

Canadian Construction Association
Gold Seal Certification Program

GOLD SEAL CERTIFICATION **GUIDE**



CANADIAN CONSTRUCTION
ASSOCIATION
CANADIENNE DE LA CONSTRUCTION



Introduction

The Canadian Construction Association (CCA)'s National Gold Seal Committee welcomes your interest in becoming a Gold Seal Certified Superintendent, Estimator, Project Manager, Owner's Construction Manager or Construction Safety Coordinator.

What is Gold Seal?

The CCA National Gold Seal Certification Program recognizes achieved excellence in the management of construction in the Heavy Civil (HC), Industrial, Commercial and Institutional (ICI) sectors of the construction industry in Canada. The program is supported by the Canadian Construction Association (CCA) and managed by the National Gold Seal Committee.

The certification issued to successful Gold Seal applicants recognizes personal achievement of a nationally recognized standard of education, experience and excellence in the construction industry in one of five designations: Superintendent, Estimator, Project Manager, Owner's Construction Manager or Construction Safety Coordinator.

The Gold Seal Certificate enhances individual mobility and supports recognizing existing and ongoing professional development of managers of construction.

There are over to 8 000 Gold Seal Certified managers of construction in the Heavy Civil (HC) sector, including roadbuilding, earthmoving, sewer and water works, and the Industrial Commercial Institution (ICI) sector, including general contracting, mechanical contracting, electrical contracting and trade contracting, and overall in construction safety in Canada.

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What is a Superintendent?

A construction superintendent is the point person on a construction site and is usually responsible for the overall operation at the site. This includes a number of important functions related both to budget and quality.

A construction superintendent's most difficult task may be to take care of scheduling and timing. Many construction projects may have tight deadlines and need to be done in a certain order. Making sure the subcontractors arrive when they are supposed to be there, and get the job done within their allotted time frame, is one of the key duties of the position.

In order for this to take place, a construction superintendent must have good multitasking and scheduling skills. He/she is responsible for overseeing multiple facets of the project, many of which may occur simultaneously.

Major responsibilities include:

- ↓ Organize, coordinate, and supervise the work of the Foreperson, Sub Foreperson, and/or craft employees on construction projects.
- ↓ Determine work priorities and coordinate work activities within the design area and/or with others outside of the office.
- ↓ Apportion work among employees according to abilities or specialized training.
- ↓ Coordinate construction which involves scheduling meetings and reviewing project documents (e.g., contracts, specifications, blueprints) as necessary.
- ↓ Collaborate with administrators on the supervision of all work operations.
- ↓ Keep cost records on work performed and materials; is responsible for the control of costs in materials and wages.
- ↓ Exercise control over rate of construction progress in order to complete construction project within time limits; schedule jobs and operations.
- ↓ Estimate materials needed for specific jobs; estimate manpower needed for specific jobs.
- ↓ Lead inspection and commission of day to day construction work to enforce conformity to specifications.

What is an Estimator?

The estimator's responsibility is to accurately forecast the cost, size, and duration of construction projects. This information is required by business owners to decide on the profitability of a proposed new project and whether or not to make a bid for a contract.

Estimators collect and analyze data on all of the factors that can affect costs, such as materials, labor, location, safety requirements, duration of the project, and special machinery requirements, including computer hardware and software.

Specific tasks can include:

- ↓ Review preliminary drawings and specifications.
- ↓ Visit the construction site to gather information on access, surface topography, drainage, availability of electricity, water, and other services.
- ↓ Determine the labor and materials quantities required typically referred to as the quantity survey or "takeoff".
- ↓ Analyze bids made by subcontractors.
- ↓ Assess equipment needs, the operations sequence, crew size, site physical constraints.
- ↓ Allow for wasted materials, inclement weather, shipping delays, and other cost impact factors.
- ↓ Prepare a project cost summary, including labor, equipment, materials, safety, subcontractors, overhead, taxes, insurance, mark-up.
- ↓ During construction, estimators may manage the cost, negotiation and settlement of change orders or extra costs and mitigate potential claims.
- ↓ Estimators may also be called upon as expert witness on cost in a construction dispute case.

What is a Project Manager?

A construction project manager is the person responsible for accomplishing the stated construction project objectives, including creating clear and attainable project objectives, building the project requirements, and managing the triple constraint for projects, which are *cost*, *time*, and *quality* (also known as scope).

