



Quantity Surveying & Cost Consulting Services

Schedule of Services and Recommended Charges

Sixth Edition
2012

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Canadian Institute of
Quantity Surveyors

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économistes en construction

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Preface

This booklet has been prepared by the Canadian Institute of Quantity Surveyors (CIQS) as a guide for the engagement of the services of a Professional Quantity Surveyor (PQS).

The PQS is a vital member of, and brings added value to, the design and construction team. In this team, just as in any other, success is achieved by skill and cooperation. The skills of the PQS emanates from their training, experience and expertise in the field of construction costs, enabling them to perform duties combining the functions of an economist, an estimator and an accountant.

The PQS is specifically focused on the management of construction cost and value.

Depending upon the sophistication of the client in design and construction, the PQS can be retained to provide input and advice from inception to total completion or for specific tasks therein. Experience has shown that Clients who include the PQS as part of their team from inception to completion tend to maximize their return on this investment in professional expertise.

When you embark on a construction program, you are making a commitment to what may be a major investment in an unknown quantity. While defining the proposed facility broadly in terms of size and function is possible, there are significant variables that need attention such as:

- How well and how long will the facility serve its intended purpose?
- Will it be responsive to the needs of its users and the community?
- What will it say about your image?
- Will it be financially feasible?

The PQS you select will work with you and the design team to establish the program budget. As the design progresses through the various design stages, the PQS will prepare elemental cost plans which will be used to report changes and variations in the anticipated cost, allowing for timely decisions on additions or deletions to the design while maintaining the initial program budget. Prior to tender, the elemental cost plan will again be reviewed and this pre-tender estimate will be used to evaluate bids received.

During the design and construction of your project, the PQS effectively becomes a major contributor to your organization, serving as advisor and technical manager and in large measure, he or she will determine the financial success of the project.

Obviously, selecting the right PQS should not be a casual or offhand process. You will want to find a PQS whose experience, interests and capabilities fit your requirements best, and with whom you can work well.

The Professional Quantity Surveyor (PQS)

The PQS is a professional who has dedicated his or her career to the practice of construction economics and the management of construction through effective cost control. To become a PQS, an individual must successfully complete the education requirements of the CIQS, followed by several years of monitored experience in all aspects of practice. The designation PQS can only be granted by the CIQS. Any breach of established ethical standards by a PQS can result in disciplinary action, suspension or cancellation of membership.



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Available Services

Members of the CIQS operate in all areas of construction including private consulting firms, contractors, architectural firms, government departments at municipal, provincial and federal levels and educational facilities.

The following list identifies services that may be provided by members of the CIQS, however, it should be noted that not all members will be able to provide all of the services listed. The enquirer should ensure that the member requested to perform a particular service is suitably experienced. For additional information please contact the CIQS or your local chapter.

Cost Consulting, incorporating:

Feasibility Studies and Conceptual Estimating; Project Budgeting; Cost Planning / Cost Control Estimates (in either elemental or trade format); Assembly of Tender Packages; Tender Review and Contractor Selection; Functional Cost Analysis; Review and Recommendation of Project Progress Payments; Review and Negotiation of Change Orders and Contractual Claims

Mortgage Monitoring, incorporating:

Review and Verification that Project Budget is adequate to complete the Project; Progress Draw Review and Monitoring of Costs incurred; Verification of Borrower payments.

Value Management, incorporating:

Review of Project Program, Design and Cost Studies; Service Provider for Value Management Workshops; Evaluating Processes and Components; Preparation of Recommendations.

Life Cycle Costing, including:

Life Cycle Cost Plans; Discounted Cash Flows; Sensitivity Analysis.

Other Services:

Reserve Fund Studies and Cost to Complete Reports; Property Condition Reports; Risk Analysis; Insurance Replacement Cost Assessment; Project Management; Project Scheduling; Construction Management; Construction and Project Cash Flows; Mediation and Arbitration; Expert Witness; Bills of Quantities and/or Materials; Material Take-offs.



