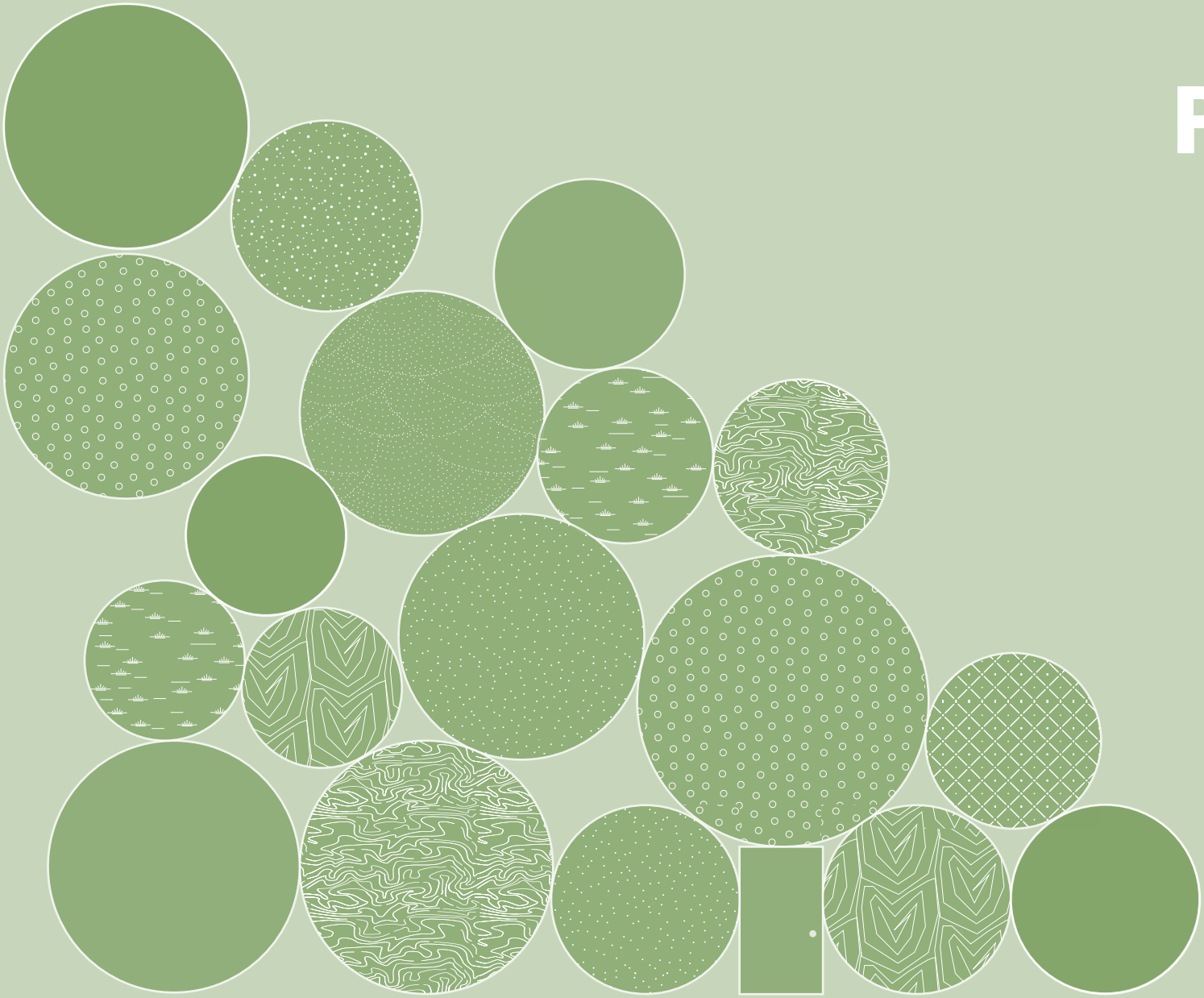


PURPOSE BUILT

TOOLKIT 1.0

Planning for Indigenous Impact

A guide to impact-driven design and development

MASS.

Canada

Indigenous Services Canada

Services aux Autochtones Canada

Prepared and created by

MASS Design Group, in partnership with Indigenous Services Canada (ISC), modified this tool for the Indigenous Homes Innovation Initiative (IHII) from the original Purpose Built Series developed by MASS Design Group. Content developed in this version of *Purpose Built, Planning for Indigenous Impact* acknowledges the usage solely for the IHII, a program of ISC.

Prepared for

ISC for the IHII in partnership with the Council for the Advancement of Native Development Officers (CANDO).

Advisory credit

Advisory and revisions to this edition of *Purpose Built, Planning for Indigenous Impact* includes input from the Royal Architectural Institute of Canada's (RAIC) Indigenous Task Force (ITF) including members, Patrick Stewart and David Fortin, along with IHII Steering Committee member Marcel Lawson-Swain.

We thank and acknowledge the support of all the Indigenous Homes Innovation Initiative Partners

Aboriginal Savings Corporation of Canada (ABSCAN)

Council for Advancement of Native Development Officers (CANDO)

Ecotrust Canada

Indigenous Clean Energy (ICE)

Laurentian University McEwen School of Architecture

MASS Design Group

Minokaw Consulting

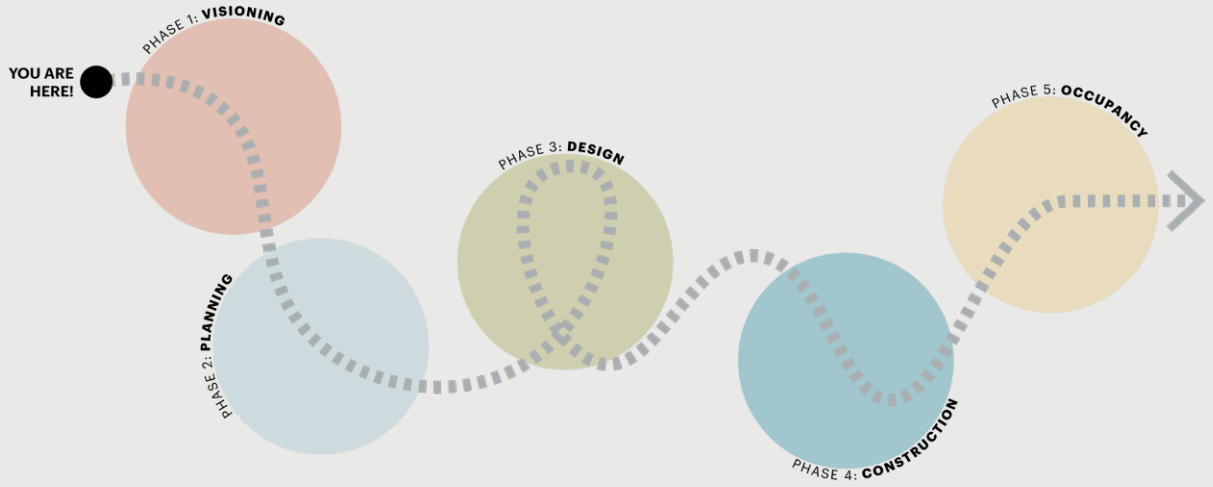
Royal Architectural Institute of Canada (RAIC) - Indigenous Task Force (ITF)

Vancouver Island University (VIU)

Updated May 2020

Welcome to Purpose Built

This book will guide you along the process of starting your own capital project. Whether you are a non-profit, an individual with an idea, or have already started a capital project, *Planning for Indigenous Impact* will guide you through the process and provide helpful resources to further your project mission and impact. This tool aims to provide a framework for those anticipating a design project from community engagement through occupation, perhaps for the first time.



Executive Summary

What would it take to build new communities and remake old ones? How can communities bolster economic development while meeting their housing needs?

Beginning in 2018, MASS Design Group worked with Canadian Indigenous leaders in design, construction, finance, and development to create a tool focused on supporting Indigenous housing development in Canada. This document brings together design methodologies developed by MASS Design Group through the *Purpose Built* series and merges development practices by breaking down the multidimensional challenges of those working with Indigenous communities.

Originally developed for The Atlantic Philanthropies and the S. D. Bechtel, Jr. Foundation, *Purpose Built* is a multi-faceted resource series created by MASS Design Group. The series includes toolkits and resources and is the result of a multi-faceted, multi-year research study that found the best results occur when a project is built with purpose, balancing mission, design, and feasibility.

Since its completion, *Purpose Built* has become a resource that serves as a guide to help funders, nonprofits, and mission-focused developers looking to invest in and/or evaluate capital infrastructure to find the right balance between a project's mission, design, and feasibility.

Planning for Indigenous Impact

The best projects are ones that have a clear and intentional mission — one that celebrates our community values and is grounded by the principals taught by ancestors — to inform design decisions with a scope that matches what we can feasibly afford to build, operate, and maintain.

Planning for Indigenous Impact is a prospective tool that serves as a guide for those starting capital projects in Indigenous communities. Project teams will be able to align their process and discussions with potential funders and partners to attract investments and evaluate their projects with a focus on striking the right balance.

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 guides teams in the development of a project mission and ensures its alignment to goals, outcomes, and community engagement strategies. The *Planning* phase highlights considerations necessary to ground the project mission in reality and prepare you 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 you 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 *Planning for Indigenous Impact* aims to convey this reality by providing 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 project teams achieve new and sustainable levels of impact.

Resources

The *Purpose Built* series encompasses 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.**

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 Indigenous Impact is a practical, comprehensive tool for those initiating projects in Indigenous communities.

Introduction

How should this resource be used?

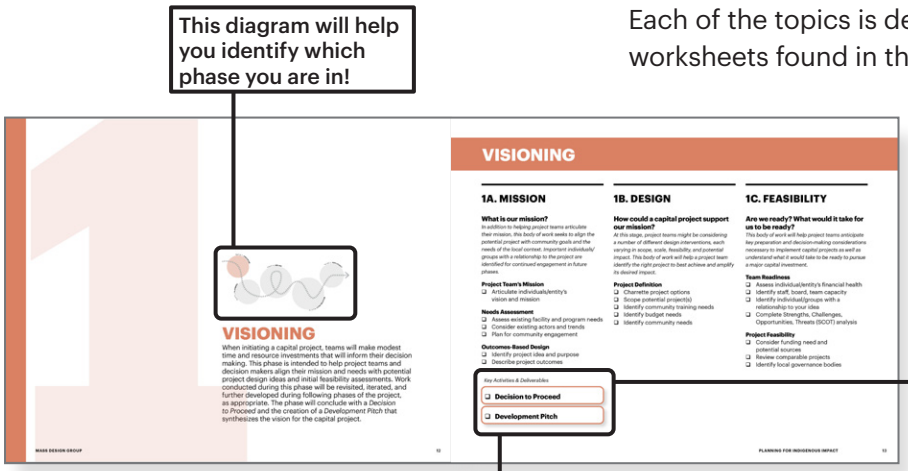
Planning for Indigenous Impact is intended to be used throughout the duration of a capital project. Prior to beginning a capital project, read through the tool in its entirety. Familiarize yourself with the whole process, as steps are cumulative and may develop or change from one phase to the next. To optimize the digital viewing experience, it is suggested this PDF be viewed as *spreads* in your selected PDF reader.

How is this resource organized?

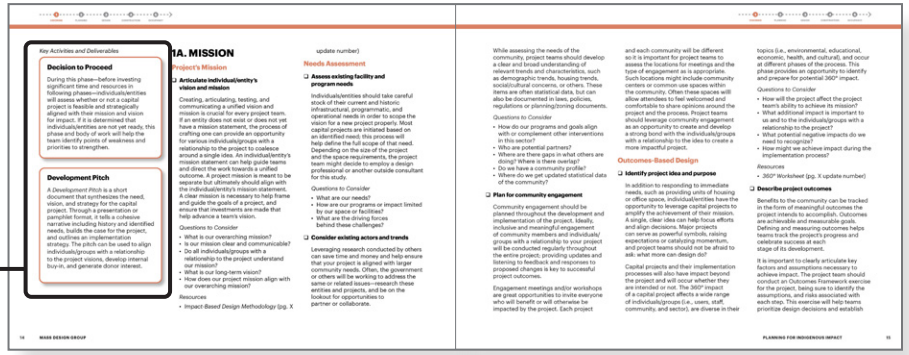
Planning for Indigenous Impact is organized by five major phases: *1. Visioning, 2. Planning, 3. Design, 4. Construction,* and *5. Occupancy*. Each phase is defined by three key topics and their respective bodies of work.

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

Each of the topics is described in detail and some of the sections will have associated worksheets found in the Appendix to help guide the process.



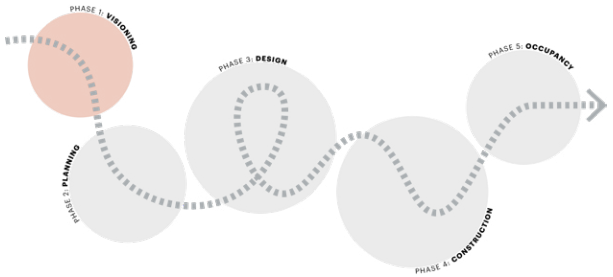
Phase landing spread



Phase section beginning

This Page Intentionally Left Blank

Contents



VISIONING

When initiating a capital project, teams will make modest time and resource investments that will inform their decision making. This phase is intended to help project teams and decision-makers align their mission and needs with potential project design ideas and 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.

VISIONING

1A. MISSION

What is our mission?

In addition to helping project teams articulate their mission, this body of work seeks to align the potential project with community goals and the needs of the local context. Individuals and groups with a relationship to the project are identified for continued engagement in future phases.

Project Team's Mission

- ❑ Articulate vision and mission

Needs Assessment

- ❑ Assess existing facility and program needs
- ❑ Consider existing partners and initiatives
- ❑ Identify community needs
- ❑ Identify community training needs

Community Relationships

- ❑ Identify individuals and groups with a relationship to your idea
- ❑ Identify local governing bodies
- ❑ Plan for community engagement

Outcomes-Based Design

- ❑ Identify project idea and purpose
- ❑ Describe project outcomes

1B. DESIGN

How could a capital project support our mission?

At this stage, project teams may be considering a number of different design interventions related to scope, scale, feasibility, and potential impact. This body of work will help a project team identify the right project to best achieve and amplify its desired impact.

