

The CSI CDT Exam Candidate Handbook

**Spring/Fall
2017**

CONSTRUCTION DOCUMENTS TECHNOLOGY PROGRAM



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SUMMARY

Summary

The objective of the **Construction Documents Technologist Program** is to improve construction documentation. We encourage individuals to become familiar with the fundamentals and the principles of construction specifications and the organization of construction documents as recommended by CSI.

The program allows individuals to demonstrate their knowledge of CSI's recommended practices in:

- **Construction**
- **Contractual Relationships**
- **Relationships and Organization of Construction Documents.**

A **Construction Documents Technologist** (CDT) is a person who has demonstrated the basic knowledge of construction fundamentals and the formats of construction documentation as prescribed by CSI and the general conditions of the contract for construction.

Eligibility Requirements

There are no formal eligibility requirements for the CDT program. Membership in CSI is not required. However, CSI members have access to a number of exam-taking benefits, including reduced rates for exam registration, study material purchase, and CSI event registration. For more information on membership benefits, visit: www.csinet.org/membership.

Candidate Profile

REQUIREMENTS	
Education	No educational requirements
Experience	No work experience requirements
Job Training	No job training requirements
CAREER INFORMATION	
Typical Job Titles	Architect, Engineer, CAD Technician, Designer, Assistant or Associate Designer, BIM Modeler, Architect Intern, Field Engineer, Construction Administration Staff, Product Sales/Technical Representative, A/E/C Firm Support Staff, Student, Educator, Code Official, Commissioning Agent, Project Manager, Construction Manager, Specifier, Construction Attorney

Related Experience	Construction Field Experience, Development of Contract Documents, Performance of Contract Administration or Project Engineering, Project Management, Product Representation, A/E/C Office Experience, Construction Arbitration
Typical Education Paths	An architectural or engineering related degree; a construction related degree; a secondary school education or equivalent

EXAM APPLICATION

2017 Registration and Testing

Spring 2017 Exam Dates	March 27 th to June 2 nd , 2017
Spring 2017 Early Registration	January 9 th to January 24 th , 2017
Spring 2017 Standard Registration	January 25 th to February 27 th , 2017
Spring 2017 Final Registration	February 28 th to March 14 th , 2017
Fall 2017 Exam Dates	September 25 th to December 10 th , 2017
Fall 2017 Early Registration	June 26 th to July 10 th , 2017
Fall 2017 Standard Registration	July 11 th to August 28 th , 2017
Fall 2017 Final Registration	August 29 th to September 6 th , 2017

Exam Application Fees

Exam Type	Member Early	Member Standard	Member Final	Non-member Early	Non-member Standard	Non-member Final
CDT	\$295	\$375	\$545	\$545	\$625	\$795
CDT Student	\$165	\$165	\$165	\$165	\$165	\$165

Registration includes the exam application fee.

It does not include the CDT Preparation Materials, CDT Practice Exam, Project Delivery Practice Guide, or the AIA A201 or EJCDC C700 exam source materials, which may be purchased separately.

Applying for an Exam

1. Exam applications are completed online at portal.csinet.org
2. **To register online:**
 - A. Login to the CSI website. If you are a new user, create a user name and password or register without joining.
 - B. Complete the demographic information form and select the next button.
 - C. In the Apply for New Certifications box, click “Apply for Construction Documents Technology Certificate.”
 1. Select one of the CDT Types:
 - *CDT Initial Certification Application Type:* If you are applying to take the exam in the USA or Canada.
 - *CDT Initial Certification Application Type – International:* If you are applying to take the exam in Europe, Africa or the Middle East. (Please refer to CDT International Candidate Handbook for further detail)*CDT Student Initial Certification Application Type:* If you are a student currently enrolled at a university or college (must provide valid documentation).
 - D. Agree to the terms and conditions, click “Continue.” E.

Select the Application Fee, click “Continue.”
 - F. Optionally, enter total years of experience, click “Continue.” G.

Enter information on your two references, click “Continue.”
 - H. Pay by Credit Card and submit the payment. See receipt page.
 - I. If you click “Home,” you will see that the application has been “Submitted.”
3. You will be sent your Authorization To Test (ATT) Notification via email within 2-3 weeks of your processed application. Be sure to provide a valid email address when applying for an exam.

