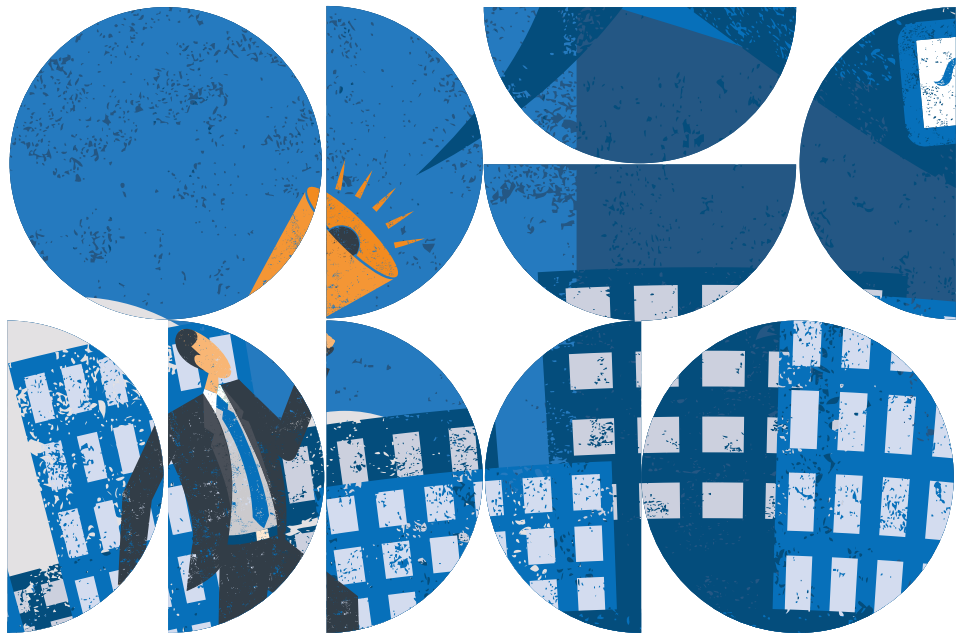
EAB

Navigating Public-Private **Partnerships**

Ten Imperatives for Evaluating, Planning, and Implementing P3s, and Six Higher Education Case Studies

Facilities Forum



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Ten Imperatives for Evaluating, Planning, and Implementing P3s, and Six Higher Education Case Studies

Facilities Forum

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Executive Summary

Funding and Infrastructure Challenges Driving Higher Education Interest in P3s

As higher education faces significant funding and maintenance challenges, institutions are increasingly leveraging public-private partnerships (P3s) to achieve their infrastructure goals. P3s refer to a variety of contracting arrangements between a public entity or non-profit and a private sector entity to finance, construct, renovate, manage, operate and/or maintain infrastructure. Effective P3s can provide numerous benefits, such as expedited project delivery, access to private sector financing and expertise, and facility lifecycle maintenance.

Shifting Perspective of Value Altering the P3 Landscape in Higher Education

Historically, higher education leaders viewed P3s primarily as a means to secure additional funds for major capital projects. However, leaders increasingly view these arrangements as risk-mitigation tools, which has altered the landscape of P3s across higher education. Once limited to capital-constrained public institutions, now a wide variety of institutions (public and private, resource-limited and resource-rich) use P3s to transfer the long-term risks of ownership, management, and maintenance, as well as to reap the benefits of private sector expertise. Furthermore, while P3s initially gained traction as a means to develop student housing or other revenue-generating auxiliaries, institutions now leverage P3s to develop mixed-use facilities, and increasingly incorporate non-auxiliary elements (e.g., academic space infrastructure) into large-scale deals to capture economies of scale.

Lack of Adequate Evaluation, Planning, and Management of a P3 Has Major Consequences

Though the potential benefits of P3s are attractive, moving too quickly on a P3 deal can lead to major financial consequences. In many cases, problems arise when institutions initiate deals without sufficiently evaluating the need and feasibility of a P3. In other instances, institutions fail to secure buy-in from campus leaders, build adequate organizational expertise, or establish necessary governance processes before embarking on a P3.

Guidance for Navigating Public-Private Partnerships

To help leaders navigate public-private partnerships, this publication offers high-level guidance for successfully implementing a P3. The first section details ten imperatives for executing a P3 organized into three broad categories: evaluation, planning, and implementation. The second section provides six detailed case studies of institutions that have successfully leveraged P3s to achieve infrastructure goals.

Section 1

Ten Imperatives for Evaluating, Planning, and Implementing a Public-Private Partnership

Evaluation

Develop a clear project vision, assess the viability of a P3, and compare project delivery options

Planning

Build institutional capacity, establish a program of requirements, and identify the desired deal structure

Implementation

Select the right partner, negotiate the agreement, and monitor project performance

Section 2

Case Studies of Public-Private Partnerships in Higher Education

- The College of New Jersey
- Drexel University
- The Ohio State University
- University of California, Merced
- The University of Kansas
- University of Kentucky

Public-Private Partnerships in Higher Education

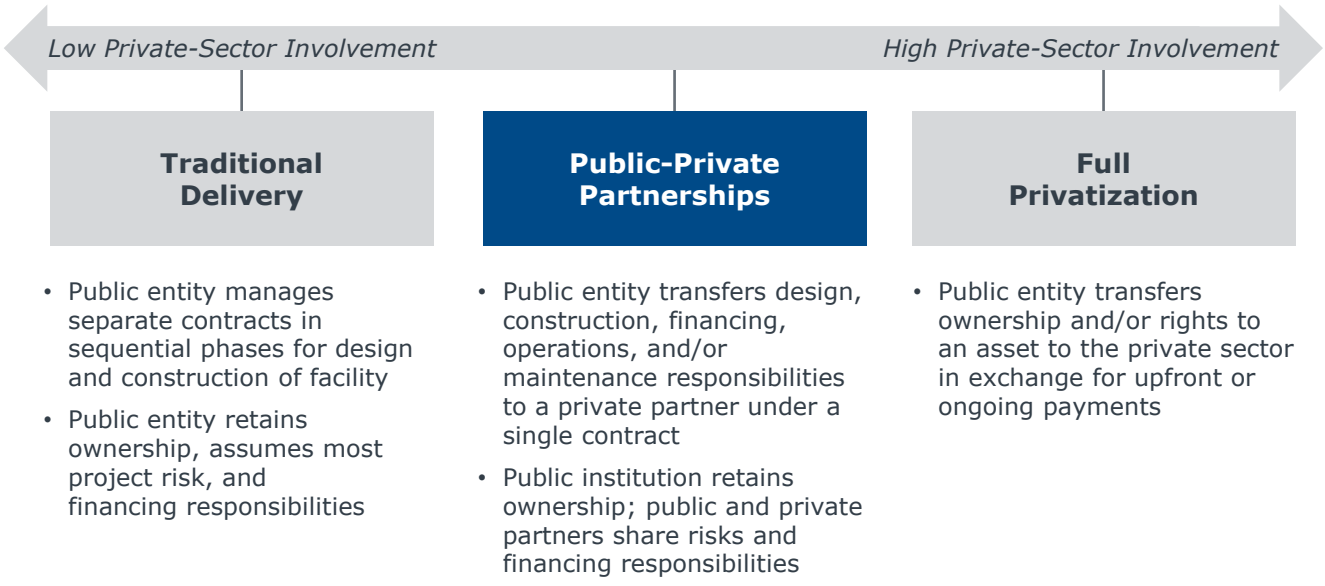
INTRODUCTION

What Is a Public-Private Partnership?

P3s Represent Middle Ground Between Traditional Delivery and Full Privatization

In recent decades, declining government funding for public infrastructure in the United States and Canada has left many institutions struggling to meet growing infrastructure and service delivery needs. In light of this funding gap, many institutions seeking to build, modernize, or expand facilities have turned to public-private partnerships (P3s). While the definition of a P3 has evolved over time and varies by industry, the term broadly refers to a variety of contracting arrangements between a public entity or non-profit and a private sector entity to finance, construct, renovate, manage, operate, and/or maintain infrastructure.

Spectrum of Private-Sector Involvement in Public0Sector Infrastructure Delivery



What makes P3s increasingly compelling for higher education is that they offer a middle ground between traditional project delivery methods and full privatization. Historically, higher education institutions used public funds to contract with private companies for the design and construction of new facilities, retaining significant control but assuming most project risk. On the other end of the spectrum, full privatization entails transferring all project risks, ownership, and control to a private sector company. By comparison, P3s offer a middle ground where the institution retains ownership and substantial control of a facility but transfers responsibilities of design, building, financing, operating, and/or maintenance to a private partner under a single contract.

Source: National Council for Public-Private Partnerships, http://www.ncppp.org/; PPP Canada, http://www.p3canada.ca/en/about-p3s/; EAB interviews and analysis.

P3s in Higher Education

Dispelling Common Myths

While specific P3 arrangements vary considerably, nearly all P3s in higher education share the following characteristics:

- Clear agreement of shared objectives between public and private sectors
- Medium- to long-term contract, typically between 25 and 50 years
- Transfer of major project risks from public to the private sector
- Single point of responsibility, meaning a single entity is accountable for design, construction, operation, and/or maintenance of facility

However, confusing terminology and the ever widening variety of P3 structures have contributed to many misconceptions about these arrangements. The most common P3 myths and their realities in higher education are listed below.

Common P3 Misconceptions	Reality
1 P3s are only for public institutions →	Private higher education institutions enter similar partnerships (still often referred to as a 'P3') with private companies as a way to transfer infrastructure project risks and secure alternative financing.
2 P3s are a form of privatization →	Unlike full privatization that involves the transfer of ownership of an asset or service to the private sector, P3 projects are publicly owned, publicly controlled, and publicly accountable.
3 P3s result in a loss of institutional control →	While the level of control retained by an institution varies across P3 structures, P3s always involve shared governance and oversight between public and private partners.
4 All P3s involve private financing →	While P3s often involve capital investments by a private sector company, some P3s have been entirely funded with public, tax-exempt dollars.
5 All P3 deals have the same structure →	P3s take on a wide variety of structures that allow for different levels of control, risk, and responsibility allocation depending on unique project goals. No two agreements are identical.
6 P3s are only used to develop student housing →	To date, the majority of P3s in higher education involve student housing as the primary focus and may include complementary auxiliary assets such as parking, dining, retail. However, some P3s have begun to incorporate other facilities such as academic space (e.g., labs, classrooms), student unions, athletic facilities, and physical plant improvements.
7 P3s can be leveraged to solve all campus infrastructure problems →	Not every project is suitable for a P3. P3s represent just one of many possible tools to achieve campus infrastructure goals, and leaders must examine each project's P3 suitability on an individual basis.

Source: National Council for Public-Private Partnerships, http://www.ncppp.org/; PPP Canada, http://www.p3canada.ca/en/about-p3s/; EAB interviews and analysis.

More Than a Funding Mechanism

Institutions Increasingly Leverage P3s to Transfer Long-Term Risks

Historically, higher education leaders viewed P3s primarily as a means to secure additional funds for major capital projects. However, institutions increasingly view P3s as a risk-mitigating mechanism. In fact, even institutions with sufficient funding options to execute capital projects independently still leverage P3s to transfer the long-term risks of ownership, management, and maintenance, as well as to reap the benefits of private-sector expertise. This shift in perspective has led many leaders to revisit the definition of value for P3s. In fact, it's becoming more common for institutions to enter net-negative financial arrangements in exchange for risk transfer. For instance, one institution that otherwise could have issued debt for new student housing and related auxiliaries instead opted for a P3 to transfer the responsibilities of long-term operation and maintenance to the private sector. Other emerging P3 trends in higher education are explored below.

