



# Project Controls Overview

## 2 DAY COURSE

**\$749 CII members/\$989 for non-members**

### Description:

This session will provide attendees an overview of the overall project controls process and how this integrates with the project delivery process. Project control planning aspects such as scope definition, cost management, and schedule management will be broken down into topics such as cost estimating, planning, cost control, and schedule management. Supporting these topics will be discussions on scope control and change management. Aspects such as productivity, performance measurement, and earned value will also be addressed. Throughout the course CII research topics, concepts and tools will be introduced.

### Objectives:

Upon completion of this training each participant will be able to:

- Understand how Project Controls are applied through engineering, design, procurement and construction, startup, and commissioning.
- Understand the tools and techniques to effectively control scope and changes on both small and large capital facilities projects, including industrial, infrastructure and general building projects.
- Identify the considerations in sequencing tasks and activities
- Comprehend Activity Definition, Work Breakdown Structure & Work Packages
- Create a Work Breakdown Structure
- Identify common estimating techniques
- Understand Cost Engineering and how it relates to cost estimating and impacts project outcomes
- Identify Schedule Development techniques including the Critical Path Method
- Create a level 2/3 schedule
- Identify and Understand Cost & Schedule Control Techniques
- Understand Change Management and its effect on project and organizational teams/personnel
- Identify Project Health Assessment tools and techniques
- Comprehend the importance of good Performance Reporting to an organization and project success
- Understand the drivers and techniques needed to reduce cycle time and the requirements and the barriers to reducing project life cycle time by 25 percent or more.
- Understand the use of the CII Cost Schedule Trade-Off Tool, which assists in selecting from 23 optimum techniques depending on the phase of a project.
- Develop a better understanding of project change and its total impact on design and construction projects; understand the correlation between the proportional amount of change on a project and labor productivity in design engineering and construction. Add
- Understand how cost engineering includes independent and reliable capital and operating cost assessment that can be used to analyze investment and development costs for owners.
- Learn to select the right CII Best Practice to manage cost and schedule.
- Understand schedule reduction techniques that do not increase project costs.

- Learn new ideas for compressing the time required for EPC and startup activities. Can be used for reducing total design-construct time, schedule acceleration, or schedule recovery.
- Understand how personnel, materials, and equipment are incorporated into work activities and how it relates to project cost estimating.
- Learn about cost codes and how they are incorporated into the WBS.
- Learn to estimate capital or asset costs including development costs; estimates of life cycle operating and maintenance costs; trending of scope and costs changes; decision analysis; project cost control.
- Understand the impact of various crew schedules on safety, productivity, project duration, and cost, from both union and non-union sectors. Learn about a productivity model that assists in selecting the crew schedule that is right for a particular project.
- Learn how fundamental changes can occur with dramatic results. Understand the impact of organizational re-engineering efforts.
- Learn the causes and types of changes, direct and consequential impacts of changes, and how to minimize the adverse effects of change on construction projects.
- Learn the strategic aspects of scope control and change management and the related processes used on successful projects.
- Learn to determine if an impact has occurred due to changes, and what the amount of the impact is. Understand approaches that would increase the effectiveness of the overall project while focusing on the common goal of project success.
- Learn an alternative to traditional measures used to gain information on how a project is doing in real time.

#### **Course Outline:**

1. Safety Moment
2. Introductions
3. Course Objectives/Agenda
4. Section 1 - Project Controls Perspective
5. Section 2 - Project Controls Process
6. Section 3 - Roles and Responsibilities for Project Controls
7. Section 4 - Scope Definition
8. Workshop #1 - Work Breakdown Structure
9. Section 5 - Planning and Scheduling
10. Workshop #2 - Planning
11. Section 6 - Cost Estimating
12. Workshop #3 - Estimating
13. Section 7 - Risk Management
14. Section 8 - Cost Risk Analysis & Contingency
15. Section 9 - Schedule Risk Analysis and Schedule Reserve (Time Contingency)
16. Workshop #4 - Risk Analysis
17. Section 10 - Schedule Control
18. Section 11 - Cost Control
19. Workshop #5 - Project Control
20. Section 12 - Progress and Productivity
21. Section 13 - Cost and Schedule Contingency Management
22. Section 14 - Communications and Reporting
23. Section 15 - Change Management
24. Workshop #6 - Progress/Productivity
25. Summary and Feedback
26. Closing Remarks

To register, click [here](#).

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