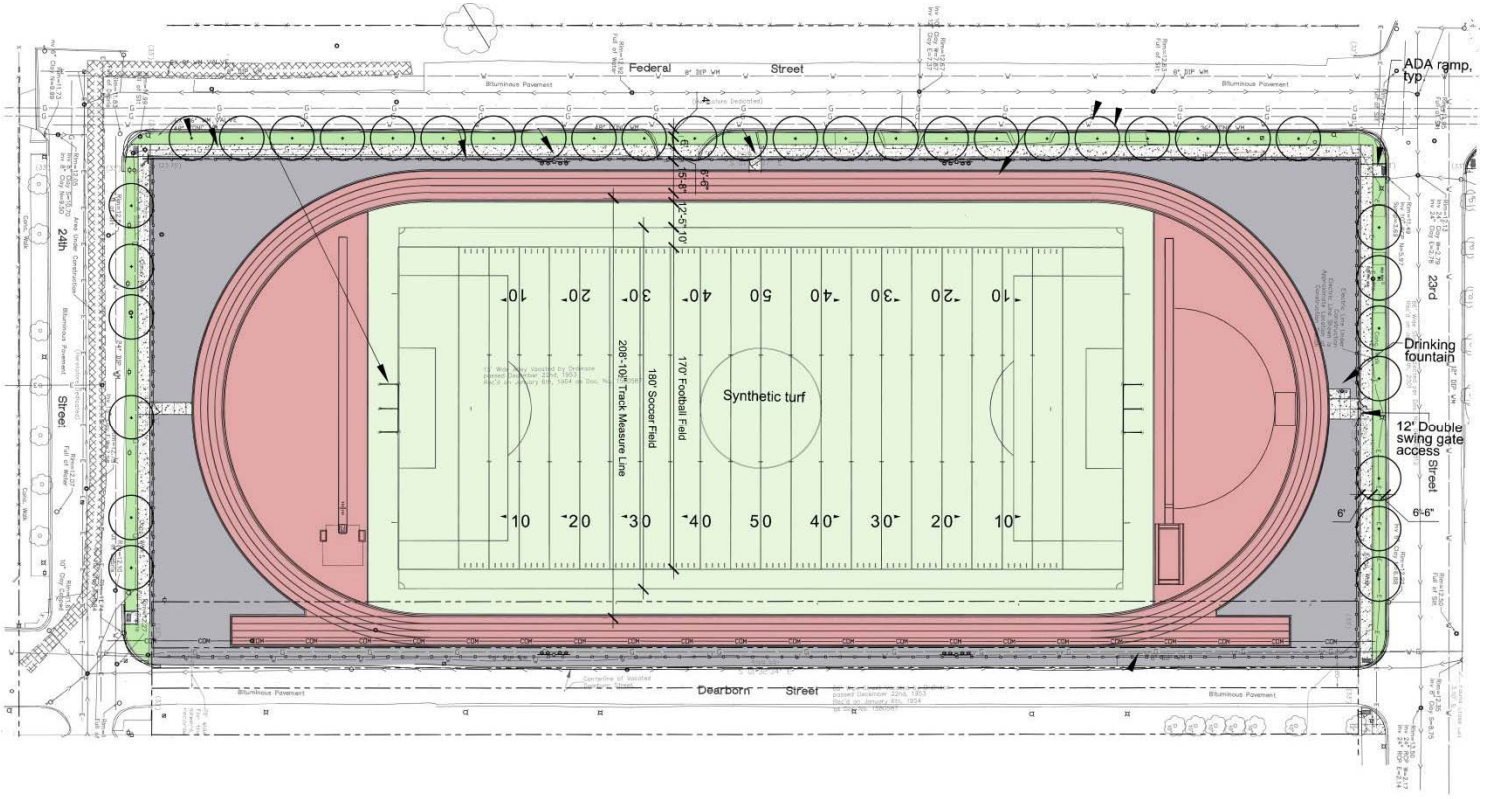

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Firehouses

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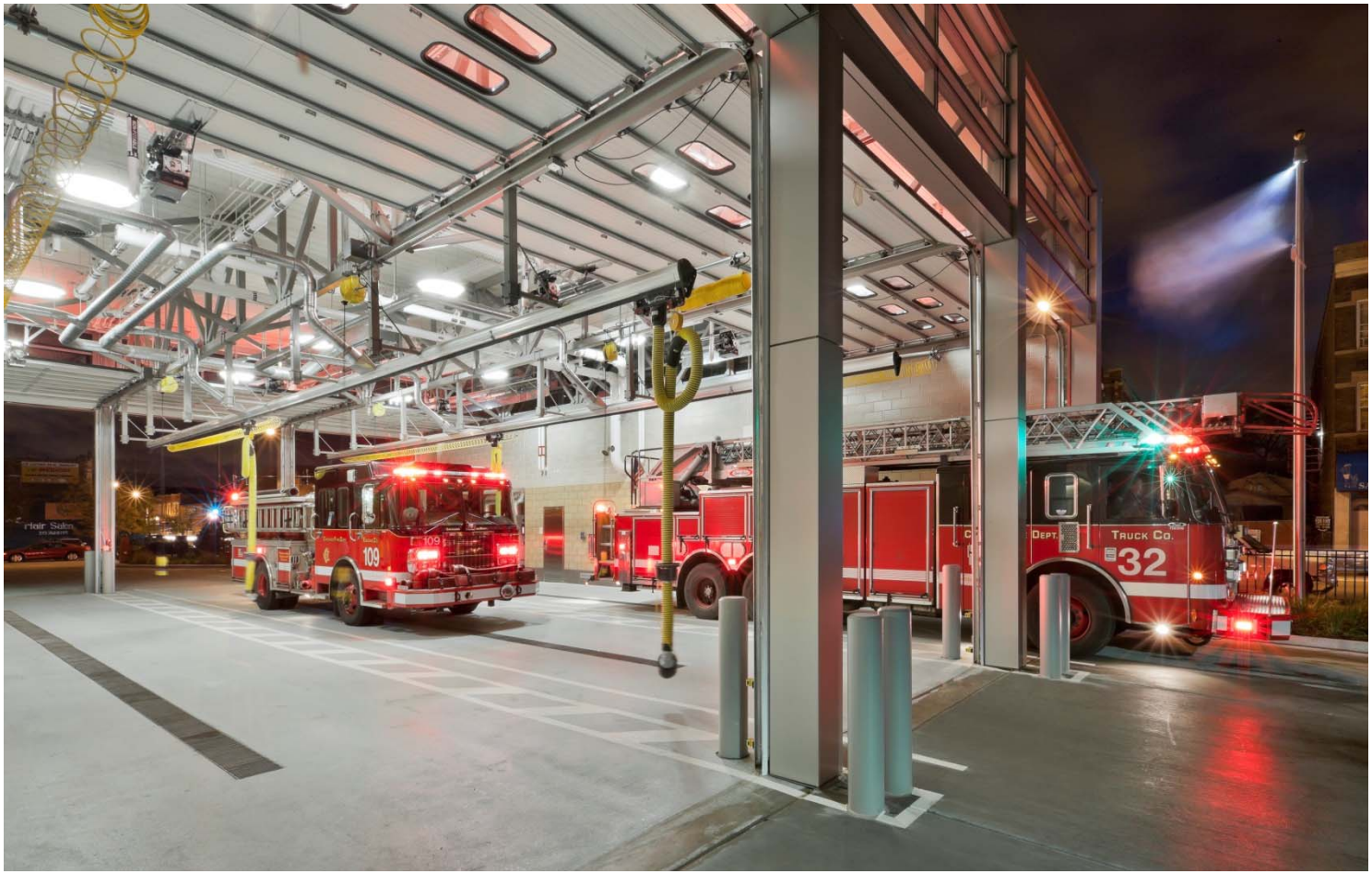