Historical P3s	Emerging P3 Trends
Funding	
Primarily viewed as a means to secure alternative capital for major infrastructure projects	P3s valued for the opportunity to transfer long-term operations, management, and maintenance risk and leverage private sector innovation
Industry Interest	
Mostly sought out by capital-constrained, public institutions	Many types of institutions (public and private, resource-rich and capital-constrained) leveraging P3s to achieve infrastructure goals
Project Type	
Mainly limited to student housing and other revenue-generating auxiliaries	Institutions seek P3s for mixed-use facilities, and increasingly incorporate non-auxiliary elements (e.g., academic spaces, infrastructure) into large-scale contracts to capture economies of scale
Revenue Generation	
Most projects are self-supporting and/or create alternative revenue streams	Institutions willing to subsidize net-negative P3 projects to capture the benefits of long-term risk transfer
Project Focus	
Primarily leveraged to construct new buildings	Some institutions pursuing creative strategies to extract value from existing assets and create additional revenue streams (e.g., long-term lease concession of an auxiliary function)

Source: EAB interviews and analysis.

Higher Education Seeking Alternatives

P3 Benefits Help Address Critical Funding and Infrastructure Challenges

Beyond alternative financing and long-term risk transfer, P3s offer many potential benefits that help institutions address critical funding and infrastructure challenges in higher education. The table below explores specific challenges in greater detail, as well as potential benefits that address these challenges.

How P3s Help Higher Education Institutions Address Specific Challenges

	Higher Ed Challenges	Potential P3 Benefits
Budget Constraints	**Declining Revenue Streams** Declining tuition revenue and state support	**Monetize Assets** Extract value from current assets to leverage toward other priorities
	Limited Debt Capacity Decreasing ability to issue additional debt to fund capital projects	**Access Private Sector Capital** Fund capital projects with private sector capital while preserving debt capacity
	Rising Operating Costs Pressure to increase operational efficiency and reduce O&M[1] costs	**Achieve Operational Efficiencies and Cost Savings** Transfer O&M responsibilities to private sector to improve performance and realize savings
Aging Infrastructure	**Growing Maintenance Needs** Years of reactive maintenance contributing to increasing deferred maintenance backlogs	**Proactively Establish Maintenance Standards** Construct new facilities with concrete maintenance standards and 'wrap-up' conditions
Accelerating Pace of Campus Transformation	**Growing Pressure to Modernize** Demands for new campus infrastructure and amenities to attract students	**Accelerate Project Delivery** Avoid legislative and regulatory obstacles that slow project delivery
	Lack of Infrastructure Expertise Lack of infrastructure design, development, and technological expertise	**Tap Private Expertise and Innovation** Gain access to private sector expertise and maintain focus on main educational mission
	Capital Project Risks Potential for cost overruns, construction delays, and long-term asset maintenance	**Off-Load Major Project Risks to Partner** Transfer predevelopment costs, design, construction, operation, and/or maintenance risk to private sector

1) Operations and maintenance.

Source: EAB interviews and analysis.

Success Far from Guaranteed

Failed Higher Education P3s Have Serious Consequences

Though the potential benefits of P3s are attractive, failure to thoroughly evaluate, plan, and manage a P3 arrangement can lead to financial and political consequences. A notable example is the University of Quebec at Montreal (UQAM), where a poorly planned and managed P3 project nearly bankrupted the institution and led to the president's resignation. Other institutions have experienced poor P3 project outcomes due to vague contract provisions that lack adequate risk-sharing structures or performance incentives.

P3 Project Mismanagement and Cost Overruns at UQAM Has Major Consequences

UQÀM
Université du Québec à Montréal

2005
UQAM enters into P3 arrangement for a mixed-use development of ≈600 student beds, parking, office spaces, and city bus terminal

Late 2006
Project goes $200 million over budget, president resigns

Spring 2007
Construction stops with the project less than half complete, university nearly bankrupted

Fall 2007
Canadian Auditor General reports project mismanagement, lack of transparency, and cost overruns

Late Fall 2007
Citing cost overruns in capital program, Moody's Investor Services downgrades UQAM from BAA1 to BAA3

2008–2010
Québec establishes a $200 million trust to cover UQAM's losses; province later buys and sells block to a private developer for $45 million

2016
First student residences open, almost 10 years after project commencement

Impact of a P3 Gone Wrong

$300M
Public funds sunk into UQAM project

129%
Increase in UQAM long-term debt between 2003 and 2007[1]

10 years
Total time between project start and opening of first student residences

President resigns

Moody's downgrades UQAM's credit rating

UQAM suffers damaged reputation and loss of public trust

Source: Gaior C, "Apartments Overpriced in the Îlot Voyageur," *Le Journal de Montréal,* http://www.journaldemontreal.com/2016/03/09/jusqua-40--plus-cher-se-loger-a-ilotapparts; Séguin R, "Montreal University on the Edge of Bankruptcy," *The Globe and Mail,* http://www.theglobeandmail.com/news/national/montreal-university-on-verge-of-bankruptcy/article1088808/; EAB interviews and analysis.

1) Debt increase due to both P3 project missteps and separate but concurrent capital project.

Avoiding Common Pitfalls

Highly Complex Deals Require Thorough Evaluation, Planning, and Management

UQAM is one of many institutions that have turned to P3s to achieve infrastructure goals only to face challenges due to inadequate P3 evaluation, planning, and management. Common P3 challenges and pitfalls are listed below. In many cases, problems arise when institutions initiate deals without sufficiently evaluating the need and feasibility of a P3. In other instances, institutions fail to secure stakeholder buy-in, build organizational expertise, or establish necessary governance processes before initiating a P3 deal.

Common P3 Challenges and Pitfalls

Underdeveloped Contracts

Failure to clearly define incentives, KPIs,[1] and performance standards in P3 contract may leave too much room for interpretation and result in dissatisfaction with project outcomes

Unpredictability of Future Needs and Conditions

Long-term nature of P3 arrangements depend on institutional ability to predict future needs, conditions, and risk

Stakeholder Opposition

Lack of early and frequent communication about P3 project objectives and benefits may result in pushback from legislators, faculty, staff, and students

Insufficient Organizational Expertise and Capacity

Difficult financial, legal, and technical issues require expertise in P3 planning, feasibility evaluation, procurement, contract negotiation, and performance monitoring

Lack of Governance and Approval Processes

Failure to identify decision-makers and establish clear approval processes results in project delays or conflicts

Higher P3 Costs May Result in Lower Value for Money

P3 arrangements may not attain better value for money compared to other project delivery methods due to higher financing, transaction, and/or risk transfer costs

1) Key Performance Indicators.

Source: Houck D, et al., "Eight Crucial Factors Universities Should Consider Before Embarking on a Public Private Partnership," *JLL,* http://link.jll.com/8-crucial-factors-university-p3; Public-Private-Partnership in Infrastructure Resource Center, World Bank Group, https://ppp.worldbank.org/public-private-partnership/overview/ppp-objectives#risks; EAB interviews and analysis.

Executive Framework

To help leaders better navigate public-private partnerships, this publication offers high-level guidance for successfully planning and executing a P3. The first section details ten imperatives to carry out a P3, organized into three broad categories: evaluation, planning, and implementation. The second section provides six detailed case studies of institutions that have successfully utilized P3s to achieve their infrastructure and service delivery goals.

As the bulk of senior leader interest lies in leveraging P3s for new infrastructure, this publication will focus primarily on evaluating and planning P3 deals for new facilities. For an example of a P3 used to monetize exiting assets, please see The Ohio State University case study on page 43.

Section I: Ten Imperatives for Evaluating, Planning, and Implementing a P3

Evaluation	Planning	Implementation
1. Develop a Clear Project Vision	4. Build Institutional Capacity and Governance	7. Select the Right Partner
2. Assess the Viability of a P3	5. Develop a Program of Requirements	8. Negotiate the Agreement
3. Compare Project Delivery Options	6. Identify the Desired Deal Structure	9. Monitor Project Performance

10. Win Stakeholder Support

Section II: Case Studies of Public-Private Partnerships in Higher Education

TCNJ The College of New Jersey

Drexel University

The Ohio State University

UC Merced

KU The University of Kansas

University of Kentucky

Source: EAB interviews and analysis.

Ten Imperatives for Evaluating, Planning, and Implementing a P3

SECTION 1

Evaluating, Planning, and Implementing a P3

This section details ten imperatives to help senior leaders evaluate, plan, and implement a P3 to build new campus facilities and infrastructure. The first three imperatives focus on evaluating the viability of a P3 and selecting the delivery method that best aligns with project objectives. The next three imperatives focus on establishing a team and governance processes that optimize two crucial aspects of a P3 deal: risk allocation and financing. The following three imperatives explore how to successfully implement a P3, from choosing the right private partner, designing a performance-based contract, and monitoring the project for the duration of the agreement.

The final imperative, winning stakeholder support, should occur throughout the entire process to ensure smooth execution.

Ten Imperatives for Evaluating, Planning, and Implementing a Public-Private Partnership

Evaluation	Planning	Implementation
1. Develop a Clear Project Vision	4. Build Institutional Capacity and Governance	7. Select the Right Partner
2. Assess the Viability of a P3	5. Develop a Program of Requirements	8. Negotiate the Agreement
3. Compare Project Delivery Options	6. Identify the Desired Deal Structure	9. Monitor Project Performance

10. Win Stakeholder Support

Source: EAB interviews and analysis.

1. Develop a Clear Project Vision

Leaders Assess Campus Needs to Establish Project Objectives and Requirements

The first step is for senior leaders to develop a clear vision for the infrastructure project. By articulating the goals and objectives of the project, leaders can select the most appropriate project delivery method. The table below outlines three steps to identifying infrastructure project opportunities and strategic objectives, along with examples and commonly used tools and exercises.

Three Steps to Identify Infrastructure Opportunities and Goals

Step	Description	Representative Examples	Tools and Exercises
1. Evaluate Current and Future Campus Needs	Leaders identify current and future infrastructure needs by reviewing or updating the master plan	• Current student housing insufficient to accommodate long-term enrollment growth • Utility plant unable to meet the needs of expanding campus • Outdated research facility unable to meet increased demand for science classes and labs	• Strategic plan and campus master plan • Strategic value asset analysis • Financial forecasts • Enrollment projections • External consultant analyses
2. Establish Project Objectives and Requirements	Based on needs assessment, leaders define project objectives and requirements by reviewing precedent infrastructure projects and interviewing campus stakeholders	• Construct new science facility equipped with state-of-the-art technology and flexible research labs • Develop mixed-used facilities with modern amenities that combine housing, parking, and student union/retail • Avoid long-term deferred maintenance obligations of new facilities • Expedite project delivery timeline	• Feasibility studies • Market demand studies • Review of past institution and peer infrastructure projects • Peer campus site visits • Stakeholder interviews and focus groups • External consultant analyses
3. Develop Preliminary Project Concept and Scope	Leaders begin to develop the preliminary project concept and program of requirements through more in-depth analyses	• Project components, size, and location • Preliminary schedule and timeline • Desired design, architectural, and technical elements • Preliminary cost, financing requirements, and project risks	• Committee/working group sessions • Project site selection/evaluation • Detailed market demand analyses • Financial models and analyses • Cost studies • External consultant analyses

Source: "To P3 or Not to P3, Understanding the Question," *Brailsford & Dunlavey,* January 2012, http://venues.programmanagers.com/dynamic/document/fresh/asset/download/2407227/2407227.pdf; EAB interviews and analysis.

2. Assess the Viability of a P3

Employ High-Level Criteria to Determine Project Suitability as a P3

After defining a clear project vision, the next step is to evaluate whether a P3 is a suitable delivery method. While P3s are compelling, not every project is well suited to the delivery format. To effectively evaluate the viability of a P3, the table below outlines high-level criteria for leaders to use as a preliminary screen to assess the viability of a P3.

For the full version of the P3 project screening worksheet, please see page 31 of this publication.