1.0 Cost Planning Services

The following services are identified at specific stages in the work for ease of reference only. The Client will only recognize the full benefit of engaging a PQS if that person or firm is an active participant in the design team, able to provide costing advice on an ongoing and continuous basis.

The following sets out some of the cost planning services a PQS may provide.

1.1 Feasibility Study - Class D Estimate(s)

At the earliest stages of a project, a Feasibility Study may be requested by the Client as a means to develop the project requirements and identify a range of solutions that meet those requirements. The Feasibility Study provides the information base to be used to evaluate solutions and determine the optimum project solution. Its level of detail will depend on the nature, complexity and sensitivities of the project.

During this stage, the Client may request the PQS to develop Class D estimates of the construction costs, operating and maintenance costs, and cash flows for one or any of the solutions that are to be evaluated. The PQS may also, working with other market specialists, provide advice on feasibility studies analysing commercial returns, profitability, financing arrangements, land acquisition, revenue forecasts and market analysis.

For public, institutional and commercial construction projects, the PQS typically prepares a study which will consist of an analysis of budget requirements, analysis of possible building size within a fixed budget and preparation of cost studies including operating and maintenance cost evaluations.

Since it is common to evaluate more than one project solution and the level of evaluation may vary depending on nature, complexity and sensitivities of the project, fee proposals will vary depending on the services requested by the Client.

To prepare a Feasibility Study Class D estimate, the following recommended minimum requirements are to be provided:

- project plan detailing the project function, purpose, and characteristics including information relating to the gross floor area of prime building spaces, equipment, and building systems
- floor-to-floor heights and general information about the exterior elements
- building geographical location, site configuration, planning limitations, known soil and rock information, availability of utility services to the building, as-found drawings and intrusive investigations for existing building (if applicable)
- procurement methodology and notional timing
- cost limitations and allowances



1.2 Functional Program - Class D Estimate(s)

Also during the early stages of a project, the Client may request the PQS to develop Class D estimates based on a Functional Program. A Functional Program is a pre-design document describing the functional requirements or user requirements of a building or renovation in sufficient detail to initiate preliminary costing. It may include space types and sizes, space finishes, space adjacencies, special mechanical or electrical services, and any equipment.

The PQS will draw upon accumulated experience and recorded cost data to prepare an estimate(s) of the probable cost consistent with the known requirements. Clearly this early assessment of cost will involve a number of basic assumptions as to the nature and construction of the project. It is common for the Client to request more than one cost option at the Functional Program stage if a site has not been selected, method of procurement has not been chosen, or the Client may request options for different building sizes and configurations. Fee proposals will vary depending on the services requested by the Client.

The more complex projects, generally institutional developments, may also be costed at this stage based on a Facilities Program.

To prepare a Class D estimate, the following recommended minimum requirements are to be provided:

- project plan detailing the project function, purpose and characteristics including information relating to the gross floor area of prime building spaces, equipment, and building systems
- Functional Program or User Requirements document
- floor-to-floor heights and general information about the exterior building elements
- geographical location, site configuration, planning limitations, known soil and rock information, availability of utility services to the building, as-found drawings and intrusive investigations for existing building (if applicable)
- procurement methodology and notional timing
- cost limitations and allowances



1.3 Schematic Design - Class C Estimate(s) (Documents 5%-25% complete)

At the Schematic Design stage, the Project Team establishes the general scope and provides schematic drawings showing scale and relationships among the components of the project. The outcome of Schematic Design is to analysis alternative design solutions and to arrive at a clearly defined, concept design while meeting the project requirements.

Based on the Client approved schematic design documents, the PQS shall meet with the Project Team, review the nature and scope of the entire project, and prepare for the Client's review, a Budget Cost Estimate(s) and Cost Plan that reflects the size and character of the entire Project, including the architectural, structural, mechanical and electrical systems, and such other elements as may be appropriate. This Budget Cost Estimate(s) and Cost Plan shall be presented as a Class C Estimate, including backup sheets showing quantities, unit rates and amounts for composite or individual items of work, as well as an Elemental Cost Summary.