Project Definition

- ❑ Design workshop for project options
- ❑ Establish project scope

1C. FEASIBILITY

Are we ready? What would it take for us to be ready?

This body of work will help project teams 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.

Team Readiness

- ❑ Assess financial health
- ❑ Identify team capacity

Project Feasibility

- ❑ Consider funding needs
- ❑ Consider potential funding sources
- ❑ Seek guidance from outside project teams

Key Activities & Deliverables

- ❑ **Decision to Proceed**
- ❑ **Development Pitch**

Key Activities and Deliverables

Decision to Proceed

During this phase—before investing time and resources in following phases—you will assess whether a capital project is feasible and strategically aligned with your team's mission and vision for impact. If it is determined that you are not yet ready, this phase and body of work will help your team identify points of weakness and priorities to strengthen.

Development Pitch

A *Development Pitch* is a short document that synthesizes the need, vision, and strategy for the capital project. Through a presentation or pamphlet format, it tells a cohesive narrative including history and identified needs, builds the case for the project, and outlines an implementation strategy. The pitch can be used to align the individuals and groups with a relationship to the project vision, develop internal alignment, and generate donor interest.

1A. MISSION

Project's Mission

❑ **Articulate vision and mission**

Creating, articulating, testing, and communicating a unified vision and mission is crucial for every project team. If you do not yet have a mission statement, the process of crafting one can provide an opportunity for the individuals and groups with a relationship to your idea to align around a project and a single foundational mission. A project mission statement can help guide and direct the work towards a unified outcome. It is necessary to have a clear mission to help frame the goals of a project, and ensure that investments are made that help advance a team's vision.

Questions to Consider

- What is our overarching mission?
- Is our mission clear and communicable?
- Do all the individuals and groups with a relationship to the project understand our mission?
- What is our long-term vision?

Resources

- *Impact-Based Design Methodology* (pg. 58)

Needs Assessment

❑ **Assess existing facility and program needs**

Project teams 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 project and the space requirements, the project team might decide to employ a design professional or another outside consultant for this assessment study.

Questions to Consider

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

❑ **Consider existing partners and initiatives**

Leveraging research conducted by others can save time and money and help ensure that the project is aligned with larger community needs. Often, the government or others will be working to address the same or related issues—research these potential partners and ongoing initiatives, 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 efforts?
- Who are potential partners?
- Where are there gaps in what others are doing? Where is there overlap?

❑ Identify community needs

Before significant work is completed on the project, data collected will provide key baseline information about the community and the needs of the individuals and groups with a relationship to the project.

Engaging and working alongside Indigenous communities requires deep understanding and sensitivity. Every Indigenous community has its own unique history, culture, language, traditions, and context. Becoming aware of how each of these elements intertwine with the community you will be working with is instrumental in building respectful and trusting relationships. Distinct value systems will emerge as you engage with communities; these need to be understood and respected. Project teams should engage with elders frequently, as they will be instrumental in delivering advice, counsel, and guidance.

While assessing the cultural needs of the community, project teams should also develop a clear and broad understanding of relevant trends and characteristics, such as demographic trends, housing trends, social and cultural concerns, or other topics of interest. Many of these data are compiled by government or regulatory agencies as statistical data made available to the public, but can also be documented in laws, policies, regulations or planning and zoning documents. Collecting baseline data could help teams better understand and articulate the nature of the project's needs addressed. It could also help track the project's progress and celebrate success at each stage of project development.

Questions to Consider

- How is our project's purpose aligning with specific needs of the community?
- What are needs that our project might address that we haven't considered?
- Do we have a community profile?
- Where do we get updated statistical data of the community?
- How are we developing our understanding of the community?
- Do we have a heightened understanding of the community to begin working alongside each other?
- How can we develop our cultural competence?
- How is the community structured?
- Who do we need to reach out to first?

Resources

- Canadian Wind Energy Association. *Best Practices for Indigenous and Public Engagement*. 2017. https://canwea.ca/wp-content/uploads/2017/11/canwea-bestpractices-engagement-web.pdf
- Canadian Construction Association. *Indigenous Engagement Guide*. 2016. https://www.cca-acc.com/wp-content/uploads/2016/03/IndigenousEngagementGuide.pdf
- Province of British Columbia. *Building Relationships with First Nations: Respecting Rights and Doing Good Business*. 2014. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/building_relationships_with_first_nations__english.pdf
- Province of British Columbia. *Updated Procedures For Meeting Legal Obligations When Consulting First Nations*. 2010. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/legal_obligations_when_consulting_with_first_nations.pdf

❑ Identify community training needs

A capital project can lead to incredible opportunities for economic development by leveraging community engagement to consider ideas such as capacity building, community training and the development of skills as they relate to the project. Project teams can brainstorm options for learning opportunities for community members that can support long-term sustainability for the project. A first step is to identify current skills, expertise, and abilities and assess the gaps in capacity.

Questions to Consider

- How might we outline opportunities for community training for our project?
- What are some reference projects

we can look for community training precedents?
- Do we know the community's current skill set and expertise? What are some gaps in capacity our project can build upon?
- Does the community have a mentorship program or other form of educational opportunity?
- If so, how can we partner with the leaders of these efforts to address their capacity building needs?

Resources

- Province of British Columbia. *Building Relationships with First Nations: Respecting Rights and Doing Good Business*. 2014. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/building_relationships_with_first_nations__english.pdf

Community Relationships

❑ Identify the individuals and groups with a relationship to your project

When considering the individuals and groups with a relationship to your project, think about all aspects that could inform who to include in this list. The *360° Worksheet* is a useful tool for teams to think about those groups that may not have been considered yet, such as youth, elders, or others. A first step in reaching out to Indigenous communities is to consider who are the key decision-makers, representatives, or other community members to consider that ought to be involved every step of the way.

The project will typically attract investment because of a pressing need, such as a lack of space or aging infrastructure. However, the input from various individuals and groups with a relationship to the project can identify less obvious and equally important needs and priorities. It is critical that the people with a relationship to your project are involved in its evolution throughout the project's phases. Examples of these can range from community residents, tenants, neighbors, or others.

Project teams should brainstorm the range of potential groups who are affected and will be impacted by a new project. It is important to identify and understand appropriate exercises and methods for engagement. Actual engagement practices will need to develop with your community as there is no set guide that will work for everyone. Project teams should start reaching out to groups early in the process, and if you do not know who to contact or how to best proceed, it's okay to ask. In addition to the resources provided here, check with available resources provided by local governing bodies, local Band offices, Indigenous partner organizations, or others.

Questions to Consider

- Who will be directly and indirectly impacted by our work?
- Who should we engage to get additional support for the project?
- Are there additional individuals or groups that could be included in this process?

Resources

- *360° Worksheet* (pg. 64)
- Ministry of Health Patients as Partners Initiative. *Patient, Family, Caregiver and Public Engagement Planning Guide*. 2018. https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/heath-care-partners/patients-as-partners/engagement-planning-guide.pdf

❑ Identify local governing bodies

A capital project will need the support and approval from many government bodies throughout each phase. It is just as instrumental to also attain the approval, support, and endorsement from the Chief and Council, elders, or other key local governing bodies in the community.

Throughout each phase, planning and check-ins with local governing bodies is critical to ensure that the community is providing full support to the project team. Ensuring there is agreement that the project has community support and will achieve desired outcomes.

Project teams should consider how engagements such as workshops or training are presented to the community leaders and elders. Often, key decision-makers in Indigenous communities hold multiple roles and will seek input from others before moving forward with a decision. Planning ahead to consider the decision-making process should

be prioritized by project teams in their engagement planning.

Questions to Consider

- Do we know who are the elected Chief and Council?
- What is the governance structure and decision-making process we need to understand?
- Are there agreements in place with the federal or provincial government that might be relevant to our project?

Resources

- Province of British Columbia. *Updated Procedures For Meeting Legal Obligations When Consulting First Nations*. 2010. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/legal_obligations_when_consulting_with_first_nations.pdf
- Province of British Columbia. *Guide to Involving Proponents When Consulting First Nations*. 2014. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/involving_proponents_guide_when_consulting_with_first_nations.pdf

❑ Plan for community engagement

A holistic engagement process is key to successful project outcomes and will allow project teams to understand whether impact metrics are being met during use and occupancy. Ideally, inclusive and meaningful engagement with individuals and groups with a relationship to your project and the broader community will be conducted regularly throughout the entire project. Providing updates and listening to feedback and responses to proposed changes is key to successful project outcomes.

Each project and each community will be different so it is important for project teams to assess the various elements that make up successful community engagements. One early step in the planning for community meetings and workshops is to come to an agreement with the Indigenous community leaders on the scope, frequency, type, locations and activities for engagement. Project teams should consider a number of items to discuss with key decision-makers. These might include: clarity on scope of the project and issues to be discussed, locations, schedule, frequency, structure of each engagement, sharing and report back, and others.

Attendees and participants of community engagements might include elected leaders (Chief and Council), hereditary leaders, elder or youth representatives, staff (e.g. land and resource or economic development officers), external advisors (e.g. legal counsel, subject matter experts, negotiators or general advisors), or members of the broader community. In the event that a community's leaders are not available to attend, project teams should consider alternate methods to share updates and progress with these leaders.

Locations for engagements will vary based on the nature of the activity and meeting, these might include community centers or common use spaces within the community. Often these spaces will allow attendees to feel welcomed and comfortable to share opinions around the project and the process. Project teams should leverage community engagement as an opportunity to create and develop a strong bonds within the community to create a more impactful project.

The type of community engagement can vary from a small meeting to large group workshops facilitated by the project team. As project teams learn and grow their understanding of the community, it is imperative to consider existing customs and protocols within the structure of the engagements. For example, it might be customary to provide a time for the community elder to give an opening and closing statement, share insights and a summary of the session, or consider sharing a meal and having a conversation before talking about your project. Making people feel comfortable with you is instrumental in community engagement.

Questions to Consider

- Have we communicated our community engagement plan with community elders and key representatives?
- Is our community engagement plan inclusive of the community's customs and protocols?
- Where can we conduct community engagement workshops? How can we plan to offer a meal with each workshop?

Resources

- Canadian Wind Energy Association. *Best Practices for Indigenous and Public Engagement*. 2017.
- Ministry of Health Patients as Partners Initiative. *Patient, Family, Caregiver and Public Engagement Planning Guide*. 2018.

Outcomes-Based Design

❑ Identify project idea and purpose

In addition to responding to immediate needs, such as providing units of housing or office space, project teams 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 project teams should not be afraid to ask: what more can design do?

Capital projects and their implementation processes will also have impact beyond the project, which will occur whether they are intended or not. The 360° impact of a capital project affects a wide range of groups (i.e., users, staff, community, and sector), is diverse in topic focus (i.e., environmental, educational, economic, health, and cultural), and occurs 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 project team's ability to achieve its mission?
- What additional impact is important to us and to the individuals/groups with a relationship to the project?
- What potential negative impacts do we need to recognize?
- How might we achieve impact during the implementation process?

Resources

- *360° Worksheet* (pg. 64)

❑ Describe project outcomes

A capital project's benefits to the community can be tracked through outcomes and impact metrics. Outcomes are achievable and measurable goals and impact metrics help in evaluating those outcomes. Defining and measuring outcomes helps project teams track progress and celebrate success at each stage of its development.

It is important to articulate the key factors and assumptions necessary to achieve impact. The project team should conduct the *Outcomes Framework Worksheet,* being sure to identify the assumptions and risks associated with each step. This exercise will help teams prioritize design decisions and establish criteria for evaluation. Building on this work, project teams should conduct the *Impact Metrics Worksheet* to identify metrics that will help track progress toward achieving their goals and plan for evaluation efforts.

These metrics and indicators 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 will need to happen for the project to be a success?
- Which steps are within our control, and which are not?
- What categories of impact will tell us if we have achieved our goals?
- What indicators or metrics best represent our desired impact? Our project mission?

Resources

- *Outcomes Framework Worksheet* (pg. 69)
- *Impact Metrics Worksheet* (pg. 70)

1B. DESIGN

Project Definition

❑ Design workshop for project options

Once project teams have a working mission statement, it is time to think about defining its scope, potential, and options. Project teams should consider and compare potential project ideas, and understand how each might support the mission. This is an opportunity to consider many options (for example, ranging from housing renovation to developing an entirely new housing development) and to discuss which option aligns best with the

project team'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

- Is the project clearly defined?
- How will the project support our mission?
- Do we need a capital project?
- What alternatives are worth considering?

Resources

- *Impact-Based Design Methodology* (pg. 58)

❑ **Establish project scope**

In addition to identifying what types of projects are possible, project teams should begin to think about what type and size of project is appropriate. Considering current space usage and deficits, teams should think beyond their immediate needs to plan for the future. Ultimately, project teams will identify rough gross square footages that can be used in preliminary cost estimates to test feasibility (see *1C. Feasibility: Create preliminary cost estimates*).

Questions to Consider

- What size project should we build?
- Should we build everything at once, or should we build in phases?

1C. FEASIBILITY

Team Readiness

❑ **Assess financial health**

Capital projects require project teams to make major investments in time, staff, and finances. Before the decision can be made whether to invest in a project, team members should feel financially healthy to proceed with the project. While financial staff or a consulting financial management firm will be able to help project teams evaluate financial health more rigorously, a back of the envelope calculation using standard metrics will help provide a quick assessment. If analysis suggests poor financial health, it does not necessarily mean that it cannot invest in a project—it merely raises a flag that additional focus and financial preparation should be prioritized before moving forward.

Questions to Consider

- How have we learned from previous projects/project experiences?
- If there are any places of concern, is there a reasonable explanation?
- How can we guard against economic risks?

❑ **Identify team capacity**

Project teams should develop an understanding of the roles necessary to complete a capital project and identify which of these can be filled immediately and which might need to be filled at a later time. 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 project team.

Questions to Consider

- What expertise does our current project team have?
- Do we have any staff, board members, advisors, or community members who might have enough time and resources to take on additional responsibility or join our team?
- Where are there gaps? Which roles can we fill externally?

Resources

- *Project Team Worksheet* (pg. 72)

Project Feasibility

❑ **Consider funding needs**

Project teams 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 of site work, land permits, costs per square foot, per bed, per office, or others 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.