Scheduling an Exam with Prometric

The CDT is a computer-based exam administered at Prometric test centers throughout the US and Canada.

Once your application is approved by CSI, you will receive an email notification with instructions how to schedule your exam at a Prometric test center using your individual authorization number.

Go to the Prometric website: www.prometric.com/CSI. Select "Locate A Test Center" to view the available Prometric test centers and schedule an exam.

EXAM FORMAT

Format

The CDT exam is a computer-based test that contains 120 multiple-choice questions. Twenty of the 120 are pre-test questions that have been included for statistical validation purposes.

These additional questions will not be counted when scoring the exam. Candidates have **two (2)** hours to complete the exam.

Exam Specifications

The proportion of the exam dedicated to each domain is as follows:

Domain 1:	Fundamentals	12%
Domain 2:	Project Concept and Delivery	10%
Domain 3:	Design Process	12%
Domain 4:	Construction Documents	28%
Domain 5:	Procurement	10%
Domain 6:	Preconstruction	6%
Domain 7:	Construction	16%
Domain 8:	Lifecycle Activities	6%

Exam Content Outline

Domain 1: Fundamentals

- A. Job roles and responsibilities of the four project teams (i.e., owner team, design team, contractor team, and supplier team; tripartite relationships)
- B. Facility life cycle with associated activities and documents
- C. Written Formats (e.g., OmniClass™, Uniformat™, MasterFormat™, GreenFormat™, SectionFormat™, PageFormat™)
- D. Graphic Formats (e.g. National CAD Standard)
- E. Principles of communication (4Cs – clear, concise, correct, complete; complete contract document language and coordination)
- F. Legal implications of contract documents

- G. Sustainable design and construction

Domain 2: Project Conception and Delivery

- A. Programming, planning and pre-design
- B. Feasibility and impact studies, and facility evaluations
- C. Design and construction services
- D. Budget
- E. Scheduling
- F. Delivery methods (e.g., design-bid-build (D-B-B), design-negotiate-build (D-N-B), construction management (CM), design-build (D-B), integrated project delivery (IPD), owner-build (O-B) and contract types (e.g., single- or multiple prime)
- G. Team Selection process
- H. Site selection activities and purposes
- I. Planning for commissioning

Domain 3: Design Process

- A. Schematic design documentation (e.g., preliminary project description [PPDFormat™], methods of specifying, drawing types)
- B. Design development documentation (e.g., outline specification, cost estimates, drawing types)
- C. Quality assurance/quality control requirements
- D. Procedures to control project variables (e.g., allowances, alternates, unite prices)
- E. Estimates of probable cost (UniFormat™ or MasterFormat™)
- F. Life cycle costs and value analysis
- G. Documentation of decision-making process
- H. Design considerations and constraints (e.g. aesthetics, regulatory requirements, functional requirements, sustainability, constructability, budget, building systems)
- I. Product evaluation and selection
- J. Building Information Modeling - BIM

Domain 4: Construction Documents

- A. Project Manual – Division 00: procurement requirements (e.g., solicitation, instructions, available information – resource drawings, forms)
- B. Project Manual – Division 00: contracting requirements and forms (e.g., construction agreements, conditions of the contract, bonds, certificate, modifications, clarifications)
- C. Project Manual – Division 01: general requirements
- D. Project Manual – Divisions 02- 49: specifications
- E. Drawings: role and function; scaled and non-scaled views; identification cover sheet, drawing blocks, special line types, shading, dimensions, symbols, and abbreviations; formats; (U.S. National CAD Standard – NCS)
- F. Modification process (e.g., addenda, change order instructions, change directive,

- minor changes in the work)
- G. Document coordinator
- H. Methods of specifying (i.e., descriptive, reference standard, proprietary and performance)
- I. Specification language (e.g., streamlining, indicative, imperative)
- J. Hierarchy of general, administrative, and procedural requirements (e.g., GeneralConditions, Div 01- General Requirements, Part 1 – General
- K. MasterFormat™
- L. SectionFormat™
- M. PageFormat™
- N. Warranties
- O. Insurance (i.e., builder's risk, liability [general and professional] worker's compensation)