A project manager is often a client representative and has to determine and implement the exact needs of the client, based on knowledge of the firm they are representing. The ability to adapt to the various internal procedures of the contracting party, and to form close links with the nominated representatives is essential in ensuring that the key issues of cost, time, quality and above all, client satisfaction, can be realized.

The project manager is accountable, as the company representative, for time, cost and general overall project performance, and is responsible for promoting close and harmonious relations with the owner/client and design consultants. The project manager provides leadership in connection with overall project matters and strategy. He/she may be responsible for managing one or more projects.

Major responsibilities include:

- ↓ Assist in project selection and advise estimator at tendering stage on construction methods and indirect costs of construction to be used.
- ↓ Study plans, specifications, addenda and all construction conditions.
- ↓ Establish project strategy with supervision and general management, and determine the timing and synchronization of all project activities associated with schedules.
- ↓ Coordinate the preparation of basic guidelines for the project in areas such as task breakdown and definition, decide to subcontract or build with own forces, scheduling, budgeting, project organization and staffing.
- ↓ Control the project through the use of budgets, schedules, and progress reports, and integrate these with the technical performance of the project to ensure that work is performed on schedule and in the most economical manner.
- ↓ Adapt standard contract documents for subcontractors and suppliers.
- ↓ Negotiate, modify and award subcontracts.
- ↓ Maintain continuous relations with the client and design consultants at the senior working level.

↓ Review change orders and ensure change order procedures are instituted and followed throughout the project.

↓ Direct the activities of the project superintendent, project engineer, project office manager and staff.

↓ Establish project milestones and direct the updating, revising and analyzing of project schedule.

↓ Oversee hiring, dismissing, training, and reviewing performance of staff responsible for project coordination.

↓ Manage the project risks by developing and implementing the project risk management plan.

What is an Owner's Construction Manager?

An owner's construction manager is accountable to the Procurement Authority, which could include owners, consultants (on behalf of owners), general contractors, construction managers and design builders, for time, cost, quality, and general overall project performance, and is responsible for promoting close and harmonious relations with the stakeholders.

In the pre-award phase of the project, the major objectives of the project team under the overall leadership of the owner's construction manager include stakeholder relations, project scope and design, project cost, project schedule, project risk, project procurement, project quality, and the productive effort required to ensure that the specific project requirements and contractual obligations are met.

In the post-award phase of the project, and being accountable to the Procurement Authority, the owner's construction manager provides overall leadership in connection with project development, implementation and

close-out which includes project scope, project cost, project schedule, project risk management, project procurement, project quality, and the productive effort required to ensure that the specific project requirements and contractual obligations are met.

Major responsibilities include:

- ↓Develop the business case by defining the needs and expectations for the project.
- ↓Develop the scope of the project by deriving the project charter and project definition.
- ↓Develop and maintain the project budget through the life of the project.
- ↓Develop and maintain the project schedule from inception to close-out and commissioning.
- ↓Manage project stakeholder relations through documentation and communications.
- ↓Manage the project procurement by selecting and managing the designers, contracting strategies, project delivery methods and contractors.
- ↓Manage the construction contract process through the pre-construction, construction and post-construction phases.
- ↓Manage the project risks by developing and implementing the project risk management plan.
- ↓Manage the change process by developing and implementing the project change management plan.
- ↓Manage the project close-out and commissioning process by defining the requirements of the project at substantial and final completion. Provide follow-up feedback on the processes implemented in the effort to meet the needs and expectations defined in the project business case.

What is a Construction Safety Coordinator?

The construction safety coordinator is a valuable resource to management in the administration, development, implementation

and monitoring of a site specific health, safety and environment program.

Relying on training, practical experience and effective communication skills, the construction safety coordinator liaises with project management, government agencies, associations and all site personnel to prevent incidents, injuries and other forms of loss.

Construction safety coordinators identify, assess, communicate and recommend controls on a variety of health, safety and environment issues specific to the jobsite. The construction safety coordinator keeps management current on the status of Health Safety and Environment (HSE) issues that may impact on the work being performed and maintains HSE program documentation.