High-Level P3 Project Screening Criteria

Screening Criteria	Relevant Question
Organizational Capacity	Does the institution possess sufficient internal and external resources to manage all phases of a P3?
Stakeholder Support	Is there sufficient stakeholder support for a P3 project?
Project Size	Is the project's size and scope sufficient to justify P3 costs?
Private Sector Expertise	Are there a sufficient number (i.e., three or more) of viable private sector firms that can deliver and maintain this type of facility to ensure a competitive bid process?
Contract Integration	Is there potential to integrate a number of elements (i.e., design, build, finance, maintain, operate) into a single, long-term contract?
Risk Allocation	Is there potential to allocate risks to the private party most capable of managing those risks by delivering the project as a P3?
Facility/Asset Life	Is the anticipated useful life of the building and/or asset long enough to achieve efficiencies, innovations, and cost certainty?
Project Complexity	Is there the potential to combine the delivery of various project elements (e.g., research facility, student housing, infrastructure upgrades) into one contract?
Quality	Is there potential for higher quality product/service delivery with a P3?
Construction Output and Performance Specifications	What is the availability/accessibility of output specifications for the construction of the facility?
O&M Performance Specifications and KPIs	What is the availability of operations- and maintenance-related performance specifications and indicators?
Lifecycle Costs	Can most of the full lifecycle costs be quantified upfront to facilitate accurate financial projections?
Market Precedent	Have investments with similar requirements and of similar size and scale been delivered through a P3 model at other institutions?
Innovation	Is there potential to achieve cost/schedule savings by delivering the project as a P3?
Efficiency	Is there potential to derive benefits from technological or other types of innovation through private sector delivery of the project?
Nature of Development Site	How much of this investment involves new construction on a previously undeveloped site?
Revenue Generation	Does the planned investment have the ability to generate revenue?

Source: "The Guide to the New Building Canada Fund P3 Screen-Suitability Assessment," *PPP Canada,* http://www.p3canada.ca/~/media/english/resourceslibrary/files/nbcf_p3%20screen_suitability_assessment_final_clean%20copy_new%20cover.pdf; "P3 Delivery Options Screening Checklist," *FHWA,* https://www.fhwa.dot.gov/ipd/pdfs/p3/p3_screen_supporting_guide_june2013.pdf; EAB interviews and analysis.

3. Compare Project Delivery Options

Once leaders have decided a P3 is a viable option, the next step is to evaluate alternative project delivery methods through comprehensive qualitative and quantitative analyses. The table below provides a high-level overview of delivery models. While a wide range of models could be used for any project, leaders should consider peer experiences with similar projects, market conditions, and stakeholder expectations to evaluate between two to five methods.

Common Infrastructure Project Delivery Methods[1]

	Traditional Method	*Alternative Methods*		*P3 Methods*	
	Design, Bid, Build	**Design, Build**	**Construction Manager at Risk**	**Design, Build Lease/Leaseback**	**DBFOM[2] Concession**
Brief Description	Institution contracts design and construction components separately; involves design phase, bid phase (when contractor is selected), and construction phase (when project is built by lowest-bid contractor)	Institution enters into a single contract with one entity known as the "design-builder" to provide both architectural/design services and construction	Construction manager at risk (CMR) responsible for delivering project within a defined schedule and price, either a fixed lump sum or a guaranteed maximum price; CMR provides construction input during design phase and becomes general contractor during construction phase	Institution ground-leases land to developer to design and build a new facility; full or partial revenue generated by facility remitted to the developer for set period of time, typically between 25 and 50 years, after which title is passed back to institution	Combines design and construction with performance-based O&M contracting and private financing for a fixed period of time, typically between 25 and 99 years; private partner may collect revenue from project and/or is compensated through a payment for services based on performance specifications
Risk[3]	**High** Institution retains design, construction, operations, and maintenance risk	**High** Institution retains design, construction, operations, and maintenance risk	**Medium** Institution retains risk for design and operations; developer retains cost and schedule risk for construction	**Medium-Low** Institution retains risk for design, construction, operations, and maintenance; developer retains costs and schedule risk; no payment until delivered	**Low** Developer retains risk for cost, schedule of design, construction, operations, and maintenance; payment deductions for non-performance
Innovation Potential[3]	**Low** Developer delivers exactly what institution specifies	**Medium** Opportunity for innovation and collaboration between design and builder	**Medium** Opportunity for innovation and collaboration between designer and builder	**High** Opportunity for innovation and collaboration between designer, builder, and operator	**High** Opportunity for innovation and collaboration between design, builder, and operator
Financial Impact[3]	**High** Financing impacts institution balance sheet and bonding capacity	**High** Financing impacts institution balance sheet and bonding capacity	**High** Financing impacts institution balance sheet and bonding capacity	**Medium-Low** Lease structure does not require debt issuance; can be off institution balance sheet	**Low** Financing can be structured many ways, but creates long-term financial obligation and private partner assumes most financial risk
Typical Use	Institution knows exactly what it wants, has funding capacity, and has resources to oversee all steps	Institution has general vision for project, some funding capacity, ability to oversee all steps, but speed is critical	Institution has general vision for project, some funding capacity, ability to oversee all steps, but wants to transfer cost and schedule risk and expedite delivery timeline	Institution knows generally what it wants, needs alternative financing, and wants to transfer cost and schedule risk	Institution wants to lower lifecycle costs, transfer cost, schedule, construction, and O&M risk; can also provide alternative financing

1) Adapted from Jones Lang LaSalle, Inc.
2) Design-Build-Finance-Operate-Maintain.
3) Each delivery method is evaluated on a four-point scale from Low, Medium-Low, Medium, to High.

Source: Houck D et al., "Eight Crucial Factors Universities Should Consider Before Embarking on a Public Private Partnership." *JLL*, http://link.jll.com/8-crucial-factors-university-p3; EAB interviews and analysis.

Determine the Best Value for Money

Use Both Qualitative and Quantitative Analyses to Select Right Delivery Method

After creating a short-list of project delivery options, leaders should conduct a comprehensive business case analysis that compares each methods' potential to achieve project goals. While there are many ways to compare project delivery structures, most analyses contain the three elements below. The most important element is the value for money (VFM) analysis, which leverages both qualitative and quantitative information to project total cost of ownership, resulting in a risk-adjusted financial comparison of delivery options. While the specifics of the VFM analysis vary based on project-specific inputs and the methodology used, the output enables leaders to objectively compare various methods and select the one with greatest value for the institution.

Elements of Project Delivery Comparison

Qualitative Analysis

Consider benefits and risks of non-quantifiable factors, such as:

- Alignment with objectives
- Time to deliver project
- Budget certainty
- Operational flexibility
- Stakeholder expectations

Market Sounding

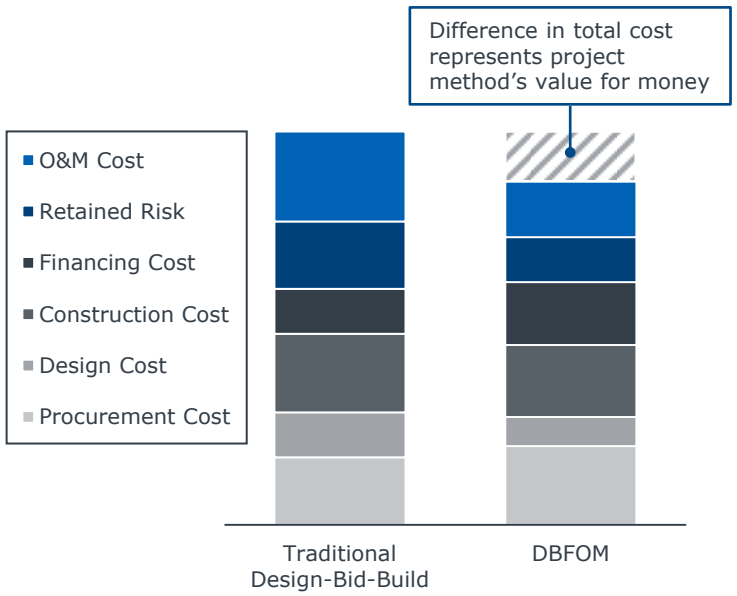
Get feedback from experts such as builders, operators, and financiers to understand:

- Project marketability
- Market constraints
- Potential for innovation
- Valuation of risks

Value for Money Analysis

- Compare risk-adjusted financial projections to determine method with the best value for money
- Requires risk identification/ valuation and calculating the net present value of a project's lifecycle cost, which takes into account design, construction, finance, operation, maintenance, and procurement costs

Sample Value for Money Analysis



Leveraging Consultants for Project Delivery Comparison

The project delivery evaluation process and the value for money analysis can be very complex and time-intensive, requiring input from various subject matter experts. For this reason (and to avoid bias), many institutions engage third parties to conduct delivery method comparisons and value for money analyses.

Source: "How to Structure a P3 Deal," *National Council for Public-Private Partnerships,* July 2015, http://www.ncppp.org/wp-content/uploads/2015/07/Molino-Anita-How-to-Structure-a-P3-Deal.pdf; EAB interviews and analyses.

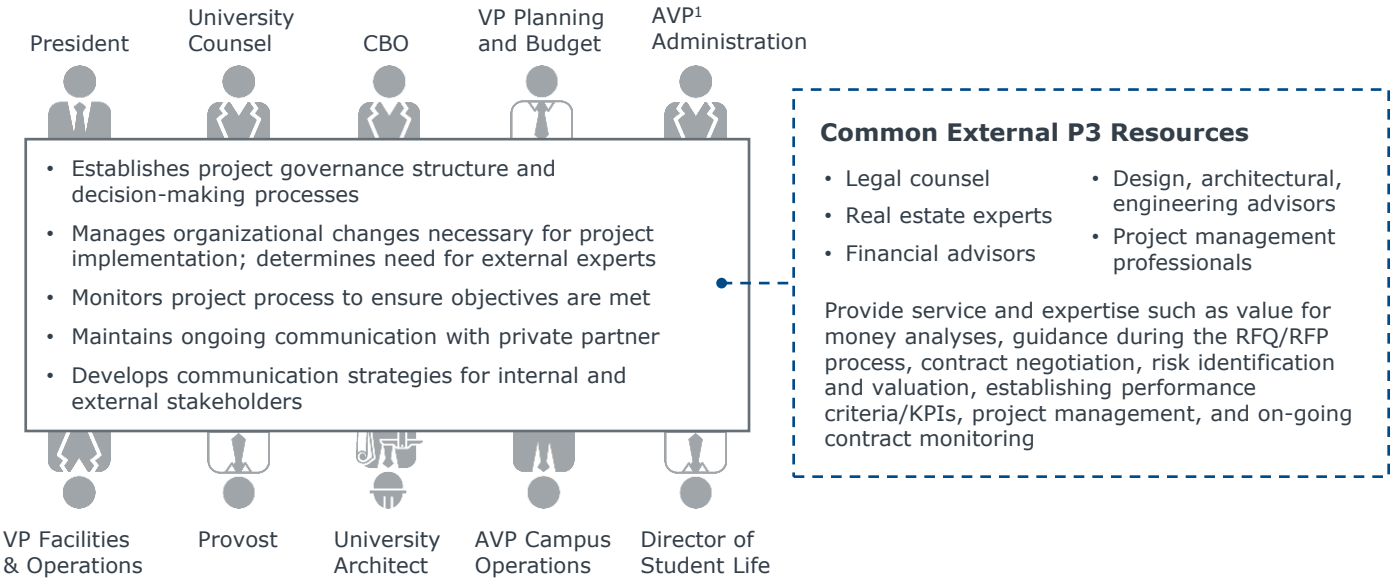
4. Build Institutional Capacity and Governance

Senior Leaders Form Core Project Team and Leverage External Expertise

After an institution decides to pursue a P3, the first step to plan the project is to identify the key stakeholders and establish governance processes. Typically, institutions designate a single senior leader as the project owner or champion, serving as the primary advocate and driver of the project. Additionally, a team of senior leaders (e.g., president, university counsel, chief business officer, facilities leader) may envision and manage the project, while Facilities leaders (e.g., university architect, associate vice presidents) operationalize the P3. Depending on the project, institutions may include other academic or auxiliary leaders or form separate advisory committees to provide input on programmatic or academic aspects of the project.

Beyond managing the project, the team establishes a clear governance structure from the outset. This includes decision-making and approval processes, milestones, timelines, and communication strategies. Once a private partner is selected (see Imperative 7 on page 25), a select number of private partner representatives typically join the team to streamline communication.