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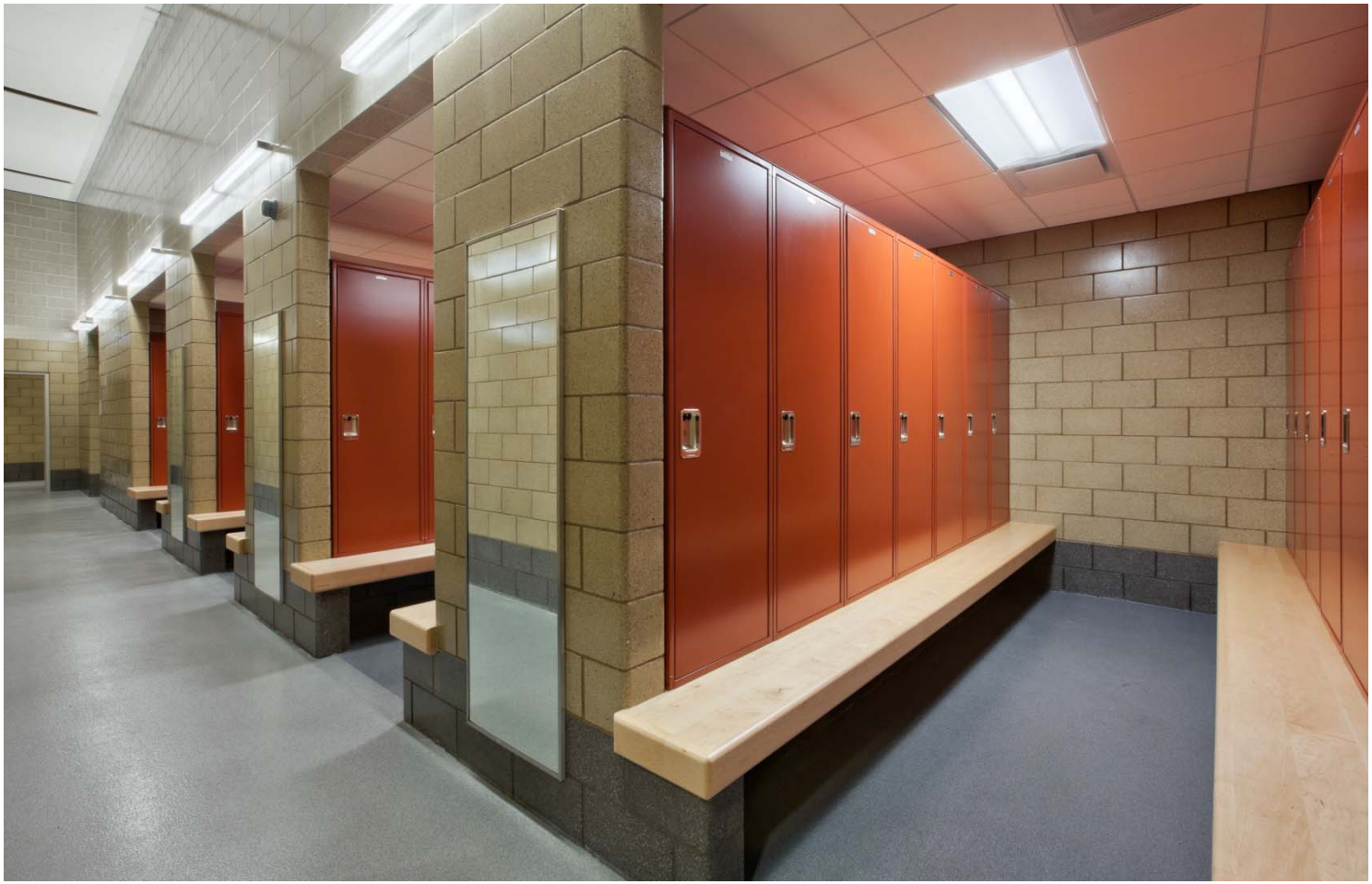

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Police Stations

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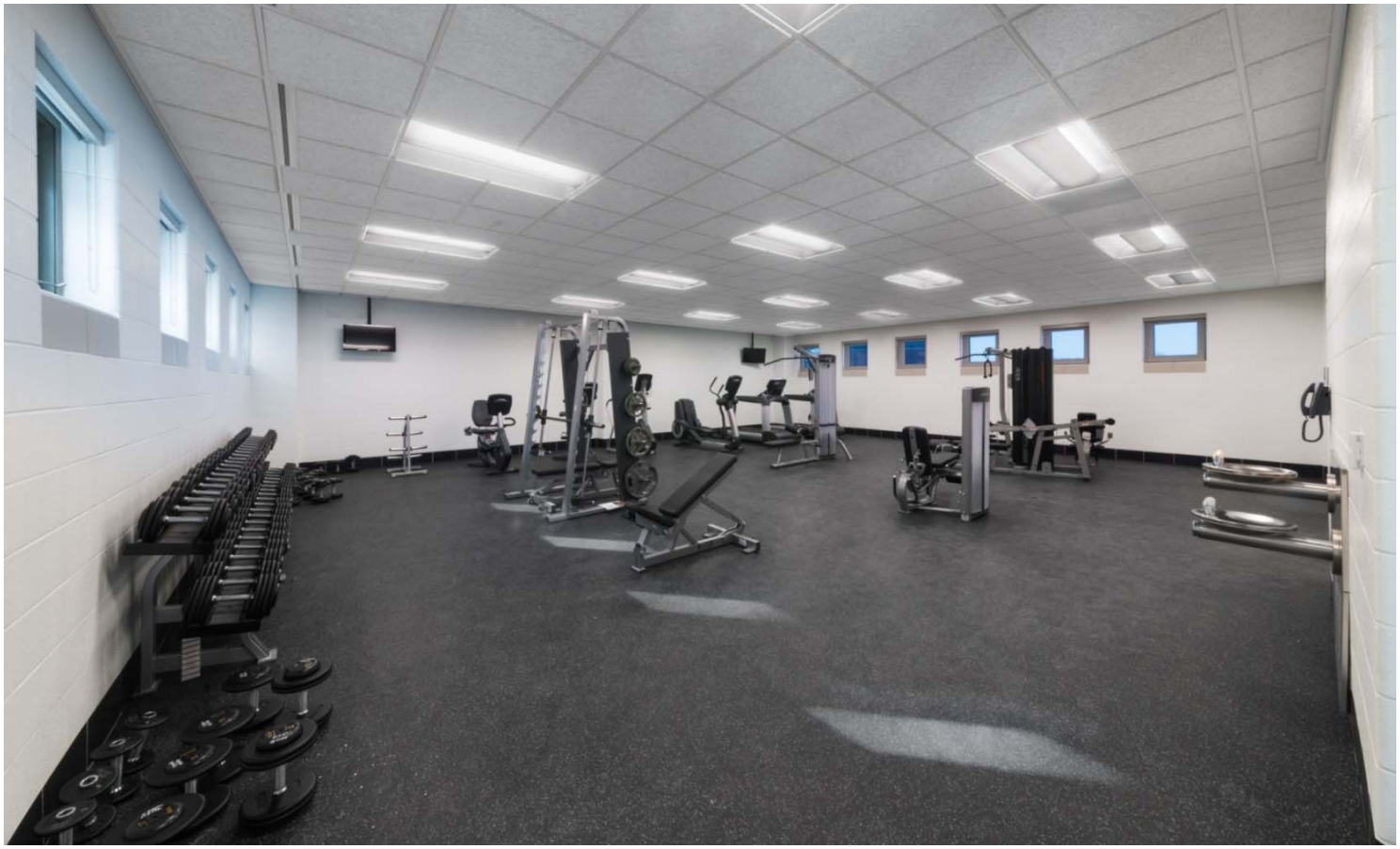

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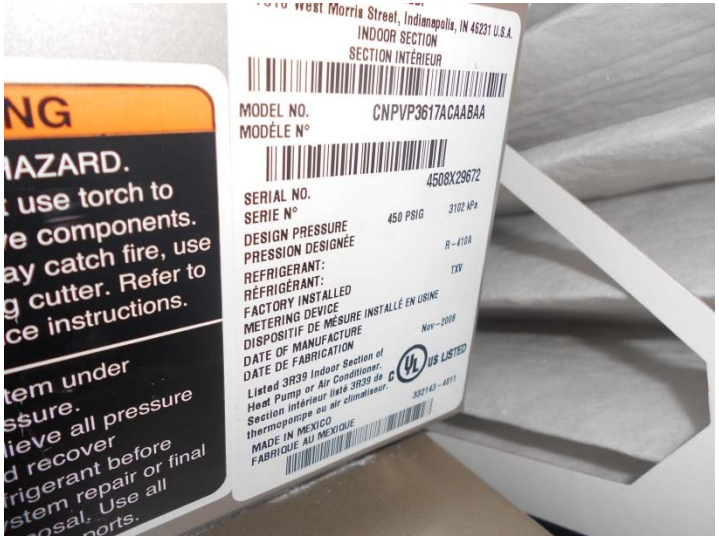

