Purpose Built

Capital projects often bring lasting benefits to nonprofit organizations and the people they serve. Given this opportunity, foundations grant more than $3 billion annually to construct or improve buildings in the United States alone.¹ Each capital project affects an organization’s ability to achieve its mission—signaling its values, shaping interaction with its constituents, influencing its work processes and culture, and creating new financial realities. While many projects succeed in fulfilling their purpose, others fall short of their potential. In most instances, organizations fail to capture and share lessons learned that can improve practice.

To help funders and their nonprofit partners make the most of capital projects, The Atlantic Philanthropies and the S. D. Bechtel, Jr. Foundation commissioned *Purpose Built*—a multi-faceted study by MASS Design Group, a nonprofit architecture and research firm. In 2015 and 2016, MASS conducted interviews, reviewed literature, and examined a diverse set of completed projects around the world; each project was supported by one of the above funders.

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¹ Foundation Center, *Foundation Maps data based on grants made in the United States, 2006-2015.*
Purpose Built Series

The study generated a set of core principles as well as tools for those considering or conducting capital projects. See the full *Purpose Built* series online at [www.massdesigngroup.org/purposebuilt](http://www.massdesigngroup.org/purposebuilt).

*Introducing the Purpose Built Series* is an overview of the study and its core principles.

*Making Capital Projects Work* more fully describes the *Purpose Built* principles, illustrating each with examples.

*Planning for Impact* is a practical, comprehensive tool for those initiating capital projects.

*Charting Capital Results* is a step-by-step guide for those evaluating completed projects.

*Purpose Built Case Studies* report on 15 projects to illustrate a range of intents, approaches, and outcomes.
Planning for Impact

Best results occur when a project is built with purpose—grounded in a clear and strategic mission that informs design decisions, with a scope that matches what its organization can afford to build, operate, and maintain. Planning for Impact is a prospective tool that serves as a guide to help funders and nonprofits looking to invest in or evaluate capital infrastructure strike the right balance between a project’s mission, design, and feasibility. The tools follow this structure to help a project team navigate decision making throughout the process.

Often the scope of work associated with completing a capital project is limited to Design and Construction. However, a Purpose Built process goes beyond this, recognizing five phases necessary to achieve a successful capital project—Visioning, Planning, Design, Construction, and Occupancy. The Visioning phase ensures the mission of the project is aligned with an organizational mission and positioned to achieve greater results. Planning highlights considerations necessary to ground the project mission in reality and prepare the organization to lead the process and anticipate the end result. The Design phase provides guidance for aligning the mission of the project with the project’s form, fabrication, and function. Construction includes items for an organization to assess as the project is implemented. Lastly, as capital projects continue to evolve, the Occupancy phase provides resources to evaluate the success of the project in the short and long term and adapt the end result as necessary.

Capital projects are almost always complex and complicated; Planning for Impact aims to both convey this reality, and provide tested and informed methodologies that simplify and untangle the process. Our team hopes that future projects will benefit from this research effort—fulfilling their inherent potential to help nonprofits achieve new and sustainable levels of impact.
Introduction

How is it organized?


- **A. Mission** guides organizations through activities that focus on the needs and desired outcomes for both the organization and the project.
- **B. Design** focuses on aligning the built project with these identified goals.
- **C. Feasibility** helps organizations undertake typical steps necessary to plan and implement the project.

Each of the topics is described in more detail in the following pages. Some of the sections will have associated worksheets found in the Appendix to help guide the process.

How should it be used?

Planning for Impact is intended to be used throughout the duration of a capital project. Prior to beginning a Purpose Built project, read through the tool in its entirety. Familiarize yourself with the whole process as steps are cumulative and may develop and iterated from one phase to the next.
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1. VISIONING

When initiating a major capital project, organizations will make modest time and resource investments that will inform their decision making. This phase is intended to help organizations and their boards align their mission and needs with potential project design ideas and initial feasibility assessments. Work conducted during this phase will be revisited, iterated, and further developed during following phases of the project, as appropriate. The phase will conclude with a Decision to Proceed and the creation of a Development Pitch that synthesizes the vision for the capital project.
1. VISIONING

1A. MISSION

What is our mission?
In addition to helping organizations articulate their mission, this body of work seeks to align the potential project with organizational goals and the needs of the local context. Important stakeholder groups are identified for continued engagement in future phases.

Organization’s Mission
- Articulate organization’s vision and mission

Needs Assessment
- Assess existing facility and program needs
- Consider existing actors and trends
- Plan for stakeholder engagement

Outcomes-Based Design
- Identify project mission and goals
- Consider theory of change
- Identify indicators and criteria

1B. DESIGN

How could a capital project support our mission?
At this stage, organizations might be considering a number of different design interventions, each varying in scope, scale, feasibility, and potential impact. This body of work will help an organization identify the right project to best achieve and amplify its desired impact.

Project Definition
- Charrette project options
- Scope potential project(s)

1C. FEASIBILITY

Are we ready? What would it take for us to be ready?
This body of work will help organizations anticipate key preparation and decision-making considerations necessary to implement capital projects as well as understand what it would take to be ready to pursue a major capital investment.

Organizational Readiness
- Assess organization’s financial health
- Assess staff and board capacity

Project Feasibility
- Create preliminary cost estimates
- Consider potential funding sources
- Review comparable projects

Key Activities & Deliverables
- Decision to Proceed
- Development Pitch
1A. MISSION

Organization’s Mission

- Articulate organization’s vision and mission

Creating, articulating, testing, and communicating a unified vision and mission is crucial for every organization. If an organization does not yet have a mission statement, the process of crafting one can provide an opportunity for various stakeholders to coalesce around a single idea. A clear organizational mission is necessary to help frame and guide the goals of a project, and ensure that investments are made that help advance an organization’s vision.

Questions to Consider

- What is our organization’s mission?
- Is our mission clear and communicable?
- Do all stakeholders understand our mission?
- What is the long-term vision for our organization?

Needs Assessment

- Assess existing facility and program needs

Organizations should take careful stock of their current and historic infrastructural, programmatic, and operational needs in order to scope the vision for a new project properly. Most capital projects are initiated based on an identified need; this process will help define the full scope of that need. Depending on the size of the organization and their space requirements, the organization might decide to employ a design professional or another outside consultant for this study.

Questions to Consider

- What are our needs?
- How are our programs or impact limited by our space or facilities?
- What are the driving forces behind these challenges?

Consider existing actors and trends

Leveraging research conducted by other organizations can save time and money and help ensure that your project is aligned with larger community needs. Often, the government or other organizations will be working to address the same or related issues—research these organizations and projects, and be on the lookout for opportunities to partner or collaborate.

Questions to Consider

- How do our programs and goals align with or complement other interventions in this sector?
- Who are potential partners?
- Where are there gaps in what others are doing? Where is there overlap?

Plan for stakeholder engagement

Organizations will typically seek to invest in a project because of a pressing need, such
as a lack of space or aging infrastructure. However, input from various stakeholders can identify less obvious and equally important needs and priorities. During this phase, organizations should brainstorm the range of potential stakeholders who are affected by their programming and will be impacted by a new project. It is important to understand the stakeholders and identify appropriate exercises and methods for engagement.

Questions to Consider
- What populations will be directly and indirectly impacted by our work?
- Who should we engage to create additional buy-in for the project?
- Are there marginalized populations that we should specifically target for inclusion in the process?

Resources
- Field Immersion Methodology (p. 53)
- See the Life Sciences Building, University of Western Cape case study report for an example of how a “super user” communicated and navigated the concerns of multiple faculty departments.

Outcomes-Based Design

- Identify project mission and goals

In addition to responding to immediate needs, such as providing office or lab spaces, organizations have the opportunity to leverage capital projects to amplify the achievement of their mission. A single, clear idea can help focus efforts and align decisions. Major projects can serve as powerful symbols, raising expectations or catalyzing momentum, and organizations should not be afraid to ask: what more can design do?

Capital projects and their implementation processes will also have impact outside of the organization and will occur whether they are intended or not. The 360° impact of a capital project affects a wide range of stakeholders (i.e., users, staff, community, and sector), are diverse in their topics (i.e., environmental, educational, economic, health, and emotional), and occur at different phases of the process. This phase provides an opportunity to identify and prepare for potential 360° impact.

Questions to Consider
- How will the project affect the organization’s ability to achieve its mission?
- What additional impact is important to our organization and stakeholders?
- What potential negative impacts do we need to recognize?
- How might we achieve impact during the implementation process?

Resources
- Outcomes-Based Design (p. 38)

- Identify indicators and criteria

Based on the findings from the initial needs assessment and theory of change, project teams should create a framework that articulates the goals of the project, identifying metrics that help track progress and plan for evaluation efforts. These indicators and criteria will inform a baseline assessment during the 2.
**Planning** phase and can help the project team check-in on how the design and construction processes are progressing.

**Questions to Consider**
- What categories of impact are most important to our project?
- What indicators or metrics best represent our desired impact? Our project mission?

**Resources**
- Outcomes-Based Design (p. 38)
- Metrics Database (p. 57)

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**1B. DESIGN**

**Project Definition**

- **Charrette project options**
  Organizations should consider and compare potential project ideas, and understand how each might support the organization’s mission. This is an opportunity to consider many options (ranging from leasing an additional space to developing an entirely new campus) and to discuss which option aligns best with the organization’s goals. Keep in mind that it may be important to revisit this step many times over the course of the project.