Example P3 Project Participants



Given the often limited experience of internal staff with P3 deals, many institutions engage third-party consultants to provide expertise. These professionals provide one-time or ongoing services at various stages of the process, offering expertise on elements such as value for money analyses, risk identification and valuation, development of performance criteria, and project procurement. While the value-add of an extensive consultant team varies based by project complexity and internal staff expertise, EAB recommends that institutions at minimum consult legal counsel to assist with technical legal structures and terms.

1) Associate Vice President.

Source: EAB interviews and analysis.

5. Develop a Program of Requirements

The next imperative is to establish a program of requirements and performance standards based on project goals. A program of requirements defines the desired quantitative and qualitative characteristics of the facilities and provides a clear roadmap for the private partner to achieve project goals. As P3s become increasingly complex, well-defined requirements and criteria are critical to solicit interest from the private sector and maximize efficiency in the procurement process.

Importantly, P3s require the development of measurable, output-based performance standards. Whereas traditional capital projects focus on inputs such as design and construction methods or materials, P3 contracts include outcome specifications that map to project goals. The institution provides a clear description of performance in each phase of the lifecycle and desired asset condition at the end of the agreement, which enables the private partner to explore innovative solutions to achieve the prescribed performance level.

Some P3 deals also include financial incentives for performance, such as penalties for poor outcomes or late delivery. During the planning stage, the project team should develop concrete performance standards such as space utilization requirements, facilities handback condition, and operating performance levels. Note that the process of establishing concrete, quantitative performance criteria can be very time-intensive and may require significant technical expertise. Experienced institutions recommend reviewing procurement documents and agreements from similar P3 deals to ensure performance standards are realistic.

Example Program of Requirements for Student Residence Hall

Requirements	Description	Example
General Scope of Services	Types of facilities and infrastructure to be constructed, maintained, and/or operated, proposed location, and baseline project schedule/completion dates	• Demolition of existing residence hall • Design, construction, maintenance, and operation of two new student apartments on previous resident hall location • Construction of additional parking, infrastructure, and amenities needed to support facilities
Facility Characteristics and Needs	Description of facility needs and desired characteristics, including tentative size, types of spaces, amenities, and supporting infrastructure	• Style of apartment, number of beds, desired common areas (e.g., recreation space, lounges, study rooms) • Amenities (e.g., leased retail space on ground floor, dining center, coffee shop) • Minimum parking requirements (e.g., number of spaces per bed) • Infrastructure requirements (e.g., standalone HVAC system)
Design and Construction	Design, construction, and technical guidelines and standards, often detailed in a "basis of design" document	• Facility aesthetics, room acoustic performance, interior and exterior amenities, active and passive open space, space utilization, adjacency requirements • Energy standards (e.g., minimum utility system standards and building performance) • Sustainability requirements (e.g., LEED certification)
Maintenance and Operations	Required maintenance and operation services and minimum performance standards	• Custodial, preventive and corrective maintenance, repair/replacement, and landscape services • Required level of staffing, supervision, and management to maintain quality service for students • Facilities handback condition (e.g., minimum FCI[1])

1) Facility Condition Index, measured as the amount of deferred maintenance divided by total asset value.

Source: EAB interviews and analysis.

6. Identify the Desired Deal Structure: Risk Allocation

Project Teams Establish Baseline Risk Transfer Requirements

The final planning imperative focuses on the two major aspects of a P3 deal structure that optimize value for money: effective risk allocation and financing. While institutions invite bidders to propose more precise risk transfer and financing provisions during project procurement, institutions should at minimum identify the baseline risk allocation and desired financial structure during the planning stage to ensure proposals fully account for project needs and objectives.

One of the primary benefits of a P3 compared to traditional project delivery is the ability to transfer major risks to a private partner, such as cost overruns, construction delays, and long-term asset maintenance. In general, project risks should be allocated to the party best able to manage them at the lowest cost. The graphic below describes major project risks and provides questions for leaders to consider to optimize risk allocation between the public and private partners.

P3 Project Risks

Design

Errors, omissions, and design coordination[1] that may have negative impact on construction or future operations

Construction

Cost overruns, building material defects, construction delays, planning regulations, structural integrity issues, technical deficiencies, health risks, and worksite accidents

Financing

Required funding for project will not be obtained, or will be obtained but at interest rates that prevent the project from achieving expected benefits

Operations and Maintenance

Post-construction risks once facility becomes operational, such as defective materials, deferred maintenance, service level and quality, repairs/replacements, and residual value

Demand

Possibility of discrepancy between initial expectations and the amount of service actually required or consumed by the facility users (e.g., low student housing occupancy)

Availability

Facility will not provide sufficient services due to management issues, failure to meet required quality or asset availability standards, etc

Questions to Optimize Risk Allocation

- Which party is best able to control or manage the occurrence and impact of the risk?
- For a particular risk, which party has a greater incentive to develop risk mitigation strategies?
- Are there innovative opportunities to reduce lifecycle costs by allocating a risk to the private party?
- Which risk allocation would result in the lowest lifecycle costs?
- Which risk allocation incentivizes preventive as opposed to reactive risk management?

Source: Hovey P, "Risk Allocation in Public-Private Partnerships: Maximizing Value for Money," *IMG Rebel,* August 2015, https://www.iisd.org/sites/default/files/publications/risk-allocation-ppp-maximizing-value-for-money-discussion-paper.pdf; "Understand Public-Private Partnerships," *Auditor General of British Columbia*, https://www.bcauditor.com/sites/default/files/publications/2011/report2/files/oagbc-understanding-p3-public-private-partnerships.pdf; EAB interviews and analysis.

1) Risk that the facility is not built according to the design.

6. Identify the Desired Deal Structure: Financing

Weigh Financing Options Against Project Objectives and Institutional Capabilities

Another decision point is determining the desired financing structure. P3 financial structures vary depending on project goals and institutional capabilities, and may include a combination of general obligation bonds, tax-exempt project-based bonds, taxable project-based debt, and developer equity. The table below compares the merits of the two P3 financial structures most prevalent in higher education.

Comparing Two Predominant P3 Financing Structures

	Tax-Exempt Debt	Private Equity
Typical Structure	Lease-Leaseback Model	Concession Agreement
Description	▶ Institution negotiates long-term ground lease with affiliated non-profit 501(c)(3) ▶ 501(c)(3) contracts with private partner to design, build, operate, and/or maintain an asset ▶ 501(c)(3) issues tax-exempt debt to finance project ▶ Once debt is retired (typically around 25-30 years), facility reverts back to university ▶ 501(c)(3) is passive owner of asset during contract; collects all or most revenue generated and makes payments to developer	▶ Institution contracts with private partner to design, finance, construct, maintain, and/or operate asset for specified period ▶ Private partner makes equity investment to finance construction and may raise additional funds from capital markets, banks, or other private funding ▶ Deal structures deals vary; may involve long-term ground lease (between 25 and 99 years) ▶ Private partner may collect revenue generated by asset during contract or institution makes availability payments to partner
Advantages	✔ Lower cost of capital; exempt from property taxes ✔ Institution retains higher level of asset control and receives net cash flow ✔ Non-recourse debt minimizes balance sheet impact	✔ Lowest impact to university balance sheet and credit capacity ✔ University avoids lengthy bond-issuing process; expedites project timeline ✔ Private equity at risk provides incentive to maximize innovation and efficiency
Disadvantages	✖ Higher impact on credit rating ✖ Higher transaction execution risk ✖ More difficult and costly to structure	✖ Higher cost of capital ✖ Lower level of institution control over long-term contract ✖ Sacrifice of potential revenue opportunity

Questions to Evaluate P3 Financing Structure

- Does the institution require private capital?
- Are the assets revenue-producing?
- What is the impact on credit and debt capacity of various financing alternatives?
- Are there restrictions on various types of funding?
- Is there an opportunity for profit-sharing between the public and private partners?
- What are the financial implications of transferring various risks to the private sector?

Source: Houck D et al., "Eight Crucial Factors Universities Should Consider Before Embarking on a Public Private Partnership," *JLL,* http://link.jll.com/8-crucial-factors-university-p3; "Public Private Partnerships for Development of Student Housing," *OACUBO,* 2010; EAB interviews and analysis.

7. Select the Right Partner

Institutions Leverage Multistep Procurement to Select "Best Value" Proposal

Once an institution plans the desired P3 arrangement, the first step to implement the project is to select the right partner. Unlike traditional low-bid procurement, P3s typically involve a multi-step process for selecting a private partner based on the best value proposal. The first stage involves issuing Request for Qualifications (RFQ) to determine an eligible pool of candidates. Based on an initial review of the RFQs, the institution then invites a short list of candidates (no more than five) to submit a full Request For Proposal (RFP).

The University of Kansas (KU) employed an innovative RFP evaluation process to select the best-value proposal for their large-scale P3 project. After setting a $300 million availability cap, KU leaders established project requirements for science facilities, housing, and parking, and sorted them into three tiers (the first representing minimum requirements). After ensuring that proposals met the minimum requirements, KU leaders ranked them based on their ability to provide tier 1 and 2 elements. Finally, KU awarded the project to the team whose proposal provided the best value.

Examples from KU's Integrated Science Building and Infrastructure Scope Ladder

Minimum Scope

Basic project requirements and specifications, including:

- Classrooms, teaching labs, research and administrative office space
- Student union and service space
- Building HVAC
- Power plant
- Traffic and pedestrian paths
- KU design/energy standards
- Maintenance and operations
- Utility infrastructure improvements (e.g., water system, electrical distribution, telecommunications)

Tier One

- Clean room facilities
- Faculty offices
- Additional power plant capacity
- Recreation fields over storm detention
- KU design/energy standards +5%
- Additional research lab space

Tier Two

- Increased research lab size
- 45-seat classroom in power plant
- Additional pathway for utilities
- KU design/energy standards +7%

Source: The University of Kansas, Lawrence, KS; EAB interviews and analysis.

Choose a Partner, Not a Proposal

Institutions Must Factor Qualitative Considerations Beyond Technical Proposals

When evaluating potential partners, institutions should consider factors beyond the proposal. For example, leaders at institutions that have been through multiple P3s highly recommend selecting a private partner with significant experience working on similar P3 deals. Other considerations include a company's financial position and an absence of litigation and controversy.

Partner Evaluation Considerations Beyond Technical Proposals

Qualifications and Experience

Ensure significant experience with similar P3 deals and request documentation of technical knowledge

Absences of Litigation and Controversy

Request written statement to confirm no past or ongoing litigation/controversy

Financial Position

Review audited financial statements and viability of net working capital

Communication and Work Style

Determine compatibility of communication styles in high-touch, long-term partnership

Candidate References

Schedule phone interviews with previous public partners

Company Culture and Mission

Ensure private company values align with institutional brand and mission

Given the long-term nature of P3 arrangements, institutions have found that the most effective partnerships arise from a strong working relationship built on mutual trust. This is especially important for operation/management arrangements that entail third-party contact with students and other campus customers, such as private management of student housing. Institutions should contact candidate references and schedule face-to-face interviews to assess intangible qualities such as personality compatibility, communication and work styles, and company culture and values.

Source: "Public-Private Partnerships: A Guide to Selecting A Private Partners," *California Debt & Investment Advisory Commissions,* March 2008, http://www.treasurer.ca.gov/cdiac/publications/p3.pdf; EAB interviews and analysis.

8. Negotiate the Agreement

The next imperative for implementing a P3 is negotiating the project agreement. While the majority of P3 elements are established during the procurement phase, specific oversight, implementation, and contract monitoring mechanisms are often established during negotiations with the preferred bidder. Contract negotiation also allows the public and private partners to establish mutually agreeable, project-specific solutions to any issues identified after the procurement process. To ensure a successful negotiation, institutions should rely on legal counsel with expertise in developing long-term, enforceable agreements. Typical elements of a well-constructed P3 contract are listed below.