The PQS shall, if required, meet with the Client and/or Project Team for the purposes of reviewing the submitted Budget Cost Estimate(s), and making any subsequent revisions. At the Schematic Design phase, the Client may request from the designers, more than one conceptual design, and therefore more than one Class C Estimate to assist in the decision to move forward with one design option. Fee proposals will vary depending on the services requested by the Client.

The agreed-upon Budget Cost Estimate shall become the Cost Plan, and shall form the basis for Cost Control in the subsequent Design Phases.

To prepare a Class C estimate, the following recommended minimum requirements are to be provided:

- principal floor plans
- structural foundation system and typical framing system
- principal exterior wall sections and roof system selections
- preliminary finish schedule by rooms
- mechanical and electrical systems outline (suggested equipment requirements)
- outline specification
- basic site plans and original site drawings and investigations
- finish grades with paving and parking requirements
- storm drainage solution and existing utility locations
- as-found drawings for existing building (if applicable)
- demolition drawings (if renovation), including clear indication of existing materials to remain



1.4 Design Development - Class B Estimate (Documents 25%-33% complete)

Based on the Client's approved design development documents, the PQS shall prepare, for the Client's review, a Project Cost Estimate or Construction Cost Estimate as applicable, that reflects the size and character of the entire Project, including the architectural, structural, mechanical and electrical systems, and such other elements as may be appropriate. This Estimate shall be presented as a Class B Estimate, including backup sheets showing quantities, unit rates and amounts for composite or individual items of work, as well as an Elemental Cost Summary.

This Estimate shall be accompanied by a report explaining the basis on which the Estimate has been prepared (including documentation list), outlining the scope of work, any limitations or qualifications, and including an Elemental cost comparison highlighting any deviations from the Cost Plan. The report shall also include any recommendations for cost reduction if this is required to adhere to the Cost Plan.

If any major deviation from the Cost Plan is apparent, a formal cost reduction program may be offered to the Client.

During the course of Design Development, the PQS shall review the design documentation from time-to-time, and shall participate in evaluating and analyzing alternative configurations, materials and systems. Such input shall be on the basis of milestones agreed to with the Client at the outset.

To prepare a Design Development Class B Estimate, the following recommended minimum requirements are to be provided:

- developed (<25%) floor plans, reflected ceiling plans, roof plans
- structural foundation design, typical structural framing
- developed (<25%) building elevations and sections
- typical interior wall types and acoustical guidelines
- preliminary finish schedule with material selections
- developed (<25%) mechanical plans indicating: main branch piping and ductwork; major equipment types and layouts; fire protection requirements; and basic controls system description.
- developed (<25%) electrical plans indicating: single line riser/distribution layout; basic panel information; lighting requirements and layout; basic communications, fire alarm, and security requirements.
- outline specification with selected equipment, sizes, and performance requirements
- site plans, indicating building locations and site improvements (including all paved areas, site utilities, and building or vertical structure locations)
- additional site investigations, as required
- topographical information (current and engineered topographical information)
- utility location (showing all underground structures and lines)
- demolition/removal plans and information
- sustainable design requirements
- special client-requested requirements



1.5 Working Documents- Class B Estimate (Documents 50%-66% complete)

Based on the Client's approved 50%-66% contract drawings and specifications, the PQS shall prepare, for the Client's review, a Project Cost Estimate or Construction Cost Estimate as applicable, that reflects the size and character of the entire Project, including the architectural, structural, civil, mechanical and electrical systems, and such other elements as may be appropriate. This Estimate shall be presented as a Class B Estimate, including backup sheets showing quantities, unit rates and amounts for each item of work, as well as an Elemental Cost Summary. If requested by the Client, a Trade Summary format estimate may be provided suitable for comparison with contractors' tenders or proposals.

This Estimate shall be accompanied by a report explaining the basis on which the Estimate has been prepared (including documentation list), outlining the scope of work, and any limitations or qualifications. The report shall also include any recommendations for cost reduction if this is required to adhere to the Cost Plan.