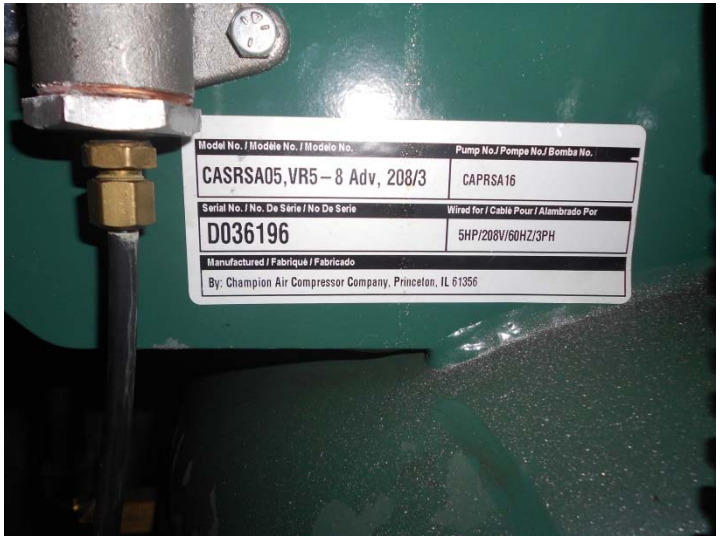

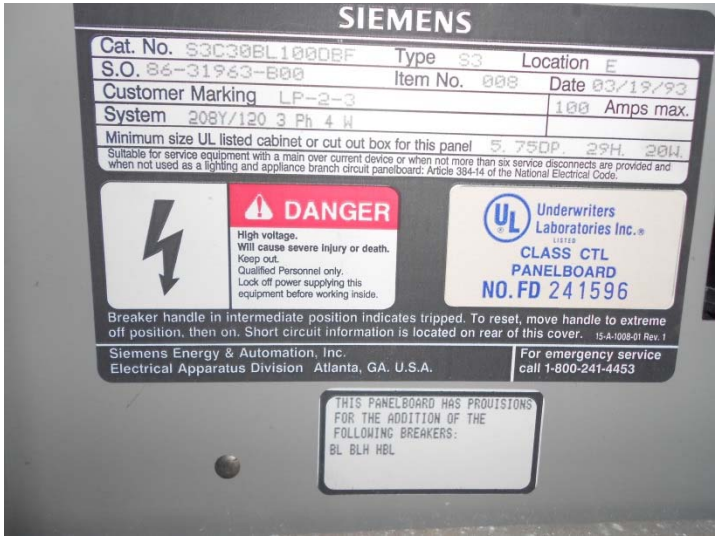

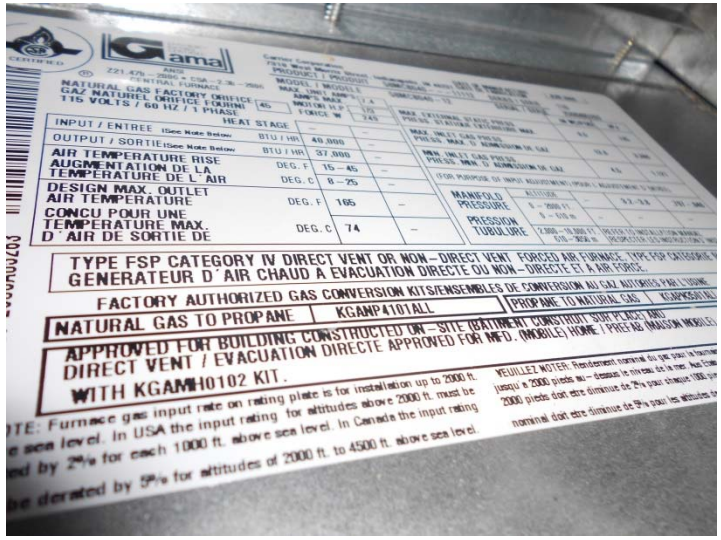

Asset Mapping and Facility Assessment Services

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Historic Building Stabilization

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Integrated Surveillance

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Roadway and Public Right-of-Way Improvements

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Energy Performance Contracting

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School Investment Program

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School Investment Program

- Material cost and time savings due to innovative delivery model
- Over 2,400 air conditioners
- New IB science labs added
- New or renovated computer labs - over 1,000 new computers
- New or renovated science labs, art classrooms, engineering labs, media labs and libraries
- Building envelope and roof repairs
- Electrical, mechanical, and plumbing upgrades
- Site improvements
- New elevators and accessible lifts
- Wireless upgrades and access points
- New or renovated lockers

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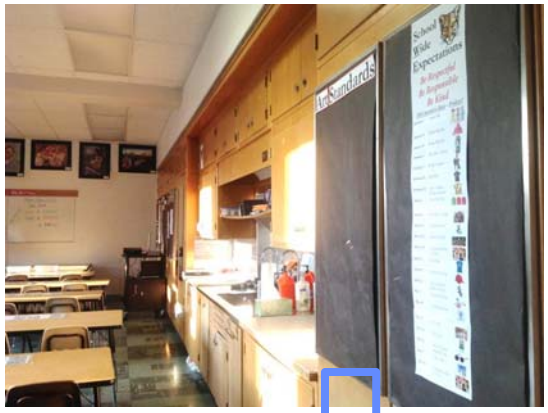

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Performance Metrics

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Performance Metrics

The PBC sets performance goals and reports on achievements quarterly through the use of staff reports, which are presented to the Board of Commissioners and made public and transparent through web posting.

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Multiyear Program Authority

In recent years:

- Over $2.8 billion in capital projects
  - More than $288 million or 10% under budget
  - 4 million square feet of new building development
  - Hundreds of facility renovation projects
  - Includes $40 million in utility installations, public right-of-way improvements, play space and landscaping
- Over 4,000 local FTE jobs
- Over 29,000 individuals employed
- Over 40% M/WBE participation

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to the PBC

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2013 Year End Program Statistics:

Program Cost Status

For the 27 projects completed in 2013, the PBC's budget authority exceeded $547M in project development costs.

At year's end, completed projects were trending under budget by 5.92%, representing a variance of $32.4M under the revised undertaking budgets, including a limited amount of authorized scope changes.

Introduction
to the PBC

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2013 Year End Program Statistics:

Program Cost Effectiveness

Active Projects Construction
Change Order Q4 2013 Report

The approved change order percentage for construction projects is **3.5%**. These rates are **within the industry standard change order percentage** for new municipal and educational construction work at **3 - 5%**.

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Responsible Development

Beyond delivery of a project or program, any delivery model or financial model can implement provisions which facilitate responsible development, such as environmental sustainability requirements (LEED certification, stormwater management, etc.) and economic sustainability requirements (community hiring, M/WBE, local businesses, etc.)

Introduction
to the PBC

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Environmental Sustainability

Typical PBC Provisions:

- Diversion of construction waste from landfills
- Utilization of recycled materials in construction
- Green roofs
- Enhanced natural light
- Solar-powered features
- High efficiency heating and cooling systems
- Low flow/low consumption water usage
- Responsible landscaping
- Aggressive stormwater management

Introduction to the PBC

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Economic Sustainability

PBC Typical Contract Provisions for Capacity Building:

- Bid incentives:
  - Employment of apprentices
  - Employment of minority and female workers
- Contract provisions:
  - 50% of the labor force must be residents
  - Community hiring requirement, helping to employ those closest to the work at hand
  - Minority- & women-owned business participation goal
  - Local general contractors must subcontract at least 25% of the contract worth to local subcontractors
  - Non-local general contractors must award at least 35% of the work to local subcontractors

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2013 Year End Program Statistics:

Sustainable Development

At the close of 2013, the PBC had achieved LEED Certification on 59 municipally owned projects, with an additional 19 registered projects.

At year end, the City of Chicago and Sister Agencies, including the PBC, together have achieved LEED Certification on 79 municipally owned facilities.

As of today, there are 66 PBC LEED-certified facilities, plus 20 certifications achieved by other agencies for a citywide total of 86 LEED-certified green buildings.

Introduction to the PBC

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2013 Year End Program Statistics:

Harvest Metrics for 69 LEED Buildings*

BENEFIT		TOTAL IMPACT	MEASURED IN
Stormwater Diverted from Sewers		658,491	gallons/year
Potable Water Saved			
Landscape	6,539,256		gallons/year
Buildings	15,751,321		gallons/year
Total Potable Water Saved:		22,290,577	gallons/year
Daley Center Water Savings		17,381,592	gallons/year
Energy Savings		$1,457,196	dollars/year
Daley Center Energy Savings		$1,124,797	dollars/year
Total Roof Area		1,849,894	square feet to date
Green Roof Area	(35% overall)	638,892	square feet to date
Shade Trees on New Construction Sites		2,512	trees to date
Recycled Materials	(22.2% overall**)	$66,594,921	to date
Regional Materials *(Extracted, Processed, Manufactured within 500 miles)*	(37.3% overall**)	$112,033,823	to date
Waste Diverted from Landfill	(94.8% overall)	189,771	tons to date
Electric Vehicle Charging Stations		41	
kWh offset in the form of Green Power RECs		5,628,427	kWh

* 66 LEED certified buildings plus 3 occupied, pending certification (Ping Tom Memorial Park Fieldhouse, Police District 12, Back of the Yards High School)

** Tracking $300,324,452 worth of materials

Introduction to the PBC

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2013 Year End Program Statistics:

PBC Professional Services & Administration Contracts

MBE Goal: 24%

WBE Goal: 4%

28%

MBE Actual: 46.65% ($11 million)

WBE Actual: 6.34% ($1.5 million)

52.99% ($12.5M)

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2013 Year End Program Statistics:

Year End Totals for General Construction Contracts

Business Participation

In 2013, PBC completed 27 construction contracts totaling $400.4 million in contract awards. To date, $362.6 million has been paid out on those contracts.

M/WBE Participation on the 27 Projects

MBE Goal: 24% MBE Actual: 32.21% ($116.7 million)

WBE Goal: 4% WBE Actual: 7.73% ($28 million)

28% **39.93% ($144.7M)**

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2013 Year End Program Statistics:

Professional Services on General Construction Contracts

MBE Goal: 24%

WBE Goal: 4%

28%

MBE Actual: 57.35% ($9.2 million)

WBE Actual: 12.90% ($2 million)

70.25% ($11.2M)

Introduction to the PBC

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2013 Year End Program Statistics:

Workforce Participation

- **12,118** individuals were employed as a result of the 27 projects completed in construction alone.
- **1,744** FTE jobs were created.
  - Construction: 1,401
  - Non-Construction: 343
- **85** Student Interns hired
- **914** individuals were hired to work in their own communities for PBC projects

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Development Services

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Planning

- Property and Building Assessment Services
- Campus / Master Planning
- Prioritized Capital Program Development
- Project Feasibility Analysis
- Project Scope, Schedule & Budget Development
- Conceptual Design Development

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Land Acquisition & Entitlement

- Eminent Domain Authority
- Site Selection & Designation
- Zoning, Entitlement & Surveys
- Abatement, Demolition & Fencing
- Public Right-of-Way Amendments
- Rezoning

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Site Preparation & Remediation

- Environmental Analysis & Design
- Geotechnical Analysis & Design
- Regulatory Compliance & Oversight
- Site Remediation and Preparation Contracting & Oversight

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Project Support

- Traffic Studies
- Code Compliance & Permitting
- Utility Relocation & Coordination
- Sustainable Design & Commissioning Management
- Environmental Remediation & Compliance Coordination
- Facility Licensing

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Finance

- Tax Exempt & Taxable Bond Authority
- Lease Back & Availability Payment Modeling
- Grant Management
- Project Accounting
- Accounts Payable
- Auditing
- Web-based Invoice & Payment Systems

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Procurement

- Professional Service Agreements
- Construction Contracting
- Furniture & Equipment Purchase
- Bulk Purchase Coordination
- Facility Management & Operations
- Utility Purchasing

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Design Management

- Program Confirmation
- Design Development
- Construction Document Development
- Design Specification Development

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Construction Management

- Delivery Analysis & Recommendation
- Construction Logistics
- Construction Administration
- Change Management
- Quality Assurance & Safety
- Commissioning & Closeout

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Controls

- Web-based Collaborative Project Management Systems
- Estimating & Budgeting
- Cost & Schedule Management
- Document Management

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Enterprise Risk Management and Compliance

- Public Liability Insurance
- Builder's Risk Insurance
- Property Liability Insurance
- Internal Controls
- Community Outreach and Engagement
- Workforce & Business Participation Compliance
- Contractual Risk Transfer

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The Benefits of Working with the PBC

Our purpose:

- The PBC is an essential tool to eradicate duplication of services—and expenses—among government bodies, saving taxpayer money by streamlining the planning, design and construction of public projects.
- To produce high quality, cost effective, efficient buildings and infrastructure that serve the needs of the public for years to come.
- To anticipate and proactively solve problems on behalf of our clients so they can stay focused on their core missions.