Major responsibilities include:

- ↓Prestart meetings
- ↓Orientation
- ↓Hazard Assessments
- ↓Incident investigations
- ↓Training
- ↓Inspections
- ↓Safety Meetings
- ↓Toolbox talks
- ↓Records keeping/Safety Administration
- ↓Safe work procedures
- ↓Report writing
- ↓Emergency preparedness and response

How does one obtain Gold Seal Certification and how much does it cost?

Certification by Examination Criteria is for candidates seeking Gold Seal Certification as Superintendent, Estimator, Project Manager, Owner's Construction Manager or Construction Safety Coordinator. A special

Gold Seal credit scoring system has been developed to assess an individual's industry experience, trade skills, related management skills, education and training.

To qualify under the **Examination Criteria**, a candidate must score a minimum of 100 Gold Seal Certification credits. Of the 100 credits requirement, a total of 50 credits must be attained in the industry experience category which is 5 years of experience in one of the following designations: **Superintendent, Estimator, Project Manager or Owner's Construction Manager**. A minimum of two (2) of these five (5) years must be Canadian experience. Additional credits can be obtained from the balance of the other categories.

The certification fee is **\$500** per certificate plus GST/HST where applicable.

Training must be specific to the construction industry and emphasis is placed on management as opposed to technical areas of training.

The National Gold Seal Committee requires Gold Seal candidates to gain knowledge in subject matters related to the following eleven topics:

1. **Overview of the Construction Industry**
2. **Construction Safety**
3. **Communication**
4. **Law and Contracts for the Construction Industry**
5. **Construction Estimating**
6. **Management of Human Resources in the Construction Industry**
7. **Construction Job site Controls**
8. **Construction Planning - Scheduling**
9. **Project Costing Control and Accounting**
10. **Project Management**
11. **Construction and the Environment**

Courses must have been taken within the last **ten years** (last five years for the Construction Safety Coordinator). Courses related to these topics will be allocated credits.

The **Gold Seal Intern (GSI)** criteria is in place to assist candidates who seek certification under the examination criteria but who do not meet current exam eligibility requirements.

What subject matter is covered in these eleven topics?

Topic 1: Overview of the Construction Industry

The information in this topic should stress the impact the construction industry has on the economy. In addition, attention will be given to the changes in conducting business brought about by concern for the environment and advances in technology.

In order to appreciate the construction process, the function of key players and the interaction between people and various contractors involved in the construction industry, participants will follow a construction project from job start-up through to job close-out.

Topic 2: Construction Safety

The information in this topic should provide assistance in designing and monitoring construction safety programs within the framework established by local, provincial, and federal acts and regulations.

Topic 3: Communication

The information in this topic should provide participants with an overview of the communication process and emphasizes the nature, elements and processes of written and verbal communication within the construction industry.

Topic 4: Law and Contracts for the Construction Industry

The information in this topic should provide an overview to law in a general way and then examines specific concepts as they relate to the construction industry. Particular attention is directed to contract and construction law cases.

Topic 5: Construction Estimating

The information in this topic should provide participants with the knowledge and skills necessary to prepare, assemble and submit a bid. In addition, participants learn how to set up a historical database.

Topic 6: Management of Human Resources in the Construction Industry

The information in this topic should provide an overview of management skills. Special attention is given to developing interpersonal skills and identifying a problem solving method.

Topic 7: Construction Job Site Controls

The information in this topic should provide participants with the knowledge necessary to manage a construction site. Participants will learn how to lay out a job site, manage materials, tools and equipment as well as coordinate labour and subcontractors.

Topic 8: Construction Planning - Scheduling

The information in this topic should assist construction managers in the complex task of planning a construction project, scheduling the use of labour, equipment and material, sub-trades, and organizing the construction process. In addition, participants will learn how to prepare progress reports.

Topic 9: Project Costing Control and Accounting

The information in this topic should provide participants with a general background to the process of measuring, recording and summarizing the financial events of a construction project. With the basic background, participants will then learn how to maintain records and perform various project cost control functions.

Topic 10: Project Management

The information in this topic should provide participants with the knowledge necessary to manage a project. Participants will learn how to develop a business case and scope a project as well as how to manage project procurement, the construction contract process, project risk,

the change process and the project close-out and commissioning.

Topic 11: Construction and the Environment

The information in this topic should stress the importance of being acutely aware of the environmental conditions, policies, and regulations that can affect the construction industry. It also provides information for creating and monitoring environmental management plans and onsite controls.