Questions to Consider

- Are our estimates feasible with our current funding sources?
- What consultants can we contact?

Resources

- *Capital Project Budgeting* (pg. 75)

❑ Consider potential funding sources

A variety of sources are available to fund projects, such as earned income, capital campaigns, loans, bonds, and tax credits. While future phases will include additional iterations on a financial feasibility study, in this phase, project teams should begin brainstorming potential sources and the cost and effort required to generate funds.

Identifying potential funding options will also require teams to explore back-up options, to ensure that the project has a back-up plan that is feasible if anticipated funding does not materialize. Delays in construction activities must also be taken into consideration as such delays will impact project costs.

Questions to Consider

- Would our current donors be interested in supporting a capital campaign?
- Are there major funding sources that our team or project can leverage (i.e., Historic Tax Credits)?
- Do we have the resources to fundraise?

Resources

- Walker, Julia. *Nonprofit Essentials: The Capital Campaign*. Hoboken, NJ: John Wiley & Sons. 2005.
- KCI Philanthropy. *Fundraising Campaigns in Canada. What's New? What's Not? What's Next. 2018 Campaign Trends Report*. 2018. https://kciphilanthropy.com/wp-content/uploads/2018/11/KCI-Campaign-Trends-Report.pdf

❑ Seek guidance from outside project teams

Each project will confront challenges and opportunities similar to those that others have faced in the past. Researching these analogous projects by reaching out to contacts is a great way to learn from past experiences and build capacity of your own team.

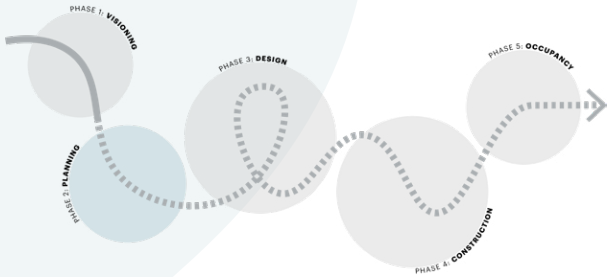
Questions to Consider

- Are there entities 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?
- What worked well? What did not?
- Do you have any major lessons learned that you could pass on?

This Page Intentionally Left Blank



PLANNING

When the decision has been made to pursue a capital project, initial visioning ideas need to be developed and refined to increasingly detailed levels of resolution. During this phase, project teams will conduct a variety of engagements with individuals and groups with a relationship to the project, feasibility check-ins, and design planning activities to prepare to undertake a capital project. The goal of this phase is to enable the project team and leadership to make informed decisions, garner support for the project, and provide a foundation for impactful design.

PLANNING

2A. MISSION

Do we understand our needs?

This body of work will guide project teams in conducting primary research that will further refine priorities and needs in order to ensure all the individuals and groups with a relationship to the project are thoughtfully incorporated into design decisions and project processes.

Needs Assessment
- ❑ Conduct baseline assessment
- ❑ Plan community training opportunities

Community Relationships
- ❑ Confirm local governing bodies' support
- ❑ Conduct community engagement

Outcomes-Based Design Revision
- ❑ Articulate project mission and goals
- ❑ Articulate project outcomes

2B. DESIGN

How can the design have impact?

This body of work will build upon the previous phase and assist project teams 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
- ❑ Identify design opportunities

Site
- ❑ Define site characteristics and options
- ❑ Conduct site feasibility studies
- ❑ Conduct site analysis

Project Development
- ❑ Prepare a construction cost estimate

2C. FEASIBILITY

How do we do it?

This body of work will assist project teams and their consultants in iterating and developing a feasible implementation and operations plan for the proposed project.

Team Readiness
- ❑ Plan for change management
- ❑ Forecast financial health
- ❑ Build the project team
- ❑ Define team roles and responsibilities

Project Preparation
- ❑ Identify capital funding source
- ❑ Prepare a project schedule
- ❑ Select project delivery method
- ❑ Prepare project logistics
- ❑ Prepare project budget
- ❑ Assess internal and external factors

Key Activities & Deliverables

- ❑ **Design Brief**
- ❑ **Development Package**
- ❑ **Implementation Plan**

Key Activities and Deliverables

Design Brief

The *Design Brief* consolidates information about project goals and serves as a critical resource for the design team. It should summarize the needs identified through the literature review and engagement process with the individuals and groups with a relationship to the project and define a desired framework of impact. Specific space requirements, adjacencies, and square footages should be noted in detail. Including precedents can help communicate design strategies that may be applicable to the project.

Development Package

A *Development Package* articulates the need and vision for a capital project in order to generate support from potential funders. It should synthesize information from the *Design Brief* and *Implementation Plan*, articulating why a building is important, why the project team is poised to undertake the project, what potential impact the project could have, and what remaining steps are necessary. The package may take the form of a presentation or pamphlet and may include visualizations or renderings of the potential project.

Implementation Plan

An *Implementation Plan* lays out key decisions necessary to complete a major capital project. Synthesizing the activities completed during this phase, the document will align the project with the long-term strategy and development planning. It should consist of a description of the project team (in-house, external, and the decision-making structure for the project), a fundraising plan, an assessment of financial readiness, a strategy for growth, a strategy for evaluation, and logistical strategies for achieving impact during the *3. Design, 4. Construction,* and *5. Occupancy* phases of the project. The project team can expect to make changes to these strategies as the project evolves.

2A. MISSION

Needs Assessment

❑ **Conduct baseline assessment**

Impacts and metrics 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 project teams with key information about their work and the population they serve. Collecting baseline data serves two purposes. First, it helps project teams 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 performance metrics.

Questions to Consider

- What metrics of change are important to us? To our funders?
- What metrics are feasible to collect?
- What can we learn by collecting data now?
- How will we plan for continued data collection?

❑ **Plan community training opportunities**

During this phase, community training opportunities previously identified will be further defined and planned. As the project

develops clarity around typology and size, community engagements should include a session where project teams assess capacity, skills, and ongoing efforts in education in the community. The training opportunities will vary and might not be applicable to every community, project teams should consider a range of training methods that can be made available or developed collaboratively with community groups.

Question to Consider

- How can we develop training resources for the community?
- Who can we partner with to conduct training sessions?
- What are other opportunities for communities to participate in capacity building?

Resources

- Wilson, Susan V. J. *Circle of Engagement Model: A Cultural Guidebook to Help Build Trust and Collaborations Between Health Planners, Health Trainers, Health Service Providers, Educators and First Nations*. 2014. Perinatal Services. Vancouver, BC. https://www.fnha.ca/Documents/Circle-Of-Engagement-Model.pdf

Community Relationships

❑ Confirm local governing bodies' support

In this phase, all local governing bodies identified by project teams should have been informed of the capital project.

Project teams should consider establishing ways to periodically update key decision-makers and representatives on the progress of the project and inform any upcoming milestones.

Questions to Consider

- Has our engagement with local governing bodies been transparent?
- What key information do we need to prepare for approval?
- Have we asked for feedback of our engagement process?

Resources

- Wilson, Susan V. J. *Circle of Engagement Model: A Cultural Guidebook to Help Build Trust and Collaborations Between Health Planners, Health Trainers, Health Service Providers, Educators and First Nations*. 2014. Perinatal Services. Vancouver, BC. https://www.fnha.ca/Documents/Circle-Of-Engagement-Model.pdf

❑ Conduct community engagement

Building from the Community Engagement plan developed during the *1. Visioning* phase, in *2. Planning*, project teams will be implementing this plan and engaging directly with community members about the project intent and include them in the generation of the project goals and outcomes. Teams should be mindful and responsive to community feedback as to the types, times, and methods of engagement and adapt the plan as necessary.

During this phase, project teams should have more clarity on the community engagement plan i.e. types of engagement meetings, location options, schedule and structure options. The community engagement plan should be shared with community leaders and key decision-makers early in the process.

Project teams should consider various forms of engagement with the individuals and groups with a relationship to the project. Choosing the most appropriate format will vary among groups and by community. Examples of engagement methods can include workshops, formal meetings, presentations, etc. Always consider the participants when having these engagements i.e. in some settings it would be appropriate to have a formal presentation while in others consider sharing a meal as part of the session.

As various aspects of the project are further defined, such as program and design aspects, teams should consider when each specialty group should be brought on to the appropriate project phase. For example, those involved in building maintenance or operations would be an important group to engage early on to understand their particular needs.

Question to Consider

- How can we be more inclusive with our community engagement strategies?
- How can we capture feedback from the community about our engagement methods?

- How can our engagement plan improve?
- Are we sharing our project progress in a timely manner with the community?
- Are community leaders and key decision-makers being updated about the project's progress?
- Have we articulated the right needs?
- Are we bringing an objective eye to the perceived needs?
- Have we identified the needs of the community? How will they be affected by the project?
- Who is the end user and what other resources will they need to make this project successful?

Resources

- Wilson, Susan V. J. *Circle of Engagement Model: A Cultural Guidebook to Help Build Trust and Collaborations Between Health Planners, Health Trainers, Health Service Providers, Educators and First Nations*. 2014. Perinatal Services. Vancouver, BC. https://www.fnha.ca/Documents/Circle-Of-Engagement-Model.pdf
- Ministry of Health Patients as Partners Initiative. *Patient, Family, Caregiver and Public Engagement Planning Guide*. 2018.

Outcomes-Based Design

❑ Articulate project mission and goals

Project teams should reconsider and refine their project mission, the intended impact, and the methods that they will use to achieve those results. Because of the data and information gathered from the community and other groups as well as the information from the baseline assessment, initial projections and ideation may need significant refinement. Teams should use the *Impact-Design Methodology (IDM)* framework as a way to articulate this for their project. This documentation will guide future check-ins during the remainder of the project process.

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

- *Impact-Based Design Methodology* (pg. 58)

❑ Articulate project outcomes

Project teams should also reconsider and refine their Outcomes Framework and Impact Metrics Worksheet as additional inputs and insights are gained from community members and individuals with a relationship to the project and baseline assessment. As the team approaches and begins *3. Design* phase, it is critical to articulate how decisions will lead to outcomes and impact and be able to evaluate if 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.

Question 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?
- 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?

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.

❑ Define the program

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. Integrating specific design and programming elements that address the project's needs expressed by the community and groups with a relationship to the project will help set a clear direction

for the project and ensure it is meeting the intended purpose and outcomes.

The building program will be informed by technical requirements as well as input from individuals and groups with a relationship to the project. 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.

Along with the building program, project teams should also consider exterior program elements, these might include pavilions, community gardens, or others. Integrating exterior program elements that respond to specific community or cultural context with the interior programming will help align the project's purpose and outcomes.

This exercise will also help the project team plan for procurement needs, such as acquiring furniture, equipment, and art that may fall outside of the scope of work for the design team. Project teams will find it helpful to define and verify program decisions with relevant individuals and groups with a relationship to the project.

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?
- Are we considering exterior programming?
- Are we considering culturally sensitive spaces externally as well as internally?

Resources

- Pena, William M. & Parshall, Steven A. *Problem Seeking: An Architectural Programming Primer*. 5th ed. Hoboken, NJ: Wiley. 2012.
- RAIC. *Canadian Handbook of Practice*. 2nd Edition. 2009.

❑ Conduct precedent research

Before the design phase, it is useful to research and consider a variety of comparable projects or precedents that can help teams tap into a wealth of knowledge about what has worked or not worked in the past for communities facing similar project needs. Researching precedents can help project teams think about what they want and don't want, provide inspiration for new ideas, and facilitate the communication of design ideas across the project team. Additionally, precedents offer the project team an opportunity to tap into a wealth of knowledge about challenges and opportunities across similar projects.

Questions to Consider

- Which existing projects can we learn from?
- In comparable precedents, what works well and what does not?

❑ Define design characteristics

In addition to defining programmatic requirements, project teams should define the qualities and characteristics of the spaces in and around the building. These qualities will be communicated to the design professional 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 design characteristics set forth within the program 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.
- RAIC. Four Case Studies Exemplifying Best Practices in Architectural Co-design and Building with First Nations. 2017. https://raic.org/raic/four-case-studies-exemplifying-best-practices-architectural-co-design-and-building-first

❑ Identify design opportunities

Design opportunities can be leveraged to connect a project's mission and impact. *Design Opportunities* are part of a workshop developed by MASS Design Group for the 2017 Affordable Housing Design Leadership Institute hosted by Enterprise Community Partners. While there can be many design opportunities, we've identified the following: site, massing, landscape, program, circulation, units, systems, materials, and culture. Project teams should evaluate design opportunities that may be unique to the project and add as needed to the *Design Opportunities Worksheet*.

Explaining and discussing these opportunities in detail not only highlights the value of design to work toward project goals, but also helps teams with the nuanced understanding and vocabulary necessary to argue for high quality design in their project. Being able to understand and articulate the value of design enables teams to share and persuade individuals and groups with a relationship to the project of its value.

Questions to Consider

- How do we make design decisions to achieve and amplify the mission of our project?
- How does our project reflect generations, past, present and future?
- What design opportunities are important to our community?

Resources

- *Design Opportunities Worksheet* (pg. 66)

Site

❑ Define site characteristics and options

Prior to selecting their site, project teams should determine the most important and desirable site characteristics. Site characteristics ought to align with, or amplify, the project purpose and outcomes. Site elements that should be considered include both built and natural features of the site.

Listening to individuals and groups with a relationship to the project will help identify key site selection operational considerations, such as desirable or undesirable adjacencies (i.e. public transportation, community services, hospitals, schools, or others), site programming (i.e. direct access to outdoors, development of gathering spaces, healing or community gardens, etc), and special considerations for the natural features of the site (i.e. proximity to water bodies, wooded areas, topographical changes, etc).

Questions to Consider

- What site characteristics will align with or amplify our project mission and goals?
- What adjacencies are desirable or undesirable?
- What exterior programming spaces are key elements that will support our mission?
- 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 *Exploratorium*, *The Simpson Center for Girls*, and *Northern Ireland Council for Voluntary Action* case studies for examples of how site selection factored into the decision to build new capital projects.
- Brown, G Z, and Mark DeKay. *Sun, Wind & Light: Architectural Design Strategies*. New York: Wiley, 2001.

❑ Conduct site feasibility studies

Once potential sites have been identified, project teams 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 the site provide for future expansion?