Comprehensive program and project management systems for:

- transparency
- financial reporting
- procurement
- community outreach
- workforce and business participation compliance

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The Benefits of Working with the PBC

- Clear and understandable audit trail to track, report and publicly communicate
- Strong stewardship of the public fund is central to the way we operate
- Strong economic sustainability program and an equally robust environmental sustainability program contributes to the vitality of the communities we serve
- Review of project cost trends as they are incurred, as well as reviews and reports on cost projections on a monthly basis

PUBLIC BUILDING COMMISSION

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Project Delivery Methods

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Terms & Tools in Capital Development

Terms:

- Capital Project
- Capital Program
- Prioritized Capital Plan
- Project Planning
- Pre-Development Work
- Project Development
- Facility Operations and Maintenance

Tools:

- Design Bid Build
- Construction Management
- Job Order Contracting
- Design Build
- Energy Performance Contracting
- Public Private Partnership (P3)
- Public to Public Partnership (P2P)

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Public Capital Development & Financing:
Terms

Capital Project
A single instance initiative to develop an individual capital asset (police station, fire station, park district field house, library, infrastructure, etc.)

Capital Program
A series of capital projects developed holistically to garner efficiencies in delivery (schedule, cost, standardized operations & maintenance, etc.)

Prioritized Capital Plan
Long range assessment and capital planning initiative that identifies utilization and condition of existing facilities as well as new capital asset needs (repair versus replacement cost analyses, programmatic / spatial needs assessments, asset tagging and preventative maintenance plans, O&M staffing analysis, etc.)

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Public Capital Development & Financing:
Terms

Project Planning
Funding source analyses as well as scope, schedule, and budget development (through real property selection and due diligence, conceptual/spatial programming, feasibility studies, traffic studies, geotechnical analysis, environmental analysis, surveys, delivery methods assessment, etc.)

Pre-Development Work
Professional services and infrastructure work necessary to facilitate future development or public improvement initiatives (brownfield remediation, entitlement, land acquisition through eminent domain, abatement, demolition, entitlement, public right of way amendments, utilities, infrastructure, and project planning services)

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Public Capital Development & Financing:
Terms

Project Development
Procurement, design, and construction.

Facility O&M
Operations and Maintenance, long-term costs to maintain and operate a facility over the entire life cycle of a capital asset.

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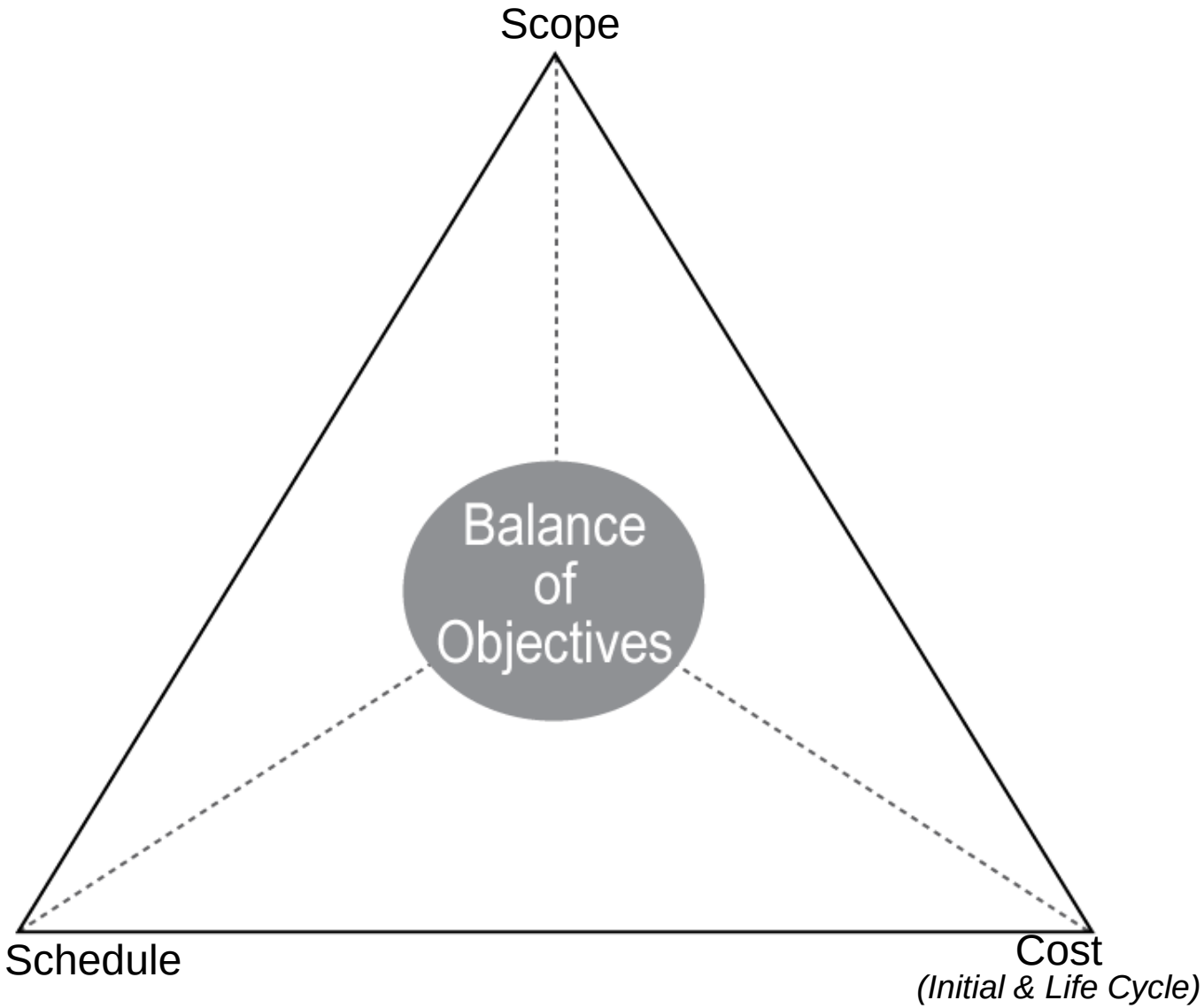
Project Delivery Objectives



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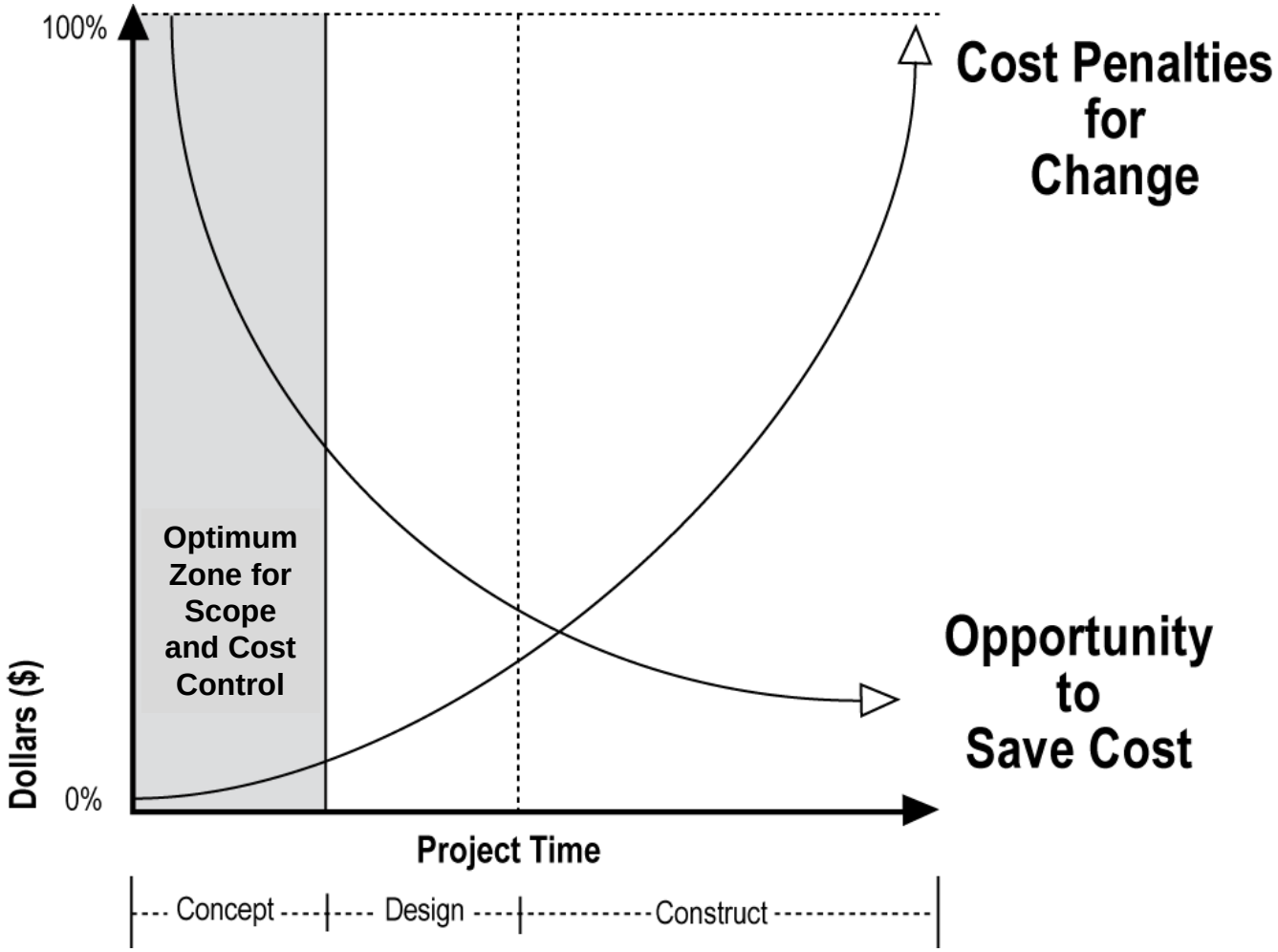
Project Costs as Related to Delivery Schedule & Timely Scope Revisions