**Questions to Consider**
- How will the project support our mission?
- Do we need a major capital project?
- What alternatives are worth considering?

**Resources**
- Field Immersion Methodology (p. 53)

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**1C. FEASIBILITY**

**Organizational Readiness**

Capital projects require organizations to make major investments in time, staff, and finances. Before the decision can be made whether to invest in a project, each organization should assess its readiness to proceed. In addition to including a financial and staffing assessment, the organization should review its strengths and weaknesses, as well as identify potential opportunities and threats it is currently facing or that it might face in the years to come.

**Resources**

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**Assess organization’s financial health**

Even before considering a major capital investment, team members should feel confident that the organization is financially healthy. While an organization’s financial staff or a consulting financial management firm will be able to evaluate its financial health more rigorously, the Financial Health Worksheet will help provide a quick, “back-of-the-envelope” calculation using standard indicator metrics. If an organization’s metrics suggest poor financial health, it does not necessarily mean that it cannot invest in a project—it merely serves to raise a flag that additional focus and financial preparation should be prioritized before moving forward.

**Questions to Consider**
- How have we performed historically?
- If there are any places of concern, is there a reasonable explanation?
• How can we guard against similar economic risks?

Resources
• Financial Health Worksheet (p. 44)
• See The California Academy of Sciences, The Exploratorium, and The Simpson Center for Girls case studies for examples of how capital projects affected organizational financial health.

Assess staff and board capacity

Organizations should develop an understanding of the roles necessary to complete a capital project and to identify which of these can reasonably be filled with existing staff. Be aware that time and capacity demands on project teams can be quite burdensome, and some gaps in expertise are inevitable—some roles may be better filled from outside the organization.

Questions to Consider
• What expertise does our staff and board have?
• Do our staff and board have enough time and resources to take on the additional responsibility?
• Where are there gaps? Which roles should we fill externally?

Project Feasibility

Create preliminary cost estimates

During this phase, organizations should generate preliminary cost estimates to help clarify the scope of the potential project and to test financial feasibility. Using information generated from the initial needs assessment, team members or design consultants will typically use project comparisons to inform initial estimates. For example, costs per square foot, per bed, per office, etc., can be used to calculate overall project costs. One common pitfall to avoid is assuming the bricks and mortar cost of construction represents the whole of the development costs—they don’t! See the Capital Project Budgeting Worksheet for additional information for how to generate project estimates.

Questions to Consider
• Would our current donors be interested in supporting a capital campaign?
• Are there major funding sources that our organization or project can leverage (e.g., Historic Tax Credits, selling an existing asset, etc.)?
• Do we have the resources to run a capital campaign?

Resources

Review comparable projects

Each project will confront challenges and opportunities similar to those that other organizations have faced in the past. Researching these analogous projects by reaching out to contacts is a great way to learn from past experiences.

Questions to Consider
• Are there organizations of similar sizes or missions that have undergone a capital project recently?
• Who are thought leaders or innovators in our field?

Questions to Ask Others
• What unforeseen challenges arose during your project?
• What worked well? What did not?
• Do you have any major lessons learned that you could pass on?
2. PLANNING

When organizations decide to pursue a capital project, ideas that were once visions need to be developed and refined to increasingly detailed levels of resolution. During this phase, organizations will conduct a variety of stakeholder engagement and design planning activities to prepare to undertake a capital project. Coupled with feasibility check-ins, the goal of this phase is to enable leadership to make informed decisions, garner support for the project, and provide a foundation for impactful design.
2. PLANNING

2A. MISSION

Do we understand our needs?
This body of work will guide organizations in conducting primary research that will further refine priorities and needs in order to ensure all stakeholders are thoughtfully incorporated into design decisions and project processes.

Needs Assessment
- Conduct stakeholder engagement
- Conduct baseline assessment

Outcomes-Based Design Revision
- Articulate project mission and goals
- Refine theory of change
- Develop indicators and criteria

2B. DESIGN

How can the design have impact?
This body of work will build upon the previous phase and assist organizations and their consultants in defining the design vision and recalibrating the project objectives to meet the needs and opportunities identified through the engagement process.

Design Brief
- Define the program
- Conduct precedent research
- Define design characteristics

Site
- Define site selection criteria
- Conduct site feasibility studies
- Conduct site analysis

2C. FEASIBILITY

How do we do it?
This body of work will assist organizations and their consultants in iterating and developing a feasible implementation and operations plan for the proposed project.

Organizational Preparation
- Plan for change management
- Forecast organization’s financial health

Project Preparation
- Build the project team
- Prepare a project budget
- Prepare a project schedule
- Conduct capital campaign feasibility study
- Select project delivery method
- Prepare project logistics

Key Activities & Deliverables

- Design Brief
- Development Package
- Implementation Plan
2A. MISSION

Needs Assessment

- **Conduct stakeholder engagement**
  
  Having planned for stakeholder engagement in the previous phase, organizations should proceed to hold meetings and workshops to understand the needs of a variety of stakeholders better.

  **Questions to Consider**
  
  - Have we articulated the right needs?
  - Are we bringing an objective eye to the perceived needs?
  - What are each stakeholders’ needs? How will they be affected by the project?

  **Resources**
  
  - *Field Immersion Methodology* (p. 53)

- **Conduct baseline assessment**

  Indicators and criteria that were initially developed through the 1. Visioning phase will be researched more in depth in this phase. Data collected before significant work is completed is considered baseline information and will provide organizations with key information about their work and the population they serve. Collecting baseline data serves two purposes. First, it helps organizations understand and articulate the nature of their needs. Second, it can help to track identified metrics that represent the impact of the projects and programs over time. The
baseline assessment might consider secondary data about the context and mission, such as census data or organizational performance metrics.

**Questions to Consider**
- What metrics of change are important to our organization? To our donors?
- What metrics are feasible to collect?
- What can we learn by collecting data now?
- How will we plan for continued data collection?

**Resources**
- Outcomes-Based Design (p. 38)
- Metrics Database (p. 57)
- Charting Capital Results

**Outcomes-Based Design**

<table>
<thead>
<tr>
<th>Articulate project mission and goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizations should reconsider and refine their project mission, goals, and potential 360° outcomes based on information gathered from the stakeholder engagement and baseline assessment. Because a large amount of data will be uncovered in this phase, initial projections and brainstorming may need significant refinement. Project teams should prepare documentation that can guide future check-ins during the remainder of the project process.</td>
</tr>
</tbody>
</table>

**Question to Consider**
- Is our project mission aligned with the identified needs?
- Are our 360° impact goals aligned with the identified needs?
- What information have we uncovered that might change our original projections?

**Resources**
- Outcomes-Based Design (p. 38)

<table>
<thead>
<tr>
<th>Refine theory of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizations should reconsider and refine their theories of change based on information gathered from the stakeholder engagement, needs assessment, and baseline assessment. As the team approaches and begins the 3. Design phase, it is critical to articulate how decisions will lead to outcomes and impact.</td>
</tr>
</tbody>
</table>

**Questions to Consider**
- Is there new information that verifies or refutes any of our assumptions?
- Is our logic still sound based on what we know now?

**Resources**
- Outcomes-Based Design (p. 38)

<table>
<thead>
<tr>
<th>Develop indicators and criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizations should periodically review and refine identified indicators and criteria to ensure that the process is proceeding as planned. The 3. Design and 4. Construction phases have inherent opportunity to leverage desired impact—planning for this impact early-on will help guide activities and anticipate outcomes.</td>
</tr>
</tbody>
</table>

**Question to Consider**
- What elements of our design and construction process will lead to desired or undesired outcomes? How can we anticipate these effects?
- How will we test the design before construction to ensure that it will achieve what we want?
- What outcomes will we measure to let us know if we’re achieving the desired impact?

**Resources**
- Outcomes-Based Design (p. 38)
- Metrics Database (p. 57)

**2B. DESIGN**

**Design Brief**
See 2. Planning: Key Activities & Deliverables for a description of the Design Brief. The creation of the Design Brief will be informed by the activities below.

<table>
<thead>
<tr>
<th>Define the program</th>
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</thead>
<tbody>
<tr>
<td>A capital project program lays the groundwork for many design decisions by identifying the types, sizes, and characteristics of spaces that the project will provide. An early investment of resources in programming is critical to aligning the goals of key stakeholders and setting a clear direction for the project.</td>
</tr>
</tbody>
</table>
The program will be informed by system and equipment technical requirements, as well as stakeholder input. Remember that—in addition to typical front-of-house spaces—there will also be back-of-house support spaces, such as storage and equipment rooms. Employing a design professional can help ensure that the appropriate amount of space is allocated for each program. This exercise will also help the organization plan for procurement needs, such as acquiring furniture, equipment, and art that may fall outside of the scope of work for the design team. Organizations will find it helpful to define and verify program decisions with relevant stakeholders.

Question to Consider
• What types of spaces are needed to achieve our mission?
• What priority would we assign the stated programs or elements? Are there elements that can wait to be implemented?

Resources

 Conduct precedent research

Organizations should, along with their design professionals, consider a variety of comparable projects or precedents. Researching precedents can help organizations think about what they want and don’t want, provide inspiration for new ideas, and facilitate communication of design ideas between the client and architect. Additionally, precedents offer the project team an opportunity to tap into a wealth of knowledge about what has worked or not worked well in the past.

Questions to Consider
• Which existing buildings can we learn from?
• In comparable precedents, what works well and what does not?