If any major deviation from the Cost Plan prepared in the Working Drawings Phase is apparent, and was not corrected in the Design Development Phase, a formal cost reduction program may be offered to the Client as an additional service and fee.

To prepare a Working Drawings (50%-66%) Class B Estimate, the following recommended minimum requirements are to be provided:

- developed (<50%) floor plans, reflected ceiling plans, roof plans
- structural foundation design, typical structural framing
- developed (<50%) building elevations and sections
- typical interior wall types and acoustical guidelines
- developed (<50%) finish schedule with material selections
- developed (<50%) mechanical plans
- developed (<50%) electrical plans
- developed (<50%) specifications
- developed (<50%) site/civil/landscape plans
- demolition/removal plans and information
- sustainable design requirements
- special client-requested requirements



1.6 Pre Tender Contract Documents - Class A Estimate (Documents 90%-100% complete)

Based on the Client's approved Pre Tender contract drawings and specifications, the PQS shall prepare, for the Client's review, a Project Cost Estimate or Construction Cost Estimate as applicable, that reflects the size and character of the entire Project, including the architectural, structural, civil, mechanical and electrical systems, and such other elements as may be appropriate. This Estimate shall be presented as a Class A Estimate, including backup sheets showing quantities, unit rates and amounts for each item of work, as well as an Elemental Cost Summary and a Trade Summary suitable for comparison with contractors' tenders or proposals.

This Estimate shall be accompanied by a report explaining the basis on which the Estimate has been prepared (including documentation list), outlining the scope of work, and any limitations or qualifications. The report shall also include any recommendations for cost reduction if this is required to adhere to the Cost Plan.

If any major deviation from the Cost Plan prepared in the Pre-Tender Phase is apparent, and was not corrected in the Working Drawing Phase, a formal cost reduction program may be offered to the Client as an additional service and fee.

To prepare a Pre-Tender Class A Estimate, the following recommended minimum requirements are to be provided:

- detailed (<90%) floor plans, reflected ceiling plans, roof plans
- detailed (<90%) demolition drawings (if renovation), including clear indication of existing materials to remain
- detailed (<90%) structural plans, notes, sections, and details fully describing the structural building requirements
- building elevations and building sections
- exterior wall sections
- details of exterior walls, stairs, toilet rooms, etc.
- finish schedule and notes
- special details and conditions (millwork, handrails, etc.)
- conveyance plans, specifications and sections fully describing elevators, escalators and lifts
- detailed (<90%) mechanical plans, notes, sections and details fully describing the plumbing, HVAC and fire protection, controls, equipment requirements
- detailed (<90%) electrical plans, notes, sections and details fully describing the electrical, communications, security, and equipment requirements
- project specifications, completely describing materials and performance requirements
- final site drawings showing current and engineered topical information
- utility locations and design showing all underground structures and utility lines



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- landscaping - all landscape layout and materials, grading and drainage, planting and construction detail drawings
- details, schedules and notes to be used in the construction of the project.

1.7 Tender Package

As the tender package is being assembled, the PQS should be made aware of all changes from the documents used to prepare the pre tender update. It is not uncommon for the final details to significantly alter costs of the work. The PQS can consider these changes and advise the Client and design team to take appropriate action.

During the tender period, questions often arise that result in addenda being issued by the design consultants. As an additional value-added service and charge, the PQS may receive all of the addenda for review and report on any cost impact to the client prior to tender closing. This will enable proper appraisal of the tender results.

1.8 Tender Review & Contractor Selection

In the case of competitively tendered prices, the PQS may examine the bids together with alternative prices and the various unit prices, analyse the particulars and report to the client and design team with a recommendation as to the most satisfactory tender.

In the event that the tendered prices are unacceptable, the PQS may assist the Client and the design team in the negotiations and recommend an equitable price. Such negotiations are facilitated by reference to the PQS's estimates.

Where a cost plus contract is to be used, the PQS may advise on the selection of a suitable contractor and on the form of the contract.

1.9 Reconciliation

Reconciliation services between the PQS and an Owner, Client or Construction Manager may occur at any estimating phase and is charged as an additional value-added service.

