Reading Construction Drawings and Specifications Training Course

1 – 5 February 2027
Singapore (Singapore)



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Introduction:

This Reading Construction Drawings and Specifications Training Course equips you to interpret, cross-examine, and audit complete multi-disciplinary engineering design sets across one week. You will construct a Drawing and Specification Verification Audit Package containing drawing index audits, cross-discipline clash logs, and specification alignment schedules. You need foundational familiarity with job-site operations or project administration, as this practitioner-level course strengthens your ability to verify contract documents without guesswork. You will practise through case study exercises, inspecting real drawing sets, resolving discrepancies, and defending coordination reviews against governing standards.

Course Objectives:

- Build drawing sheet register checklists using standard title block protocols to verify drawing hierarchies and revision clouds across contract packages.
- Draft cross-discipline coordination reviews using orthographic projection principles to align architectural partitions with structural grid lines.
- Map building envelope and partition fire ratings against International Fire Code requirements to validate life-safety compliance.
- Score mechanical, electrical, and plumbing penetrations using clash detection matrices to prevent structural interference.
- Test project drawing details against International Code Council model code provisions using specification verification rubrics.

Target Audience:

- You assist site engineers and construction managers by reviewing architectural and structural shop drawings against project specifications.
- You coordinate trade subcontractors on site by checking mechanical, electrical, and plumbing drawings against structural grid lines and slab openings.
- You prepare quantity take-offs and material submittals by extracting dimensional data and material callouts from construction plans.
- You support project quality control by inspecting installed site works against approved detail drawings, revision clouds, and contract schedules.



Course Outline:

Day 1: Navigating Drawing Hierarchies and Title Block Controls

- Decoding drawing sheet indices using standard numbering systems
- Interpreting orthographic projection plans using graphic scale rules
- Tracking document revisions using drawing revision cloud logs
- Differentiating contract packages using drawing hierarchy classification protocols
- Drawing Sheet Index and Title Block Compliance Checklist

Day 2: Applying Technical Standards to Architectural and Structural Drawings

- Correlating architectural floor plans using grid line reference systems
- Verifying concrete reinforcement details using structural member schedules
- Validating life safety plans using International Fire Code
- Reviewing structural foundation layouts using soil investigation report data
- Multi-Discipline Architectural and Structural Coordination Matrix

Day 3: Coordinating Building Services and Specification Callouts

- Tracing mechanical ductwork layouts using piping and instrumentation diagrams
- Inspecting electrical single-line diagrams using standard equipment symbol keys
- Aligning plumbing riser schematics using architectural wet area elevations
- Cross-referencing drawing material callouts using written master specification sections
- MEP Penetration and Specification Alignment Schedule

Day 4: Resolving Discrepancies and Cross-Discipline Coordination Clashes

- Detecting multi-disciplinary design conflicts using overlay coordination matrices
- Managing drawing dimension discrepancies using do-not-scale verification rules
- Evaluating wall opening penetrations using structural clearance criteria
- Documenting drawing omission risks using standard request for information forms
- Cross-Discipline Clash and Discrepancy Log

Day 5: Auditing Project Submittals Through Case Study Analysis

- Reviewing full multi-discipline submittal sets using case study drawings
- Evaluating architectural and engineering conflicts using earlier coordination matrices
- Validating building service openings using the MEP penetration schedule
- Prioritising design rectification items using the discrepancy tracking log
- Drawing and Specification Verification Audit Package



Skills You Will Gain:

- Orthographic Projection Interpretation
- Drawing Revision Tracking
- Structural Schedule Verification
- MEP Penetration Coordination
- Technical Specification Cross-Referencing
- Design Clash Detection
- Request for Information Drafting

Why Attend This Course:

- Interpret complex multi-disciplinary drawing packages confidently without relying on guesswork or verbal explanations.
- Identify design discrepancies between architectural layouts and structural details before they cause delays on site.
- Validate building services drawings against written project specifications and model building code requirements.
- Construct a Drawing and Specification Verification Audit Package to standardise quality checks across your project team.

Conclusion:

Returning to your site or office, you will immediately deploy your Drawing and Specification Verification Audit Package to conduct an initial discrepancy review on your current contract drawings. You will present the resulting clash log and specification alignment findings to your project manager and lead design coordinator during the weekly site progress meeting. After completing the first technical submittal review cycle using your audit checklist, you will check the resolution rate of documented requests for information to ensure all design conflicts are resolved before physical installation begins.

Frequently Asked Questions FAQ:

What will you be able to do after the Reading Construction Drawings and Specifications Training Course?

You will be able to interpret multi-disciplinary drawing sets, identify cross-trade discrepancies, and verify construction documents against project specifications. You will navigate structural schedules, civil plans, MEP schematics, and architectural layouts while validating annotations and compliance notes across contract packages.



What do you need to know before starting the Reading Construction Drawings and Specifications Training Course?

You need basic exposure to building sites or project documentation workflows. Familiarity with standard construction terminology, general layout plans, and basic measuring units ensures you can readily navigate technical schedules, orthographic projections, and specification clauses throughout the course exercises.

What deliverable do you build during the Reading Construction Drawings and Specifications Training Course?

You build a Drawing and Specification Verification Audit Package. This deliverable integrates a sheet index checklist, a multi-discipline coordination matrix, an MEP penetration schedule, a cross-trade discrepancy log, and a formal case study review report to guide design verification on live projects.

How does the Reading Construction Drawings and Specifications Training Course differ from a general project management course?

This course concentrates specifically on technical document interpretation, drawing coordination, and specification compliance rather than high-level budgeting, contract administration, or scheduling. You examine actual drawing symbols, grid alignments, material callouts, and multi-disciplinary clash points directly through practical document case studies.