Resources
• See The Exploratorium, Life Sciences Building, University of the Western Cape, Marymount University Hospital and Hospice, and Science and Engineering Centre, Queensland University of Technology case studies for examples of how teams examined precedents to inform the design of their projects.

 Define design characteristics

In addition to defining program spatial requirements, organizations should define the qualities and characteristics of the spaces in and around the building. These qualities will be communicated to the architect through the Design Brief and inform the user experience of the capital project.

Questions to Consider
• How do we want the space to look and feel like?
• What are the unique design qualities of those spaces that will best meet our stated needs?
• How can the quality of space lead to the desired impact?
• What design qualities will affect changes in behaviors or attitudes?

Resources
• For example, for a hospice, the program document may describe a requirement that the spaces feel warm, welcoming, open, bright, and nonclinical where possible. See the Marymount University Hospital and Hospice case study for more information.

 Site

 Define site selection criteria

Prior to selecting their site, organizations should determine the most important and desirable site characteristics.

Questions to Consider
• What site characteristics will align with or amplify our project mission and goals?
• What adjacencies are desirable or undesirable (think about public transportation, civic spaces, related or unrelated programs, and surrounding community)?
• How will we grow in the future?
• If we move, how might the users and surrounding community from our old location be impacted?

Resources
• See the Constitution Hill Precinct, The
Conduct site feasibility studies
Once potential sites have been identified, organizations should work with design professionals to analyze the feasibility of the sites with regard to factors such as access, proximities, environmental conditions, and local zoning ordinances.

Questions to Consider
• Does the site meet our selection criteria?
• Does the site meet our current needs?
• How much space does it provide for future expansion?

Resources
• See The Simpson Center for Girls, The Exploratorium, and Marymount University Hospital and Hospice case studies to see how feasibility studies influenced the design process.

Conduct site analysis
The design team should analyze the site(s) to understand any existing conditions that may affect the design. For example, considerations of climate may inform building ventilation strategies, analysis of solar paths may affect building orientation and window placement, and the immediate surrounding context may affect where building entrances or public and private spaces are located on-site.

Question to Consider
• What site conditions will affect the design?
• What are the unique opportunities and limitations of the site(s)?

2C. FEASIBILITY
Organizational Preparation

Plan for change management
No matter how big or small, new capital projects will affect organizations’ cultural health. The beginning of a capital project process is an opportunity to change an organization’s workflow and culture for the better. Organizations should consider how a new space will influence user actions, interactions, emotions, and perceptions. Additionally, throughout the process, leadership and staff will change, new skills and capabilities must be developed, and staff or stakeholders may be uncertain and resistant. It is important that organizations prepare to match the change in facilities with a strategy for managing the change in their culture, values, people, and behaviors.

Beginning in this phase, change management strategies, such as the creation of new systems or processes, will be examined and then revisited throughout the duration of the project implementation process. By engaging leadership and key stakeholders early in the process, organizations can create shared ownership of the project and help mitigate many of the issues that arise once the project is complete. Staff and constituent engagement can help project teams identify opportunities for improvement, and build new strategies and systems to support the organization as it transitions to a new space.

Questions to Consider
• What parts of our organizational culture do we want to keep and what do we want to leave behind?
• How can we instill a sense of ownership among our stakeholders?
• How will our organization change as a result of this capital project?
• What systems, processes, or strategies will we need to change?

Resources
• See The California Academy of Sciences, The Exploratorium, and Northern Ireland Council for Voluntary Action case studies for examples of how organizations managed cultural changes.
• Field Immersion Methodology (p. 53)

Forecast organization’s financial health
Major capital investments have financial implications for organizations during each phase of the development process and throughout the lifetime of the facility. In this phase, financial staff and consultants should be planning for the long-term financial impact of the entire development
Questions to Consider
- How will our operations and maintenance costs change?
- Are our anticipated future revenue streams realistic?
- What external economic factors might impact our future financial health?

Project Preparation

- **Build the project team**
  Organizations should build their project team based on assessments of in-house time and expertise. Any external hires, such as the design team, should begin to be brought on board at this time. Organizations should be sure to create a clear line of communication and decision-making system that takes into account organizational relationships with boards, advisors, and outside consultants. These relationships will vary depending on the project delivery method.

  Resources
  - *Project Team Worksheet* (p. 50)

- **Prepare a project schedule**
  In this phase, organizations should prepare a more detailed timeline that highlights key tasks and milestones for the project. This schedule will inevitably evolve over the course of the project and should be revisited frequently. Internal management and organizational tasks should be considered, as well as outside tasks, which will vary from project to project, but may include steps such as financing, design, construction, permitting, and transitioning. The organization should consult with design and construction professionals when completing this task. Project schedules are often created and organized using a Gantt chart, which lay out the schedule according to a predefined hierarchy of tasks.

  Questions to Consider
  - What are the key steps to completing this project, and how long will each take?
  - What needs to happen first? What can happen concurrently?
  - Who can help us determine realistic timelines?
  - Where are there unknowns? Where do we need to provide for time contingencies?
  - What external considerations do we need to take into account while scheduling?
  - Does the project need to open by a certain date?

  Resources

- **Conduct capital campaign feasibility study**
  Before embarking on a capital campaign, organizations should get a sense of fundraising feasibility in order to set an appropriate target goal. Organizations might consider partnering with financial management firms to generate the capital campaign feasibility study, which will additionally lay out a fundraising strategy and time frame. If the total project development costs are not feasible to raise in a capital campaign, organizations can look to find additional sources of funds as considered in the previous phase.

  Questions to Consider
  - Do we have the staff time and resources required to complete our capital campaign?
  - Do we need outside fundraising help?
  - How long will it take? At what point...
should we decide to move forward with the project?
• Is the amount we can raise commensurate with what we hope to do?

Resources

Select project delivery method
Project delivery method refers to the contractual relationship between teams of owners, designers, and builders in order to complete a project. The structure of the project team significantly affects the project schedule, budget, and quality. Different methods (traditional, construction management, design-build, and integrated project delivery) can be distinguished by a variety of factors, such as their decision-making systems, distribution of liability, and project incentives. It is important for the organization to seek guidance when selecting the appropriate project delivery method; the specifics of each organization’s in-house capabilities, financial situation, schedule, and scope mean that there is no one-size-fits-all answer. Selecting the right delivery method and contract structure can help align incentives and priorities across team members.

Prepare project logistics
Several administrative requirements need to be completed early in the process, as they can have implications on the scope, budget, and schedule of the project. For example, zoning or deed restrictions can significantly affect what can be built on a site, and the application for special permits or variances may affect the project schedule. Additionally, the application for certifications such as United States Green Building Council LEED or Living Building Challenge™ will affect the project team and budget. A design professional can help an organization determine what limitations and administrative requirements may exist and will assist with the applications and approvals as necessary.

Questions to Consider
• Are there any internal requirements necessary for the project to proceed?
• Are there any governmental approvals necessary for the project to proceed?
3. DESIGN

While the design team will take responsibility for a majority of the work to be completed during this phase, organizations play a critical role in making key decisions and checking in on the progress through a series of design reviews to ensure the project’s form, function and fabrication method is aligning with the identified project mission. Organizations will additionally continue to refine operation and financial preparations in support of the project.
3A. MISSION

Is the design poised to meet our intended impact?
As the design develops, project teams should periodically revisit project goals to ensure that design, quality, cost, and timeline decisions are furthering the project mission and intended impact. This body of work will assist organizations in refining the impact indicators and criteria identified in previous phases as well as tracking impact metrics that occur during this phase.

Outcomes-Based Design
- Check-in: project mission and goals
- Check-in: theory of change
- Check-in: indicators and criteria

3B. DESIGN

What is the design?
In this body of work the Design Brief developed in the 2. Planning phase will be translated into an actionable set of design drawings and documents for construction. Under the leadership of the design team, organizations should be prepared to respond to design ideas and make design decisions that are aligned with the project objectives.

Project Development
- SD: schematic design
- DD: design development
- CD: construction documentation

3C. FEASIBILITY

Is the design within our scope and budget?
Organizations should continue to re-evaluate the budget, schedule, operational assumptions, and implementation plans that have been made in previous phases. While organizations might be pressed to value engineer in order to cut escalating costs, make sure decisions are carefully balancing mission, design, and feasibility.

Organizational Preparation
- Check-in: change management
- Check-in: financial health

Project Preparation
- Check-in: project team
- Check-in: project budget
- Check-in: project schedule
- Check-in: capital campaign
- Check-in: project logistics

Key Activities & Deliverables

- Design Review Meetings
- Design Documentation
Key Activities and Deliverables

### Design Review Meetings
The design team should meet with key stakeholders and decision-makers regularly throughout the design process. The appropriate level of frequency for the meetings will vary per project and by stakeholder group. Core project team members will likely meet more frequently than other stakeholder groups, such as community or board members, while some stakeholder groups will identify a representative to be more involved in the week-to-week decisions. When agreeing upon this schedule, it is important to strike a balance between providing the design team ample time to make progress between meetings (i.e., allow enough time between meetings) and addressing necessary decisions in a timely manner to keep the project moving forward (i.e., meeting regularly enough to address issues as they arise).

Questions to Consider
- What interval of meetings works best for our organization and design team?
- How will the design be shared and approved with decision makers?

### Design Documents
During this phase, the design team will generate a series of design drawings and documents that will ultimately serve as the basis for construction. At the end of each phase of design (and at more frequent intervals, if specified), the design team will review these drawings with the project team to ensure that the design is on track. These drawings should be evaluated against the identified mission and goals established in the previous phases. At the end of this phase, the design team will provide a bid set of drawings, which will serve as the basis for the contract between the contractor and client.

