

Phases of the Project Delivery Process

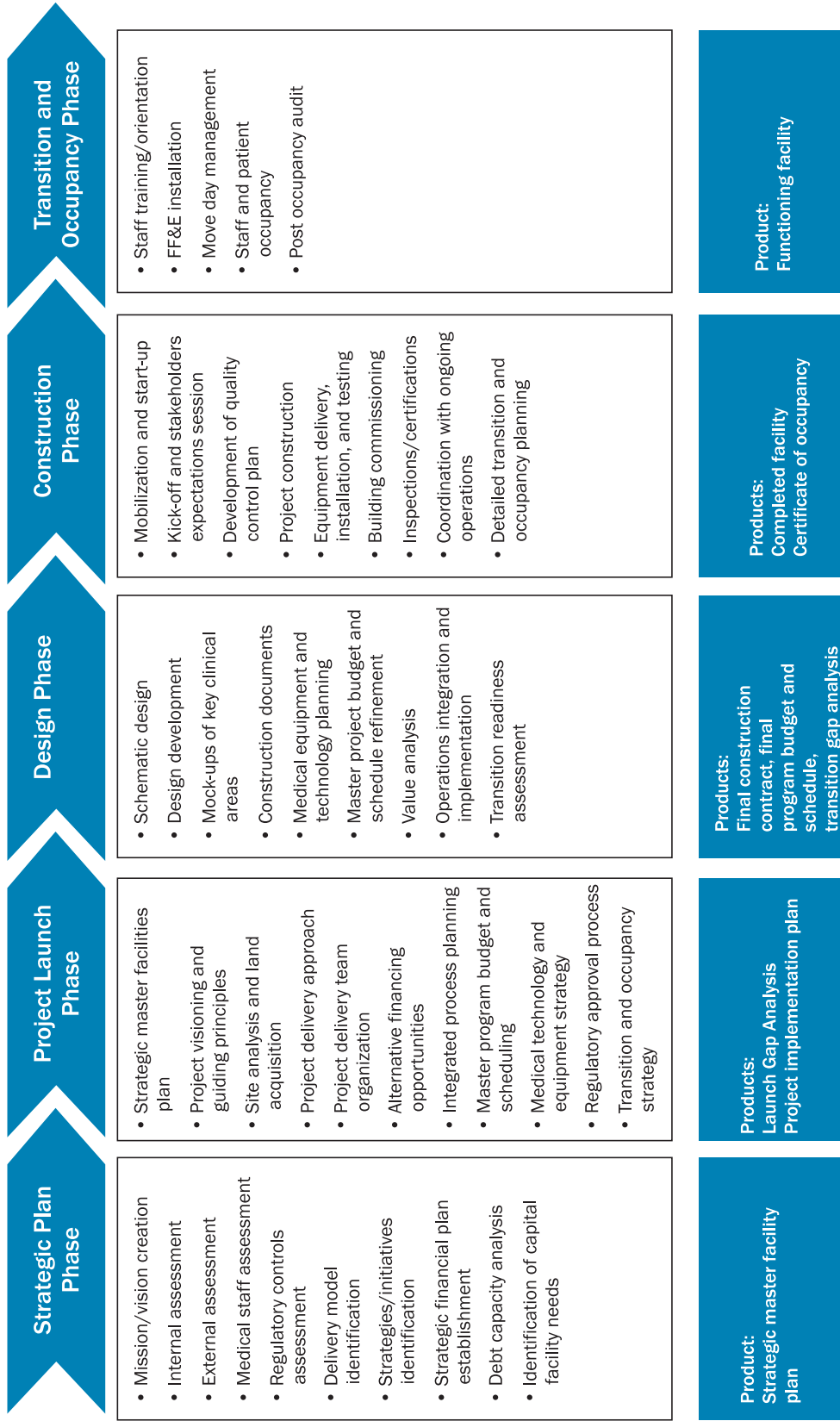
AN INTEGRATED DELIVERY PROCESS IS THE KEY TO THE OVERALL SUCCESS OF THE PROJECT.

