COURSE PROPOSAL:
INTRODUCTION TO THE
CONSTRUCTION INDUSTRY INSTITUTE (CII) BEST PRACTICES

AGENDA

DAY 1

08:00 – 12:00
• Construction Industry Institute (CII) Overview
• Implementing CII Best Practices
• CII Best Practices
  o Front End Planning
  o Alignment
  o Team Building
  o Partnering

12:00 – 1:00
Lunch

1:00 – 5:00
• CII Best Practices
  o Project Risk Assessment
  o Change Management
  o Constructability
  o Advanced Work Packaging

DAY 2

08:00 – 12:00
• CII Best Practices
  o Planning for Modularization
  o Zero Accident Techniques
  o Materials Management
  o Planning for Startup

12:00 – 1:00
Lunch

1:00 – 5:00
• CII Best Practices
  o Dispute Prevention and Resolution
  o Quality Management
  o Lessons Learned
  o Benchmarking and Metrics
  o Implementing CII Research
• **Advanced Work Packaging:** The overall process flow of all the detailed work packages (construction, engineering, and installation work packages). AWP is a planned, executable process that encompasses the work on an EPC project, beginning with initial planning and continuing through detailed design and construction execution. AWP provides the framework for productive and progressive construction, and presumes the existence of a construction execution plan.

• **Alignment:** The condition where appropriate project participants are working within acceptable tolerances to develop and meet a uniformly defined and understood set of project objectives.

• **Benchmarking & Metrics:** The systematic process of measuring an organization's performance against recognized leaders for the purpose of determining best practices that lead to superior performance when adapted and utilized.

• **Change Management:** The process of incorporating a balanced change culture of recognition, planning, and evaluation of project changes in an organization to effectively manage project changes.

• **Constructability:** The optimum use of construction knowledge and experience in planning, design, procurement, and field operations to achieve overall project objectives.

• **Disputes Prevention & Resolution:** Techniques that include the use of a Disputes Review Board as an alternate dispute resolution process for addressing disputes in their early stages before affecting the progress of the work, creating adversarial positions, and leading to litigation.

• **Front End Planning:** The essential process of developing sufficient strategic information with which owners can address risk and make decisions to commit resources in order to maximize the potential for a successful project. FEP is often perceived as synonymous with front-end engineering design (FEED), front end loading (FEL), pre-project planning (PPP), feasibility analysis, programming and conceptual planning.

• **Implementation of CII Research:** The comprehensive and effective use of proven CII products by member organizations as outlined in the CII Implementation Model.

• **Lessons Learned:** A critical element in the management of institutional knowledge, an effective lessons learned program will facilitate the continuous improvement of processes and procedures and provide a direct advantage in an increasingly competitive industry.

• **Materials Management:** An integrated process for planning and controlling all necessary efforts to make certain that the quality and quantity of materials and equipment are appropriately specified in a timely manner, are obtained at a reasonable cost, and are available when needed.

• **Partnering:** A long-term commitment between two or more organizations as in an alliance or it may be applied to a shorter period of time such as the duration of a project. The purpose of partnering is to achieve specific business objectives by maximizing the effectiveness of each participant’s resources.

• **Planning for Modularization:** The evaluation and determination of offsite construction in the front end planning phase to achieve specific strategic objectives and improved project outcomes. Includes developing a business case and execution strategy for large-scale transfer of stick-built construction effort from the jobsite to fabrication shops or yards.
• **Planning for Startup:** Startup is defined as the transitional phase between plant construction completion and commercial operations, that encompasses all activities that bridge these two phases, including systems turnover, check-out of systems, commissioning of systems, introduction of feedstocks, and performance testing.

• **Project Risk Assessment:** The process to identify, assess, and manage risk. The project team evaluates risk exposure for potential project impact to provide focus for mitigation strategies.

• **Quality Management:** Quality management incorporates all activities conducted to improve the efficiency, contract compliance and cost effectiveness of design, engineering, procurement, QA/QC, construction, and startup elements of construction projects.

• **Team Building:** A project-focused process that builds and develops shared goals, interdependence, trust and commitment, and accountability among team members and that seeks to improve team members’ problem-solving skills.

• **Zero Accidents Techniques:** Include the site-specific safety programs and implementation, auditing, and incentive efforts to create a project environment and a level of training that embraces the mindset that all accidents are preventable and that zero accidents is an obtainable goal.

**COURSE MATERIAL**

• PowerPoint Presentation

• SP166-4 - CII Best Practices Handbook