#### Outcomes-Based Design

- **Check-in: project mission and goals**
  During the design process, organizations should periodically meet with the design team to confirm that the design stays aligned with the mission and goals it aims to achieve. When potential negative impact arises, the project team should work together to identify mitigation strategies.

  **Questions to Consider**
  - Is there new information that changes the project's potential impact?
  - How can we mitigate against or counteract potential negative impact?

  **Resources**
  - Outcomes-Based Design (p. 38)

- **Check-in: theory of change**
  Organizations should reconsider and iterate the theory of change as necessary as the design progresses.

  **Questions to Consider**
  - Are there elements of our design that change our existing theories?
  - Is our logic still sound based on what we know now?

  **Resources**
  - Outcomes-Based Design (p. 38)
Check-in: indicators and criteria

Organizations should track the activities during this phase that are leading to impact. A participatory design process, for example, can improve the design and give agency to those involved in the process. As these activities are underway, track and catalog relevant metrics to ensure that you are on track and will be able to report back to stakeholders.

Questions to Consider
• What activities during this phase might be leading to impact?
• How will we track and catalog these metrics?

Resources
• Outcomes-Based Design (p. 38)

3B. DESIGN
Project Development

Develop the design of the capital project

The design process has several phases, including: schematic design (SD), design development (DD), and construction documentation (CD). During schematic design, initial ideas are proposed and tested. Additionally, the design team typically researches zoning and jurisdictional requirements during this phase. During design development, the selected proposal is fleshed out and refined, with coordinated structural, electrical, mechanical, and plumbing systems. During the construction documentation phase, the architect prepares a set of drawings and specifications (contract documents) that serve as the basis of a contract between the client and the contractor, ultimately defining the building in detail. These drawings include specifications for materials, fixtures, and construction details. The owner should be expected to provide authorization and approval to progress to each following phase.

The chosen design professional will lead this process and regularly check-in with the organization’s project manager, according to a set meeting schedule (see 3. Design: Design Review Meetings). The design team should frequently reference the project’s programming document and impact criteria as it develops the project design.

This body of work will address every scale of the capital project, from larger master planning activities, site work, and landscape plans to detailed lists of furniture, fixtures, and equipment (called an FFE). An organization’s architect or chosen design professional will guide this process and communicate expectations.

Question to Consider
• Do we understand the design?
• Does the design reflect our mission?
• Have we communicated the desired intangible qualities of our project?
• Can we verify that our intent and goals are achieved?
• Do we have stakeholder buy-in regarding the final design?

3C. FEASIBILITY
Organizational Preparation

Check-in: change management

Decisions made during the 3. Design phase will have direct impact on an organization’s culture and operations. For example, staff that were previously overcrowded in a shared open office may feel disconnected when they move to a new, larger facility and are separated by different floors. Without redesigning systems and processes to match this spatial change, communication and productivity may suffer. As the design develops, organizations should revisit their change management strategies to adapt their systems and processes as necessary.

The stakeholder engagement process conducted in the 2. Planning phase will help build ownership of the project throughout the organization. Additionally, continued communication throughout the 3. Design phase is important to ensure that stakeholders are brought along through the process as decisions are developed. One challenge is that organizations and stakeholders often have difficulty understanding design drawings; the scale, orientation, and spatial implications of the design can be confusing. To mitigate this, additional services can be requested of the design team. The creation of scale models, renderings, or mock-ups can help ensure that the design is understood before it is approved.
Questions to Consider
• How can we effectively communicate design decisions to our stakeholders?
• How will the design change the way we work?
• What systems or processes need to be developed to match this change?

Check-in: financial health
As the design develops, organizations should continually balance their organizational and operational health expectations with the scope of the project. Understanding ongoing cost implications will help inform life cycle cost benefit analyses and design value decisions.

Questions to Consider
• What external economic conditions might affect our projections?
• How can the building serve as an asset to the organization?

Organizational Preparation
Check-in: project team
Many team members should be fully brought on during this phase. Approval processes and decision-making systems may need to adapt to reflect changing team dynamics. Periodically review the project team, line of communication, and decision-making process to ensure that team members are operating efficiently and effectively.

Check-in: project budget
As the design progresses, the project budget will achieve higher levels of refinement. Construction cost estimates in early design phases are often based on typical costs per square foot, and shift to a more detailed pricing of each component and material in the later stages of design (i.e., design development and construction documentation). The organization will likely make several decisions regarding “value engineering,” which seeks to maximize value related to cost. The organization should pay particular attention for decisions that will have long-term implications, both on cost, as well as project mission. Design professionals can lead the analysis of life cycle costs and benefits, and the design team will typically engage a cost estimator or quantity surveyor to prepare construction estimates based on materials and labor.

Questions to Consider
• Are we on budget? Why or why not?
• Do we need to adjust the scope?

Check-in: project schedule
As the design is refined, revisit the schedule frequently to track progress to ensure an on-time completion, and make adjustments as necessary.

Questions to Consider
• Are we on time? Why or why not?
• Do we need to adjust the project timeline? How will this affect our budget?

Check-in: capital campaign
Depending on the time frame for the capital campaign, organizations frequently continue fundraising through the phases of 3. Design, 4. Construction, and into 5. Occupancy. Organizations, in partnership with financial consultants, might set target amounts at which point they will start construction, even before the full amount is raised. In this phase, the project team should make sure to continue balancing the scope of the project and vision with identified funding (see 2C. Feasibility: Conduct capital campaign feasibility study).

Questions to Consider
• Are we reaching our milestones? Why or why not?
• How does our fundraising status affect the design?
• How might the design be leveraged to affect our fundraising strategy?
Resources
- See *The California Academy of Sciences, Marymount University Hospital and Hospice, and The Simpson Center for Girls* case studies for examples of how organizations undertook capital campaigns.

- **Check-in: project logistics**

There will be a series of administrative requirements and approvals that need to be addressed throughout the project implementation process. In this phase, organizations can rely on a design or development professional to assist with necessary logistics, including reviews by regulatory agencies, such as the building department, fire department, or Department of Health.

**Questions to Consider**
- What approvals are required for the project to continue?
- How will necessary approvals affect our design or schedule?
4. CONSTRUCTION

In this phase, the construction of the capital project is both started and completed. It is important to know that many unforeseen issues can arise that may require a re-evaluation of the project budget, schedule, and scope. Organizations should expect to continue communications with the project team at regular intervals to ensure implementation of the design aligns with the intended project objectives.
4. CONSTRUCTION

4A. MISSION

What impact does the construction process have?

This body of work will assist the organization in tracking and measuring the potential impact identified in previous phases.

Outcomes-Based Design
- Check-in: project mission and goals
- Check-in: theory of change
- Check-in: indicators and criteria

4B. DESIGN

How do we ensure impact through the building process?

Many critical design decisions are still being made in this phase that can affect the project’s impact. This section will assist organizations in understanding their role through construction.

Project Implementation
- Construct the capital project
- Catalog record drawings

4C. FEASIBILITY

Is the design within our scope and budget?

This body of work will help organizations navigate unforeseen issues and prepare for the operational and organizational changes that will occur once the building is completed.

Organizational Preparation
- Check-in: change management
- Check-in: financial health

Project Preparation
- Check-in: project team
- Check-in: project budget
- Check-in: project schedule
- Check-in: capital campaign
- Check-in: project logistics

Key Activities & Deliverables

- Groundbreaking
- Progress Review Meetings
- Project Completion
Groundbreaking

A groundbreaking ceremony is typically held to celebrate the transition into the 4. Construction phase. It is an opportunity to raise awareness of the project, to recognize donors or other important stakeholders, and can be leveraged to generate support for ongoing capital campaign efforts or excitement among stakeholders and community members.

Progress Review Meetings

Organizations should expect to meet with the design and construction team periodically throughout the 4. Construction phase. Although many decisions about the project will have been made in earlier phases, unexpected conditions on-site or shifting priorities may mean that design adjustments will be necessary, and organizations should have a representative available to make decisions about these changes in a timely manner. Before construction begins, identify who should meet with the design and construction teams and when.

Questions to Consider
- Who will be responsible for decision-making during the construction phase?
- How often should progress review meetings be held?
- How will decisions be made, and who will make them?
- How will we ensure that construction activities are aligned with our mission and goals?

Project Completion

At the completion of the 4. Construction phase, the finished project will be handed over to the organization. Organizations should expect to work with their design and construction teams to complete a variety of administrative tasks before occupancy and during the transition (see 4-5C. Feasibility: Project logistics).

4A. MISSION

Outcomes-Based Design

- Check-in: project mission and goals
  The project team should periodically refer to the stated mission and goals to ensure that the construction process is leveraged to achieve additional impact and to mitigate potentially negative impact.
  Resources
  - Outcomes-Based Design (p. 38)

- Check-in: theory of change
  Organizations should reconsider and iterate the theory of change as necessary during the 4. Construction phase.
  Questions to Consider
  - Has anything changed that will affect our anticipated outcomes?
  - Is our logic still sound based on what we know now?
  Resources
  - Outcomes-Based Design (p. 38)

- Check-in: indicators and criteria
  As opportunities for impact during the construction process are identified and planned for, the organization may want to collect data related to the process in order to track progress. This information may include the number of local workers trained, the funds invested in local...
businesses, or the amount of energy that
collection processes require.