This chapter provides an overview of the five phases of the delivery process. These phases are interrelated. Each phase ends in the achievement of a major work product (see Exhibit 1.1). Decisions made in one phase affect the other phases. Therefore, all aspects of the total delivery process, from strategic plan to transition and occupancy, must be integrated. The project team must not proceed to the next phase before achieving the work product for the current phase and gaining approval from all key stakeholders.

Following a structured and collaborative process can reduce or eliminate most, if not all, of the following problems:

- Unclear need and scope
- Poor land acquisition decisions
- Uncertain budget and schedule ▶

Exhibit 1.1: Capital Delivery Process

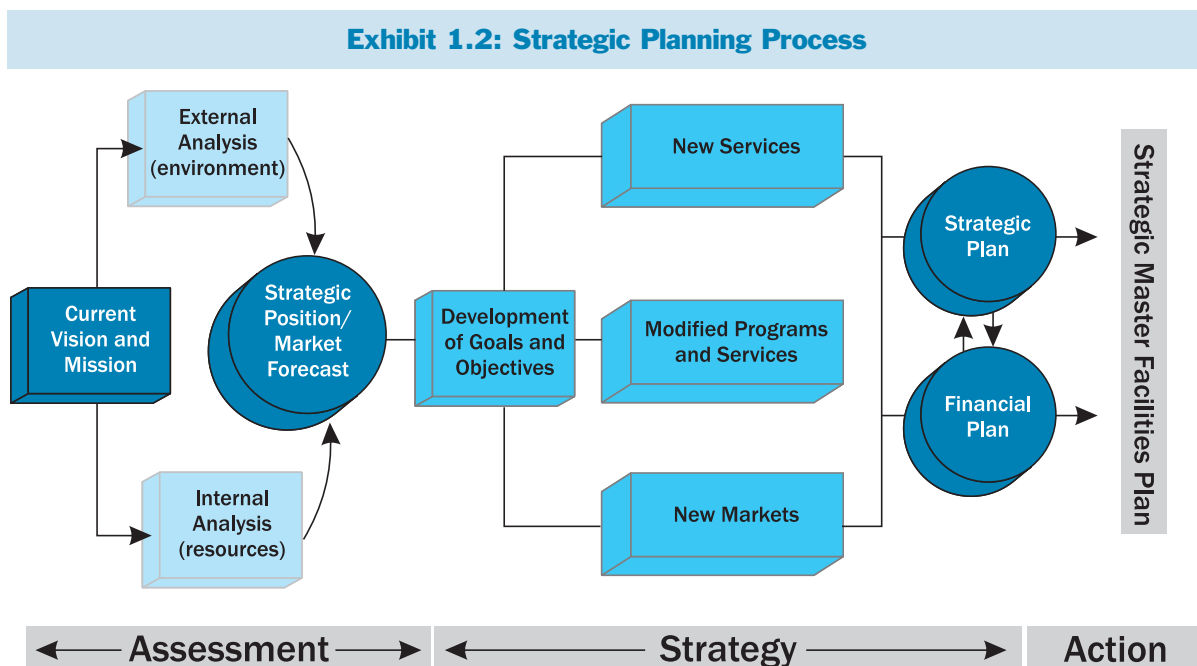


- Costs that exceed debt capacity
- Slow and frustrating design process
- Community and board confusion about scope, costs, and goals
- Low user satisfaction
- Difficult construction process
- Adverse effects on ongoing operations
- Operational inefficiencies in the new facility

without this basis can quickly get out of control. In the strategic planning phase, a comprehensive plan is created that defines the organization's vision, mission, and strategic market position. The plan also identifies goals and objectives for establishing new services, modifying existing programs or services, and penetrating into new markets. The strategic vision must drive the development of a strategic master facilities plan that integrates the traditional strategic plan, as Exhibit 1.2 shows. This plan should include facilities solutions that support the strategic direction.

STRATEGIC PLAN PHASE

Before launching a project, clear strategic and financial guidelines must be established. Projects initiated



The strategic master facilities plan becomes the foundation for an organization's capital plan. The word "strategic" is key. To optimize their value, significant facility investments must support strategy, operations, finance, and clinical services. Strategic master facility planning must consider more than architecture and facilities alone.