Domain 5: Procurement

- A. Pricing methods (e.g., stipulated sum, guaranteed maximum price, cost plus a fee or without a GMP)
- B. Purchasing by owner
- C. Pricing considerations (cost analysis, types of costs, overhead and profit)
- D. Competitive pricing (e.g., value analysis of substitutions, pricing of various delivery methods)
- E. Project information (e.g. distribution and control)
- F. Bidding (public or private; addenda)
- G. Negotiating process (e.g., value analysis)
- H. Purchasing of goods (e.g., purchase orders)
- I. Subcontracting (e.g., bid shopping)

Domain 6: Preconstruction

- A. Notice to proceed, letter of intent to award, or executed agreement
- B. Preconstruction submittals (e.g., bonds, insurance, subcontractor lists, schedules, control plans, permits)
- C. Roles and responsibilities (i.e., owner, contractor, design professionals, subcontractor, termination for convenience/cause)
- D. Meetings and meeting documentation
- E. Verification of site conditions
- F. Mobilization

Domain 7: Construction

- A. Meetings and meeting documentation (pre-free, preinstallation)
- B. Submittals (e.g., types, parties involved, product data, shop drawings, samples, and certificates).
- C. Site visits, observations, inspections and stopping the Work

- D. Quality assurance/quality control implementation (e.g., uncovering and correction of work)

- E. Contract interpretations and modifications (i.e., minor modification, change directive, change order, requests for interpretations/information (RFIs), substitutions during construction)
- F. Executing the work (field engineering, supervision, coordination, sequencing, scheduling, construction means and methods, examination and verification, preparation, erection, installation, and application, cleaning and construction waste management, protecting install construction, testing and inspection, and project site safety)
- G. Claims and disputes (e.g., mediation, arbitration, litigation)
- H. Measurement and payment (progress payments, schedule of values, retainage, substantial completion, final completion, and final payment)
- I. Project closeout (e.g., correction period, operations and maintenance manuals, record documents, demonstration and training, substantial completion and final completion)

Domain 8: Lifecycle Activities

- A. Commissioning
- B. Role and responsibilities of facility manager
- C. Facilities operations and maintenance (e.g., service providers, building management systems)
- D. Resource materials (e.g., record documents, BIM)
- E. Facility evaluations (basic components)
- F. Decommissioning (e.g., demolition, deconstruction)

Exam Development

The CDT exam reflects the results of a professional Body of Knowledge Analysis (BoKA) that determined the subject matter areas (knowledge domains) that are important for a Construction Documents Technologist to master. The purpose of a BoKA is to thoroughly review and update the definition of the subject matter to be tested on the exam so that it reflects the current state of the industry and evolving trends in project delivery, design, construction documentation, construction contract administration, and facility management.

As a result of the intensive work of CSI's CDT BoKA task teams and its professional consultants, the CDT exam includes content not reflected in previous exams. Among the major updates to the CDT, which have been included in the Project Delivery Practice Guide (PDPG), are:

- Sustainability, as reflected in green building. Sustainability is a critical imperative driving design and construction in the 21st century. The BoKA recognized the need for CDT holders to have a basic grasp of sustainability concepts.
- New technologies and methods. These hold the promise of transforming design and construction. These developments include building information modeling (BIM) and integrated project delivery (IPD).

The BoKA identified a need for the CDT to accentuate deeper knowledge of the activities and documents associated with the construction stage of a project, along with more exposure to the considerations that go into design, to give CDT holders a better grounding in the day-to-day realities of project development.

The current CDT test forms represent a significant commitment by CSI to provide an examination that reflects current practice and cutting edge developments that affect construction documents and project delivery.

Development of CDT updates are the foundation of appropriate future updates to the advanced certification (CCS, CCCA, CCPR) programs.

EXAM REFERENCE MATERIALS

Exam Reference Materials

The CDT examination is based solely on the following documents:

CSI DOCUMENTS

- Project Delivery Practice Guide (PDPG)
- MasterFormat
- UniFormat
- SectionFormat
- PageFormat
- GreenFormat

MasterFormat, UniFormat, SectionFormat, PageFormat, GreenFormat are available for download with the purchase of the Project Delivery Practice Guide (See back of book for instructions to download).

Many of the CSI documents have been updated in recent years. Candidates are cautioned that older versions, such as MasterFormat 1995, are no longer supported by CSI and should not be relied upon in preparing for the exam.