Typical Elements of a P3 Agreement

- ✓ **Allocation of Responsibilities**
  - Allocation of responsibility between public and private partners
- ✓ **Project Dates and Timelines**
  - Deadlines and milestones for design, construction, and completion
  - Length of agreement term
- ✓ **Rights and Obligations**
  - University oversight and approval rights, including step-in rights
  - Limitations on private partner ability to assign or transfer obligations
- ✓ **Key Procedures**
  - Dispute resolution procedure
  - Termination procedure and conditions
- ✓ **Risk Allocation**
  - Concrete risk sharing and mitigation measures
  - Procedures for force majeure events such as earthquakes and natural disasters
- ✓ **Financial Model/Compensation Structure**
  - Allocation of financial responsibility between university and private partner
  - Payout schedule and revenue sharing provisions
- ✓ **Technical Requirements**
  - Detailed design, construction, maintenance, and operation specifications
  - Professional and technical standards, codes, and specifications
- ✓ **Performance Standards**
  - Measureable and enforceable design and construction specifications
  - Facilities maintenance/renewal requirements and handback conditions
- ✓ **Monitoring and Reporting Mechanisms**
  - Performance assessment and reporting procedures
- ✓ **Penalties and Incentives**
  - Financial penalties for late delivery or poor performance

Source: "EPEC PPP Guide," *European PPP Expertise Centre,* 2015, http://www.eib.org/epec/g2g/ii-detailed-preparation/22/225/index.htm; EAB interviews and analysis.

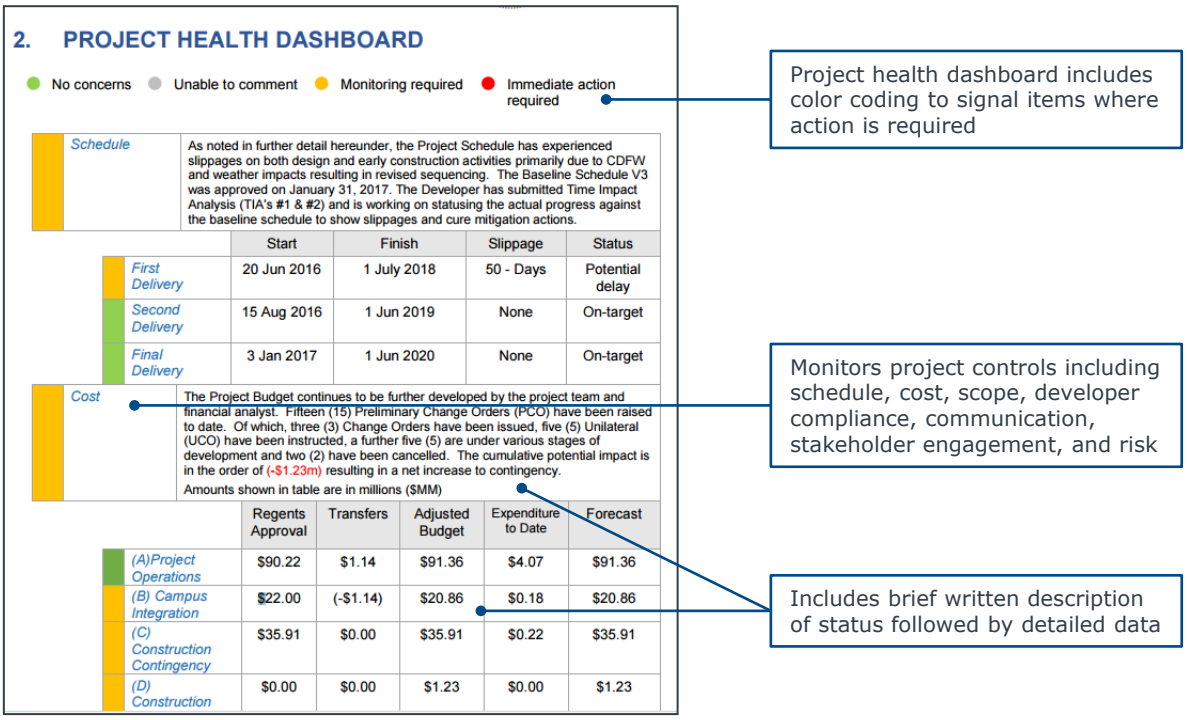
9. Monitor Project Performance

The final imperative of P3 implementation is to continuously monitor the project for the duration of the agreement. In many cases, performance specifications require an institution to perform periodic audits to assess penalties or awards during construction. Furthermore, deals that involve long-term O&M provisions require the institution to monitor the project even after construction is complete to ensure standards are met.

The University of California, Merced has developed an effective reporting system to monitor the progress of its large-scale campus expansion project, Merced 2020. Since groundbreaking in 2016, the UC Merced project delivery team has produced monthly progress reports that organize and summarize key performance data. The team, comprised of Physical Operations staff and private partner representatives, presents these reports to the Project Board for review and publishes them on the Merced 2020 website to ensure stakeholders stay current on project progress. In addition to an executive summary, the report includes a project health dashboard with detailed performance data, shown below.

Full versions of UC Merced's 2020 Project Performance Monthly Reports are available on the Merced 2020 project website.

Snapshot of UC Merced 2020 Project Monthly Performance Report



2. PROJECT HEALTH DASHBOARD

No concerns · Unable to comment · Monitoring required · Immediate action required

		Start	Finish	Slippage	Status
Schedule	As noted in further detail hereunder, the Project Schedule has experienced slippages on both design and early construction activities primarily due to CDFW and weather impacts resulting in revised sequencing. The Baseline Schedule V3 was approved on January 31, 2017. The Developer has submitted Time Impact Analysis (TIA's #1 & #2) and is working on statusing the actual progress against the baseline schedule to show slippages and cure mitigation actions.				
First Delivery		20 Jun 2016	1 July 2018	50 - Days	Potential delay
Second Delivery		15 Aug 2016	1 Jun 2019	None	On-target
Final Delivery		3 Jan 2017	1 Jun 2020	None	On-target

		Regents Approval	Transfers	Adjusted Budget	Expenditure to Date	Forecast
Cost	The Project Budget continues to be further developed by the project team and financial analyst. Fifteen (15) Preliminary Change Orders (PCO) have been raised to date. Of which, three (3) Change Orders have been issued, five (5) Unilateral (UCO) have been instructed, a further five (5) are under various stages of development and two (2) have been cancelled. The cumulative potential impact is in the order of (-$1.23m) resulting in a net increase to contingency. Amounts shown in table are in millions ($MM)					
(A)Project Operations		$90.22	$1.14	$91.36	$4.07	$91.36
(B) Campus Integration		$22.00	(-$1.14)	$20.86	$0.18	$20.86
(C) Construction Contingency		$35.91	$0.00	$35.91	$0.22	$35.91
(D) Construction		$0.00	$0.00	$1.23	$0.00	$1.23

Project health dashboard includes color coding to signal items where action is required

Monitors project controls including schedule, cost, scope, developer compliance, communication, stakeholder engagement, and risk

Includes brief written description of status followed by detailed data

Source: UC Merced 2020 Project Monthly Performance Reports, http://merced2020.ucmerced.edu/performance; University of California, Merced, Merced, CA: EAB interviews and analysis.

10. Win Stakeholder Support

Frequent and Transparent Communication Vital to Project Success

Finally, ensuring project success requires winning stakeholder support. In the early stages, this centers on securing buy-in from decision makers, as well as on-campus and off-campus stakeholders (including students, faculty, staff, community members, alumni, labor unions, and state legislators). This signals to potential partners and investors that the project will run smoothly.

As many stakeholders often hold misperceptions about P3s, project leaders should maintain transparent communication and proactively address potential concerns to minimize resistance. Six communication tips are provided below to help leaders secure buy-in for a P3.

P3 Communication Tips

1 Seek Early Input from Key Stakeholders

Institutions gather feedback from students, faculty, staff, and community members through focus groups and interviews to secure buy-in early in the process and ensure the project meets user needs

2 Emphasize Benefits of P3s

Institutions focus on the benefits of the P3 project, including modernized facilities, quick project delivery, preservation of debt capacity, improved community relations, additional revenue streams, and economic benefits to the region (e.g., jobs created, economic impact, hiring of local businesses)

3 Proactively Address Common Concerns

Institutions proactively educate stakeholders on important P3 elements, such as rationale for using a P3, the ownership and management structure, risk transfer, financing structure, labor requirements, and revenue-generating mechanisms

4 Leverage Multiple Channels

Institutions educate and update stakeholders through public town-hall meetings, presentations, social media, campus emails, door-to-door fliers, and dedicated project websites

5 Communicate Openly and Frequently

Institutions maintain a high level of transparency and continuously update stakeholders on project goals, timelines, schedule changes, and potential impact of construction on campus operations

6 Designate a Project Champion

Institutions designate a senior leader or public figure to serve as the primary advocate for the project

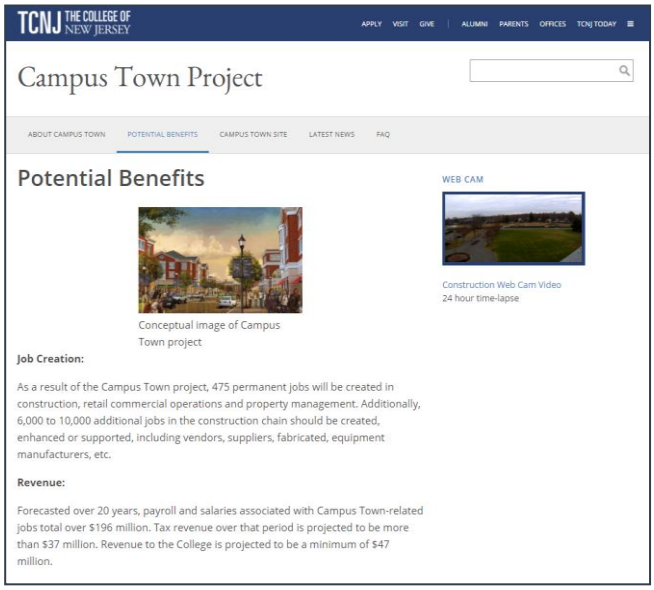
Source: EAB interviews and analysis.

I'll See You on the Web

Institutions Create P3 Project Websites for Easy and Constant Communication

One simple and effective strategy to communicate key P3 project information is through a dedicated website. As shown below, dedicated project websites enable institutions to share important background context, project details, and continuous updates in one spot. A snapshot of The College of New Jersey's Campus Town project website is shown below along with helpful website elements.

Snapshot of The College of New Jersey's Campus Town Project Website



Suggested P3 Project Website Elements

- Components and goals
- Timeline and progress updates
- Project and P3 benefits
- Project team members
- Live-feeds and images
- Frequently asked questions
- Articles and presentations
- Form to submit question

Example P3 Project Websites

- The College of New Jersey: Campus Town
- The Ohio State University: Parking Lease
- University of California, Merced: Merced 2020
- The University of Kansas: Central District
- University of South Florida: The Village

Source: "Campus Town Project," The College of New Jersey, http://campustown.pages.tcnj.edu/; Ewing, NJ; EAB interviews and analysis.

P3 Viability Screening Worksheet

P3 Viability Screening Worksheet

This tool guides senior leaders through the first step of a more comprehensive evaluation process to determine a project's P3 suitability. To use this tool effectively, leaders must possess a basic understanding of the scope, costs, risks, and revenue potential of the project under consideration.

To use the worksheet, score each of the 17 qualitative criteria based on the level of agreement with the statement, either zero (disagree), one (somewhat agree), or two (strongly agree). After scoring each criterion, record the answers on the scoring sheet on page 35 and follow the directions to calculate a total weighted score. The final score corresponds to the project's level of P3 viability.