Questions to Consider
• What metrics are important to our
  construction process?
• What can we learn by collecting this
  data?
• How will we collect this data?

4B. DESIGN

Project Implementation

Construct the capital project

During this phase, the contractor will lead
the construction of the project. This will
involve activities such as coordinating
subcontractors and completing approval
processes, permitting, inspections,
and material procurements. As the
construction project progresses, the client
and design team should have regular
check-ins to track progress and address
unexpected circumstances as they arise
(see 4. Construction: Progress Review
Meetings).

Questions to Consider
• Is construction progressing as expected?
  Why or why not?
• Have any circumstances changed that
  require a revised design?
• Will any on-site changes affect the
  achievement of our mission and goals?

Catalog record drawings

The finished project may vary slightly
from the construction documents. There
are several reasons why an organization
may request a set of drawings that shows
the actual conditions of the completed
structure (i.e., governmental requirements,
maintenance cost-savings, space-planning
logistics, etc.).

Questions to Consider
• Are we required to commission record
drawings?
• Would it be to our benefit to commission
  record drawings?
• What level of detail should we require in
  these drawings?

4C. FEASIBILITY

Organizational Preparation

Check-in: change management

In this phase, organizations should revisit
the change management strategies
developed in previous phases and adapt
the systems and processes as necessary
to reflect any changes in the project scope
or design. Additionally, the 4. Construction
phase can be an opportunity for an
organization to test out these new systems
and processes before completion of the
capital project to ease the transition into
the new space.

It is also important that communication
continue with leadership, stakeholders,
and funders by providing updates on the
project construction. This can happen
through field reports, open houses, or
tours of the construction project. Sharing
progress can help mitigate concerns or
reservations regarding the move and
generate excitement about the new
project.

Questions to Consider
• How can we effectively communicate the
  project process with our stakeholders?
• What change management strategies
  can we implement now while the project
  is under construction?
• Have any changes in project scope or
design occurred that will impact our
  change management strategy?

Resources
• See The California Academy of Sciences
case study for an example of an
organization that leveraged its transition
period to test new programs and
installations.

Check-in: financial health

Decisions will continue to be made that
affect the trade-off between one-time
construction costs and an organization’s
long-term health and operations. Revisit
financial projections and assumptions
to adjust and prepare for the impact of
opening day and beyond.

Resources
• See the previous phases’ C. Feasibility
  section for preceding steps regarding
project team

Organizations should periodically review the project team structure, line of communication, and decision-making processes to ensure that team members are operating efficiently and effectively.

Resources
- Project Team Worksheet (p. 50)

- Check-in: project budget

As construction progresses, decisions may be made which will alter both up front and recurring costs. At this point, changes will typically be submitted via change orders from the contractor, and decisions made depending on the selected project delivery method. The team should balance mission, operational, and financial factors when making decisions in order to plan accordingly for long-term impact.

Resources
- Capital Project Budgeting Worksheet (p. 47)

- Check-in: project schedule

As construction progresses, the team should frequently revisit the schedule to track progress for an on-time completion or make adjustments as necessary.

Questions to Consider
- Are we on time?
- How might a changing schedule affect other elements of our organization?
- How might we need to adapt to a changing schedule?

- Check-in: capital campaign

Continual work will need to be conducted to maintain financing streams and relationships with funders. Frequently, organizations will prepare regular progress updates to committed funders, which can also be used to leverage support. Organizations should also consider major events such as the groundbreaking and ribbon cutting as opportunities to engage additional outside parties.

Questions to Consider
- Have we met our milestones?
- How might our capital campaign need to adjust?

- Check-in: project logistics

As the project progresses, organizations will be responsible for certain administrative tasks such as applying for building services (gas, electric, water, etc.), approving change orders, or obtaining insurance coverage to protect the organization against various types of losses during the construction project. Organizations should seek assistance from design professionals, financial advisors, or legal counsel as necessary.

Questions to Consider
- For what tasks are we responsible?
- Do we need assistance in completing those tasks?
5. OCCUPANCY

In the 5. Occupancy phase, organizations transition into their new facility and will begin to see the impact that the completed project has on the organization and its surrounding community. This section will assist an organization in tracking outcomes as well identifying potential adjustments to amplify positive impact.
Is the capital project achieving its purpose?
Now that the construction of the project is complete, this body of work will help the organization conduct an assessment to understand the outcomes of the project and if it has achieved its intended impact. For further guidance, organizations should refer to the Purpose Built retrospective tool titled, Charting Capital Results.

Outcomes-Based Design
- Check-in: project mission and goals
- Check-in: theory of change
- Check-in: indicators and criteria

Case Study Impact Report
- Conduct case study evaluation

Do we need to adapt the design?
Typically, not everything in the building will operate as planned. This body of work will assist organizations in assessing the functionality and use of the space and in determining whether or not they need to make any modifications to the design itself or to the way that it operates in order to meet their intended outcomes.

Project Adjustments
- Assess spatial functionality and adapt as necessary

Can we sustain, operate, and maintain the capital project?
This body of work will assist the organization in evaluating the accuracy of its project projections, as well as plan for the transition and ongoing operational and maintenance needs of this new asset.

Building Transition
- Manage the move to the new facility

Organizational Preparation Check-in
- Check-in: change management
- Check-in: financial health

Project Preparation Check-in
- Check-in: project budget
- Check-in: capital campaign
- Check-in: project logistics

Key Activities & Deliverables

- Ribbon Cutting
- Case Study Impact Report
Key Activities and Deliverables

Ribbon Cutting

Holding a ribbon cutting ceremony to open the project publicly is a great opportunity for organizations to celebrate their work, and to communicate the value of the project to users, donors, and other stakeholders. Other similar events may include topping out ceremonies, which can be held when a building’s highest beam is installed.

Impact Report

After allowing time for impact to manifest, organizations should invest in a retrospective impact evaluation. See Charting Capital Results for guidance on how to conduct a capital project impact assessment. (p. 36)

Operations Plan and Manual

It is important for organizations to understand how to operate and maintain their new asset after the project is completed and handed over. While facility managers and relevant staff should be trained during the transition to use systems, equipment, and furniture, an Operations Plan and Manual can help capture learning and set standards. Members of the design and construction teams will likely be most knowledgeable about these systems and can help guide the creation of the manual.

5A. MISSION

Outcomes-Based Design

- **Check-in: project mission and goals**

   It takes time for all organizations to adapt and become comfortable with a new space after a major capital investment. As daily operations are transitioned from the project team to the organization’s operations team (see 5C. Feasibility: Manage the move to the new facility), organizations should create time to review the desired mission-aligned outcomes and ensure they do not lose sight of the big picture. Frequently, funders or other partners will require a report-back; use this opportunity to catalog and synthesize the impact metrics that were identified throughout the process.

   **Questions to Consider**
   - Is our project achieving the types of outcomes that we anticipated?
   - Which of our partners require a final report?
   - How will we communicate our outcomes?

   **Resources**
   - Outcomes-Based Design (p. 38)

- **Check-in: theory of change**

   As the organization settles into a new system and process of operations, the ways in which outcomes are achieved might also need to adapt. Organizations...
should use this opportunity to refer back to and update the theory of change.

Questions to Consider
• Did anticipated outcomes occur? Did anything unanticipated happen? Why or why not?

Resources
• Outcomes-Based Design (p. 38)

Check-in: indicators and criteria
Organizations should continue to track indicators and criteria after a capital project is complete. Some projects may require this data collection due to reporting needs. The metrics can influence decision-making regarding organizational operations or priorities, and can be used to inform impact or process evaluations.

Resources
• Outcomes-Based Design (p. 38)

Case Study Impact Report

Conduct case study evaluation
Organizational leaders should consider both how to generate internal learnings for continuous improvements as well as how to capture lessons that can be shared externally. While all organizations face resource and time limitations, making time to reflect back—whether it is one, two, five, or 20 years later—is an important element of the capital project process. External evaluation teams can provide additional expertise. The Purpose Built team has generated a retrospective toolkit, Charting Capital Results, to assist with organizations looking to assess both their process and impacts.

Questions to Consider
• What assessment time-frame is appropriate?
• What external partners should we engage?
• Who is our audience? How will our research be shared?

Resources
• Charting Capital Results

5B. DESIGN

Project Adjustments

Assess spatial functionality and adapt as necessary
As users begin to adjust to their new space, the project team should solicit feedback to understand what is working well, what could be improved, and if any adjustments would be beneficial. These modifications may be as simple as rearranging furniture or as complex as adding new equipment or new space to the building. If these modifications cannot be completed within allotted contingencies, organizations may need to find additional resources. Ultimately, these upfront costs may lead to cost savings down the road.

Questions to Consider
• How is the design having desired impact?
• How is it creating undesired impact?
• What changes could improve how the building functions?
• How much will it cost? Can we afford it?

5C. FEASIBILITY

Building Transition

Manage the move to the new facility
Moving people, furniture, and equipment takes time and can be costly. The facility’s maintenance staff should have an operations plan in place and an operations manual to reference. It is critically important to adjust the budget for the move and take appropriate steps to minimize disruption during and after the move.

Consider completing a test run of the facility before the full move-in. In some cases, organizations might be able to leverage the transition period to amplify impact. For example, for major renovations, organizations can utilize the move to a temporary facility to test new layouts, equipment, or processes that will then be implemented in the final project. Keep in mind that it will take time for staff to adjust to their new environment and to manage the change in organizational culture that comes from a new space.
Questions to Consider

- What will it take to move?
- How can we minimize disruption before, during, and after the move?
- What training is necessary?
- How might we leverage this transition time to amplify impact?