The National Gold Seal Committee recognizes that many other construction industry courses exist. These courses, subject to review, could qualify as Gold Seal Special Industry Courses which would assist Gold Seal candidates in their endeavour to become certified.

More details on these eleven topics are covered in the “National Curriculum Standard” available on the Gold Seal Website at www.goldsealcertification.com or by contacting the CCA offices.

Where are courses offered?

The responsibility for locating and enrolling in these or similar courses rests with the Gold Seal applicant.

The [Gold Seal website](http://www.goldsealcertification.com) has an extensive list of accredited courses offered by local construction associations, educational institutions and private agencies across Canada. Once on the site, click “Get Certified” then on “Education” then ‘Accredited courses’.

How are National Gold Seal Examinations structured?

All Gold Seal examinations have a pass mark of 75% and all questions on the examinations have been developed and verified by construction managers.

Examinations are structured in two parts: **Part A** consists of multiple choice questions, and **Part B** consists of essay or short answer questions,

working with specifications and quantity take-off questions.

Regardless of whether you are an **Estimator, Superintendent or Project Manager**, examination questions generally fall into one of the following four broad subject areas:

- (A) **Related Management Skills** assessing generic skills such as: working with contract documents and communication, etc.
- (B) **Pre-On-site Activities** assessing a wide range of issues to which construction managers are exposed prior to actually being on the construction site such as: the tendering process, pre-construction site visits, and developing a tactical plan, etc.
- (C) **On-site Activities** assesses issues such as: material handling, field purchase orders, change orders, managing the workforce/material/ equipment, and interacting with other contractors, government, clients, etc.
- (D) **Post-Project or Project Close-Out** assesses warranty issues, substantial completion, hold back monies, project commissioning, etc.

As **Owner's Construction Managers**, all examination questions generally fall into one of the following four broad subject areas:

- (A) **Related Management Skills** assessing generic skills such as: working with the development of business cases, project scopes, methods of project procurement, project risk plans, project change management plans, project close-out plans, contract documents, stakeholder lines of communication, etc.
- (B) **Pre-Construction Activities** assessing a wide range of issues to which Owner's Construction Managers are exposed prior to actually having contractors on their project sites such as: development of the quality

assurance plan, obtaining permits, verifying access, safety, environmental, costing, security and emergency plans, ensuring adequate contract securities are in place, coordination of the job start-up meeting, review of schedule, etc.

- (C) **Construction Activities** assesses issues such as: monitoring of project risk, changes, quality assurance, safety, cost, progress, submissions, commissioning, payments, potential claims, etc.
- (D) **Post-Project or Project Close-Out** assesses substantial and final completion, release of hold back monies, training, warranties, as-built, manuals, project commissioning, occupancy, historical data, lessons learned, etc.

As a **Construction Safety Coordinator**, all examination questions generally fall into one of the following three broad subject areas:

- (A) **Administrative Functions** which assesses the safety coordinator's ability to maintain project documentation; conduct specific HSE orientation to all personnel entering the jobsite; liaise with industry, government and safety associations; resolve on-site HSE issues; and keep personnel informed of any changes affecting safety.
- (B) **Program Development and Implementation** assesses the safety coordinators ability to participate in job start-up meetings; institute an education and training program/sessions; assist management in the development of measures to be taken in the interest of HSE.
- (C) **Program Monitoring and Evaluation** assesses the safety coordinator's ability to participate in HSE meetings; monitor established HSE control measures; investigate an incident/accident; and conduct follow-up on any workplace incidents/accidents to ensure corrective actions have taken place.

What happens if an application for Gold Seal Certification is denied?

All candidates are notified immediately of the results of their application review and will be given the opportunity, where eligible, to be registered as a Gold Seal Intern (GSI) or to request a refund (minus an administration fee).

Who reviews the Gold Seal applications?

All applications are reviewed at two levels: once at the local/provincial level and the other at the national level. Industry practitioners are involved in the review process and make the final decision on candidate's application.

What if I become involved in the Gold Seal Program and am not satisfied with results of issues?

All issues or inquiries either formal or informal will be reviewed and responded to by the National Gold Seal Committee. There is, however, a 90-day appeal process for those taking issue with denied applications or unsuccessful examination attempts.

For further information on the Gold Seal Certification Program you may contact your local/provincial construction association or the Canadian Construction Association at:

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