Criteria	Statement	Agreement Score	Relevance to P3 Delivery
Organizational Capacity	The institution possesses sufficient resources—either internal experts or ability to hire partners—to manage all phases of a P3 (e.g., development, procurement, negotiation, long-term contract oversight).		Developing and managing a P3 requires significant staff resources and technical expertise. Institutions must ensure they have the necessary resources and expertise to procure and manage a project as a P3, or have the capability to hire external consultants.
Stakeholder Support	Sufficient stakeholder (e.g., legislators, staff, faculty, students) support exists for a P3 project.		Local support can enhance viability of P3 bidding by reducing uncertainty and providing assurance to the potential partners/investors that a project will run smoothly. Institutions should assess the potential to secure strong stakeholder support early in the process.
Project Size	The project's size and scope is sufficient to justify P3 costs (i.e., over $100M).		Due to complexity of P3 agreements, the transaction costs associated with procuring and managing a P3 project are relatively higher. These additional costs may make it inefficient to pursue projects less than $100 million in cost.
Private Sector Expertise	There are three or more viable private sector firms to deliver and maintain the facility and ensure a competitive bid process.		The availability of private sector expertise is critical to ensure a competitive bidding environment and to ensure that private sector capacity exists to perform the functions and manage the risks envisioned for the project.
Contract Integration	The project requires the integration of multiple elements (i.e., design, build, finance, maintain, operate) into a single, long-term contract.		P3s generate value through the integration of various elements (design, build, finance, operate/maintain) into one contract. The greater the potential for integration, the more likely a P3 will be viable.

Scoring Scale		
Disagree = 0	**Somewhat Agree = 1**	**Strongly Agree = 2**

Source: "The Guide to the New Building Canada Fund P3 Screen-Suitability Assessment," *PPP Canada,* http://www.p3canada.ca/~/media/english/resourceslibrary/files/nbcf_p3%20screen_suitability_assessment_final_clean%20copy_new%20cover.pdf; "P3 Delivery Options Screening Checklist," *FHWA,* https://www.fhwa.dot.gov/ipd/pdfs/p3/p3_screen_supporting_guide_june2013.pdf; EAB interviews and analysis.

P3 Viability Screening Worksheet (cont.)

Criteria	Statement	Agreement Score	Relevance to P3 Delivery
Project Complexity	The project involves complex construction and operations & maintenance requirements, and/or combines various types of facilities/infrastructure (e.g., academic facilities, student housing), that would achieve economies of scale under a single contract.		P3s often better lend themselves to more complex investments, which arise as a result of the nature of the facility, the site on which it will be constructed, or the number of distinct facility types involved in the investment.
Risk Allocation	The project involves risks that the institution would benefit from allocating to a private sector partner that is better positioned to manage those risks.		Institutions should assess whether a P3 would generate value through the allocation of project delivery risks that a private partner may be more capable of managing.
Facility/Asset Life	The anticipated useful life of the building and/or asset is long enough (i.e., over 20 years) to achieve efficiencies, innovations, and cost certainty.		The duration of a P3 contract typically corresponds to the useful life of the facility, and longer-lived facilities tend to be better suited to a P3. A lengthy contracting period allows the public partner to benefit from efficiencies, innovations, and cost certainty, while the private sector partner can rely on a secure, a long-term source of revenue.
Quality	A P3 project delivery would yield a higher quality product/service.		Institutions should assess whether a P3 would create incentives for the private sector to deliver a higher quality facility, and/or deliver higher levels of maintenance and service than a traditionally procured and managed facility.
Output and Performance Specifications (Construction)	Output specifications for the construction of similar facilities exist and are easily available.		P3s involve establishing desired outcomes in the form of measurable technical output/service/performance specifications. Institutions should consider whether they can rely on conventional or preexisting construction output specifications for similar facilities, or if they will need to develop them from scratch.
Performance Specifications and KPIs (O&M[1])	Performance outputs and KPIs for operations and maintenance of similar facilities are available.		Institutions must be able to articulate minimum O&M standards that they will monitor during the contract time frame. Institutions should consider whether they can rely on conventional or preexisting performance outputs and indicators for O&M activities, or if they will need to develop them from scratch.

Scoring Scale		
Disagree = 0	**Somewhat Agree = 1**	**Strongly Agree = 2**

1) Operations and maintenance.

Source: "The Guide to the New Building Canada Fund P3 Screen-Suitability Assessment," *PPP Canada,* http://www.p3canada.ca/~/media/english/resourceslibrary/files/nbcf_p3%20screen_suitability_assessment_final_clean%20copy_new%20cover.pdf; "P3 Delivery Options Screening Checklist," *FHWA,* https://www.fhwa.dot.gov/ipd/pdfs/p3/p3_screen_supporting_guide_june2013.pdf; EAB interviews and analysis.

P3 Viability Screening Worksheet (cont.)

Criteria	Statement	Agreement Score	Relevance to P3 Delivery
Lifecycle Costs	The total facility lifecycle costs are well understood and the institution can develop accurate cost estimates.		To determine the appropriate length of term of a P3 contract and estimate its value for money, the institution must understand the anticipated lifecycle costs of the facilities.
Market Precedent	Investments of similar size and scope have been delivered as P3s in higher education.		The existence of P3s for similar projects/facilities is a good indicator of P3 viability.
Efficiency	Pursuing a P3 project delivery format has the potential to achieve cost/schedule savings.		Institutions should assess the potential for a P3 to expedite the project timeline and deliver the project at a lower cost than under conventional procurement.
Innovation	The institution would derive technological or other types of innovation through private sector delivery of the project.		P3s should give private partners an opportunity to use innovative methods to deliver and maintain the project more efficiently than a conventionally delivered project.
Nature of Development Site	The project involves new construction on an undeveloped site.		In general, investments involving all new construction on sites not previously developed (known as greenfield developments) lend themselves to maximizing risk transfer to the private sector.
Revenue Generation	The planned investment will generate revenue and the private sector may be willing to assume associated revenue risk.		While revenue generation is not a requirement for a successful P3, revenue-generating facilities are typically better suited to P3 delivery as institutions can compensate the private partner directly without taking on additional debt.

Scoring Scale		
Disagree = 0	**Somewhat Agree = 1**	**Strongly Agree = 2**

Source: "The Guide to the New Building Canada Fund P3 Screen-Suitability Assessment," *PPP Canada,* http://www.p3canada.ca/~/media/english/resourceslibrary/files/nbcf_p3%20screen_suitability_assessment_final_clean%20copy_new%20cover.pdf; "P3 Delivery Options Screening Checklist," *FHWA,* https://www.fhwa.dot.gov/ipd/pdfs/p3/p3_screen_supporting_guide_june2013.pdf; EAB interviews and analysis.

P3 Viability Screening Scoring Sheet

After scoring each criterion, record the answers in the **Score** column below. Each criterion is weighted according to its importance in determining P3 viability. For each criterion, multiply the score by the criterion weight to calculate a weighted score. Finally, add the weighted scores in the last column of the table to calculate a total weighted score. The total weighted score corresponds to the level of P3 viability: high, medium, or low.

Criteria	Score	Weight	Weighted Score
Organizational Capacity		3	
Stakeholder Support		3	
Project Size		3	
Private Sector Expertise		3	
Contract Integration		3	
Project Complexity		3	
Risk Allocation		3	
Facility/Asset Life		2	
Quality		2	
Output and Performance Specifications (Construction)		2	
Performance Specifications and KPIs (O&M)		2	
Lifecycle Costs		2	
Market Precedent		2	
Efficiency		2	
Innovation		2	
Nature of Development Site		1	
Revenue Generation		1	
Total Weighted Score			

Total Weighted Score	P3 Viability
0 to 26 points	**Low**
26 to 52 points	**Medium**
48 to 78 points	**High**

Source: EAB interviews and analysis.

Case Studies of Public-Private Partnerships in Higher Education

SECTION 2

- The College of New Jersey
- Drexel University
- The Ohio State University
- University of California, Merced
- The University of Kansas
- University of Kentucky

The College of New Jersey

Type of Institution: Public Master's College & University: Larger Programs

Location: Ewing, New Jersey

Enrollment: 7,406 graduate, 6,758 undergraduate (Fall 2015)

Operating Expenditures: $238 million (FY16)

Project Background

In 2007, leaders at the College of New Jersey (TCNJ) began planning Campus Town, a development to address critical student housing needs, enhance the appeal of the college, and strengthen college-community relationships. In 2009, a study conducted by external consultants affirmed the project's feasibility and its ability to generate additional revenue for the college. However, TCNJ lacked the funds or debt capacity for such an extensive project. Later that year, the NJ Legislature passed the New Jersey Economic Stimulus Act of 2009, permitting state colleges to enter into public-private partnerships for on-campus construction projects. As a result, leaders at TCNJ began reaching out to developers to design, build, finance, operate, and maintain (DBFOM) new student residence halls and retail stores. TCNJ opted for a DBFOM agreement because it allowed them to quickly address critical student housing needs without utilizing any state or college funding or impacting debt capacity.

Private Partner

The PRC Group

Key Participants

Core Project Team

- President
- Board of Trustees Chair
- Vice President for Administration
- Director of Administration
- Treasurer
- Private developer staff

External Advisors

- PRC Group, LLC (Developer)
  - William Feinberg and Associates (Architect)
  - Turner Construction Company (Construction Manager)
- HR & A Advisors (Financial Advisor)
- Windels, Marx, Lane and Mittendorf, LLC (TNCJ counsel)
- Feasibility study team:
  - Jones, Lang, LaSalle LLC (lead consultant)
  - Elkus Manfredi (architects)

High-Level P3 Deal Structure

- DBFOM ground-lease arrangement for the development of mixed-use facilities
- PRC Group handles property management with the support of residential and retail specialists
- 50-year land lease; TCNJ retains ownership of the land while PRC maintains ownership of the improvements
  - At the end of the 50-year term, ownership of the improvements reverts to TCNJ
- TCNJ leased back ground floor of one building for new fitness center
- Trenton State College Corporation (TCNJ's auxiliary real estate company) renting space for bookstore; commissions from the bookstore vendor covers rent
- Developer required to donate space for development of a police substation to be staffed by TCNJ Campus Police Services

Project Cost and Financing

$120M
Approximate total project cost

100%
Private financing by PRC Group

Source: The College of New Jersey, Ewing, NJ; http://campustown.pages.tcnj.edu; EAB interviews and analysis.

Annual Revenue Streams from Project

- TCNJ receives annual ground lease payment of $400,000 per year; increases by $50,000 each year during the project term, generating an income stream totaling $48M
- Annual ground-lease payment used to offset the operating cost of the fitness center
- Lease calls for profit-sharing bonus should retail sales from the businesses on the ground floor of the complex exceed predetermined levels

Project Timeline

Prior to 2007
TCNJ and Trenton State College Corporation (TSCC) begin planning Campus Town development

Early 2009
TCNJ and TSCC engage external consultant to conduct feasibility study

Summer 2009
New Jersey passes legislation permitting schools to enter into P3s for on-campus projects

2010
TCNJ issues RFQs for Campus Town project

2011
TCNJ selects PRC Group as partner

Fall 2013
Campus Town construction begins

Winter 2015
Plans announced to add 166 beds across two buildings and redesign college's main entrance

Summer 2015
Phase one of Campus Town complete

Fall 2016
Phase two of Campus Town complete

Project Outcomes

New Facilities and Revenue Generation

- 12 buildings
- **Upscale student housing complex:** 612 total beds across 11 buildings; one-, two-, and four-bedroom apartments
- **Amenities and retail:**
  - Barnes and Noble Booksellers
  - Fitness center
  - 53,178 square feet of other retail and restaurants
  - 215 retail parking spaces
- **Redesign of campus entrance**
- TCNJ expected to receive ~$48M over the life of the lease

Economic Impact

- Created 475 permanent jobs in construction, retail, and property management
- Tax revenue for state projected to be about $37 million over 20 years

Enrollment Management and Community Benefits

- Improved recruitment and retention by appealing to students who desired walkable amenities
- Revitalized deteriorating 1950's era suburban township
- Improved town/gown relations by removing student housing pressures from the community
- Created safe, controlled, and inviting meeting ground for the college and local community

THE COLLEGE OF NEW JERSEY

THE COLLEGE OF NEW JERSEY

Project Website

http://campustown.pages.tcnj.edu/

Source: The College of New Jersey, Ewing, NJ; http://campustown.pages.tcnj.edu; EAB interviews and analysis.

