

The Project Development Process: Setting the Context for Project Control

Part #1

October 1, 2002

Purpose

- ◆ Establish the context for understanding how to use project control techniques to control costs and time during a typical construction project development process.
- ◆ Establish the context in which the Project Manager relates to the process and his/her role in controlling the process.

Learning Objectives

- ◆ Be able to draw and annotate a sketch of the Project Development Process.
- ◆ Be able to identify the points in the Process where both the Planned and Actual data are developed.
- ◆ Be able to identify where and when the application of Project Controls is appropriate.

There Is No Unique Process

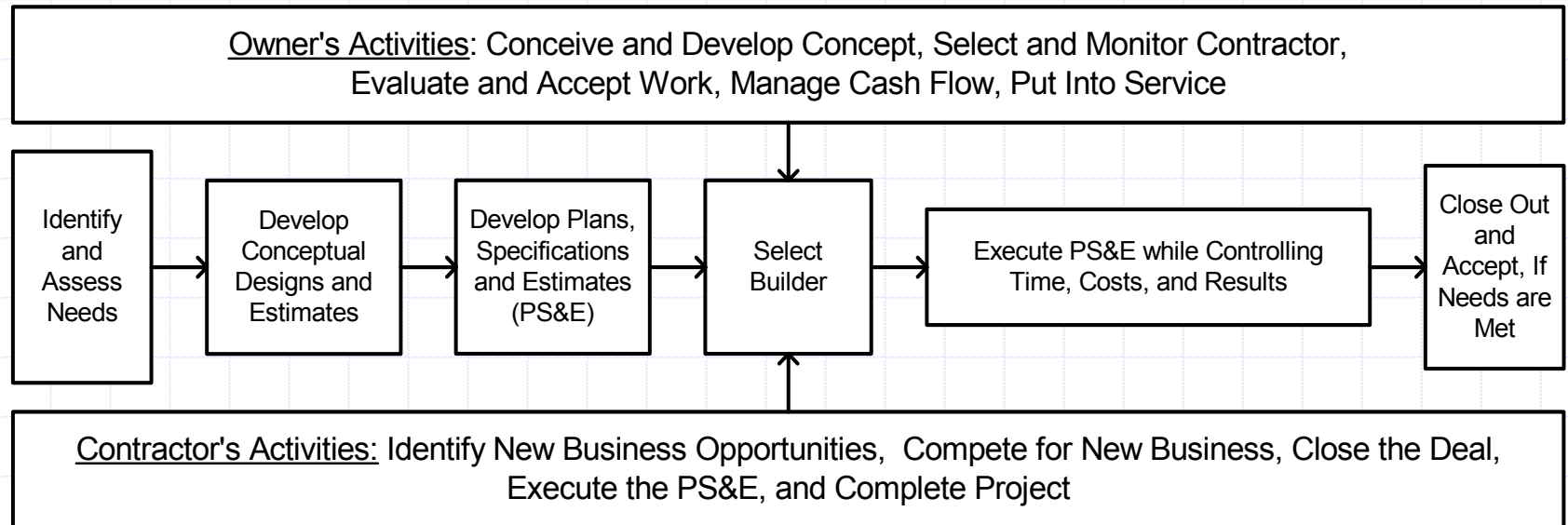
- ◆ There is a general process for the development of engineering projects
- ◆ Every situation will create a unique variation on the general theme
- ◆ Unusual situations often create the need to make substantial changes to the traditional process.

The Usual Parties Involved

- ◆ The Owner: the party receiving the value and underwriting expenses.
- ◆ The Designer: the party creating all or part of the design on behalf of the Owner (in-house).
- ◆ The Builder (usually referred to as the Contractor): the party executing the design on behalf of the Owner (in house).

The Project Manager's role in controlling the process depends upon his relationship to one or more of these parties.

The Traditional Project Development Process



** Owner usually retains a design consultant during the design portion of the process.

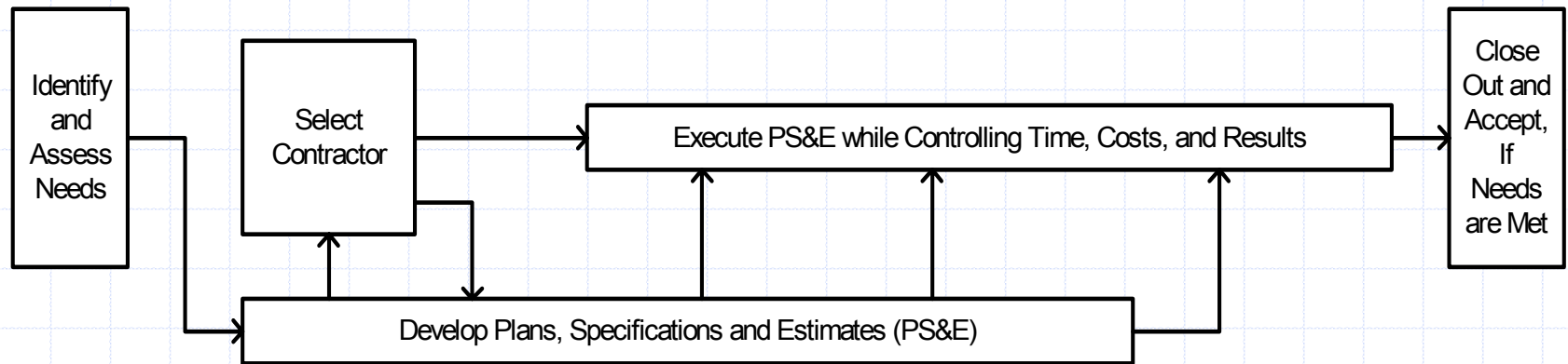
Exercise #1.1 – The Process

- ◆ Individually, sketch the process just described (2-3 minutes).
- ◆ As Pairs, Combine your sketches (3-4 minutes).
- ◆ Get several pairs to explain their sketch to the rest of the class (4-5 minutes).
- ◆ By Pair, Identify all of your work, staple the three pages together, and turn in.