CONDITIONS OF THE CONTRACT

AIA Document A201 – 2007

American Institute of Architects

1735 New York Avenue, NW

Washington, DC 20006-5292

Ph: (800) 242-3837 Fax: (202) 626-7547

www.aia.org

OR

EJCDC C-700 – 2007

National Society of Professional Engineers

1420 King Street

Alexandria, VA 22314-2794

Ph: (703) 684-2800 Fax: (703) 836-4875

www.nspe.org

SUSTAINABILITY/GREEN BUILDING

- U.S. Environmental Protection Agency (EPA)
www.epa.gov/greenbuilding/pubs/about.htm
- GreenFormat
www.csinet.org/greenformat

EXAM STUDY RESOURCES

Please note, not all materials below will be available at the time of publishing, check csinet.org for the most current products

CDT Study Workbook

CDT Study Workbook is available for purchase at www.csinet.org.

The CDT Study Workbook is a guide to help candidates prepare for the CDT Exam. The workbook facilitates a clear understanding of the fundamentals and formats of construction documents, and is comprised of exercises, examples, and practice questions that address the development of facilities and the ins and outs of the process. The structure of the CDT Study Workbook follows the CSI Project Delivery Practice Guide with an emphasis on the CDT Subject Matter Area specifications. It is not a practice exam.

CDT Information Webinars

View recorded webinars for [CDT](http://www.youtube.com/csiconstruction) at www.youtube.com/csiconstruction under the Certification, Education and Professional Training Section.

CSI Chapter CDT Courses

Don't hesitate to ask your local chapter to help you prepare for an exam. Many CSI chapters offer CDT prep programs. Contact your local chapter for information about their prep courses. To find a [Chapter Study Course](#) go to: www.csinet.org/chapterprep.

CDT Prep Course

The CDT Prep Course is a series of webinars that provide an overview of the fundamentals and formats of construction documents as promulgated by CSI and the general conditions of the contract for construction. The CDT Prep Course lays the groundwork for understanding the development of facilities and the ins and outs of the processes and, most important, prepare students for taking the CDT exam.

http://eo2.commpartners.com/users/csi/category.php?cat_id=78

Project Delivery Practice Guide (PDPG) Flash Cards

Use Project Delivery Flash Cards to review for your CDT exam. PDPG flash cards are available for:

iPhone, <http://itunes.apple.com/us/app/csipdfflash/id477047114?mt=8>

iPad, <http://itunes.apple.com/us/app/csipdfflash/id477047114?mt=8>

Download, <https://portal.csinet.org/Sales/Cart/Detail.aspx?id=567d6fff-930c-e111-8852-0019b9e160b2>

CSI CERTIFICATE POLICIES

CSI exam application fees are non-transferable to another individual.

Candidates who are unable to sit for a scheduled exam may request rescheduling within the same exam window or cancellation with the possibility of a full or partial refund of the application fee. Cancellation requests must be submitted to the Institute in writing using the appropriate request form. The form is available at www.csinet.org. Also a scheduled appointment with Prometric must be cancelled separately through Prometric via www.prometric.com/csi or 1-800-503-8991.

Candidates who do not request a cancellation and do not sit for the exam forfeit all fees. Candidates who then wish to sit for the next exam window must submit a new application and fee.

- Cancellation requests received at least 30 calendar days prior to the first day

of the test window will be refunded 100% of the exam fee.

- Cancellation requests received less than 30 calendar days prior to the first day of the test window will be refunded 50% of the exam fee.
- Cancellation requests received less than 14 calendar days prior to the first day of the test window will not be refunded any portion of the exam fee.

Those who are not successful in passing an exam may retest during the next exam window. Retests require a new application and registration fee.

A list of passing candidates will be posted at www.csinet.org.

Once the CDT exam is passed and a CDT Certificate is obtained, the certificate holder has achieved one mandatory prerequisite for pursuing any one of the higher CSI certifications including:

- CCS - Certified Construction Specifier
- CCCA - Certified Construction Contract Administrator
- CCPR - Certified Construction Product Representative

Achieving the CDT Certificate is a lifetime achievement.

Congratulations to all who are participating in the CDT program!