In general, decisions with the highest impact to project cost occur early in the project timeline. The risks of change are increased in certain delivery methods.

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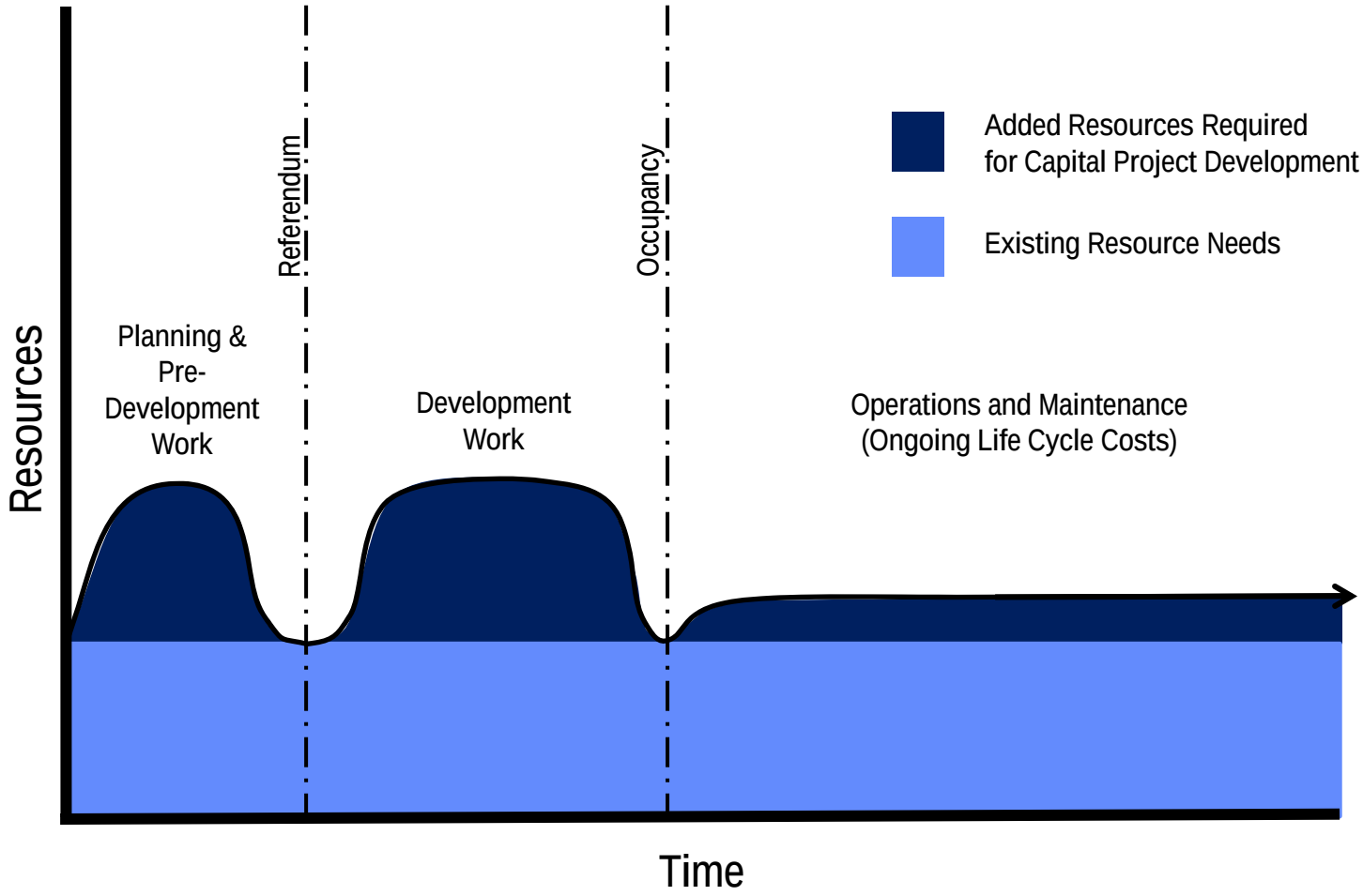

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Delivery Methods in Capital Development

- Traditional Delivery (Design–Bid–Build)
- Construction Management
- Job Order Contracting (JOC)
- Design Build

- Energy Performance Contracting
- Public-Private Partnership (P3)
- Public to Public (P2P)

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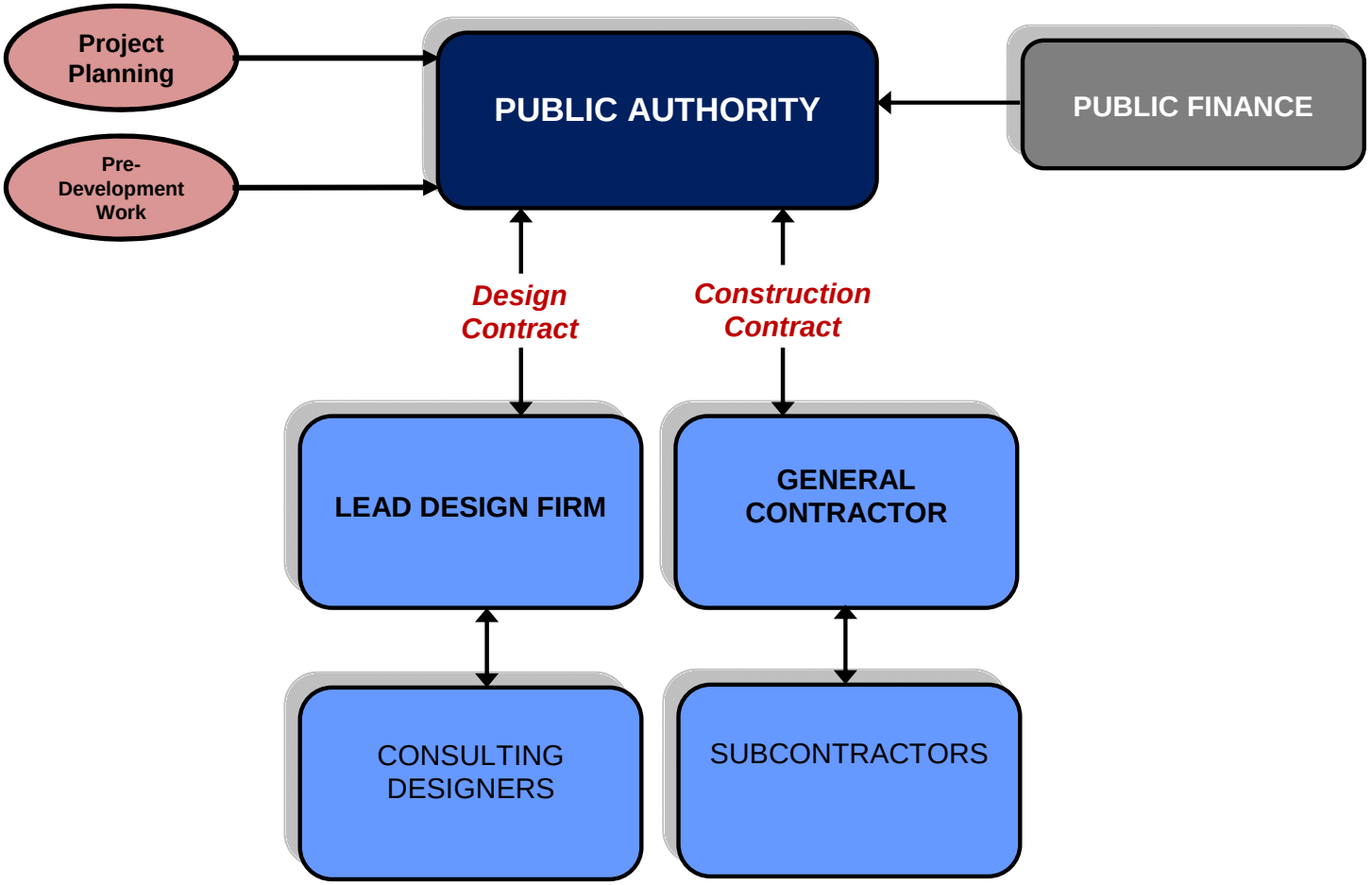
Traditional Delivery Design Bid Build