❑ 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. Project teams should align these opportunities with the design intent and include these goals in the *Design Brief*.

Question to Consider

- What site conditions will affect the design?
- What are the unique opportunities and limitations of the site(s)?

Project Development

❑ **Prepare a construction cost estimate**

A construction cost estimate will guide teams in forecasting the expense of the project in terms of its physical structure. The complete construction cost budget will be developed during the *3. Design Phase* with help from the design team. In this phase, through the development of the *Design Brief*, project teams should have a better understanding of the type, size, and quality of the project which can be used to determine the total square footage and scope of work. Using the cost per square meter of comparable projects, teams can begin to estimate the cost of construction.

At this phase it is best to not think of the estimate as a single, fixed target but as a range of potential costs from lower estimates to higher. Additionally, teams should not forget that construction costs only consider the "hard" costs of the project and teams need to build out a full project budget as well.

Questions to Consider

- Do we have a clarity on the type, size, and quality of our project?
- What additional information do we need to estimate square footage and scope of work?
- How will we assess which range of potential costs is most aligned with our financial goals?

Resources

- *Capital Project Budgeting* (pg. 75)

2C. FEASIBILITY

Team Readiness

❑ **Plan for change management**

No matter how big or small, new capital projects will affect an entity's cultural health for the duration of project implementation. Project teams 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 groups with a relationship to the project may be uncertain and resistant. It is important that, should the capital project be a new space for an existing entity, project teams prepare to match the change in facilities with a strategy for managing the change in practices, 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 decision-makers early in the process, project teams 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 end users as they occupy the new space.

Questions to Consider

- What parts of our organizational process do we want to keep and what do we want to leave behind?
- How can we instill a sense of ownership among our individuals/groups with a relationship to the project?
- How will we change as a result of this capital project?
- What systems, processes, or strategies will we need to change?

❑ **Forecast financial health**

Major capital investments have financial implications 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 process.

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?

❑ Build the project team

The project team is the group of people who will be working on developing the project into a 'ready-for-implementation' final proposal. The individuals who make up the project team will vary depending on the size, scope, and complexity of each project.

Project teams should be built based on assessments of in-house time and expertise. Any external hires, such as design team members, should be brought on board at this time. Consider aligning with key groups with a relationship to the project that could become important partnership(s) as the project develops. Capital projects will often have an expanded network of individuals that will inform the project development at different stages (see *Capital Project Team Ecosystem*). The *Project Team Worksheet* is a great starting place for teams to define team roles and responsibilities.

Resources

- *Capital Project Team Ecosystem (pg. 71)*
- *Project Team Worksheet (pg. 72)*
- American Institute of Architects. *You and Your Architect: A Guide for Successful Partnership*. Washington, DC: 2007. http://howdesignworks.aia.org/pdf/You_and_Your_Architect.pdf
- RAIC. *How to choose an architect*. https://raic.org/raic/how-choose-architect

❑ Define team roles and responsibilities

Once the project team has been identified, a terms of reference document should be developed to convey a clear understanding of the team's purpose and each team member's role and responsibilities. Teams should be sure to create a clear line of communication and a decision-making system that takes into account relationships with boards, advisors, and outside consultants. These relationships will vary depending on the project delivery method.

Questions to Consider

- What expertise does our team have now?
- Do we know who we need to reach out to for additional guidance?
- Who are the groups that are part of our project ecosystem?

Resources

- *Capital Project Team Ecosystem (pg. 71)*
- *Project Team Worksheet (pg. 72)*

Project Preparation

❑ Identify capital funding source

Before embarking on capital fundraising, project teams should get a sense of fundraising feasibility in order to set an appropriate target goal. 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 capital fundraising, project teams 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 fundraising efforts?
- 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 ommensurate with what we hope to do?

Resources

- *Capital Project Budgeting* (pg. 75)
- Nonprofit Finance Fund. *Nonprofit Finance 101*. 2015. www.nonprofitfinancefund.org/nonprofit-finance-101.
- Walker, Julia. *Nonprofit Essentials: The Capital Campaign*. Hoboken, NJ: John Wiley & Sons. 2005.
- Chartered Professional Accountants

Canada. *A Guide to Financial Statements of Not-For-Profit Organizations*. 2012. https://www.cpacanada.ca/~/media/site/business-and-accounting-resources/docs/a-guide-to-financial-statements-of-not-for-profit-organizations-questions-for-directors-to-ask-2012.pdf

❑ Prepare a project schedule

In this phase, project teams 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 operational 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, provincial/territorial/municipal and/or First Nation permits, seasonal restrictions, and transitioning considerations. Project teams should consult with design and construction professionals when completing this task. Project schedules are often created and organized using a Gantt chart, which lays out the schedule according to a predefined prioritized 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?
- Are our fundraising goals realistic?
- What are the 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

- Mubarak, Saleh A. *Construction Project Scheduling and Control*. 3rd ed. John Wiley & Sons. 2015.
- Thomson Reuters Practical Law. *Construction and projects in Canada: overview*. 2019. https://uk.practicallaw.thomsonreuters.com/9-502-1837?transitionType=Default&contextData=(sc.Default)&firstPage=true&bhcp=1

❑ 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 to seek guidance when selecting the appropriate project delivery method; the specifics of 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 for the project team.

Resources

- Commission for Architecture and the Built Environment. *Creating Excellent Buildings: A Guide for Clients*. London, UK: CABE. 2003.
- American Institute of Architects. *The Architect's Handbook of Professional Practice*. 15th ed. Edited by Linda C. Reeder. Hoboken, NJ: John Wiley & Sons. 2014.

❑ Prepare project logistics

Several administrative requirements need to be addressed 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 Passive House or Living Building Challenge™ will affect the project team and budget.

A design professional can help determine what limitations and administrative requirements may exist and will assist with the applications and approvals as necessary. Project teams should seek assistance from design professionals, financial advisors, legal counsel and others who have been in a similar process 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?

❑ Prepare a project budget

A preliminary project budget can reveal monetary gaps or areas of the project that need to be fulfilled and planned for. Project teams should engage design professionals to generate a total project cost estimate, which will be refined as the design is developed over the course of the project.

Questions to Consider

- Have we engaged a design professional to assist with the project cost estimate?
- What are the preliminary higher cost items on in our estimates?
- How can we better define our scope?

❑ Assess internal and external factors

Capital projects require major investments in time, staff, and finances. Before the decision can be made whether to invest in a project, each entity should assess its readiness to proceed. In addition to including a financial and staffing assessment, the entity 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.

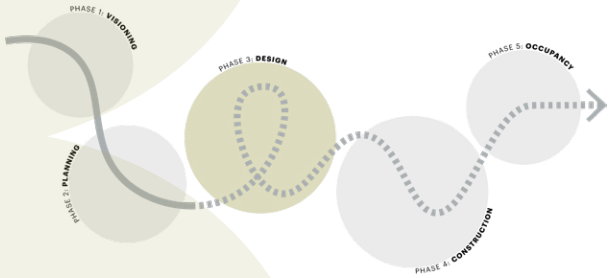
Questions to Consider

- How is our team ready to proceed? Do we need to have a bigger team?
- What are some gaps in our team's expertise? Who might we need to engage with to address this gap?

Resources

- *S.C.O.T. Analysis* (pg. 65)
- Community Tool Box. *SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats)*. Center for Community Health and Development at University of Kansas. https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/swot-analysis/main

This Page Intentionally Left Blank



DESIGN

Project teams will entrust major responsibilities to the design team to produce important aspects of the project during this phase. This includes confirming the project's form, function and fabrication are aligning with the project mission. Form considers a project's context and connection to the place and site. Function refers to how the building performs to meet its intended use and operation. Fabrication considers local techniques and materials for use in the project. Communities will be asked to refine decisions and check in on the progress through a series of design reviews. Additionally, project teams will continue to refine operation and financial preparations in support of the project.

DESIGN

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 its intended impacts. This body of work will assist project teams in refining the outcomes identified in previous phases as well as tracking impact metrics that occur during this phase.

Needs Assessment

- ❑ Check-in: community training opportunities

Community Relationships

- ❑ Check-in: local governing bodies' support
- ❑ Check-in: community engagement

Outcomes-Based Design

- ❑ Check-in: project mission and goals
- ❑ Check-in: project outcomes

Key Activities & Deliverables

- ❑ **Design Review Meetings**
- ❑ **Design Documentation**

3B. DESIGN

What is the design?

*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, project teams should be prepared to respond to design ideas and make design decisions that are aligned with the project objectives.*

Project Development

- ❑ Explore design options
- ❑ Develop the design of the capital project
  - SD: Schematic Design
  - DD: Design Development
  - CD: Construction Documentation
- ❑ Check-in: design opportunities
- ❑ Check-in: construction cost estimate

3C. FEASIBILITY

Is the design within our scope and budget?

Project teams should continue to re-evaluate the budget, schedule, operational assumptions, and implementation plans that have been made in previous phases. While project teams might be evaluating value engineering options in order to cut escalating costs, decisions should be made carefully balancing mission, design, and feasibility.

Team Readiness

- ❑ Check-in: change management
- ❑ Check-in: financial health
- ❑ Check-in: project team

Project Preparation

- ❑ Check-in: funding sources
- ❑ Check-in: project schedule
- ❑ Check-in: project logistics
- ❑ Check-in: project budget

Key Activities and Deliverables

Design Review Meetings

As responsibility for the design shifts to the design team during this phase, the key decision-makers as well as groups with a relationship to the project identified in the previous phases will meet regularly with the design team throughout the design process. Core project team members will likely meet more frequently than with other individuals and groups with a relationship to the project, such as community or board members, while other groups will identify a representative to be more involved in the week-to-week decisions. When agreeing upon this schedule, it is important to have 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 individuals/groups 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. The design team will develop a design documentation schedule defined by key milestones and deliverables to review at each phase of design. 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.

3A. MISSION

Needs Assessment

❑ **Check-in: community training opportunities**

During the design phase, decisions about the project design such as material options or assembly methods are chosen will have a direct impact on if and how training happens. For example, selecting a local wood or timber for the flooring is an opportunity to source regionally, but also employ locally, and train people in this skill. In this phase, conversations with fabricators and manufacturers about hiring and apprenticeship opportunities can expand this impact (see *1A. Mission: Identify community training needs*). It might be the case that specific skills or trades do not exist within the immediate community where the project will be, project teams are encouraged to look at other communities where these could be found and experienced local workers brought on to the project. Ensure this information is captured in the specifications written by the design professional as well as the bidding or contract documents.

Questions to Consider

- What building materials can be sourced locally?
- Are there opportunities to work with local artists, artisans, or craftspeople?

- Do these material and training opportunities match with the skill building goals of the community?
- Are there any cultural aspects that are specific to the community that we could emphasize in the project?
- Are there specific types of construction methods we could use for the project? Unique to the individual community?

Community Relationships

❑ **Check-in: local governing bodies'support**

In addition to securing approval from regulatory agencies, project teams should engage with local governing bodies, such as Chief and Council or others, through community meetings or other meetings for approvals, support, and endorsement. As design reviews begin to provide clarity to many elements of the capital project, project teams should be mindful of the decision-making process of the community elders, leaders, and key decision-makers. The design team will often provide design options at each step of the process of which community members will be asked to provide feedback. Project teams should consider how this feedback is collected and from whom. Project teams are also encouraged to ask for feedback on how the process is unfolding, what is going well and what can be improved upon.

Questions to Consider

- How are we collecting feedback from the local governing bodies?
- Do we understand the approval process?
- What information do we need to provide?

Resources

- Province of British Columbia. *Updated Procedures For Meeting Legal Obligations When Consulting First Nations*. 2010.

❑ **Check-in: community engagement**

During the design phase, project teams should continue engaging with community members through design reviews. The structure and content of the reviews will be stipulated by the design team and are meant to share design progress. These meetings will follow the design process with reviews occuring during Schematic Design through Design Development. Project teams should leverage community meetings held at the preferred locations discovered in *1. Visioning* such as community centers to continue the participatory design process.

Questions to Consider

- Has the design team shared the schedule for the design process?
- Have individuals and groups with a relationship to the project been notified of the design review schedule?
- What are special considerations to have for each design review? Should there be a meal provided, a projector screen, or other resource made available?

Resources

- Ministry of Health Patients as Partners Initiative. *Patient, Family, Caregiver and Public Engagement Planning Guide*. 2018.

Outcomes-Based Design

Outcomes-Based Design is an iterative process that helps project teams align design responses with relevant needs.

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

During the design process, project teams 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. Project teams should work with the design team to align with the cultural impact and relevant goals so the design process and options respond successfully.

Choosing a lead design professional that aligns with the project team's mission will be very important. There are various considerations project teams should have in mind when choosing a design team, these may include previous experience, capacity, references, availability, and others.

Questions to Consider

- Is there new information that changes the project's end goals?
- How can we mitigate or counteract potential negative impact?
- How does our project mission and goals with the design process?

Resources

- RAIC. *How to choose an architect*. https://raic.org/raic/how-choose-architect

❑ **Check-in: project outcomes and impact tracking**

Moving in to the design phase, teams will further develop and explore aspects of the project as they relate to their outcomes. Project teams should reconsider and iterate the outcomes framework as necessary as the design progresses.

Project teams 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 the individuals and groups with a relationship to the project.

Questions to Consider

- What activities during this phase might be leading to impact?
- How will we track and catalog these metrics?
- Are there any elements of our design that change our existing assumptions?
- Does our path to achieve our outcomes still make sense with what we know now?

Resources

- *Outcomes Framework Worksheet* (pg. 69)

3B. DESIGN

Project Development

❑ **Explore design options**

When developing a project idea, it is useful to explore various design options within the scope of the project budget. Being open to try more than one option or solution will allow the project team to evaluate multiple possible scenarios, further discussion, and often leads to new solutions that were not previously imagined. If necessary, ask your design team to see more options to get to the best result. Project teams should work with the design team when considering culturally relevant approaches to the design options and scenarios.

Question to Consider

- In what ways could this project be designed?
- How might different site approaches or program organization change the design?

❑ **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 project team should be expected to provide authorization and approval to progress to each following phase.