Drexel University

Type of Institution: Private Doctoral Research University: Higher Research Activity

Location: Philadelphia, Pennsylvania

Enrollment: 15,499 undergraduate, 8,733 graduate (Fall 2016)

Operating Expenditures: $1 billion (FY16)

Project Background

Between 2007 and 2014, Drexel University experienced a 28% increase in enrollment, creating significant demand for additional instructional, research, housing, dining, and recreation space. Yet with academic-oriented projects receiving the top priority in the capital budget, the university lacked funding to expand and modernize facilities. In 2011, Drexel embarked on its first of three private-equity funded P3 arrangements with American Campus Communities for multiuse developments that include student housing, dining, and retail. Drexel ultimately chose this delivery method to accomplish four primary goals: modernize campus to meet student demand for high-quality amenities, leverage private funding in order to dedicate institutional capital to the construction and improvement of instructional and research facilities, keep new construction projects credit-rating neutral, and generate revenue in the form of ground rent payments.

Private Partner

American Campus Communities (ACC)

Key Players

- President
- Executive Vice President, Treasurer & Chief Operating Officer
- Senior Vice President, Student Life & Administrative Services
- AVP Real Estate
- General Counsel's Office
- Campus Architect's Office
- Dedicated P3 team responsible for project planning, including procurement, proposal evaluation, transaction negotiation, and project conceptual development
- After facilities become operational, separate management committee responsible for monitoring the contract

High-Level P3 Deal Structure

1. Chestnut Square (new construction of student housing and retail)

- Design-build-finance-operate-maintain ground-lease arrangement
- ACC develops, owns, and manages project through 70-year ground-lease, after which ownership reverts back to Drexel

2. The Summit at University City (new construction of student housing, dining, and retail)

- Design-build-finance-operate-maintain ground-lease arrangement (70-year term) with reversion to Drexel at term
- University also entered into a $9.3 million prepaid lease for the dining facility, funded with capital negotiated as part of the university's campus dining contract

3. University Crossings (conveyance and lease-back of student housing)

- ACC conveyed land, air, and subsurface rights to existing 1,016-bed University Crossings property (which ACC acquired in 2008) with the option to transfer the building to Drexel's ownership at any time of university's choosing
- ACC leases back the community for a period of 70 years and agrees to invest $30 million in improvements to historic building, which houses student apartments and university office space

Project Cost and Financing

All projects funded entirely through American Campus Equity (ACE®):

$100.7M
Total cost of Chestnut Square

$155.6M
Total cost of The Summit at University City

$30M
Cost of improvements at University Crossings

$68.5M
Total estimated building value of University Crossings at transaction

Source: Campbell, J., Tucker, J.R., Lin, I.T. "Power Partnerships." *Business Officer Magazine,* June 2015. http://www.nacubo.org/Business_Officer_Magazine/Magazine_Archives/June_2015/Power_Partnerships.htm;

Annual Revenue Streams from Project

University receives annual ground rent based upon a set percentage of the project's gross revenues, which incents both partners to maintain maximum occupancy and affordability

Project Timeline

December 2010
University issues RFQ/RFP for first Chestnut Square project

2011
University enters into negotiations with ACC

February 2012
Construction begins on Chestnut Square

November 2012
ACC wins second competitive process to develop The Summit; transaction includes conveyance of University Crossings property

August 2013
ACC conveys land, sub-surface, and air rights of University Crossings to Drexel

September 2013
Chestnut Square (861 beds) opens

September 2015
The Summit at University City (1,315 beds) opens

Project Outcomes

Chestnut Square

- 861 bed, 19-story high-rise with apartments and two eight-story buildings of stacked townhomes above street-level retail
- $1.25M campus bookstore renovation (funded by Barnes & Noble)
- Strengthened Drexel's connection to the University City neighborhood

The Summit at University City

- 1,315 beds (apartments and suites) in 24-story high-rise
- 17,000 sq. ft. dining facility; 19,000 sq. ft. of street-level retail across 11 locations

University Crossings

- 1,016-bed student apartments in historic building
- ACC invested$30M in renovations in 2015
- University secured rights to install large, backlit "Drexel University" signage with 16-foot-tall letters, a valuable branding opportunity on one of the tallest buildings on campus

Overall Outcomes

- Over 1.4 million square feet of development through total investment of ≈$345 million
- Added ≈3,200 residential beds and more than 60,000 square feet of attractive urban retail space
- Maintenance of university balance sheet and minimal credit impact


DREXEL UNIVERSITY


DREXEL UNIVERSITY

Project Website

Projects profiled on ACC website: https://www.americancampus.com/for-universities/case-studies/drexel-university

Source: Campbell, J., Tucker, J.R., Lin, I.T. "Power Partnerships." *Business Officer Magazine,* June 2015. http://www.nacubo.org/Business_Officer_Magazine/Magazine_Archives/June_2015/Power_Partnerships.htm;

The Ohio State University

Type of Institution: Public Doctoral University: Highest Research Activity

Location: Columbus, Ohio

Enrollment: 45,489 undergraduate, 13,374 graduate (Fall 2015)

Operating Expenditures: $5.5 billion (FY16)

THE OHIO STATE UNIVERSITY

Project Background

In the face of dwindling state resources and increased pressure to reduce costs, leaders at The Ohio State University (OSU) sought strategies to generate additional revenue to support the university's strategic priorities. In 2012, OSU opted to monetize the university's parking assets—one of the largest parking systems in the United States—by entering into a long-term lease concession agreement with a private partner for an upfront payment. This deal allowed OSU to focus on it's core academic mission and generate needed funds for critically important programs while allowing a private company with parking operations expertise to operate and maintain the parking system.

Private Partner

QIC Global Infrastructure; created **CampusParc LP** to manage OSU parking operations

Key Participants

- **University Transportation and Traffic Management Office:** Manages the oversight of the parking lease
- **Parking Advisory Committee (PAC):** Chaired by Senior Vice President of Administration and Planning and has representation from faculty, staff and students; duties include providing input to CampusParc on parking operations and receiving requests from CampusParc for changes in fees or in the designation of parking spaces

High-Level P3 Deal Structure

- 50-year lease concession of parking assets (including 16 garages, 196 parking lots, and approximately 37,000 parking spaces) in exchange for $483 million upfront payment
- For duration of lease, CampusParc receives profits from the sale of parking passes and hourly parking fees
- CampusParc is responsible for the operation of parking system (i.e., customer service, management of permit system, motorist assistance, special events parking management, parking enforcement), maintenance, renovations, equipment upgrades, and repairs
- University controls parking policies, number of parking spaces available on campus, and the kind of spaces available for each permit grade
- Parking rate increases included in agreement:
  - Years 1–10: Maximum annual increase of 5.5%
  - Years 11–50: Maximum annual increase of 4% or rolling 5-year average of inflation, whichever is greater

Project Outcomes

$483M

Upfront payment placed into OSU's endowment for strategic initiatives (e.g., student scholarships, staff grants, tenure-track faculty lines)

$3.1B

Estimated investment earnings over 50-year lease that will increase OSU's investment pool by $4.9 billion

$23.6M

Invested by CampusParc for parking lots and garage maintenance and upgrades over first five years

Project Website

Parking Lease Website: https://www.osu.edu/parkingproposal/
CampusParc website: http://osu.campusparc.com/home

Source: The Ohio State University, Columbus, OH; https://www.osu.edu/parkingproposal/; EAB interviews and analysis.

University of California, Merced

Type of Institution: Public Doctoral University: Higher Research Activity

Location: Merced, California

Enrollment: 6,815 undergraduate, 448 graduate (Fall 2015)

Operating Expenditures: $275 million (FY15)

Project Background

After first opening its doors in 2005, the University of California, Merced set out an four-part long-range expansion plan with the ultimate goal of enrolling 25,000 students. When the state of California stopped issuing capital bonds in wake of the recession, Merced was left with the need to expand physical capacity to accommodate 10,000 students by 2020, forcing leaders to consider alternative delivery options. After analyzing different development strategies, UC Merced opted for a DBFOM[1] availability-payment concession agreement for the development of academic buildings, research facilities, student housing, student life/athletic facilities, and new parking infrastructure. Beyond additional financing, this arrangement allowed for the bundling of different asset types into a single project (providing economies of scale and functionality in a short time frame), and transfer of long-term performance and financial risk over the lifecycle of the facilities.

Private Partner

Plenary Properties Merced

Key Participants

Project Board

- Chancellor (Project Owner)
- Executive Vice President and CFO (Project Owner)
- Associate Chancellor and Chief of Staff
- Executive Vice Chancellor and Provost
- VC Student Affairs
- VC Business and Administrative Services
- VC Planning and Budget
- Senior Advisor to Chancellor
- AVC Physical Operations, Planning, and Development

Project Delivery Team

- UC Merced Physical Operations, Planning, and Development department
- WT Partnership (Lead, Project and Contract Management):
  - AECOM (Engineering Advisor)
  - Woods Bagot (Design Advisor, Laboratory and Academic Space)
  - Crawford Architects (Design Advisor, Student Life and Housing)

High-Level P3 Deal Structure

- DBFOM availability concession arrangement with Plenary Properties Merced, a consortium of design, engineering, construction, maintenance, operations, and financial partners
- During construction, university makes predetermined progress payments to developer
- Once buildings become available for use, the university makes performance-based availability payments that cover remaining capital costs and operations and maintenance of major building systems
- 39-year agreement; UC Merced maintains ownership throughout the agreement

Project Cost and Financing

$1.3B	$600M	$590.35M	$148.13M
Total project budget	UC external financing	Plenary Properties Merced	UC Merced campus funds

1) Design, build, finance, operate, maintain.

Source: University of California, Merced, Merced, CA; http://merced2020.ucmerced.edu/; EAB interviews and analysis.

Project Timeline

Fall 2012–Spring 2013
Urban Land Institute Advisory Services Panel interviews students, faculty, staff; issues report analyzing development options

Fall 2013
Project team analyzes project delivery methods, financial structures, costs, budget, and design strategies, and arranges campus focus groups with students, faculty, and staff

Fall 2014
UC Merced releases RFQs to potential development teams; three teams prequalified by winter

Spring–Winter 2015
Campus staff develops initial program based on best practices and stakeholder input; issues RFP from prequalified teams

Spring–Fall 2016
UC Merced selects Plenary Properties Merced; UC Board of Regents approves project budget; formal project groundbreaking

Fall 2018
First delivery of four facilities

Fall 2019
Second delivery of three new facilities

Fall 2020
Project completion with the delivery of nine remaining facilities

Project Outcomes

New Facilities and Infrastructure

- **Academic Facilities:** three academic and research buildings with faculty offices, and wet, dry, and computational labs
- **Student housing:** 1,700 student beds with ground-floor classrooms
- **Student life, recreation, and athletics:** 600-seat dining facility, NCAA II-level competition swimming pool, NCAA II-level competition recreation field, wellness center, Early Childhood Education Center, conference center
- **Parking and mobility:** 1,500 parking spaces, new campus entrance, public transportation transit hub

Innovative P3 Structure Benefits

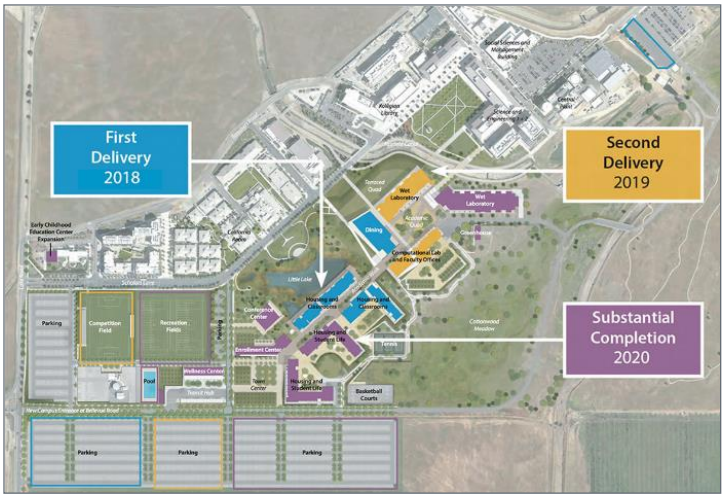
- Structure captures time and cost advantages while funding preventive maintenance and capital renewal program
- Agreement includes maintenance and renewal requirements for 35 years; penalties for late delivery or poor performance

Enrollment Goals

- Doubled physical capacity of campus by 2020, allowing institution to grow to 10,000 students

Economic Impact

- Total one-time economic impact estimated at approximately $1.5 billion in Merced County and $2.4 billion statewide



UNIVERSITY OF CALIFORNIA, MERCED

UNIVERSITY OF CALIFORNIA, MERCED

Project Website

http://merced2020.ucmerced.edu/

Source: University of California, Merced, Merced, CA; http://merced2020.ucmerced.edu/; EAB interviews and analysis.