The strategic master facilities plan should first address any strategic and operational questions that must be answered to appropriately plan for new or expanded facilities. Strategies, operations, clinical efficiencies, and financial capabilities should drive building design, not the other way around.

This phase of the process will not be discussed in detail, but the Suggested Reading list at the end of this book includes several publications that explore the strategic planning phase. Chapter 2 further discusses the development of a strategic master facilities plan.

The strategic master facilities plan integrates strategy, clinical services, operations, finance, and facilities and serves as a road map to effective and efficient delivery of health services. It must be completed and agreed on by all key stakeholders before work on the launch phase can begin.

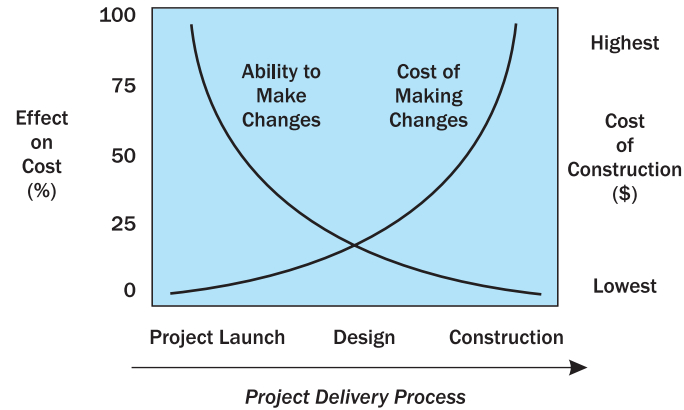
PROJECT LAUNCH PHASE

The project launch phase focuses on organization and planning. It sets the project expectations and defines the "Big Three": project scope, budget, and schedule. The chief executive officer (CEO) should drive this phase, assembling and preparing the internal and external delivery teams. Early in the phase, the CEO and key team members should create a project vision and guiding principles that serve as guardrails for the project.

Team members establish a system of checks and balances that will ensure that the strategic master facilities plan and project vision are transformed into a solid project implementation plan. Critical decisions on project scope, budget, and schedule should be made during this phase, because changes at this early stage will have less effect on costs (see Exhibit 1.3).

The most valuable tool during this phase is the Launch Gap Analysis (discussed in detail in Chapter 2). Knowledge gained using this tool becomes the foundation of the project implementation plan—the major work product of this phase—which details the project's scope, cost, and implementation schedule. Prior to the design phase, the project

Exhibit 1.3: Early Decisions Have a Lesser Effect on Cost



implementation plan should be presented to the board for approval and to the community to enlist support.

DESIGN PHASE

A mistake that delivery teams frequently make is jumping too quickly into the design phase. The team should ensure that expectations about scope, cost, schedule, and final outcome are realistic before the design phase begins.

Form follows function—the 3F theory. Many healthcare planners and architects use this phrase but seldom follow it. Process design/re-design, programming, and schematic design are often poorly aligned at the outset of the design phase. The

traditional model of engaging separate, nonrelated parties must change. A new paradigm is evolving in which an integrated design team is formed early in the process to tackle process flow, space programming, and schematic design at the same time. This integrated process planning dissects the patient experience to define value and eliminate waste. Following this new paradigm in the initial stages will lead to a more efficient and cost-effective design. Integrated process planning will be discussed further in Chapter 2.

At key stages of the design process, the construction manager and the project delivery team complete detailed budget estimates and send them to the delivery team for review

and approval. These estimates keep the design development within budget. A common mistake delivery teams make during the design phase is failing to carefully review the budget updates and to require explanations for each cost item. Sufficient review time must be allocated—normally three to four weeks—for each budget update to allow the delivery team to reach a consensus on design changes needed to keep the project within budget. This process prevents cost-related surprises when the final project budget is submitted. Avoiding all surprises is impossible, but involvement of the entire delivery team in design and budgeting results in a smooth process and an optimal construction contract.