The selected lead design professional will guide the project design process and coordinate 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. The selected lead design professional will regularly check-in with the 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 contained in the *Design Brief* and impact metrics 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). The project's architect or selected lead 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 community buy-in regarding the final design?
- Does the design reflect how we want the space to feel?

Resources

- *Project Team Worksheet* (pg. 72)

❑ **Check-in: design opportunities**

In this phase, the identified *Design Opportunities* in the previous phase will inform the design team of the specific needs and desired outcomes that the project should aim for. For example, the project team has identified "Materials" as a design opportunity, sharing this intent with the lead design professional would change the materials they specify for the project. *Design Opportunities* will be further tested in this phase for their potential implementation and feasibility.

Question to Consider

- Are we communicating to the design team the *Design Opportunities* we see for this project?
- How might these *Design Opportunities* manifest in the design of the project?

Resources

- *Design Opportunities Worksheet* (pg. 66)

❑ **Check-in: construction cost estimate**

The design team will help project teams create an accurate construction cost estimate by creating drawings and documentation that can be estimated by construction professionals. 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). Costs at this phase are still estimates but are helpful to ensure a project is designed within the intended budget. Several decisions regarding "value engineering" are typically made at this time, in order to maximize value related to cost.

Questions to Consider

- Is the cost estimate within the range we had identified?
- If not, what are opportunities to reduce cost without compromising the mission of the project or where can we seek additional funding to support an increased amount?

Resources

- *Capital Project Budgeting* (pg. 75)

3C. FEASIBILITY

Team Readiness

❑ **Check-in: change management**

Decisions made during this phase will have direct impact on business practices 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, project teams should revisit their change management strategies to adapt their systems and processes as necessary.

The engagement process conducted in the *2. Planning* phase will help build community ownership of the project. Additionally, continued communication throughout the *3. Design* phase is important to ensure a holistic inclusive process as decisions are made. One challenge is that communities, individuals, and groups with a relationship to the project 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. These might include the creation of scale models, renderings, or mock-ups shared through presentations or walkthroughs can help ensure that the design is understood before it is approved.

Questions to Consider

- How will we effectively communicate design decisions to the individuals and groups with a relationship to the project?
- How will the design change the way users work?
- What systems or processes need to be developed to match this change?

❑ **Check-in: financial health**

As the design develops, project teams should continually balance their 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?

❑ **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, lines of communication, and decision-making process to ensure that team members are operating efficiently and effectively.

Project Preparation

❑ **Check-in: funding sources**

Depending on the time frame for the capital campaign, project teams frequently continue fundraising through the phases of *3. Design, 4. Construction,* and into *5. Occupancy*. Project teams in partnership with financial consultants might set target amounts at which point they will start construction, even before the full amount is raised. It is important to determine what options will be applicable in your project. 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?
- Are there any funding sources we can leverage at this stage based on our current developed design?

Resources

- *Capital Project Budgeting* (pg. 75)

❑ **Check-in: project schedule**

As the design is refined, revisit the schedule frequently to track progress to ensure an on-time completion, making adjustments as necessary. Teams should also ensure that the required documentation is procured.

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: 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, project teams can rely on a design or development professional to assist with necessary logistics, including reviews by regulatory agencies in your city and municipality, such as the fire department, health and safety department, or other required individual community input such as Chief and Council. Project teams should seek assistance from design professionals, financial advisors, legal counsel, and others who have been in a similar process as necessary.

Questions to Consider

- What approvals are required for the project to continue?
- How will necessary approvals affect our design or schedule?

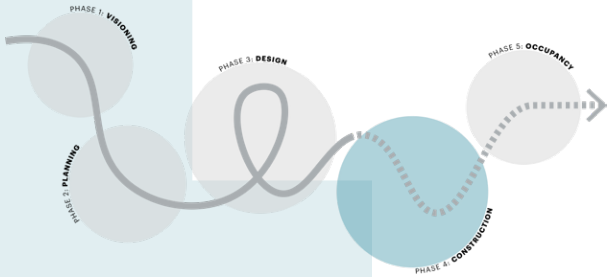
❑ **Check-in: project budget**

As the design progresses, the project budget will achieve higher levels of refinement. Project teams should pay

particular attention for decisions that will have long-term implications, both on the cost and the 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?
- Which design decisions will have long-term impact implications? (Think about decisions that affect operations costs—such as HVAC equipment, material quality, maintenance, etc.—as well as decisions that affect internal operations or external relationships with the surrounding community.)



CONSTRUCTION

Within this phase, the capital project will both commence and complete construction. Project teams should know that many unforeseen issues can arise during construction that may require a re-evaluation of the project budget, schedule, and scope. Project teams should expect to continue communications with the design and construction teams at regular intervals to ensure implementation of the design aligns with the intended project objectives.

CONSTRUCTION

4A. MISSION

What impact does the construction process have?

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

Community Relationships

- ❑ Check-in: local governing bodies' support
- ❑ Check-in: community engagement

Outcomes-Based Design

- ❑ Check-in: project mission and goals
- ❑ Check-in: project outcomes

4B. DESIGN

How do we ensure impact through the building process?

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

Project Implementation

- ❑ Construct the capital project
- ❑ Catalog record drawings
- ❑ Check-in: construction cost estimate

4C. FEASIBILITY

Is the project within our scope and budget?

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

Team Readiness

- ❑ Check-in: change management
- ❑ Check-in: financial health
- ❑ Check-in: project team

Project Preparation

- ❑ Check-in: funding sources
- ❑ Check-in: project schedule
- ❑ Check-in: project logistics
- ❑ Check-in: project budget

Key Activities & Deliverables

- ❑ **Construction Ceremony**
- ❑ **Progress Review Meetings**
- ❑ **Project Completion**

Key Activities and Deliverables

Construction Ceremony

A *construction ceremony* is typically held on site 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 groups with a relationship to the project, and can be leveraged to generate support for ongoing fundraising efforts or excitement among the individuals and groups with a relationship to the project as well as community members.

Project Completion

At the completion of the *4. Construction* phase, the finished project will be ready to transition over to the entity responsible. The entity responsible should expect to work with the project, design, and construction teams to complete a variety of administrative tasks before occupancy and during the transition (see *4C. Feasibility: Project Preparation* and *5C. Feasibility: Project Preparation*).

Progress Review Meetings

Project teams should expect to meet with the design and construction teams periodically throughout the *4. Construction* phase. Some of these meetings might occur at the project site. 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 project teams should have a representative available to make decisions about these changes in a timely manner. Before construction begins, project teams should identify who will be the key representatives that will meet with the design and construction teams.

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?

4A. MISSION

Community Relationships

❑ **Check-in: local governing bodies' support**

Approvals and other forms of endorsement required by local governing bodies must be obtained for this phase. Project teams should continue to track what other approvals must be obtained upon construction completion and coordinate when these need to happen. As construction progresses, project teams should continue to share project updates with community leaders and are also encouraged to ask for feedback on how the process is unfolding, what is going well, and what can be improved upon.

Questions to Consider

- Have we obtained all necessary approvals from the federal and provincial governments?
- How are we sharing project updates back to community leaders and key decision-makers?

Resources

- Thomson Reuters Practical Law. *Construction and projects in Canada: overview*. 2019.

❑ **Check-in: community engagement**

In this phase, project teams will partake in select meetings with the construction team but not as frequent as in previous

phases. By extension, the community engagements during this phase might be limited to sharing the progress of the construction and important milestones achieved. Project teams should maintain periodic check-ins with community leaders and key representatives to ensure a holistic engagement process and to create a sense of ownership of the project.

Questions to Consider

- How are we sharing important milestones and progress with the community?
- Is there an opportunity to invite the community to the construction ceremony? How can we facilitate that?

Outcomes-Based Design

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

Teams should periodically refer to the project's mission and goals to ensure that the construction process is leveraged to achieve additional impact and to mitigate potentially negative impact. Project teams should work with the construction team to align the best cultural practices and relevant goals so the construction process responds successfully.

Questions to Consider

- Has the construction process uncovered a potentially negative impact?
- Are we adhering to best cultural practices in the construction process?

❑ **Check-in: project outcomes**

The construction and design teams will develop a construction schedule defined by key milestones and deliverables to review at each phase of construction. Project teams should consider many external factors that could impact a construction schedule such as material delivery times, environmental and climate factors, labor availability, or others. The construction team will work with the project team to coordinate and align with the anticipated end user move-in date. As opportunities for impact are further identified, the project team should reconsider and iterate the *Outcomes Framework*. As data becomes available, one method of tracking progress is starting a data collection process. This information may include the number of local workers trained, the funds invested in local businesses, or the amount of energy that construction processes require.

Questions to Consider

- Has anything changed that will affect our anticipated outcomes?
- Is our logic still sound based on what we know now?
- What metrics are important to our construction process?
- How will we collect this data?
- What can we learn by collecting this data?
- Does the construction schedule consider environmental factors or climate limitations?

Resources

- *Outcomes Framework Worksheet* (pg. 69)

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 construction progresses, the project 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?
- How are the community training goals being met?

❑ **Catalog record drawings**

It is common that the finished project may vary slightly from the construction documents. Record drawings document as-built conditions in the field. There

are several reasons to 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 be required in these drawings?

❑ **Check-in: construction cost budget**

As construction progresses, decisions may be made which will alter both upfront 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.

Questions to Consider

- What does our construction contract say regarding change orders?
- How can we communicate changes with all parties involved in the project?
- Does the budget or timeline need to be adjusted?

4C. FEASIBILITY

Team Readiness

❑ **Check-in: change management**

In this phase, project teams 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 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, key decision-makers, individuals, and groups with a relationship to the project, 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 regarding the move and generate excitement about the new project.

Questions to Consider

- How will we effectively communicate the project process with the individuals and groups with a relationship to the project?
- 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?
- Are we overlooking any important cultural concerns?

❑ **Check-in: financial health**

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

Resources

- See *2C. Feasibility: Team Readiness* section for preceding steps regarding financial health.

❑ **Check-in: project team**

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

Questions to Consider

- Are all team members engaged in the project?
- How can we streamline communication or approvals?
- Who can we rely on for expertise during this phase?

Resources

- *Project Team Worksheet* (pg. 72)

Project Preparation

❑ **Check-in: funding sources**

Continuous work is needed to maintain financing streams and relationships with funders. Frequently, project teams will prepare regular progress updates to committed funders, which can also be used to leverage further support. Project teams should also consider major events such as the *construction ceremony* and *ribbon cutting* as opportunities to engage additional outside partners or potential funders.

Questions to Consider

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

❑ **Check-in: project schedule**

As construction progresses, the project 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 we need to address effects of a changing schedule?
- How might we need to adapt to a changing schedule?

❑ **Check-in: project logistics**

As the project progresses, project teams will be responsible for certain administrative tasks which may include applying for building services (gas, electric, water, etc.), approving change orders, obtaining insurance coverage against various types of losses during the construction project, or others. Project teams should seek assistance from design professionals, financial advisors, legal counsel, and others who have been in a similar process as necessary.

Questions to Consider

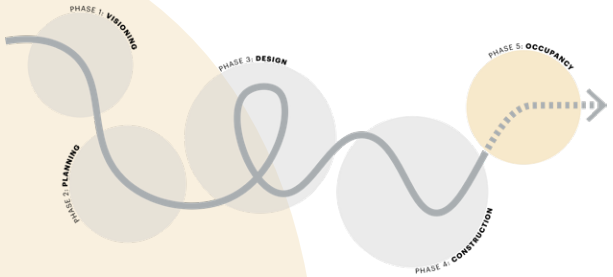
- For what tasks are we responsible?
- Do we need assistance in completing those tasks?

❑ **Check-in: project budget**

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 project team. The team should balance mission, operational, and financial factors when making decisions in order to plan accordingly for long-term impact.

Questions to Consider

- How are we keeping track of hard and soft costs?
- Is our funding or income matching our expenses?
- How will changes or budget over runs affect our operations in the future?



OCCUPANCY

Within this phase, the project team will finalize the user's transition into their new spaces and will begin to see the impacts of the completed project on its users and the surrounding community. This section will assist the project team and community in tracking outcomes as well as identifying potential adjustments to amplify positive impact.

OCCUPANCY

5A. MISSION

Is the project achieving its purpose?

Now that the construction of the project is complete, this body of work will help the project team conduct an assessment to understand the outcomes of the project and if it has achieved its intended impact. For further guidance, project teams should refer to the Purpose Built tool titled, Charting Capital Results.

Outcomes-Based Design

- ❑ Check-in: project mission and goals
- ❑ Check-in: project outcomes

Case Study Impact Report

- ❑ Conduct case study evaluation

5B. DESIGN

Do we need to adapt the design?

Typically, not everything in the building will function as planned. This body of work will assist project teams 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

5C. FEASIBILITY

How do we sustain, operate, and maintain the capital project?

This body of work will assist the project team 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

Team Readiness

- ❑ Check-in: change management
- ❑ Check-in: financial health
- ❑ Check-in: capital project team debrief

Project Preparation

- ❑ Check-in: funding sources
- ❑ Check-in: project logistics
- ❑ Check-in: project budget

Key Activities & Deliverables

- ❑ **Ribbon Cutting**
- ❑ **Operations Plan & Manual**
- ❑ **Case Study Impact Report**

Key Activities and Deliverables

Ribbon Cutting

Holding a *ribbon cutting* ceremony to open the project publicly is a great opportunity to celebrate the work and to communicate the value of the project to users, donors, and other individuals and groups with a relationship to the project. Other similar events may include a *topping out ceremony*, which can be held when a building's highest beam is installed.

Impact Report

After allowing time for different kinds of impact to manifest, the entity responsible for the facility should invest in a retrospective impact evaluation. See *Charting Capital Results* from the *Purpose Built* series for guidance on how to conduct a capital project impact assessment. The full series is available online at www.massdesigngroup.org/purposebuilt

Operations Plan and Manual

The project team, along with the design and construction team, will have the knowledge and understanding of 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 to adapt and become comfortable with a new space after a capital investment. As daily operations are transitioned from the project team to the entity responsible (see *5C. Feasibility: Manage the move to the new facility*), project teams 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?
- Are the end users happy with their new home/space? What would they like changed if they could?

❑ **Check-in: project outcomes**

As the end user moves into the space during the occupancy phase, project teams will further evaluate the outcomes previously established and measure their success.