The Traditional Process Steps

- ◆ Recognize the need and gather support
- ◆ Assess the need and “scope” the project
- ◆ Generate conceptual designs (without evaluation)
- ◆ Evaluate alternatives (time, cost, performance, etc.)
- ◆ Select feasible design(s) and reevaluate
- ◆ Develop final, detailed design(s) (PS&E)
- ◆ Select builder (bids, negotiation, partnering, etc.)
- ◆ Build according to the final design and specifications and monitor and control progress
- ◆ Take corrective actions when necessary
- ◆ Accept upon satisfactory completion
- ◆ Put completed project into service

Fast Tracked Process



1. Designer and Contractor selected early in the process; perhaps before detailed design has begun.
2. Owner, designer, and contractor must “partner” for this to be really successful. Responsibility for project controls must be “shared” among all parties concerned.
3. Principal advantage is time savings; principal disadvantage is design changes or “scope creep” leading to disputes between the owner, designer, and the contractor.

Discussion Exercise #1.2, Ask Selected Individuals

- ◆ As an Owner, why would you consider “fast tracking” a project?
- ◆ As a Contractor, why would you enter into such a risky venture?
- ◆ As a Designer, what are the hidden dangers for you?

Discussion Exercise #1.3

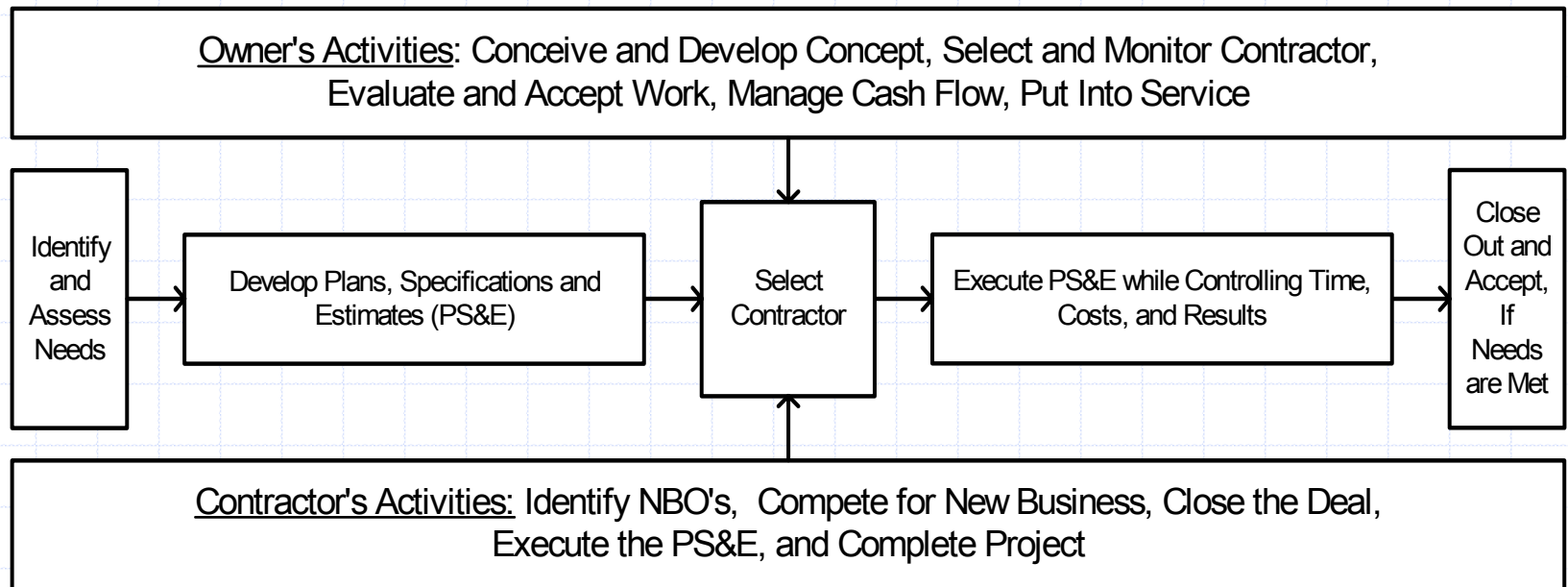
Ask selected **Pairs** to report on the following issues:

- ◆ Assume that you are the Builder's Project Manager, what part of the process concerns you?
- ◆ Assume that you are the PM for the Designer?
- ◆ Assume that you are the PM for the Owner?

Project Manager Responsibilities

- ◆ Regardless of the Project Manager's role, he/she has four primary project control responsibilities:
 - Complete the project on schedule
 - Complete the work under budget
 - Deliver the proper quality and quantity of work
 - Maintain a safe and non threatening work place.
- ◆ Project controls are designed to ensure success in all four areas.

PM's Role Depends Upon Location Within Process



Discussion Exercise #1.4:

- ◆ As a Project Manager, assume that you work for the designer, what does a safe and non-threatening work place mean?
- ◆ Does it mean?
 - Sexual Harassment, or
 - Dangerous Horse Play, or
 - Bullying.
- ◆ From another point of view, what risk are you trying to control in this case?
- ◆ What other risks are there?

Optional Readings

- ◆ Halpin and Woodhead, Chapter 1 – History and Basic Concepts.

Reminder!

Class Assessment Questions

- ◆ In 1 sentence what was the muddiest part of this module?
- ◆ In 1 sentence, what part of this module could be improved the most?