Another issue to address during the design phase is the integration of medical technology and equipment into the design. The budgets for equipment and systems alone can represent approximately 20 percent of the total project budget. In addition, technology and equipment needs significantly affect space needs. Therefore, the design team must consider space for equipment in planning the overall design. The cost of this equipment should be an integral part of the budget development and the estimate updates during this phase.

During the design phase, a master project schedule should be developed, reviewed, and approved by the necessary regulatory agencies. Zoning approvals, state health agency reviews, certificates of need where applicable, and environmental reviews should be entered into the master schedule and the budget, as each requires time and money.

The major work products of the design phase are completed construction documents; a final project budget that includes a list of furniture, fixtures, and equipment (FF&E) needed; a transition readiness assessment; and a final construction contract.

CONSTRUCTION PHASE

This phase will not be discussed in depth in this book, but the Suggested Reading list includes related publications and seminars on this topic.

If the strategic, launch, and design phases are developed properly, the construction phase will be less daunting. A new project delivery process known as integrated project delivery (IPD) has the potential to radically improve the entire process, especially the construction phase. IPD will be discussed in Chapter 4.

Ideally, the delivery team (including internal and external members)

has been working collaboratively since the launch phase began. If this is the case, the delivery team, including the construction manager, should understand the project's scope, budget, and schedule and how the construction will affect the ongoing operations of the healthcare organization before construction begins.

A key issue in the construction phase is the coordination, delivery, and installation of medical and technology equipment. Too often these tasks are overlooked—an oversight that can significantly affect the schedule and final cost of the project. Minimize or avert these mistakes by assigning responsibility for them to a member of the delivery team.

The end work products of the construction phase are a certificate of occupancy and a completed facility that is ready to be occupied.

TRANSITION AND OCCUPANCY PHASE

The most important component of the transition and occupancy phase is development and management of the transition plan. For large and multifaceted projects, planning the transition and occupancy can be as complicated as the design and construction phases. If a major move is

necessary (which is often the case in healthcare), the designated transition and occupancy team should begin planning during the design phase by completing a transition readiness assessment (TRA). This document will detail the organization and key responsibilities of the transition and occupancy team, develop the budget and schedule for this phase, and detail the implementation plan. During the construction phase, and no later than 18 to 20 months before the projected occupancy date, the transition and occupancy team should begin planning details and holding regularly scheduled meetings. Move-in should not occur immediately upon completion of the facility. At least 60 days should be allocated between receipt of the certificate of occupancy and the actual move to allow for building commissioning and final staff training.

When executed properly, the transition and occupancy phase is the one most stakeholders will recall because it is the culmination of all the hard work done to make the project a success. Failure at this phase, even if all other phases were successful, will leave a negative impression. It is never too early to begin planning for this phase, so spend sufficient time on it to ensure that the finish is as strong as the start.

KEY POINTS

Remember the following key points about the overall delivery approach:

- Follow a set, structured, collaborative process for all capital projects.
- The end depends on the beginning, so focus on the beginning (the launch phase).
- Stick to the processes of each phase; do not jump ahead without completing a phase's major work product.
- Develop a comprehensive strategic master facilities plan prior to the launch phase.
- Complete a launch gap analysis which will define the Big Three—scope, budget, and schedule—and align all key stakeholders' expectations upfront.
- Communicate project goals and objectives (the Big Three) to the delivery team prior to the start of design.
- Do not do it alone. Select key delivery team members based on their qualifications and experience with similar healthcare projects.
- Begin the design with integrated process planning, and apply Lean process tools to value stream map key operational processes, eliminate waste, and define the key operational processes to be implemented in the new or expanded facility.
- Implement IPD to involve all the key delivery team members at the start of the process and ensure that the Big Three are controlled from start to finish.
- If a move is involved, complete a TRA and begin detailed planning at least 18 to 20 months before projected occupancy.
- Allow a minimum of 60 days after obtaining a certificate of occupancy before actually moving in. This time gives you an opportunity to sufficiently train staff and complete building commissioning.
- Finish as strong as you started by properly executing the transition and occupancy phase.