As the entity responsible for the project settles into a new system and process of operations, the ways in which outcomes are achieved might also need to adapt. Project teams should use this opportunity to refer back to and update the *Outcomes Framework*.

Project teams should continue to track impact metrics after a capital project is complete. Consider which impact metrics have been identified in previous phases to inform what data should be collected by the project team, by the maintenance or operational staff, and others. Some projects may require this data collection due to reporting needs. The metrics can influence decision-making regarding operations or priorities, and can be used to inform impact or process evaluations.

Questions to Consider

- Did anticipated outcomes occur? Did anything unanticipated happen? Why or why not?

Resources

- *Outcomes Framework Worksheet* (pg. 65)
- *Impact Metrics Worksheet* (pg. 66)

Case Study Impact Report

❑ **Conduct case study evaluation**

Project 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 project teams face resource and time limitations, making time to reflect back—whether it is one, two, five, or twenty years later—is an important element of the capital project process. External evaluation teams can provide additional expertise. The *Purpose Built* series includes a retrospective toolkit, *Charting Capital Results*, to assist with looking to assess both 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?
- How are external programs performing?

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, project teams 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 achieving the desired impacts? How is the design creating undesired impacts?
- 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. Project teams should develop an operations manual and plan with the facility's maintenance staff for future reference or update it if there is an existing manual in place. It is critically important to account and 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, project teams might be able to leverage the transition period to amplify impact. For example, for major renovations, end users 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 business practices 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?

Team Readiness

❑ **Check-in: change management**

In this phase, the processes and strategies that were developed in previous phases will be implemented. Project teams should continue to communicate with the individuals and groups with a relationship to the project and building occupants after the transition to the new space to evaluate how the space is creating organizational changes. Additional systems or processes might need to be developed to support this change.

Questions to Consider:

- How is the capital project changing us?
- Are the systems we developed to manage this change working?
- How do we collect and evaluate issues that arise from individuals/groups with a relationship to the project?
- 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 financial health might occur, such as changes in cost, market forces, or operational capacity. Project teams should be periodically re-evaluating their financial health, especially after the new project has opened and transitioned to the entity responsible. As operating costs and budgets are updated, the entity responsible 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.

❑ **Check-in: capital project team debrief**

Undertaking a capital project is an incredibly complex process that involves many people. It is important for project teams to debrief and share lessons learned from this process. For some team members, this might be the only capital project they are involved in, and for others it may be the first of many. It is encouraged to ask for feedback on how the process unfolded, what went well, and what could be improved.

Project Preparation

❑ **Check-in: funding sources**

Project teams 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. Project teams 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 owner or entity responsible. This process will include activities such as completing the final payment and transferring warranties, maintenance contracts, and other documentation. Once this is complete, the entity responsible 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. The community also has continued engagement opportunities upon completion of the project. These can include: maintenance, training, continued stewardship, job creation, and other forms of long-term engagement.

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?

❑ Check-in: project budget

At the completion of the project, the actual operating costs of the building may differ from estimated operating costs—this is expected. Some facilities with newer technologies and maintenance contracts might even take several months or years before facility managers can fully understand and anticipate annual operations costs. These budgets should be assessed, resolved, and updated periodically after the building opens.

Questions to Consider

- How different are the estimated operating costs versus the actual costs?
- How long will it take to anticipate annual operations costs?

Congratulations!

Congratulations on completing the Purpose Built process for developing a capital project. Whether this was your first capital project or one of many you have completed, we hope this resource was helpful to you and your team in achieving its mission. As you transition away from this body of work, we hope you will pause and reflect what went well, what challenges you faced, what could have been improved, and what you wished you had known to capture those lessons learned for future projects and other project teams. Sharing these insights and lessons learned is how this tool was created, and we hope you will join us in sharing that knowledge with others to create more projects that are built with purpose.

Acknowledgments

Indigenous communities across Canada have a direct interconnection between land, people, and culture. This edition of the *Purpose Built* series, *Planning for Indigenous Impact*, is focused on supporting and amplifying these connections. This toolkit serves as a project guide to reference throughout the development process. However, it must be made clear that this toolkit is by no means the only way to develop a project. Many Indigenous developers, builders, and funders use innovative ways to build housing that responds to the cultural context of their communities, and we acknowledge their hard work.

This toolkit has been designed with an Indigenous lens, where culturally focused, site-specific building practices can be aligned with impact-driven design development methodologies. MASS Design Group, in partnership with Indigenous Services Canada (ISC) modified this tool for the Indigenous Homes Innovation Initiative (IHII). This tool is meant to support the Innovators during their project development and the mission of the IHII. The work of the IHII is based on a simple yet powerful idea: that the best solutions come from those who live the problem every day. This guide honors the work happening on the ground in these communities. We understand there is a complex web of historical, legal, and social forces that make it difficult to build on reserves and in urban Indigenous communities. This document provides a framework to identify how to approach these complex systems. We believe this initiative will create new and innovative ways to address the housing crisis, lifting up Indigenous knowledge as a fundamentally essential component.

Today, Canada's Indigenous communities are behind renewed efforts to confront barriers and unlock the potential of all traditional territories of Indigenous peoples. Indigenous leaders across the country are at the forefront of this effort.

Purpose Built is one of those efforts.

Purpose Built is a living document, it's meant to adapt to the conditions of the user.

PURPOSE BUILT

TOOLKIT 1.0

Planning for Indigenous Impact

Appendix

Appendix Contents

Key Terms

The following terms and definitions are defined as they relate to this document.

Capital Project A project that involves expanding, restoring, renovating, or constructing that adds value to the community.

Change Management Process, tools, and techniques to manage the people side of change.

Design

1. A key topic within Planning for Indigenous Impact: Focuses on aligning the built project with your identified goals at each phase of your project.
2. Project Design: The act of creating and defining what the project will look and feel like, as well as how it will function.

Design Feasibility Viability of a project or its intended design.

Design Team A group of design professionals hired to assist the the development of design documentation for the construction of the project.

Feasibility

1. A key topic within Planning for Indigenous Impact: Helps project teams undertake the steps necessary to plan and implement the project.
2. General: Level or ease of complexity to attain a goal.

Impact

1. General: The influence or effect of one system on another.
2. Impact-based Design Methodology: Metrics you and your project team will use to achieve your project goals.

Impact-based Design Methodology (IDM) A process that allows a broad array of individuals and groups to develop a common language which can drive the success of a project.

Individuals/entities The individual or body of people who serve a common purpose (previously organization).

Key Terms, continued

Individuals/groups with a relationship to your idea/project

1. Internally and externally of your project team, any people and associations that have a connection, interest, or will be affected by your project.
2. Any person or persons who are directly and indirectly affected with and to your project.

Mission Guides project teams through activities that focus on the needs and desired outcomes for individuals, entities, and the project.

Outcomes-Based Design Iterative process that helps project teams align design responses with desired outcomes.

Project Mission The project's main objective.

Purpose (vs Project purpose)

1. *General:* The reason behind something that is existing.
2. *Project Purpose:* The reason or intention behind your project.

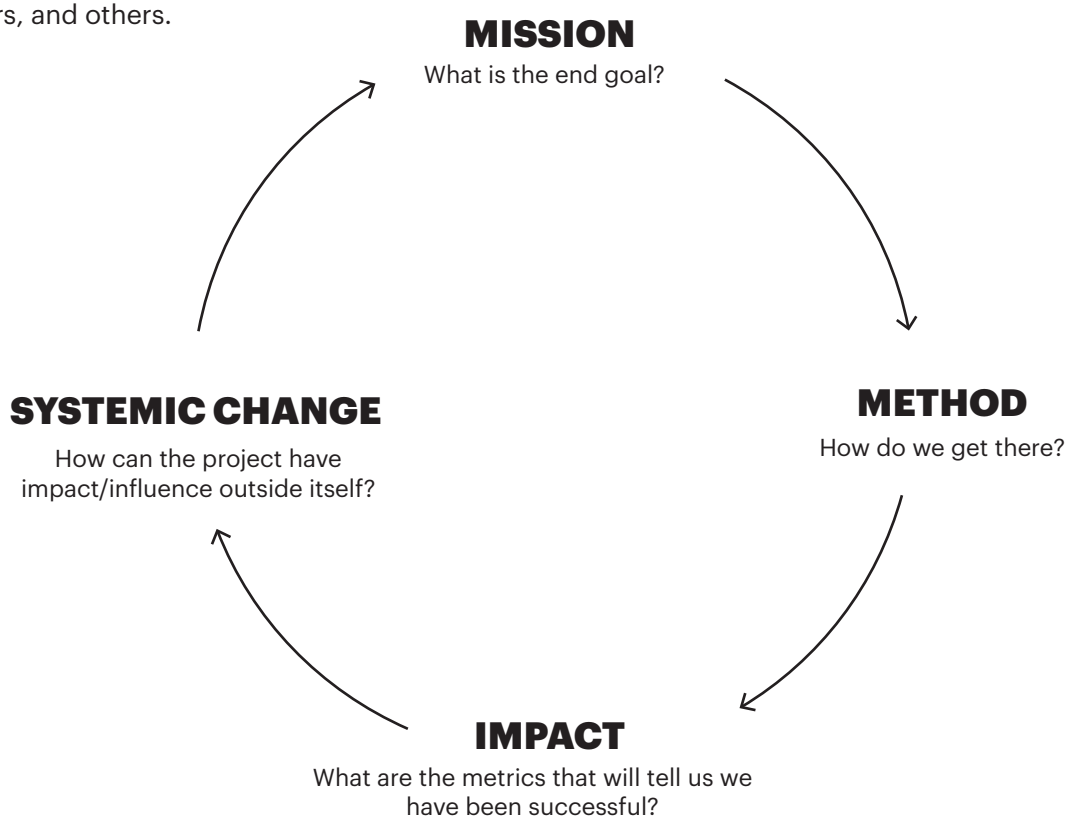
Purpose Built Project Any project that follows or uses the *Purpose Built* series resources.

IMPACT-BASED DESIGN METHODOLOGY (IDM)

What is the Impact-Based Design Methodology?

The Impact-Based Design Methodology (IDM) is a process that allows a broad array of individuals and groups to develop a common language which can drive the success of a project. By identifying a shared mission we can maintain our vision as the project becomes more complex. The IDM is an exercise broken into four parts: mission, method, impact, systemic change. This is a non-linear process and it's ok to go back. In fact, it's designed to provoke a dialogue that results in clarity.

The IDM is a great tool to distill the intentions for your project to foster conversations with funders, community members, and others.



STEP 1: MISSION (IDM)

What is our end goal?

To create the project mission, decide on and say exactly what you're trying to accomplish with your big idea. This is what everything you do will be designed toward. Capture it in eight words or less, and include a verb, a specific target population or setting, and a big outcome that implies something to measure. The mission is about what you're going to do, not how you're going to do it.

Example mission statement:

Reduce	**maternal**	**mortality**
verb	*target*	*outcome*

What you're going to do, broken down:

verb	*target*	*outcome*

Now make it a sentence!

Project Mission

STEP 2: METHOD (IDM)

How do we get to our end goal?

Now that you have a mission statement, we will develop a method. This is your central, distinctive idea about how to accomplish the mission - the idea at the core of all you do. Some might call this your "theory of change." Create at least two methods to address the mission established in Step 1.

Questions to think about:

- Is your target group part of your solution?
- What can you do to ensure your approach is human-centered?

Method 1

Method 2

STEP 3: IMPACT (IDM)

What are the metrics to evaluate our progress?

Choose a specific outcome or metric through which to measure project success. Identify the single best indicator - an outcome, not a behavior - that will let you know if you're fulfilling the mission. This makes you focus in on a more specific, granular, and practical outcome. It needs to be at least theoretically observable and measurable, even if perhaps really hard to do in the real world. Write this impact below.

Questions to think about:

- What about this impact can be measured?
- Can this impact be scaled?
- How will you know this project is successful? Does this project achieve the mission?

Impact

STEP 4: SYSTEMIC CHANGE (IDM)

How can the project have impact/influence outside itself?

Systemic change occurs when your project creates new and unique solutions to aspects beyond the immediate need. Review your mission-method-impact. Now consider opportunities and limitations for scaling your solution to achieve systemic change. Write your intended systemic change below.

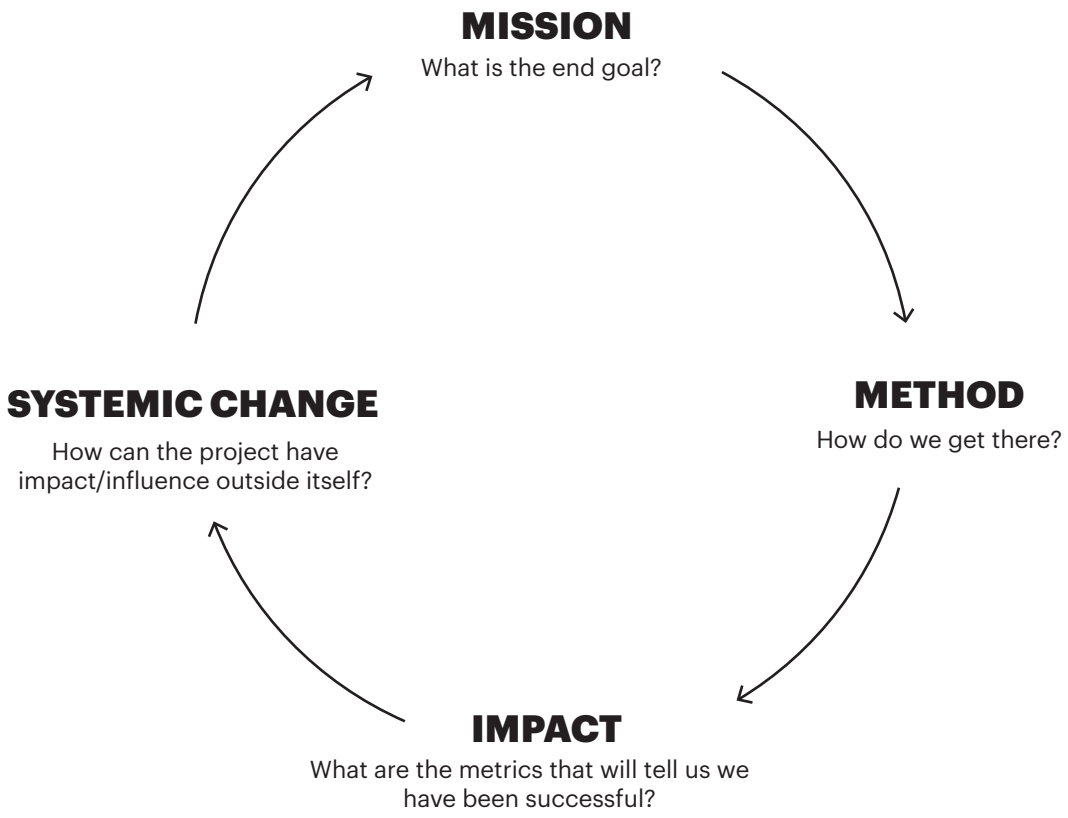
Questions to think about:

- What do you want to change within the system?
- Does your change take into account the different parts of the system?
- What are the smaller changes you want to make that will directly lead to the impact you're looking for?