Resources

- See the Marymount University Hospital and Hospice case study for an example of an organization that planned well for the transition to the new facility.

Organizational Preparation

- **Check-in: change management**

  In this phase, the processes and systems that were developed in previous phases will be implemented. Organizations should continue to communicate with stakeholders and building occupants after the transition to the new space to evaluate how the capital project is creating organizational changes and if additional systems or processes need to be developed to support this change.

  **Questions to Consider:**
  - How is the capital project changing our organization?
  - Are the systems we developed to manage this change working?
  - How do we collect and evaluate issues that arise from stakeholders?
  - What new processes and systems need to be developed to address these issues?

- **Check-in: financial health**

  During the 4. Construction phase, many scenarios that impact the organization’s financial health might occur, such as changes in cost, market forces, or operational capacity. Organizations should be periodically re-evaluating their financial health, especially after the new project has opened. As operating costs and budgets are updated, organizations will need to reassess their ability to sustain future one-time and recurring expenses and may need to make corresponding shifts in expected income or revenue generating strategies.

  **Resources**
  - Financial Health Worksheet (p. 44)

- **Check-in: capital campaign**

  Organizations should continue to maintain relationships with funders after the construction is complete. The ribbon cutting ceremony can provide an opportunity to invite funders and partners to celebrate the completed project and to support ongoing fundraising efforts, as applicable. Frequently, funders might require final reports. Organizations should also consider internally assessing the capital campaign in order to inform future fundraising efforts.

- **Check-in: project logistics**

  After the completion of a capital project, the facility will be turned over to the organization. This process will include activities such as completing the final payment and transferring warranties, maintenance contracts, and other documentation. Once this is complete, the organization will then take over the responsibility for the operation of the building; however, the work of the contractor is often under warranty for one year after this date to correct mistakes or make repairs if deemed a requirement under the contract.

  **Questions to Consider**
  - What is required in order to close out the project?
  - Who within the organization is responsible for managing and storing the documentation?
Planning for Impact
Appendix
OUTCOMES-BASED DESIGN (OBD)

The OBD is an iterative process that helps project teams align design responses with relevant needs. The following pages will help organizations identify project goals (both mission-aligned and 360°), develop a theory of change, and identify indicators and criteria.

The OBD is a non-linear process, and it’s okay to go back. In fact, it’s designed to provoke a dialogue that results in clarity. When conducting the OBD, use sticky notes or dry-erase boards to help with the iterative process.

To begin, organizations will brainstorm goals for the capital project. Consider goals that are aligned with the organization’s mission, and look for opportunities to amplify impact that capital projects may have.

Next, brainstorm how capital projects can lead to impact, and identify the steps necessary to achieve the organization’s goals. Think about how the project could have direct impact, as well as how it could change behaviors and mindsets.

Then, identify indicators that will help demonstrate if the project is successful. Consider both outcome indicators and process indicators, paying close attention to any areas where there are risks or uncertainty in the theory of change.
What are our mission and goals?

Buildings aren’t just shells for the activities and programs they contain, but play an active role in helping organizations advance their missions, operate more effectively, and build capacity. Beyond this, capital projects can inspire confidence and create broader momentum for change.

Consider the questions below while identifying project goals. Think about how they can align with organizational mission and identified needs in order to amplify positive impact. Finish this step by addressing the broad range of (often unintended and sometimes negative) impact that capital projects ultimately have.

A. Identify mission-aligned impact goals
   • What is the organization's mission statement?
   • Why is it important?
   • What are the end goals?

B. Consider opportunities identified in the needs assessment
   • What are the additional needs that stakeholders have articulated?
   • Which of these can the project address?
   • Which can help amplify the mission?

C. Use the 360° worksheet to think about additional impact your project may have—both intended and unintended
   • What are the opportunities to amplify positive impact?
   • Where should we mitigate negative impact?

- Reduce infant mortality rates
- Increase literacy rates
- Build economic capacity
- Reduce unemployment among women
- Minimize energy use onsite
- Increase community’s access to green space
How do we achieve our desired outcomes?

Buildings can lead to impact in a variety of ways. Not only do they affect an organization’s ability to directly achieve their mission, but they also can affect behaviors and perceptions.

Brainstorm the steps necessary to achieve the project’s goals, and think about how each relates to the next. Note any assumptions and risks in these critical pathways to impact.

A. Identify opportunities for direct impact
   - How will the capital project directly lead to impact?

B. Identify opportunities for behavior change
   - How does the built environment influence behavior?
   - How might changes to behavior lead to our identified goals?

C. Identify opportunities for symbolic impact
   - How does design affect the way people think?
   - How could changed perceptions or attitudes lead to impact?
How do we evaluate our progress?

Identifying metrics can help organizations track progress and plan for evaluation efforts, enabling them to improve their work and report back to funders. If things aren’t going as expected, indicators at different steps in the theory of change model can help organizations identify where to intervene.

Consider the following types of indicators, and identify which are the most important to follow up on. See the Metrics Database sample for examples of health metrics and evaluation strategies.

A. Identify process indicators
- How will we know if our process is leading to impact?
- What activities should we be completing to ensure that we’ve planned for impact?

B. Identify design indicators
- What design qualities do we need in order to lead to impact?

C. Identify impact indicators
- What indicators will tell us if we have achieved our goals?
- Are they specific, observable, and measurable?

- Establish construction training program
- Well-lit office spaces
  - Lux levels (minimum: 250)
- More efficient and happy employees
  - Productivity levels
- Build economic capacity
  - Employment rates
- # of workers trained
<table>
<thead>
<tr>
<th>INPUTS</th>
<th>OUTPUTS</th>
<th>SHORT-TERM OUTCOMES</th>
<th>LONG-TERM IMPACT</th>
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The 360° worksheet helps project teams consider a range of potential stakeholders and categories of impact. Not every cell needs to be filled out, but the document should be used as a guide to ask questions that are often unconsidered.

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<thead>
<tr>
<th>Environment</th>
<th>Economy</th>
<th>Education</th>
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**FINANCIAL HEALTH WORKSHEET**

Major capital projects are significant time and resource investments for any organization. The set of indicators listed below and calculated in the downloadable Excel file provides a helpful barometer of an organization’s financial health.

**NET INCOME**

Net Income = Total Revenue – Total Expenses

Net income, informally referred to as the “bottom line,” shows an organization’s fiscal surplus or deficit in a given year. A positive net income means that an organization is able to cover its expenses and contribute to its net assets.

Healthy organizations typically have reliable revenue and consistent surpluses. If your historic net income seems volatile or consistently negative, consider the root causes. Unhealthy indicators don’t necessarily mean you shouldn’t pursue a capital project, but organizations should show an ability to respond to negative events or trends.

**REVENUE MIX**

Revenue mix shows the proportional breakdown of each category of income for an organization. A diverse mix of revenue can help organizations be prepared to handle financial risks or challenges when they arise. If your organization is primarily dependent on a single or a few sources of revenue, consider the reliability of these resources in the future. Remember that capital projects can strain sources of revenue—for example, funders who contribute to a capital campaign may decrease their giving in the future (this is also known as donor fatigue). On the other hand, capital projects can also serve as an asset for the organization—some funders may specifically fund portions of capital campaigns, and capital projects can also bring in additional sources of revenue, like ticket sales.

**NET ASSETS**

Net Assets = Total Assets – Total Liabilities

Net assets is an indicator of the fiscal worth or value of an organization. While there is no strict rule for the relationship between net assets and capital projects, project budgets are generally correlated with the size of the organization (as evidenced by net assets or annual operating budgets). Because major capital projects require significant investment in time and resources, organizations will likely be building their net assets prior to committing to a new project. Capital projects, once completed, will add to the net assets of an organization.

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**A NOTE ABOUT DATA**

- Most of the metrics included in this guide and the downloadable worksheet can be calculated from information included in an organization’s 990 tax forms. In some cases, additional data will be required. Typically, additional information will be found in an organization’s audited financials.
- The revenue mix utilized in this worksheet comes from 990s, which provides a summary of revenue mix in four categories. Organizations may consider looking at a more detailed breakdown, depending on their business models.
It seems there is a mistake in the content you provided. The text appears to be cut off and not fully readable. Could you please provide the complete text so we can assist you properly?
This page provides instructions on how to use the downloadable Excel file: *Purpose Built Financial Health Worksheet.*

The downloadable Microsoft Excel file contains one sheet of inputs.

The first column identifies where the data can be found in the 990s or if the user needs to pull data from another source, like audited financials.

The file automatically creates relevant graphs with the identified financial indicators of interest.

Users can enter up to 25 years of data.

The file identifies which cells will contain user input (white cell with light blue text), and which cells contain preset calculations (yellow cells).

Each graph is supported by questions for consideration and space for notes for the user.
The capital project budgeting process helps organizations understand the financial feasibility of implementing their visions, and also serves to provide fiscal accountability through the completion of the project.

**INTRODUCTION**

This working guide is intended to serve as a resource for organizations as they prepare initial project estimates. In most cases, organizations will need to work with their design professionals, contractors, or other individuals familiar with capital projects in order to develop more confident estimates.

**BUDGET CONSIDERATIONS**

Generally, cost estimation considers hard, soft, and site costs.