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Design Bid Build Characteristics

- Award construction contract to lowest responsive responsible bidder
- Three linear phases: Planning, Design, Construction
- Three key players: Owner, Designer, Contractor
- Compensation: lump sum
- Construction cost certainty determined after design, at time of bid

Pros:

- Most transparent
- Competitive bidding
- Strong Owner/Designer relationship
- Early total fixed costs prior to construction start

Cons:

- Contractor not involved in design
- Owner must arbitrate between designer and General Contractor (or hire Owner's Representative)
- Owner carries risk of quality of design and post-bid change orders
- Requires solid drawings and specifications up front
- Design changes after award of contract can be costly

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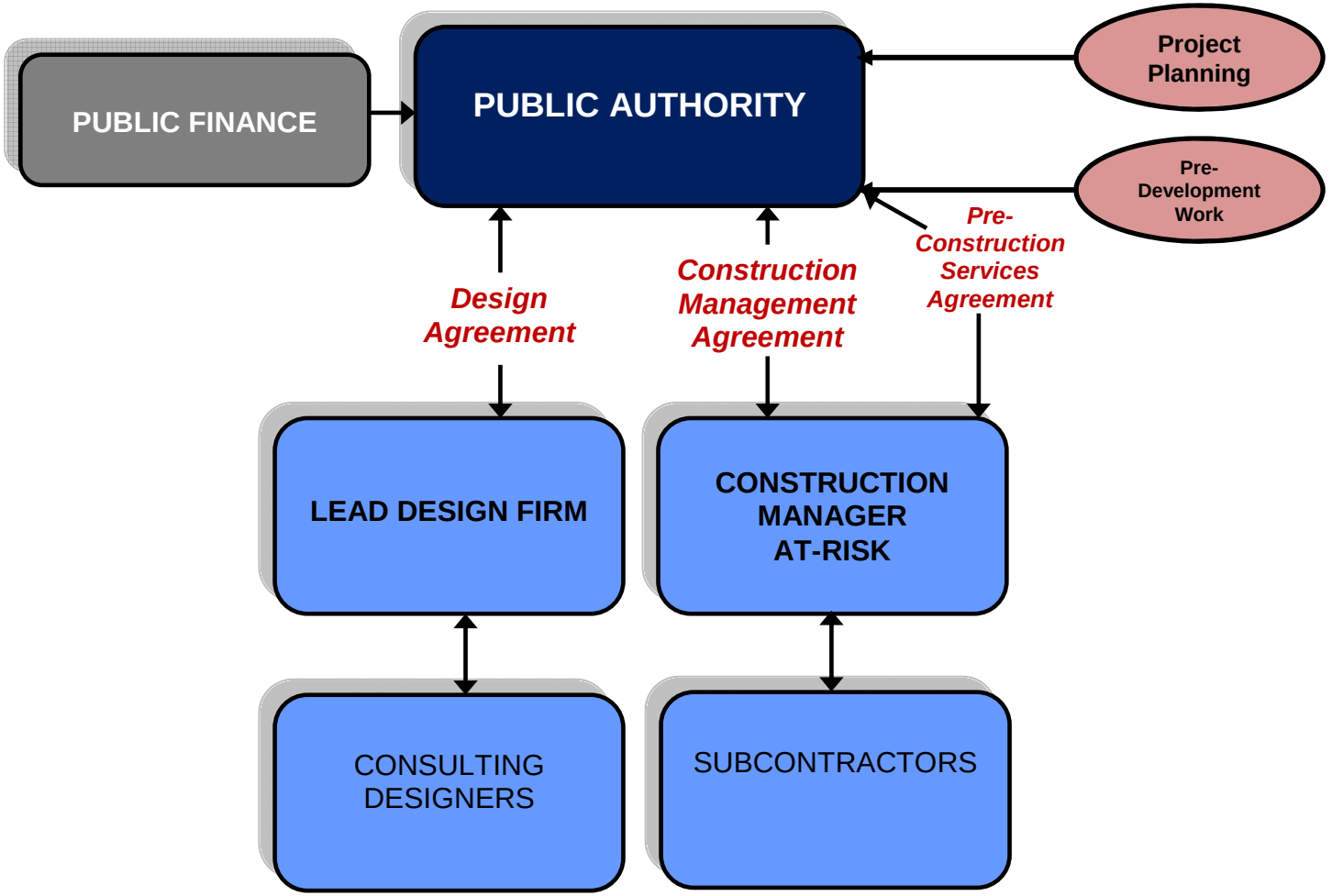
Construction Management



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Construction Management Characteristics

- Technical/cost advisor during design transitions into role of contractor
- Three phases with overlapping design and construction
- Three key players: Owner, Designer, Contractor
- Compensation: negotiated preconstruction services fee & fixed/guaranteed maximum construction price (GMP)
- Construction cost certainty determined early in construction when GMP is established

Pros:

- More professional relationship with contractor
- Pre-Construction Services:
  - Construction Input in Design
  - Early cost & schedule info
  - Construction Logistics planning
- Pre-Qualification of subcontractors
- Shorter Design-Construction duration

Cons:

- Construction cost not finalized until GMP
- Full price not fixed until all bid packages are let: may occur after construction has started, making cost-saving changes difficult to implement
- Multiple bid packages

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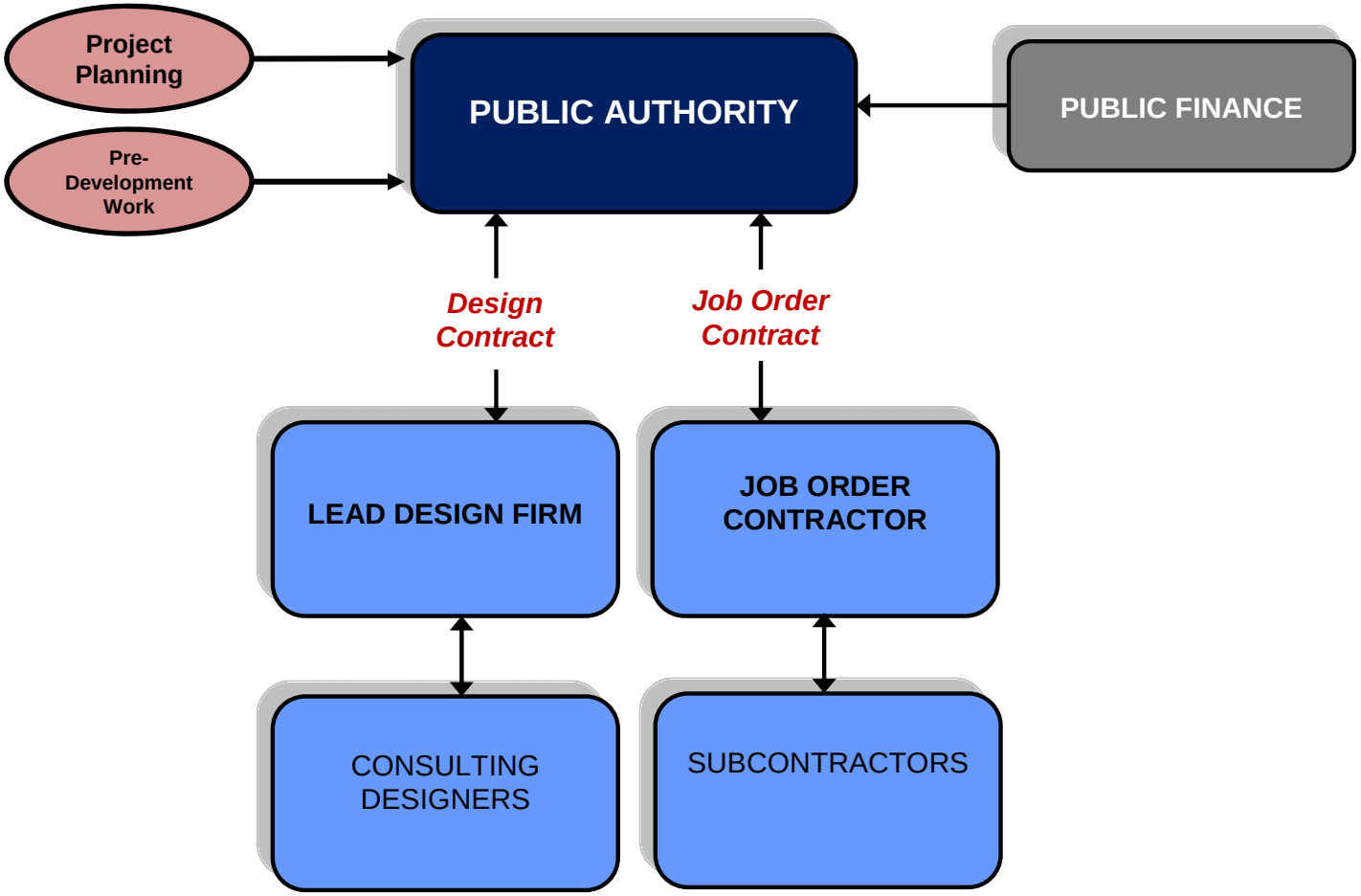
Job Order Contracting



NOTE: Depending upon scope, Architect's Services may not be required.