1.10 Value Management

Value Management services may be required at any estimating phase and is charged as an additional value-added service.

1.11 Functional Cost Analysis

When required, and as an additional value-added service and charge, the PQS may prepare a functional cost analysis of the project, based on the accepted tender. A functional cost analysis shows the cost of various functions contained within a project, for instance, the cost of classrooms in schools or patient areas in hospitals, offices, circulation space, mechanical rooms, and the like.



2.0 Post Tender Services

While many Client/PQS agreements are completed at the successful conclusion of a tender, the Client, by utilizing the services of a PQS after the contract has been awarded, can benefit greatly from the detailed cost information the PQS has compiled and their knowledge of the quantities of the work. With all of the pre-contract information at hand, the PQS is ideally equipped to deal with the administrative issues that arise during the construction of a project.

The following sets out some of the post tender services a PQS may provide as a value-added additional service.

2.1 Services Relating to Fixed Price or Stipulated Sum Contracts

- a) Schedule of Values
The PQS may review the schedule of values submitted by the contractor, and in consultation with the Client and design team make recommendations for changes, adjustments and acceptance.
- b) Progress Advance Approvals
The PQS may examine the various applications from the contractor for progress payments, verify them against the work actually performed, evaluate the work in accordance with the contract, including the balance to complete, advise on the amount of Lien Holdback, and make recommendations as to the amount of such payments.
- c) Contract Changes
The PQS may, in conjunction with the design team, also initiate and maintain procedures for evaluating change orders and may negotiate with the contractor and recommend adjustments to the contract sum and project schedule.
- d) Contract Status
During the course of the construction work, the PQS may prepare at regular intervals, statements showing the current expenditures to date incorporating all change orders authorized and contemplated indicating the anticipated final cost.
- e) Final Account
On completion of the work a full and detailed final account incorporating all change orders and cash allowances adjustments may be prepared.
- f) Payment Certifier Services
The PQS is trained in the administration of contracts and is knowledgeable of the provisions of the Builder's Lien Act. As such the PQS is an appropriate choice to provide the Payment Certifier functions described by the Act.



2.2 Services Relating to Cost Plus Contracts

- a) Cost Reporting
The PQS may set up proper accounting procedures for checking the contractor's labour and material costs, and reporting same against the target budget.
- b) Contract Changes
The PQS may also initiate and maintain procedures for evaluating change orders and will negotiate with the contractor and recommend adjustments to the contract sum.
- c) Contract Status
During the course of the construction work, the PQS may prepare at regular intervals, statements showing the current expenditures to date incorporating all change orders authorized, and indicating the anticipated final cost
- d) Final Account
On completion of the work, a full and detailed final account incorporating all change orders and cash allowances adjustments may be prepared.
- e) Payment Certifier Services
The PQS is trained in the administration of contracts and is aware of the provisions of the Builder's Lien Act. As such the PQS is a natural choice to provide the Payment Certifier functions described by the Act.

2.3 Services Relating to Management Contracts

- a) Provide a breakdown of the elemental estimate to conform with the other estimating formats such Masterformat™, Uniformat Index and to enable a budget target cost to be agreed with the Project or Construction Manager.
- b) Provide a breakdown of the elemental estimate to conform with trade packages identified by the Project or Construction Manager, to assist in calling tenders
- c) Examine the various applications from the contractor for progress payments, verify them against the work actually performed, evaluate the work in accordance with the contract, and make recommendations for the amount of such payments.
- d) Evaluate change orders, negotiate costs and make recommendations on changes to the contract amount and progress schedule.
- e) Prepare a final account of all the trade contracts, incorporating all changes and adjustments to cash allowances etc



3.0 Recommended Charges

The undernoted recommended fee scales and hourly rates are exclusive of disbursements, which should be charged in accordance with section 3.12, and the Goods and Services Tax (GST) or Harmonized Sales Tax (HST), which will be charged at the prevailing rate.

3.1 Hourly Charges

The actual hourly rates vary across the country and by the level of experience and seniority of the PQS. The following rates are recommended rates to be used as a guide when determining time based fees.