- Hard costs refer to the “brick and mortar” of the project and represent the cost of construction—buildings, interiors, landscapes, structures, and the labor required to build and install.
- Soft costs are development costs incurred by organizations when completing capital projects. They include items such as design and management fees, taxes, and insurance, as well as costs incurred due to financing, moving, and internal staffing.
- Site costs cover line items such as land acquisition, demolition, titles, insurance, and land surveys.

When creating project budgets, remember that hard costs typically only make up one-half to two-thirds of total project costs.

Because many elements of capital project processes are hard to predict accurately, every project should include contingencies. The owner, designer, and contractor will all incorporate a contingency allowance that ranges and changes, depending on the phase of the process. Organizations should also include contingencies in operating estimations for after the project is complete.

**HOW TO**

Use this guide to understand the big picture of project costing and to familiarize yourself with sometimes unanticipated cost categories. Remember that every project is different, and your project might differ significantly from typical project cost structures.

Please note: this worksheet only considers the cost of project development. Funding and financing resources will vary, depending on the project and your organization, and should be examined during the capital campaign.

**FACTORS THAT AFFECT COST**

- Location, location, location. Depending on the site for the desired project, acquisition costs will vary widely, and costs for items such as material and labor transportation will also differ.
- Decisions made regarding the quality and characteristics of the facility will greatly affect total development costs. Keep in mind that investments in higher quality materials or more efficient equipment will often result in significant savings over the lifetime of a capital project. Pay attention to energy saving design strategies, resilient materials and building systems, and low maintenance design strategies.
- Economic conditions during the construction period can affect the cost of materials. Major events like Hurricane Katrina and the September 11 attacks affected the availability of materials such as concrete and steel, causing a steep rise in development costs.
- Don’t forget that additional organizational staff may need to be hired to manage day-to-day operations if existing staff are focused on the capital project.

**VALUE ENGINEERING**

- Several times throughout the design process, organizations will need to make “value engineering” decisions to maximize the value to cost ratio. Be sure to carefully balance desired impact and project feasibility when making these decisions.
Capital project development and ongoing budget line items vary and can catch organizations off guard, especially if they are undertaking projects for the first time. This page provides examples of the wide variety of costs associated with capital projects.

## Capital Project Budgeting

### 1. Visioning
- Project needs assessment
- Capital campaign feasibility study
- Fundraising consultants
- Event and communication costs
- Creation of visual material
- Design consultants
- Other
- Other

### 2. Planning
- Stakeholder engagement
- Site and building programming
- Feasibility studies
- Site selection and land purchase
- Site survey and geotechnical report
- Attorney’s fees
- Other
- Other
- Other

### 3. Design
- Architectural services
- Consultants
- Interior design services
- Landscape design services
- Cost estimation
- Owner participation
- Other
- Other

### 4. Construction
- Construction administration fees
- Construction management fees
- Owner representation onsite
- Soft costs (permits, insurance, etc.)
- Mobilization (starting or stopping)
- Utilization and site access
- Site work and landscaping
- Contractor and building construction
- Furniture, fixtures, and equipment (FFE)
- Commissioning
- Other

### 5. Occupancy

#### One-time costs
- Operate in interim facilities
- Lost revenue due to transition
- Transition to new facilities
- Impact evaluation
- Other

#### Recurring costs
- Equipment replacement and repairs
- Facility alterations and repairs
- Equipment and system operations
- Taxes and levies
- Maintenance costs
- Insurance
- Ongoing financing
- Security
- Energy
- Other

### REMEMBER!
- Be sure to include internal staff time and contingencies for each phase of the design process.
1. VISIONING

In the 1. Visioning phase, “ballpark” cost estimates will be prepared, typically using project comparison or area estimation methods to calculate hard costs.

- Project comparison estimation identifies a similar building typology (e.g., hospital, office space, school, etc.) and compares unit costs (e.g., cost per bed, cost per employee, cost per student, etc.).
- Area or volume estimation uses historical data and generates estimates using cost per square foot or cost per cubic foot calculations.

These estimates are less accurate than those that will be produced in future phases. They will, at most, generate estimates that are within 15-20 percent accuracy. When calculating a total project development cost estimate, remember that hard cost estimates are only a portion of the total development costs.

This estimate should be used to test project options and alternatives and will be iterated throughout the project duration. While there are no rules of thumb for what individual organizations can undertake, make sure you understand the financial implications of this major investment.

2. PLANNING

During this phase and before the design is created, organizations will refine their project budget estimates. The further refinement of the needs assessment and Design Brief (see the full 2. Planning phase) will provide additional clarity regarding the program, quality, and characteristics for the new space. Organizations should also have a better idea their soft costs, such as staff and consultant needs, at this point. This developed project budget will help inform constraints on the project design’s scope and capital campaign feasibility.

3. DESIGN

As the design develops, the project team will be able to generate more accurate cost estimates based on “assembly and systems” and eventually “unit price and schedule” – this means that costs are estimated by conducting an analysis of the materials, labor, and equipment needed to construct the capital project. Typically, a cost estimator or quantity surveyor will be engaged as design documents near completion.

4. CONSTRUCTION

The project’s financial staff will receive regular updates on the progress of construction and its adherence or divergence from the stated budget. Any changes to the budget should be appropriately planned for and responded to by designated members in the organization. Make sure there is clarity of decision-making via the project delivery method structure (see 2c. Feasibility: Project Preparation).

5. OCCUPANCY

As organizations transition into and operate the new facility, updates will be made to the final project costs and eventual ongoing operating budget. Because operating costs can be estimated incorrectly, organizations should be sure to include a contingency plan if ongoing costs are higher than expected.
The Project Team is the group of people responsible for completing a capital project.

The individuals who make up the project team will vary depending on the size, scope, and complexity of each project and organization. Effective teams typically consist of a core project team, decision-makers, advisors, designers, and implementers. No matter how the team is structured, organizations should specify clear lines of communication and systems for decision-making to help the project progress smoothly and efficiently.

The chart below lays out typical project roles and responsibilities. Depending on the project, many roles may be filled by one individual or a single role might be completed by a group. The chart is intended to illustrate the breadth of knowledge and experience of a team that will help bring projects to completion. Use this chart as a starting place to identify which project team roles can be feasibly filled with existing staff, and where expertise and capacity should be sought externally.

<table>
<thead>
<tr>
<th>CAPITAL PROJECT CORE TEAM</th>
<th>EXPERTISE</th>
<th>RESPONSIBILITY</th>
<th>PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Team Chair</td>
<td>Organization</td>
<td>Represents the organization’s interests and coordinates the internal communication and decision-making within the team and to the board.</td>
<td>● ● ● ● ●</td>
</tr>
<tr>
<td>(Project Manager)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Manager</td>
<td>Budgeting, Finances, CFO</td>
<td>Determines the project budget and expenses. Communicates financial matters to the core team and the board.</td>
<td>● ● ● ● ●</td>
</tr>
<tr>
<td>Capital Campaign Manager</td>
<td>Fundraising, Development</td>
<td>Coordinates the fundraising effort for the project.</td>
<td>● ● ● ●</td>
</tr>
<tr>
<td>Owners Representative</td>
<td>Capital Project, Architecture, Construction</td>
<td>Can manage the project through design and construction on behalf of the organization and provide advice on matters related to design and construction decisions as they relate to time, cost, and quality.</td>
<td>● ● ● ●</td>
</tr>
<tr>
<td>or Construction Manager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(dependent on project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>delivery method)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-house Architect,</td>
<td>Facilities, Systems, Maintenance</td>
<td>Provides operational and maintenance expertise during design and assumes responsibility for the new systems once construction is complete.</td>
<td>● ● ● ●</td>
</tr>
<tr>
<td>Facilities Manager, and/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or Facilities Dept.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Liaison</td>
<td>Community Relations</td>
<td>Engages community members (internal and/or external) to understand their priorities. Communicates the organization’s plans.</td>
<td>● ● ● ●</td>
</tr>
</tbody>
</table>

KEY
● Primary Involvement
○ Secondary Involvement
## CAPITAL PROJECT DECISION-MAKERS

<table>
<thead>
<tr>
<th>Board of Directors (Advisory Board)</th>
<th>Varies</th>
<th>Approval of project vision, scope, and budget. Additional roles or responsibilities depend on expertise.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Leadership</td>
<td>Varies, CEO, President</td>
<td>Approval of design concluding each phase and communication to the board.</td>
</tr>
</tbody>
</table>

## CAPITAL PROJECT ADVISORS

<table>
<thead>
<tr>
<th>Volunteer</th>
<th>Architecture</th>
<th>Advises the organization in design matters such as defining the design vision, reviewing architectural solutions, and value engineering. Recommended if other team members do not have design expertise.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer</td>
<td>Engineering, Construction</td>
<td>Advises the organization in design matters. Recommended if other team members do not have expertise related to the capital project scope such as complex building systems or construction technology.</td>
</tr>
<tr>
<td>Volunteer</td>
<td>Consulting, Finance</td>
<td>Provides the organization with consulting and/or financial expertise. Supports the Financial Manager in projecting the capital project expenses, modeling operating expenses, and conducting cost-benefit analysis.</td>
</tr>
<tr>
<td>Thematic Expert</td>
<td>Varies</td>
<td>Provides specialized perspective on requirements and recommendations for design, operations, and/or management.</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Organization, Sector Experts, Users, Community</td>
<td>Provides the organization input on the needs and potential outcomes of a capital project.</td>
</tr>
</tbody>
</table>
## Project Team Worksheet