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Job Order Contracting Characteristics

- Contractor selected from a set list based on qualifications and performance value
- Utilize Job Order Contracting (JOC) on:
  - Smaller capital construction work
  - Infrastructure work and repairs
  - Demolition and site preparation work
  - Building renovation and repair services
  - Well-suited to emergency repair work

Pros:

- Competitively bid contracts
- Bid an adjustment factor to pre-established, pre-priced work
- Competitive bidding
- Multiple projects on multiple sites simultaneously

Cons:

- Delivery method most appropriate on smaller scale projects

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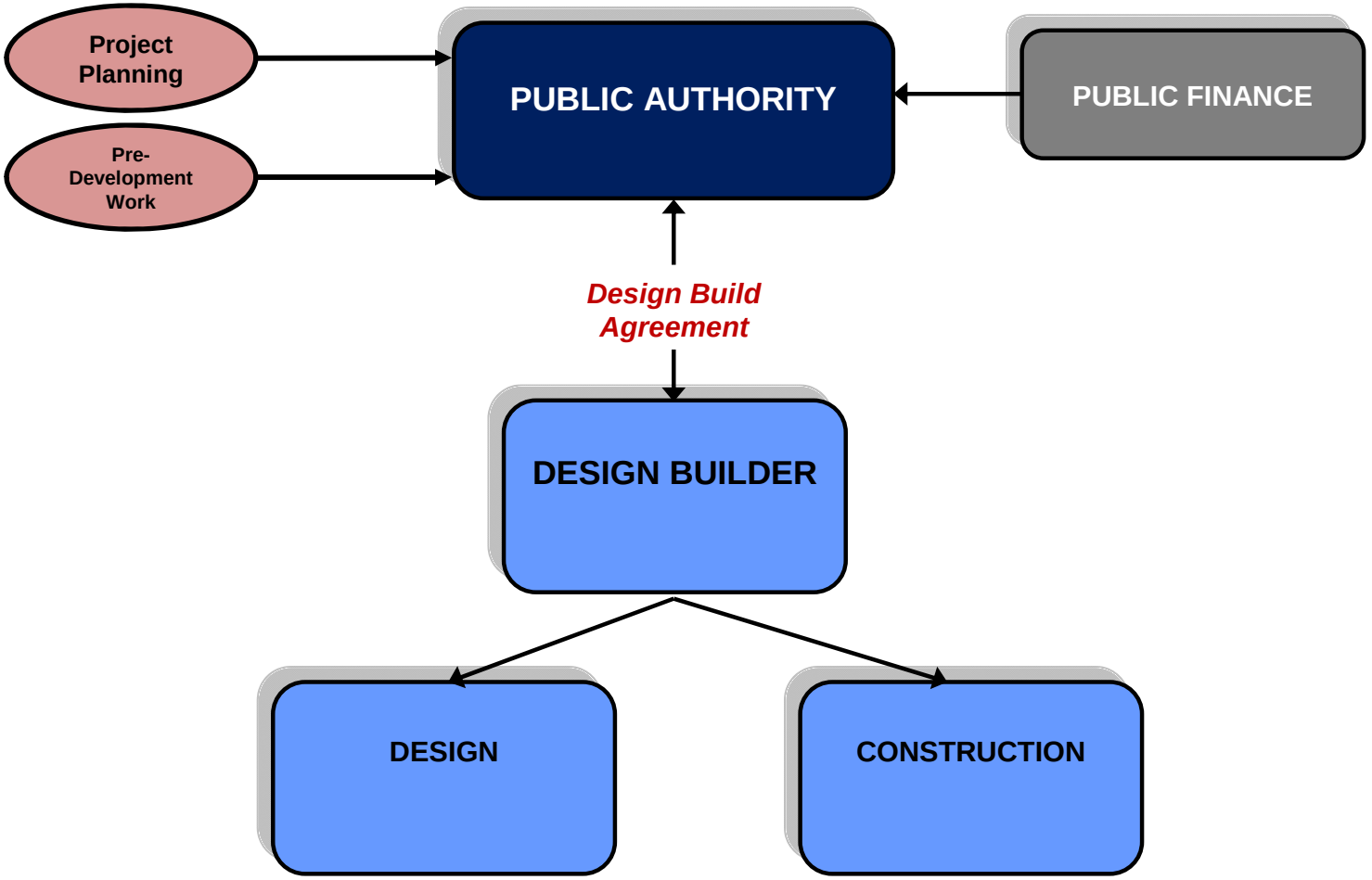
Design Build



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Design Build Characteristics

- Single point of responsibility for design and construction; forces cooperation and coordination between key players
- Two key players: Designer and Contractor
- Compensation: lump sum
- Construction Cost Certainty achieved earlier in project timeline: costs established upon award of agreement

Pros:

- Allows for maximum shift of risk from owner to Design Builder
- Earliest cost identification
- Designer and Contractor provide unified recommendations
- Preconstruction services (i.e. construction logistics)
- Potentially faster delivery system
- Design liability stays with design builder

Cons:

- Potentially less owner involvement in design process
- Requires solid performance specification up front for selection and pricing
- Design changes after contract award can be more expensive

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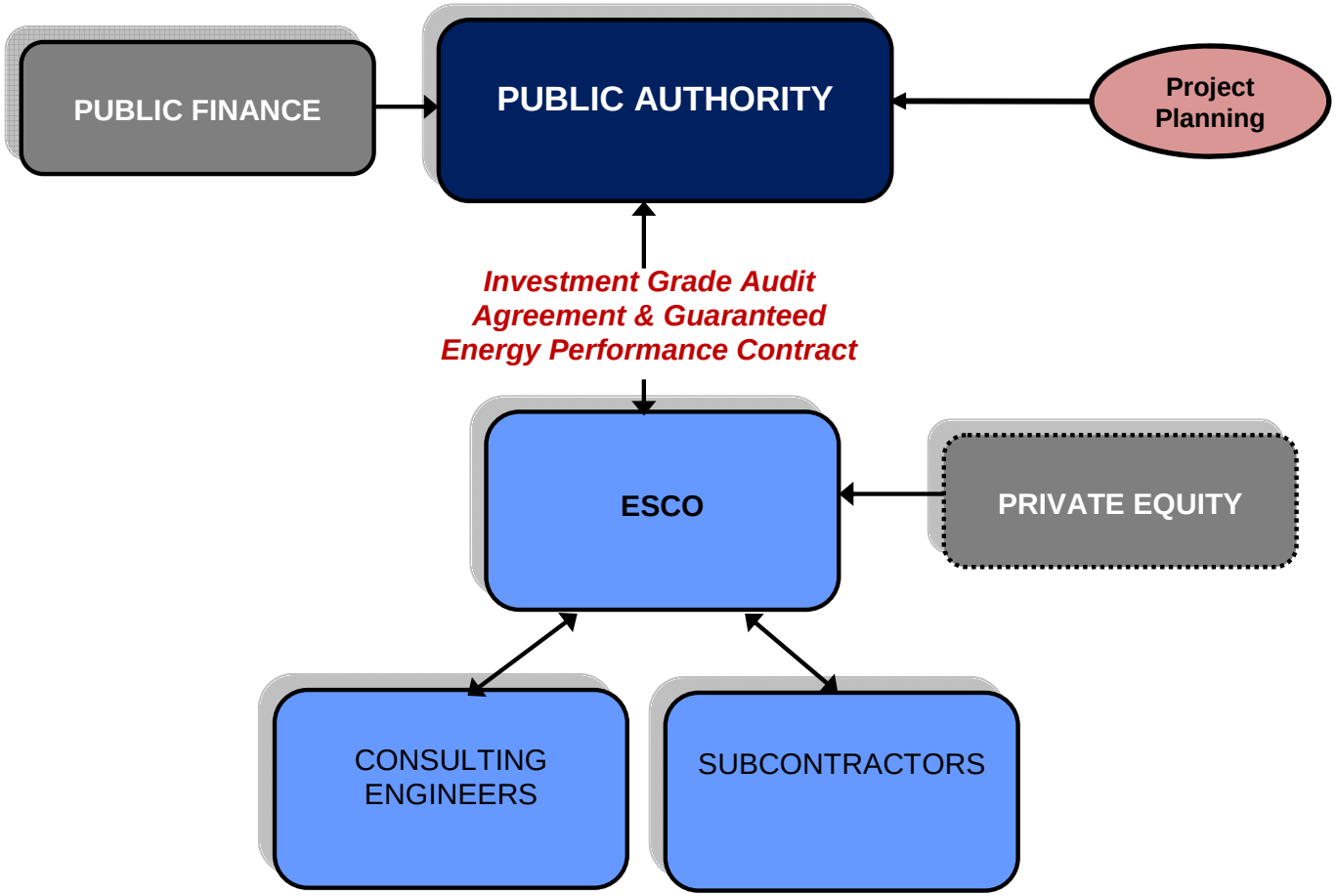
Energy Performance Contracting



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Energy Performance Contracting Characteristics

- Contractual arrangement between public entity and private entity (ESCO) to design, install, and guarantee Energy Conservation Measures (ECMs)
- ESCO investment grade audits fully specify recommended ECMs
- Self-financing: guaranteed energy savings finance project
- Turn key project – audit, engineering, installation, commissioning, & long term M&V
- Compensation: fees are fully defined in EPC contract.