Systemic Change

STEP 5: ITERATE (IDM)

Now that you have gone through the process, go back and evaluate the IDM. Iterate the mission-method-impact-systemic change steps as you see fit. Feel free to go back and change your mission now that you have a better understanding of the methods you want to use and the impact you want to make.



360° WORKSHEET

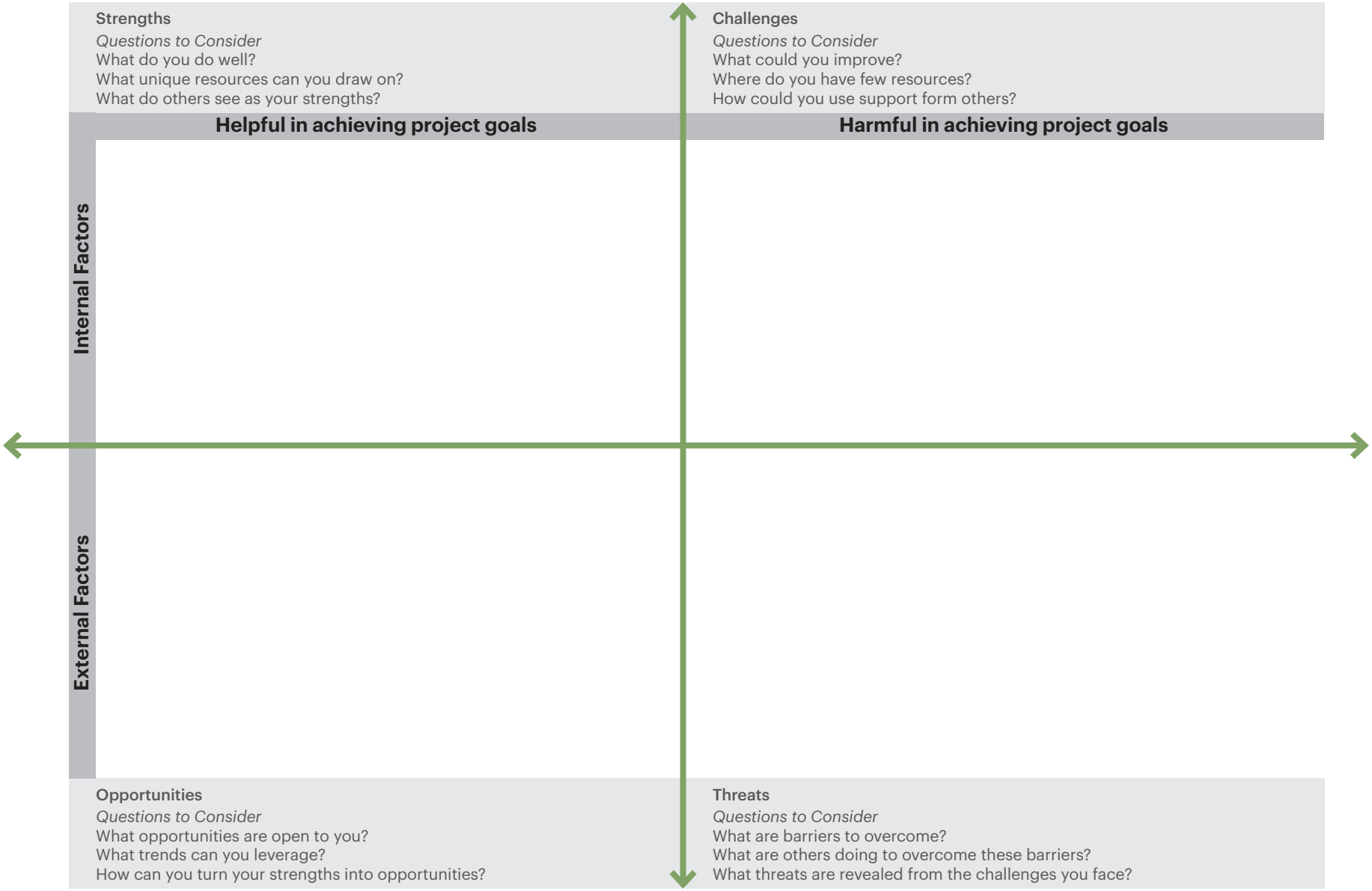
The **360° worksheet** helps project teams consider a range of potential scales and categories of impact. Use the following chart to fill out potential impacts your project may have. Not every cell needs to be filled out, but the worksheet should be a guide for discussion. Also consider areas of potential negative impact.

Potential groups who will be impacted

Categories of impact	Individual	Household	Community	Region	Nation
Environment					
Economy					
Health					
Education					
Cultural					
Other					

S.C.O.T ANALYSIS

A S.C.O.T. analysis guides teams to identify strengths and challenges, as well as broader opportunities and threats. Developing a fuller awareness of your capital project helps with both strategic planning and decision-making.



DESIGN OPPORTUNITIES

How do we make design decisions to achieve and amplify the mission of our project?

Each design opportunity is defined below, and is accompanied by a key question for each project team to consider. These questions can inform early project ideation, conversations with design team members, or areas for additional discussion. Use this worksheet to identify where and how your project can leverage these design opportunities.

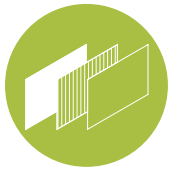
Design Opportunities are part of a workshop developed by MASS Design Group for the 2017 Affordable Housing Design Leadership Institute hosted by Enterprise Community Partners.

Design Opportunities	*Use this space to write insights for your project.*
 **Site**: Where you place and how you position your development within the existing built and natural environments. *How can you leverage your site to create connection to (or separation from) your neighborhood?*	
 **Culture**: Cultural elements present an opportunity to leverage design to connect with local Indigenous culture and create a sense of identity, past, present, and future. *How does your project reflect generations, past, present, and future?*	
 **Landscape**: Incorporation of existing vegetation and the intentional creation of exterior spaces. *How might you activate and integrate your project's Indigenous landscape to reflect and connect natural environments?*	
 **Program**: Services included in the building and the purposeful arrangement of those services. *Where are there opportunities to use additional program to benefit residents and the community?*	

DESIGN OPPORTUNITIES

Design Opportunities	*Use this space to write insights for your project.*
 **Massing**: The shape, form, and size of a building, including orientation on the site. *What massing would allow your project to both be responsive to context while also creating a sense of place?*	
 **Units**: How the individual unit layouts support its occupants' needs and wellness. *Who are you designing for and how will that guide your unit design?*	
 **Systems**: The building energy, water, mechanical, and ventilation interior and exterior systems, including fixtures and equipment. *What level of innovation or risk are you willing to take with your building systems?*	
 **Circulation**: How people and things move through and around the building and the site. *How might your project's connection between buildings, site, adjacencies, and natural corridors be intentionally designed?*	

DESIGN OPPORTUNITIES

Design Opportunities	*Use this space to write insights for your project.*
 **Materials**: Used to form, cover, and clad the building. *Where might there be opportunities to leverage material selection to achieve outcomes for your project?*	
 **Reuse & Re-purposing**: If your site has existing buildings, structures, or elements, consider reusing or re-purposing these for future elements on site. *How does your project consider what the site once represented or was used for, and remain mindful of its carbon footprint?*	
 **Other**:	
 **Other**:	

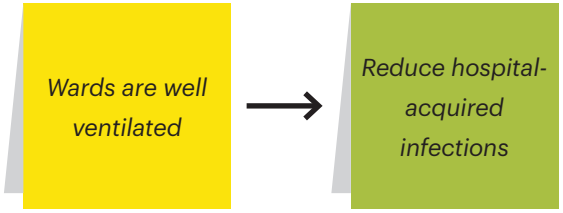
OUTCOMES FRAMEWORK WORKSHEET

How do we achieve our desired outcomes?

Projects can lead to impact in a variety of ways, both internally and externally. How that impact is achieved can affect the mission of the project, change user behaviors, and alter 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

- What methods or actions will lead directly to the desired outcomes?

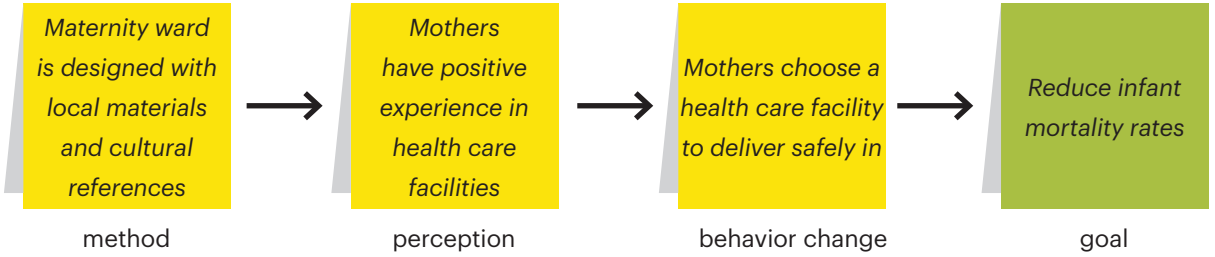


B. Identify opportunities for behavior change

- How does the built environment influence behavior?
- How might changes in 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?



IMPACT METRICS WORKSHEET

How do we evaluate our progress?

Identifying measurable outcomes of a project will ensure a project team is able to assess it and how they are successful in achieving their goals.

This worksheet helps to identify the metrics that will indicate our overall progress toward achieving the project mission in addition to the outcomes of decisions made.

A. Identify process metrics

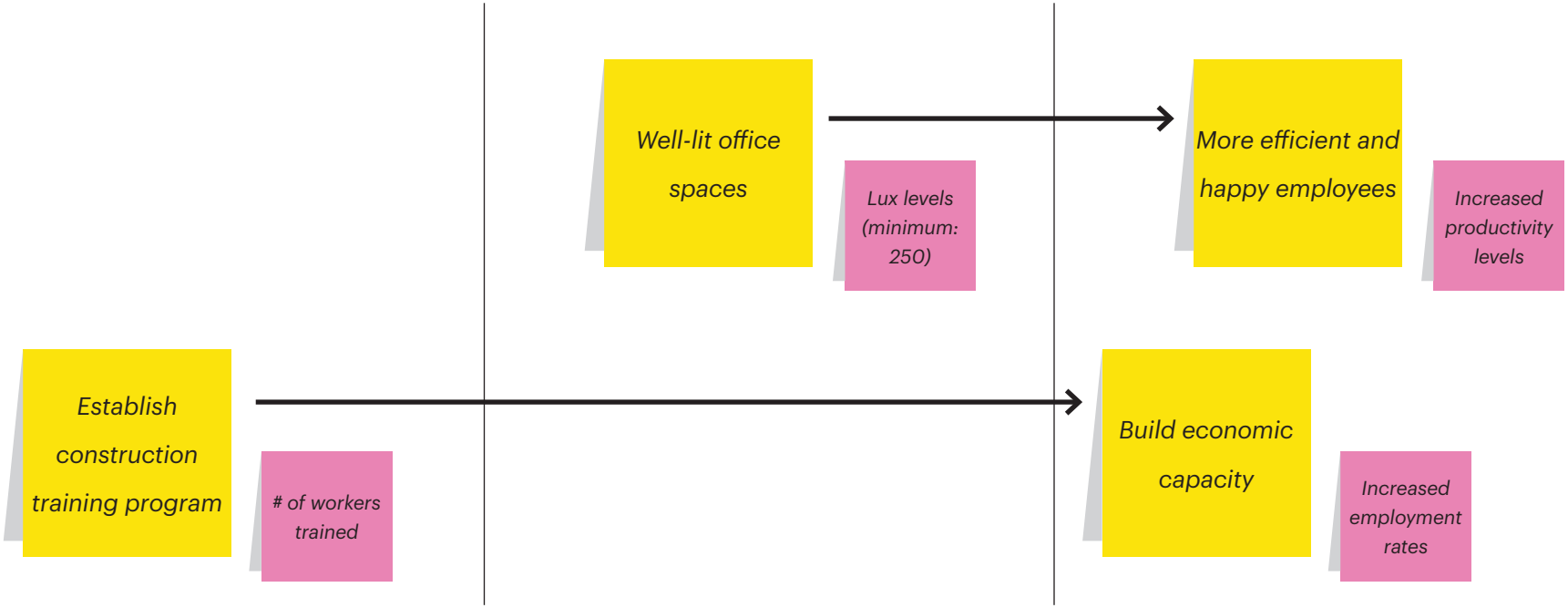
- How will we know if our process is leading to impact?
- What activities should we be completing to ensure that we've planned for impact?

B. Identify design metrics

- What design qualities do we need in order to lead to impact?

