

€ TRAINING

Reviewing Assigned Projects Design
Submittals





Reviewing Assigned Projects Design Submittals

Introduction:

This training program equips participants with the skills and knowledge to effectively review and evaluate assigned project design submittals. It will empower them to assess completeness, accuracy, and compliance with project requirements, ensuring high-quality project deliverables and efficient project execution.

Program Objectives:

At the end of this program, participants will be able to:

- Understand the importance of thorough design submittal review for project success and risk mitigation.
- Interpret project documents including specifications, drawings, and design calculations.
- Apply relevant codes and standards to evaluate the technical adequacy of design submittals.
- Identify and address potential design flaws and inconsistencies in submitted documents.
- Provide clear and concise feedback to designers and stakeholders through written reports and communication strategies.
- Collaborate effectively with designers and other project team members to achieve optimal design solutions.

Targeted Audience:

- Design engineers.
- Project engineers.
- Review engineers.
- Architects.
- Construction managers.
- Anyone involved in reviewing and approving project design submittals.

Program Outline:

Unit 1:

Fundamentals of Design Submittal Review:

- The role of design submittal review in the project life cycle and its impact on project outcomes.
- Types of design submittals: Drawings, specifications, calculations, material data sheets, and shop drawings.
- Project documentation and reference materials: Understanding project specifications, codes, standards, and contract documents.
- The review process framework: Establishing a systematic and efficient approach to reviewing design submittals.
- Developing a review checklist: Creating a customized checklist based on project requirements and relevant codes.

Unit 2:

Technical Review of Design Submittals:

- Evaluating completeness and compliance: Ensuring all required information is included and adheres to project specifications and industry standards.
- Assessing technical accuracy of design calculations: Analyzing calculations for errors and verifying their alignment with project requirements.
- Reviewing drawings and specifications for clarity and consistency: Identifying potential inconsistencies, ambiguities, or missing details in drawings and specifications.
- Evaluating code compliance: Ensuring designs comply with relevant building codes, safety regulations, and industry standards.
- Identifying potential constructability issues: Foreseeing challenges during construction and recommending design modifications for improved buildability.

Unit 3:

Communication and Feedback Strategies:

- Effective communication with designers: Providing clear and constructive feedback on design submittals, maintaining a positive and collaborative environment.
- Documenting review findings: Creating clear and concise reports outlining identified issues, recommended revisions, and references to relevant codes or specifications.
- Utilizing effective communication tools: Leveraging markups on drawings, written reports, and collaborative communication platforms for effective feedback.
- Resolving design discrepancies and achieving consensus: Facilitating discussions, proposing solutions, and collaborating with designers to arrive at optimal design solutions.
- The importance of clear documentation: Maintaining a clear audit trail by documenting all review findings, discussions, and decisions.

Unit 4:

Advanced Review Techniques and Considerations:

- Risk-based review approach: Focusing review efforts on critical aspects of the design with higher potential risks.
- Utilizing design review software: Leveraging specialized software for enhanced collaboration, markups, and automated review processes.
- Reviewing complex design elements: Exploring specific considerations for reviewing structural, mechanical, electrical, and other engineering disciplines.
- Coordinating reviews across disciplines: Collaborating with other reviewers to ensure a holistic and comprehensive evaluation of the design.
- Maintaining professional ethics and liability considerations during the design review process.

Unit 5:

Continuous Improvement in Design Review:

- Benchmarking best practices: Learning from industry best practices and successful design review processes.
- Promoting a culture of continuous improvement: Identifying areas for improvement within the review process and implementing changes for enhanced effectiveness.
- Sharing lessons learned: Documenting key learnings and best practices from past project reviews for future reference.
- Staying current with codes and standards: Maintaining knowledge of updated codes and standards to ensure compliant design reviews.
- The role of technology in future design reviews: Exploring emerging technologies and their potential impact on design review methodologies.