The University of Kansas

Type of Institution: Public Doctoral University: Highest Research Activity

Location: Lawrence, Kansas

Enrollment: 8,014 undergraduate/other, 19,245 graduate (Spring 2017)

Operating Expenditures: $1.2 billion (FY16)

Project Background

In 2014, the University of Kansas (KU) launched a new campus master plan to advance its mission as a flagship research university. A key component of the plan was the redevelopment of KU's Central District into a new hub of education and research that would address urgent campus needs, including outdated science facilities, a shortage of student housing, and an insufficient utility plant. To expedite the project timeline, secure additional means of financing, and avoid long-term deferred maintenance obligations for new facilities, KU entered into a three-way design-build-operate-maintain (DBOM) lease/leaseback arrangement with Edgemoor Infrastructure & Real Estate LLC and KU Campus Development Corporation (KUCDC), a KU-affiliated non-profit. This structure allowed KU to reap the benefits of lower-cost university financing (rather than private financing), as KUCDC secured tax-exempt bonds for the project.

Private Partner

Edgemoor Infrastructure & Real Estate, LLC

Key Participants

- Vice Chancellor for Public Affairs
- Vice Provost for Finance and Administration
- Campus Operations Principal
- Campus Operations Department
- KU General Counsel Office
- University Architect/Design and Construction Management
- Real Estate Trust Specialist

High-Level P3 Deal Structure

- Design-build-operate-maintain (DBOM) arrangement with Edgemoor Infrastructure & Real Estate LLC for development of integrated science building, residence hall and dining facility, apartment-style student housing, student union, parking garage, and central utility plant
- KU entered into a 30-year ground lease/leaseback agreement with KU-controlled affiliated non-profit corporation, KU Campus Development Corporation (KUCDC)
- KUCDC will sublease new facilities back to KU upon completion; KU will pay annual sublease payment of approximately $22 million to KUCDC
- KU maintains ownership of ground and facilities throughout the lease term

Project Cost and Financing

$350M

Total cost of project (plus $30.8 million in interest and $2.1 million for bond issuance)

$326.9M

Borrowed by KUCDC from the Wisconsin Public Finance Authority (plus $56 million in issue premiums)

Source: University of Kansas, Lawrence, KS; "Public Private Partnership: Kansas' $350M Case Study," https://www.nacas.org/media/163939/38_Public-Private-Partnerships.pdf'; EAB interviews and analysis.

Annual Revenue Streams from Project

- $8.3 million from housing occupant fees
- $5.6 million from tuition dollars generated by growth in international and out-of-state students
- $6.1 million in funds from "Changing for Excellence" efficiency savings/initiative
- $1.4 million from new parking garage proceeds
- $800,000 in student fees for student union

Project Timeline

Fall 2013
Review of master plan; leaders determine need to replace antiquated science building and develop KU Central District

Summer/Fall 2014
RFQ prep to determine project goals and needs, detailed financing and risk plan, and vendor provisions

January 2015
Review of RFQs; leaders shortlist three firms for RFP

June 2015
KU selects investment partner/developer; begins negotiations and initial design

Fall 2015
KU and PRC Group finalize design and agreement

Winter 2016
Construction begins

July 2017
Residence hall completion

July 2018
Integrated science building and student union completion

Project Outcomes

New Facilities and Infrastructure

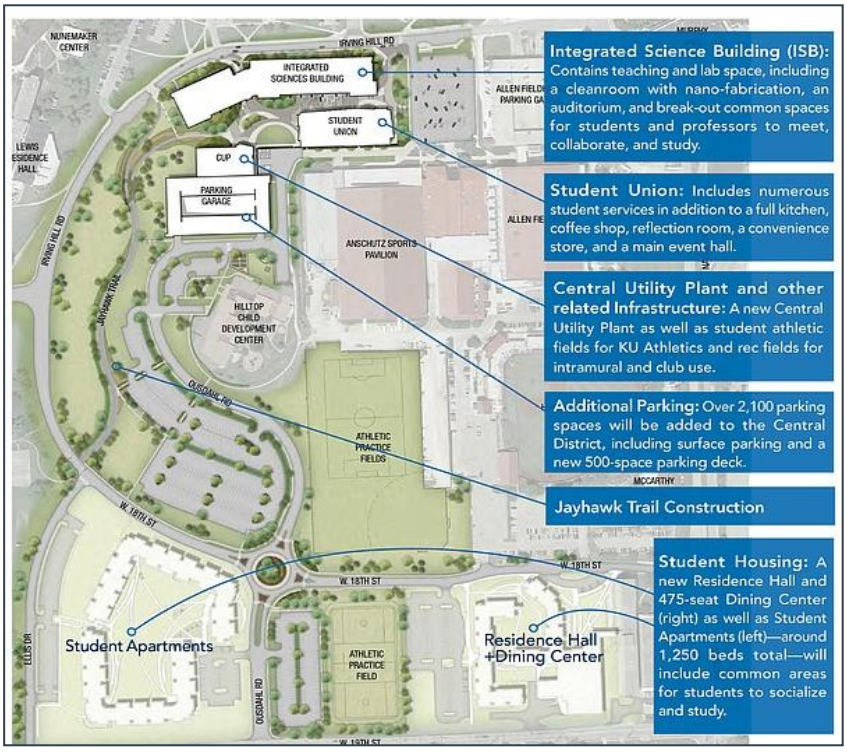
- **Integrated science building:** 280,000 gross square feet of academic and research science space, including laboratories, classrooms, offices and meeting space
- **Student housing:** 545-bed residence hall and dining facility, 708-bed apartment-style student housing
- **Student union:** 30,000-square foot facility
- **Central utility plant:** includes repair and renovation of the North District Utility Plant
- **New parking garage**

Long-Term Operations and Maintenance

- Guaranteed fixed pricing for contract term
- Guaranteed operating performance, including deductions for substandard performance based on a set of KPIs
- Guaranteed FCI[1] of .70 at conclusion of term

Cost Savings

- P3 saved over 20% of estimated cost compared to traditional project delivery; savings projected to be in excess of $70M



THE UNIVERSITY OF KANSAS

Project Website

https://centraldistrict.ku.edu/

1) Facility Condition Index, measured as the amount of deferred maintenance divided by total asset value.

Source: University of Kansas, Lawrence, KS; "Public Private Partnership: Kansas' $350M Case Study," https://www.nacas.org/media/163939/38_Public-Private-Partnerships.pdf; EAB interviews and analysis.

University of Kentucky

Type of Institution: Public Doctoral University: Highest Research Activity

Location: Lexington, Kentucky

Enrollment: 22,674 undergraduate, 7,160 graduate (Fall 2016)

Operating Expenditures: $1.2 billion (FY16)

Project Background

In late 2011, the University of Kentucky (UK) leaders and the Board of Trustees recognized a vital need to modernize, renovate, and expand residence halls on campus. With the average undergraduate housing age of 47 years, infrastructure systems were beginning to fail and only 25% of undergraduate students lived on campus. In addition, UK's leaders recognized campus housing revitalization as an opportunity to improve student success by enhancing the undergraduate experience with new living-learning communities. UK engaged external master planning experts to help plan and create a vision for residential facilities that included the demolition of outdated residence halls and the creation of active living and learning communities. After considering the traditional project delivery option, UK opted for a DBFOM[1] ground-lease arrangement to meet their goals of preserving financial capacity and expediting the project delivery timeline with minimal disruption to the rest of campus.

Private Partner

REIT Education Reality Trust (EdR)

Key Participants

Project Implementation Team

- 21 members from the following departments: Executive Vice President Finance and Administration, Student Affairs, Residence Life, Facilities, Budget, Purchasing
- Determined building design, unit types, site locations, ground leases, and pro formas

Provost Oversight Committee

Reviews living -learning community recommendations and approves size and facility placement

Learning Living Program Task Force

Residence Life, academic partners, and EVPFA staff make recommendations on transition, growth, and placement of new communities

Housing Academic Advisory Committee

Makes programmatic recommendations on all non-revenue generating space in new residence halls

High-Level P3 Deal Structure

- DBFOM[1] ground-lease arrangement
- Multi-phase project with the goal of providing modern on-campus housing for up to 9,000 students:
  - Phase I: two living-learning community buildings with classrooms, study rooms, multipurpose rooms, and 601 beds
  - Phase II: systematic demolition and replacement of the majority of current housing; delivery of 10 buildings with 5,132 beds (plus 55 living-learning spaces with classrooms, multi-purpose rooms, and study lounges)
  - Phase III: two buildings with 1,117 total beds specifically for upperclass, graduate, professional, and post-doctoral students, and visiting scholars
- 75-year lease; EdR owns the Phase I facilities for the duration of the lease while UK owns the Phase II and Phase III facilities for the duration of the lease
- UK provides residential life services for all buildings

Project Cost and Financing

$449.3M
Approximate project cost

100%
Equity funded by EdR

1) Design, build, finance, operate, maintain.

Source: University of Kentucky, Lexington, KY; "Transformation of Campus Housing through P3," 2013; http://www.nacas.org/media/14120/transforming-housing-thru-p3.pdf; EAB interviews and analysis.

Annual Revenue Streams from Project

- University receives annual ground-lease payment based on gross revenue and pro forma from each phase
- Average ground lease return (over all phases) is 11.5%

Project Timeline

October 2011
UK releases RFQ/RFPs to build, finance, operate, and maintain new student housing facilities

Winter 2011
UK selects EdR as private partner

Spring 2012
Ground breaking for first two buildings

Fall 2013
Phase I (two buildings with 601 beds) complete

Fall 2014
Phase IIA (five buildings with 2,381 beds) complete

Fall 2015
Phase IIB (three buildings with 1,610 beds) complete

Fall 2016
Phase IIC (two buildings with 1,141 beds) complete

Fall 2017
Phase III (two buildings with 1,117 beds) complete

Project Outcomes

Revitalized Student Housing

- Delivery of 6,850 beds brings UK's total on-campus housing to approximately 8,300 beds by Fall 2017
- Demolition of outdated residence halls
- Living-learning communities include classrooms, multipurpose rooms, study lounges, kitchens, and laundry rooms
- Common space with a coffee shop

Student Success and Competitive Advantage

- University modernizes student housing, which contributes to increased enrollments and retention rates
- In 2013, students in living-learning communities had 3.26 GPA and 88.4% retention rate (compared to 2.86 GPA, 82.8% retention rate for regular on-campus students)
- Growth in number of living-learning programs from 12 to 17

Economic Impact

- Estimated $289 million economic impact on the Commonwealth of Kentucky, affecting some 12,100 direct and indirect jobs
- Housing projects fueled $13.3 million in state/local tax revenue
- LEED certification to support sustainability efforts


UNIVERSITY OF KENTUCKY


UNIVERSITY OF KENTUCKY

Project Website

Projects profiled on EdR website: http://www.edrtrust.com/

Source: University of Kentucky, Lexington, KY; "Transformation of Campus Housing through P3," 2013; http://www.nacas.org/media/14120/transforming-housing-thru-p3.pdf; EAB interviews and analysis.

Advisors to Our Work

Advisors to Our Work

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