Pros:

- Building upgrades without raising new capital
- On-going savings guaranteed by ESCOs
- M&V process promotes proper maintenance
- Helps bridge gap between first cost and life cycle cost perspectives
- Qualifies for energy incentives, grants, rebates and tax credits

Cons:

- Complexity of arrangement
- High transaction costs
- Tracking savings may not be cost effective

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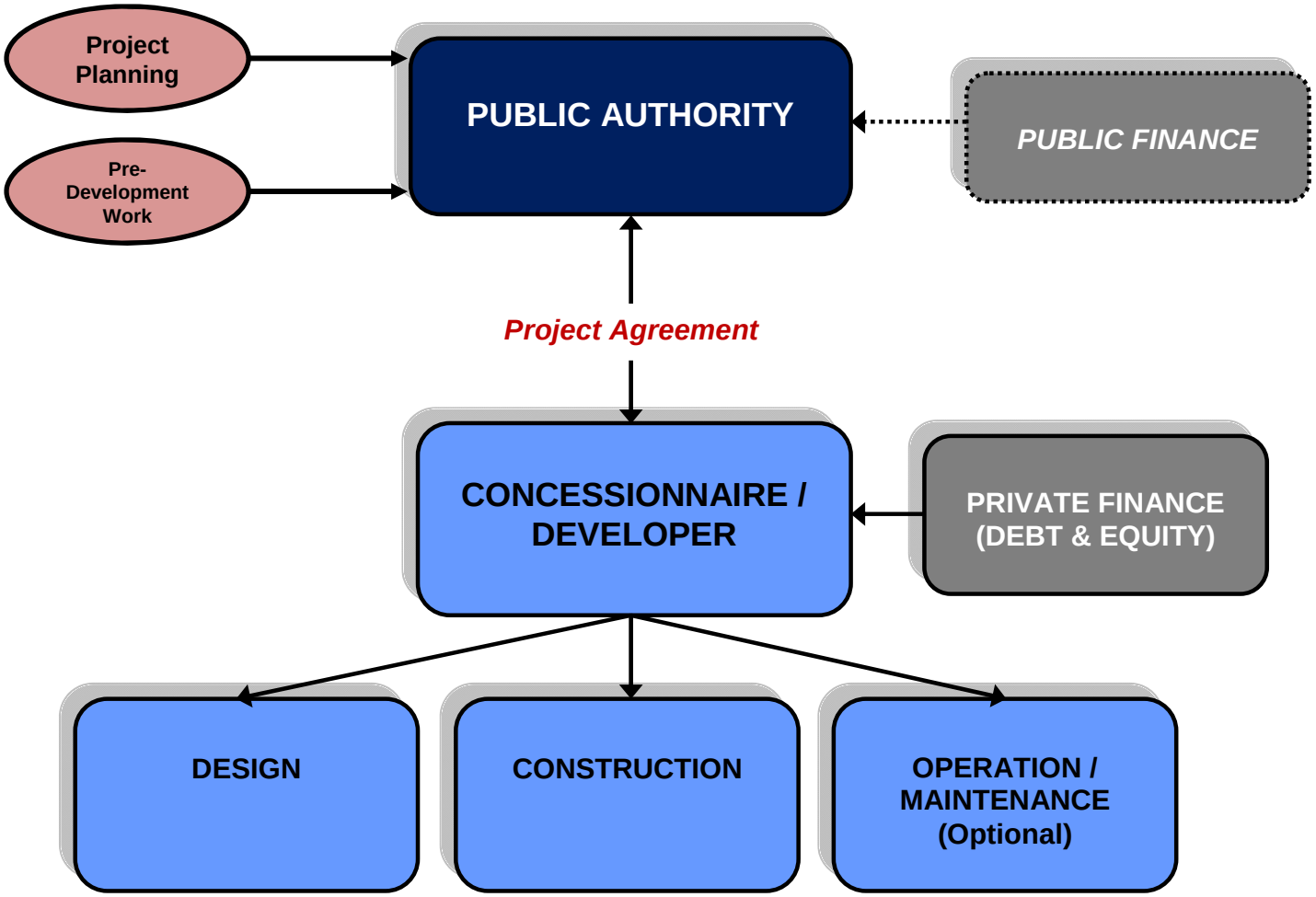
Public/Private Partnership (P3)



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Public/Private Partnership (P3) Characteristics

- Contractual arrangement between public entity and private sector for the delivery of a public project that can involve design/construction and potentially finance & operations as well
- Concessionaire responsible for full life cycle of project
- Project cost certainty achieved upon award of agreement
- Two key players
- Compensation: concession agreement can provide for periodic or other payment structures

Pros:

- Useful if public sector financing cannot be provided
- Some risk transfer to private sector
- May offer better value for money over the full life cycle of the project
- Reinforces discipline to properly maintain facilities
- Economic development tool

Cons:

- Longer procurement period
- Can require long term financial obligation by public entity
- Up front cost of financing may be greater than public (tax exempt) debt structure

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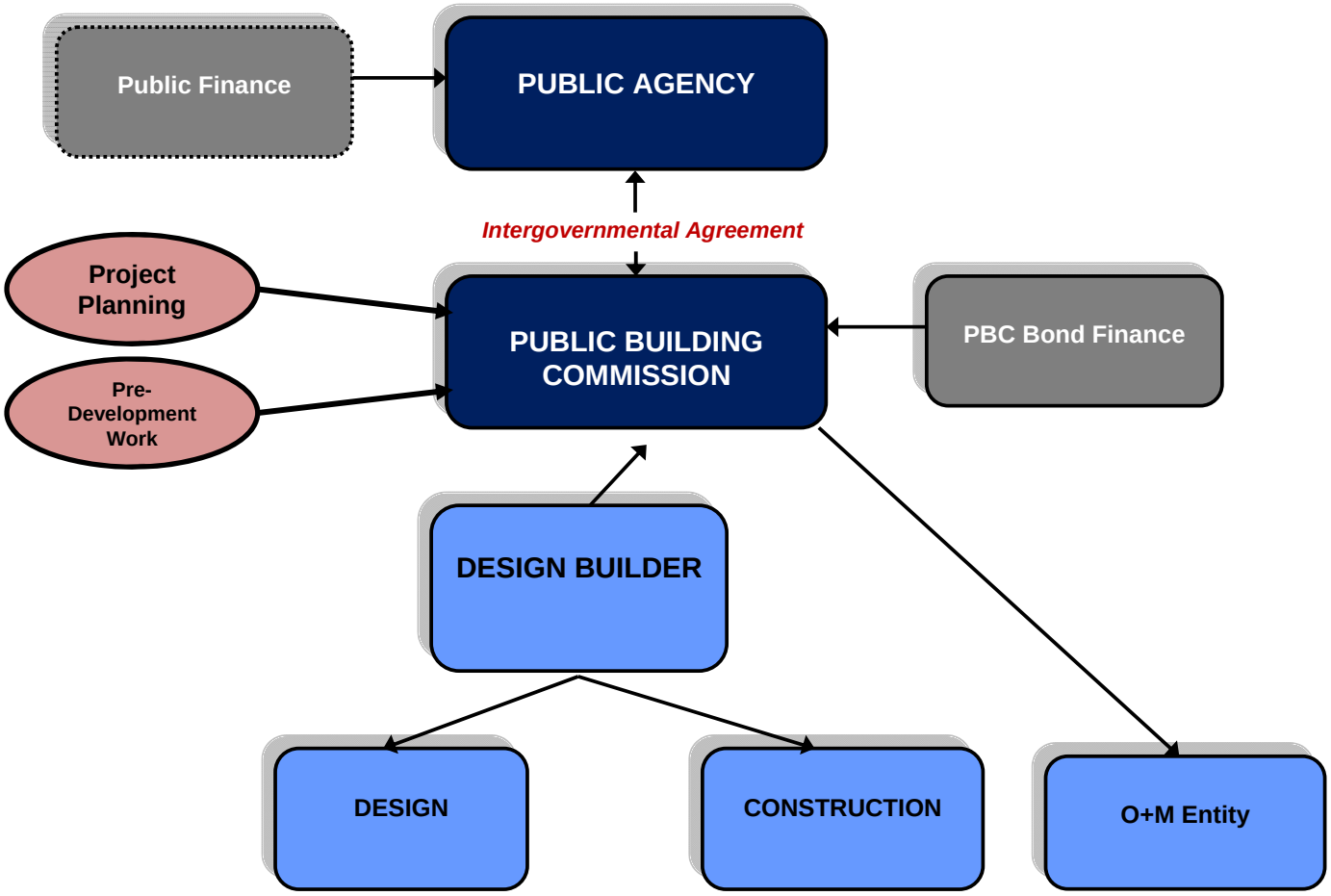
Public to Public (P2P) (with Leaseback Option)



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Public to Public (P2P) Characteristics

- Public Entity (PBC) arranges financing based on the commitment of lease payments from another public body, then designs and constructs the asset to be leased to the other public entity in return for lease payments.
- PBC can be responsible for operating building as well
- Project cost certainty achieved upon agreement by PBC
- Two key players
- Compensation: lease agreement for public entity to pay PBC

Pros:

- Transfers financing risk away from user agency
- May offer better value for money over the full life cycle of the project
- Reinforces discipline to properly maintain facilities

Cons:

- Requires long term financial obligation by public entity for whom asset is being built

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Financing Options

- Tax Exempt Bonding
  Financing for public purposes, with very limited private use (e.g. retail coffee & sundry)
- Taxable Bonding
  Private equity for any purpose
- Performance Contracting
  Private equity option for energy related projects
- Availability Payment Model (P3)
  Public entity payments do not begin until asset is available

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Selecting a Delivery Method

- Identify method that fits the requirements of the project
- Carefully evaluate project constraints and risk tolerance before selecting delivery method
  - Funding availability
  - Schedule
  - Cost
  - Scope
  - Quality
  - Land acquisition – access to start work
  - Availability of qualified designers, contractors, design/builders for the project type
  - Risk Transfer
- Maintain proficiency in multiple delivery methods to best balance project requirements with user agency needs and make efficient use of public funds

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Question & Answer