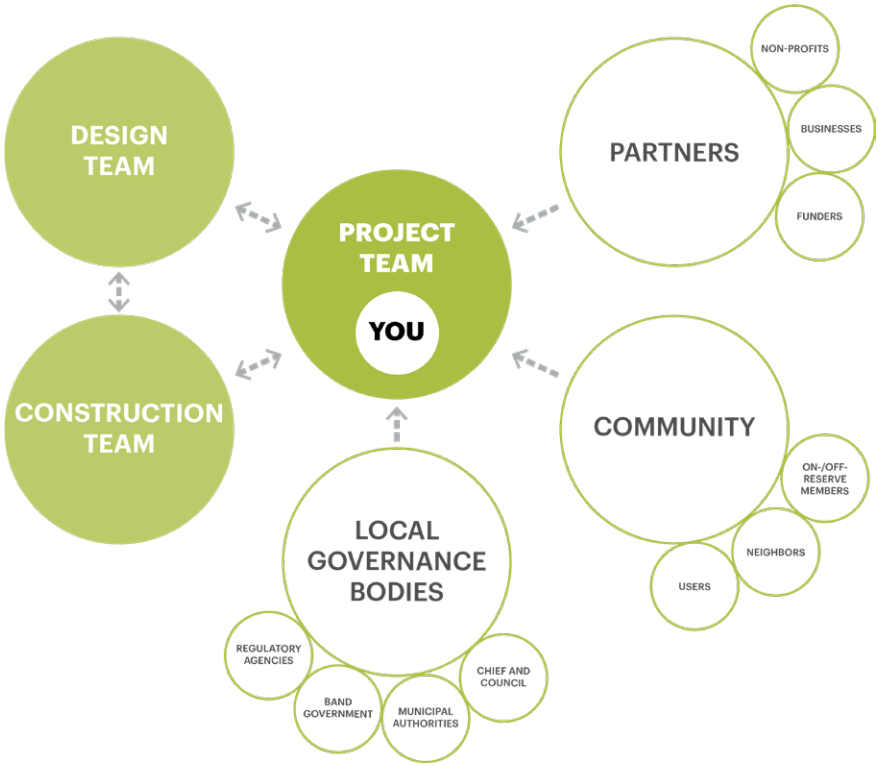
C. Identify mission aligned metrics

- What indicators will tell us if we have achieved our goals?
- Are they specific, observable, and measurable in the design and through the process?



CAPITAL PROJECT TEAM ECOSYSTEM

Throughout a capital project, the project team that started as a single individual or small group undoubtedly expanded and contracted at different stages. Depending on the nature of each project, roles will vary and accommodate the needs of the team. Outlined below is a general diagram of the various groups involved in no particular order. For further definition as to how this applies to your project, consult the *Project Team Worksheets* on the following page.



PROJECT TEAM WORKSHEET

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. Effective teams typically consist of a core project team, decision-makers, advisors, designers, and implementers. No matter how the team is structured, clear lines of communication and systems for decision-making will help the project progress smoothly. Know that this tool is only one method of organizing a project team, and the roles will very from project to project.

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.

KEY

● Primary Involvement

○ Secondary Involvement

PHASES

1 Visioning: ensures the mission of the project is aligned and positioned to achieve great results.

2 Planning: highlights considerations necessary to ground the project's mission in reality.

3 Design: provides guidance for aligning the project's mission with its form, fabrication, and function.

4 Construction: includes items for teams to assess as the project is built and implemented.

5 Occupancy: provides resources to evaluate the success of the project in the short and long term and adapt the end result as necessary.

CORE PROJECT TEAM	EXPERTISE	RESPONSIBILITY	PHASE				
			1	2	3	4	5
Project Team Chair (Project Manager)	Organization	Represents the organization's interests and coordinates the internal communication and decision-making within the team and to the board.	●	●	●	●	●
Financial Manager	Budgeting, Finances, CFO	Determines the project budget and expenses. Communicates financial matters to the core team and the board.	●	○	○	○	○
Capital Campaign Manager	Fundraising, Development	Coordinates the fundraising effort for the project.	●	●	○	○	○
Owners Representative or Construction Manager (dependent on project delivery method)	Capital Project, Architecture, Construction	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.	○	○	●	●	●
In-house Architect, Facilities Manager, and/ or Facilities Dept.	Facilities, Systems, Maintenance	Provides operational and maintenance expertise during design and assumes responsibility for the new systems once construction is complete.	○	○	○	○	●
Community Liaison	Community Relations	Engages community members (internal and/or external) to understand their priorities. Communicates the organization's plans.	●	●	●	●	●

PROJECT TEAM WORKSHEET

KEY

● Primary Involvement

O Secondary Involvement

DECISION-MAKERS TEAM	EXPERTISE	RESPONSIBILITY	PHASE				
			1	2	3	4	5
Board of Directors (Advisory Board)	Varies	Approval of project vision, scope, and budget. Additional roles or responsibilities depend on expertise.	●	O	O	O	O
Organizational Leadership	Varies, CEO, President	Approval of design concluding each phase, and communication to the board.	●	●	O	O	O

ADVISORS TEAM	EXPERTISE	RESPONSIBILITY	PHASE				
			1	2	3	4	5
Volunteer	Architecture	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.	O	O	●	O	O
Volunteer	Engineering, Construction	Advises the organization in design matters. Recommended if other team members do not have expertise related to the capital project scope involving complex building systems or construction technology.	O	O	●	O	O
Volunteer	Consulting, Finance	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.	O	O	●	O	O
Thematic Expert	Varies	Provides specialized perspective on requirements and recommendations for design, operations, and/or management.	O	●	O	O	O
Individuals/groups with a relationship to your project	Organization, Sector Experts, Users, Community	Provides the organization input on the needs and potential outcomes of a capital project.	O	●	O	O	O

PROJECT TEAM WORKSHEET

KEY

● Primary Involvement

○ Secondary Involvement

DESIGN TEAM	EXPERTISE	RESPONSIBILITY	PHASE				
			1	2	3	4	5
Lead Design Professional	Architecture, Planning, Landscape	Leads the project design process and coordinates with design team consultants to develop drawings and other documentation that determines 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.	●	●	●	●	●
Consultant	Programming, Architectural Design	Determines the project scope and space requirements by systematically evaluating the values, goals, and needs of stakeholders.	○	●	○	○	○
Consultant	Landscape Architecture	Determines the size, character, and materials for the outdoor environment of a project and provides drawings and documentation for construction.	○	○	●	○	○
Consultant	Planning, Urban Design	Provides services to the project related to strategic thinking, policy recommendations, and sustainability.	○	●	○	○	○
Consultant	Engineering	Provides basic engineering design services related to the project such as structural, mechanical, civil, electrical, and fire protection.	○	○	●	○	○
Consultant	Specialty	Provides specialty services as required by the project type such as lighting, acoustics, security, cost estimation, building codes, and energy modeling.	○	○	●	○	○

CONSTRUCTION TEAM	EXPERTISE	RESPONSIBILITY	PHASE				
			1	2	3	4	5
General Contractor	Construction Management	Coordinates and manages the construction of a capital project.	○	○	○	●	○
Subcontractors	Individual Trades	Hired by the general contractor to complete a specific scope of work (plumbing, painting, etc.) within the construction project.	○	○	○	●	○

CAPITAL PROJECT BUDGETING p. 1 of 3

The capital project budgeting process helps project teams 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 project teams as they prepare initial project estimates. In most cases, project teams 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 project teams 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. Project teams 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.
- 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, project teams 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 BUDGETING p. 2 of 3

Capital project development and ongoing budget line items vary and can catch project teams 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.

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

- ❑ Community engagement _____
- ❑ Site and building programming _____
- ❑ Feasibility studies _____
- ❑ Site selection and land purchase _____
- ❑ Site survey and geotechnical report _____
- ❑ Attorney's fees _____
- ❑ Event and meal costs _____
- ❑ Artwork and stipends _____
- ❑ 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.

CAPITAL PROJECT BUDGETING p. 3 of 3

1. VISIONING

1C-Feasibility
- ❑ Consider funding needs and potential sources

In the ***1. Visioning*** phase, preliminary 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

2C-Feasibility
- ❑ Prepare a project budget

During this phase and before the design is created, project teams 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. Project teams should also have a better idea of their soft costs, such as staff and consultant needs, at this point. This developed project budget will help inform constraints on the project's design scope and capital campaign feasibility.

3. DESIGN

3C-Feasibility
- ❑ Check in: project budget

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

4C-Feasibility
- ❑ Check in: project budget

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 project team. Make sure there is clarity of decision-making via the project delivery method structure (see *2C. Feasibility: Project Preparation*).

5. OCCUPANCY

5C-Feasibility
- ❑ Check in: project budget

As entities 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, project teams should be sure to include a contingency plan if ongoing costs are higher than expected.

Resources

Full list of referenced resources listed here in alphabetical order.

American Institute of Architects. The Architect's Handbook of Professional Practice. 15th ed. Edited by Linda C. Reeder. Hoboken, NJ: John Wiley & Sons. 2014.

American Institute of Architects. You and Your Architect: A Guide for Successful Partnership. Washington, DC: 2007. http://howdesignworks.aia.org/pdf/You_and_Your_Architect.pdf

Brown, G Z, and Mark DeKay. Sun, Wind & Light: Architectural Design Strategies. New York: Wiley, 2001.

Canadian Construction Association. Indigenous Engagement Guide. 2016. https://www.cca-acc.com/wp-content/uploads/2016/03/IndigenousEngagementGuide.pdf

Canadian Wind Energy Association. Best Practices for Indigenous and Public Engagement. 2017. https://canwea.ca/wp-content/uploads/2017/11/canwea-bestpractices-engagement-web.pdf

Chartered Professional Accountants Canada. A Guide to Financial Statements of Not-For-Profit Organizations. 2012. https://www.cpacanada.ca/~/media/site/business-and-accounting-resources/docs/a-guide-to-financial-statements-of-not-for-profit-organizations-questions-for-directors-to-ask-2012.pdf

Commission for Architecture and the Built Environment. Creating Excellent Buildings: A Guide for Clients. London, UK: CABE. 2003.

Community Tool Box. SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats). Center for Community Health and Development at University of Kansas. https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/swot-analysis/main

KCI Philanthropy. Fundraising Campaigns in Canada. What's New? What's Not? What's Next. 2018 Campaign Trends Report. 2018. https://kciphilanthropy.com/wp-content/uploads/2018/11/KCI-Campaign-Trends-Report.pdf

Resources, continued

MASS Design Group. Marymount University Hospital and Hospice. 2017. https://massdesigngroup.org/sites/default/files/multiple-file/2017-11/Purpose%20Built_Marymount%20University%20Hospital%20and%20Hospice.pdf

Ministry of Health Patients as Partners Initiative. Patient, Family, Caregiver and Public Engagement Planning Guide. 2018. https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/heath-care-partners/patients-as-partners/engagement-planning-guide.pdf

Mubarak, Saleh A. Construction Project Scheduling and Control. 3rd ed. John Wiley & Sons. 2015.

Nonprofit Finance Fund. Nonprofit Finance 101. 2015. www.nonprofitfinancefund.org/nonprofit-finance-101.

Pena, William M. & Parshall, Steven A. Problem Seeking: An Architectural Programming Primer. 5th ed. Hoboken, NJ: Wiley. 2012.

Province of British Columbia. Building Relationships with First Nations: Respecting Rights and Doing Good Business. 2014. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/building_relationships_with_first_nations__english.pdf

Province of British Columbia. Guide to Involving Proponents When Consulting First Nations. 2014. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/involving_proponents_guide_when_consulting_with_first_nations.pdf

Province of British Columbia. Updated Procedures For Meeting Legal Obligations When Consulting First Nations. 2010. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations/legal_obligations_when_consulting_with_first_nations.pdf

Purpose Built Case Studies: Constitution Hill Precinct, The Exploratorium, The Simpson Center for Girls, and Northern Ireland Council for Voluntary Action. https://massdesigngroup.org/work/research/purposebuilt-downloads

Resources, continued

RAIC. Canadian Handbook of Practice. 2nd Edition. 2009.

RAIC. Four Case Studies Exemplifying Best Practices in Architectural Co-design and Building with First Nations. 2017. https://raic.org/raic/four-case-studies-exemplifying-best-practices-architectural-co-design-and-building-first

RAIC. How to choose an architect. https://raic.org/raic/how-choose-architect

SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats). https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/swot-analysis/main

Thomson Reuters Practical Law. Construction and projects in Canada: overview. 2019. https://uk.practicallaw.thomsonreuters.com/9-502-1837?transitionType=Default&contextData=(sc.Default)&firstPage=true&bhcp=1

Walker, Julia. Nonprofit Essentials: The Capital Campaign. Hoboken, NJ: John Wiley & Sons. 2005.

Wilson, Susan V. J. Circle of Engagement Model: A Cultural Guidebook to Help Build Trust and Collaborations Between Health Planners, Health Trainers, Health Service Providers, Educators and First Nations. 2014. Perinatal Services. Vancouver, BC. https://www.fnha.ca/Documents/Circle-Of-Engagement-Model.pdf

This Page Intentionally Left Blank

About MASS

MASS Design Group is a 501(c)3 nonprofit architecture and design collective with offices in Rwanda, the United States, United Kingdom, and South Africa. Our mission is to research, build, and advocate for architecture that promotes justice and human dignity. We partner with organizations to help amplify their mission through the building process and leverage philanthropic income to support partners who need help unlocking capital to invest in the built environment. Our collective is made of over 120+ architects, landscape architects, engineers, builders, furniture designers, writers, film makers, and researchers representing 20 countries across the globe. We believe in expanding access to design that is purposeful, healing, and hopeful.

We believe that every project has a mission and accompany our partners throughout the design process — from early visioning through project completion — to develop and implement a shared vision for how design can achieve that mission. We do this through through the built environment, including architectural design, master planning, landscape architecture, engineering, and strategic planning, as well as research, evaluation, education, and policy development.

In 2018, ISC engaged MASS as a partner to support the launch of the IHII. MASS developed *Planning for Indigenous Impact* for the IHII launch, and to support the innovators during and after the IHII initiative.

About this document: MASS Design Group, in partnership with Indigenous Services Canada (ISC), modified this tool for the Indigenous Homes Innovation Initiative (IHII) from the original Purpose Built Series developed by MASS Design Group. Content developed in this version of Purpose Built, Planning for Indigenous Impact acknowledges the usage solely for the IHII, a program of ISC.

To help funders and their nonprofit partners make the most of capital projects, MASS Design Group created the Purpose Built Series in partnership with The Atlantic Philanthropies and the S. D. Bechtel, Jr. Foundation. The series includes tools and resources and is the result of a multi-faceted, multi-year research study that found the best results occur when a project is built with purpose, balancing mission, design, and feasibility. This toolkit was originally created with support from the van Beuren Charitable Foundation. You can find the full series at https://massdesigngroup.org/work/research/purpose-built