### Design Team

<table>
<thead>
<tr>
<th>Expertise</th>
<th>Responsibility</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lead Design Professional</strong></td>
<td>Leads the project design process and coordinates with design team consultants to develop drawings and other documentation that determine the scale, relationships, and character of the entire project with respect to architectural, landscape, structural, mechanical, and electrical systems, materials, and other elements as appropriate.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td><strong>Consultant</strong></td>
<td><strong>Programming, Architectural Design</strong></td>
<td>0 1</td>
</tr>
<tr>
<td><strong>Consultant</strong></td>
<td><strong>Landscape Architecture</strong></td>
<td>0 1 0</td>
</tr>
<tr>
<td><strong>Consultant</strong></td>
<td><strong>Planning, Urban Design</strong></td>
<td>0 1 0</td>
</tr>
<tr>
<td><strong>Consultant</strong></td>
<td><strong>Engineering</strong></td>
<td>1 0</td>
</tr>
<tr>
<td><strong>Consultant</strong></td>
<td><strong>Specialty</strong></td>
<td>1 0</td>
</tr>
</tbody>
</table>

### Construction Team

<table>
<thead>
<tr>
<th>Expertise</th>
<th>Responsibility</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Contractor</strong></td>
<td>Coordinates and manages the construction of a capital project.</td>
<td>0 1</td>
</tr>
<tr>
<td><strong>Subcontractors</strong></td>
<td>Hired by the general contractor to complete a specific scope of work (plumbing, painting, etc.) within the construction project.</td>
<td>1 0</td>
</tr>
</tbody>
</table>
FIELD IMMERSION METHODOLOGY (FIM)

A variety of methods can be used to collect feedback from project stakeholders. Common approaches include focus groups, semi-structured interviews, and structured questionnaires, which are each described in more detail on the following pages.

**FOCUS GROUP**

Focus groups are facilitated group discussions that can be used to gather feedback from multiple stakeholders simultaneously. Unlike individual interviews, they give participants an opportunity to listen and respond to others’ perspectives. Focus groups can be used to gain consensus on project goals, identify complex issues or tradeoffs, and build support and understanding around project needs.

**SEMI-STRUCTURED INTERVIEW**

Semi-structured interviews are open conversations that are guided by a set of prepared questions. They can be used to engage targeted individuals to gain insight into ideas they have for the project, issues they anticipate, and new opportunities that might arise as a result of the project. Semi-structured interviews are useful in eliciting a range of perspectives, clarifying needs, and defining short- as well as long-term goals.

**STRUCTURED QUESTIONNAIRES**

Structured questionnaires are form-based surveys that can be distributed to large groups to gather feedback and data on preidentified topics and questions. They can be helpful in providing a sense of the overall priorities and concerns of the group and also be leveraged to make stakeholders feel included in the project.
Focus groups are facilitated group discussions that can be used to gather feedback from multiple stakeholders at the same time.

**OVERVIEW**

Focus group discussions are a useful forum for generating feedback and ideas. Unlike individual interviews, they allow a facilitator to gather many points of view quickly and give participants an opportunity to listen and respond to others’ perspectives.

More specifically, focus groups can be used to understand general perceptions within a group, identify needs and opportunities, and gain consensus on goals and priorities. Since participants will voice different viewpoints and perceptions, focus groups also help create an open dialogue and build support and understanding between stakeholders.

However, because they occur in a collective setting, focus groups are not useful for gaining a detailed understanding of personal perceptions or collecting private information.

**HOW TO**

In advance, the facilitation team should identify learning objectives for the activity and prepare a discussion guide that includes primary questions and potential follow-up questions that address the learning objectives.

A lead facilitator should steer the group discussion by posing open-ended questions to elicit feedback and responses from participants. The role of the facilitator is to manage the pace of the conversation and ensure that all participants have the opportunity to make a contribution. He or she does so by working through the thematic questions, prompting participants to clarify what they say, asking others to respond, and keeping the group focused on the topics.

A second team member should be designated as a note taker to record the discussion and document key ideas or takeaways throughout the conversation.

Not everyone may feel comfortable voicing their opinion, especially if it goes against the status quo or conflicts with someone in a greater position of influence. The facilitator’s role is to negotiate these dynamics, either by verbally balancing opposing viewpoints or organizing multiple focus groups to accommodate different stakeholders.

At the conclusion of the session, the facilitator should recap key points and thank participants for their contributions. Notes and takeaways should be synthesized afterward.

**TIME**

60-90 min

**MATERIALS**

- Pre-prepared questionnaire
- Voice recorder
- Pens, paper, or sticky notes for participants to record ideas

**TIPS**

01 It’s typically best to keep focus groups under 12 people.

02 Be aware of social dynamics when determining which individuals should be in a group.

03 Create multiple ways for people to participate, so that conversation isn’t dominated by the most outspoken personalities.

04 Make it easy for people to come by selecting a convenient meeting location and time. In some cases, consider compensating participants for their time.

05 Be aware of the different motivations, perspectives, and biases that people bring.

06 Make sure to document key points and takeaways throughout the discussion, and back up your notes by tape recording the discussion.
SEMI-STRUCTURED INTERVIEW (FIM)

In semi-structured interviews, prepared questions are used to prompt open-ended discussions with individual respondents.

OVERVIEW

A semi-structured interview typically involves a standard questionnaire that can be used to facilitate conversations with a targeted set of individuals. The team may already have some ideas about important research questions or the nature of an issue or problem, and can query respondents further in order to set a research agenda or gather data for analysis.

Semi-structured interviews are used to collect thematic data, personal perspectives, and anecdotes detailing the characteristics of a situation or experience. They are especially useful for understanding processes, factors that produce a particular condition, and perceptions and beliefs about needs and opportunities.

HOW TO

Interviews need to be slightly tailored to each individual respondent. If a standard questionnaire is being used, the interview team should identify the topics or questions most pertinent to each respondent in advance and make sure to prioritize those during the interview.

To facilitate the discussion, begin by having the interviewee provide a short synopsis of their role and background, which will help to confirm the topics they are best positioned to address. Throughout the conversation, the interviewer should provide prompting questions, and the interviewee should do most of the talking. It’s not necessary to cover questions in any predetermined order; the questionnaire should be considered a guide to make sure that the conversation touches on the range of highlighted topics overall.

If possible, having two people on the interview team is ideal, as it allows for higher quality conversations and more accurately recorded information. One person should be responsible for leading the discussion; and the other should be responsible for taking notes and highlighting important points or anecdotes.

At the conclusion of the discussion, the interviewer should ask if the interviewee has anything else to add or recommendations for other people to interview.

Make sure to synthesize notes promptly after each interview, referring back to the audio recording if quotes or more detailed transcriptions are required.

TIME

45-90 min

MATERIALS

Pre-prepared questionnaire
Voice recorder
Extra paper and pens

TIPS

01 Familiarize yourself with interviewees’ roles and backgrounds in advance, and prioritize questions appropriately.
02 Make sure to ask permission to record the conversation.
03 Ask follow-up questions to draw out more detailed information or feedback.
04 Don’t ask yes or no questions, which are close-ended rather than open-ended (unless a yes or no response is needed).
05 If you’re unclear about a response, repeat back what you think you heard and ask the interviewee to validate.
06 Avoid judging or commenting critically on what interviewees have to say.
07 If detailed documentation is needed, make sure to budget for transcription of audio recordings.
Structured Questionnaires (FIM)

Structured questionnaires can be used to survey large groups to gather responses to pre-identified topics and questions.

Overview

Structured questionnaires are form-based surveys that are distributed to large groups, typically 20 or more. Unlike semi-structured interviews, which provide a loose guide for more open-ended conversations, structured questionnaires prompt respondents to give short or close-ended answers to a standard set of questions.

Responses can be collated and analyzed to gauge preferences and concerns across a population or measure trends related to an issue or problem. This methodology is useful for conducting a high-level “scan” that reflects collective opinions, but does not yield in-depth responses or explanations.

How to

Structured questionnaires can take many forms and have varying degrees of rigidity. They can range from qualitative (prompting respondents to provide short answer responses) to quantitative (with multiple choice responses that get collated afterward); anonymous to non-anonymous; and very brief to more involved. Distribution methods also vary. They can be carried out in-person (by a team of data collectors conducting standardized interviews) or digitally (with a computer form that is distributed and returned).

In selecting a respondent group, think about the population you want to represent and target. Make sure to set aside time to develop and refine the questionnaire and plan a method for distribution. It’s important to carefully strategize what questions are asked and how they’re sequenced and phrased. Consider testing the questionnaire for clarity and usefulness through sample interviews before the larger survey is conducted.

After data is collected, make sure to take into account what individuals have participated and responded. The data should be compiled, summarized, and analyzed by a trained data evaluator. Qualitative and quantitative questionnaires require different evaluation methods, but both will yield insights that should be verified and explained through more in-depth interviews and conversations.

Time

5-30 min

Materials

Pre-prepared questionnaire

Tips

01 Be judicious with the number of questions and how they’re ordered. Ten well-considered questions can often yield more insights than 30 questions.

02 Think carefully about how questions are phrased, and make sure they’re not influencing people’s answers.

03 When analyzing responses, be critical about what data you think indicates a condition or trend.
# Health Outcomes

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>METRIC</th>
<th>MEASUREMENT</th>
<th>REFERENCE</th>
</tr>
</thead>
</table>

Adapted from The Center for Health Design’s Healthcare Environmental Terms and Outcome Measures: An Evidence-based Design Glossary (2011).