- a) For any other work performed on an hourly basis, a principal's time should be charged at not less than \$250.00 per hour and staff engaged on work shall be charged at pre-agreed hourly billing rates.
- b) For services in connection with arbitration or contractual disputes, subsequent to completion of an expert report when required, when consulting with council, reviewing and commenting on reports from other parties, preparing for and appearing in court or at an arbitration hearing whether formal or informal, the PQS's fee should be \$450.00 per hour, with a 4 hour minimum per day, or as otherwise set out in Article 4.1 or the Form of Agreement.

3.2 Feasibility Studies

For providing studies into the overall feasibility of construction projects during the feasibility study stage, the PQS's fee should be charged in accordance with section 3.11 "Hourly Charges".

3.3 Functional Program

For services at the functional program stage as described in section 1.2 above, the PQS's fee should be charged in accordance with section 4.12 "Hourly Charges".

3.4 Project Design (Schematic Design to Tender Review – 4 Estimates [one Class C Estimate, two Class B Estimates, and one Class A Estimate])

For project design work including schematic design through to tender review inclusive, the PQS's Base Fees should be calculated in accordance with the following table. Where not all 4 Estimates are provided, the fees should be apportioned, based on the services to be provided.

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3.5 Recommended Fee Table

BUILDING CATEGORY	1	2	3	4	5	6	7
Less than \$1M	hourly rates	hourly rates	hourly rates	hourly rates	hourly rates	hourly rates	hourly rates
\$1M to <\$2M	\$12,000 plus 0.675% over \$1M	\$12,800 plus 0.72% over \$1M	\$13,600 plus 0.765% over \$1M	\$14,400 plus 0.81% over \$1M	\$16,000 plus 0.90% over \$1M	\$17,600 plus 0.99% over \$1M	\$19,200 plus 1.08% over \$1M
\$2M to <\$5M	\$18,750 plus 0.525% over \$2M	\$20,000 plus 0.56% over \$2M	\$21,250 plus 0.595% over \$2M	\$22,500 plus 0.63% over \$2M	\$25,000 plus 0.70% over \$2M	\$27,500 plus 0.77% over \$2M	\$30,000 plus 0.84% over \$2M
\$5M to <\$10M	\$34,500 plus 0.375% over \$5M	\$36,800 plus 0.40% over \$5M	\$39,100 plus 0.425% over \$5M	\$41,400 plus 0.45% over \$5M	\$46,000 plus 0.50% over \$5M	\$50,600 plus 0.55% over \$5M	\$55,200 plus 0.60% over \$5M
\$10M to <\$20M	\$53,250 plus 0.30% over \$10M	\$56,800 plus 0.32% over \$10M	\$60,350 plus 0.34% over \$10M	\$63,900 plus 0.36% over \$10M	\$71,000 plus 0.40% over \$10M	\$78,100 plus 0.44% over \$10M	\$85,300 plus 0.48% over \$10M
\$20M to <\$30M	\$83,250 plus 0.263% over \$20M	\$88,000 plus 0.28% over \$20M	\$94,350 plus 0.298% over \$20M	\$99,900 plus 0.315% over \$20M	\$111,000 plus 0.35% over \$20M	\$122,100 plus 0.385% over \$20M	\$133,200 plus 0.42% over \$20M
\$30M to <\$40M	\$109,500 plus 0.225% over \$30M	\$116,800 plus 0.24% over \$30M	\$124,100 plus 0.255% over \$30M	\$131,400 plus 0.27% over \$30M	\$146,000 plus 0.30% over \$30M	\$160,600 plus 0.33% over \$30M	\$175,200 plus 0.36% over \$30M
\$40M to <\$60M	\$132,000 plus 0.188% over \$40M	\$140,800 plus 0.20% over \$40M	\$149,600 plus 0.213% over \$40M	\$158,400 plus 0.225% over \$40M	\$176,000 plus 0.25% over \$40M	\$193,600 plus 0.275% over \$40M	\$211,200 plus 0.30% over \$40M
\$60M to <\$80M	\$169,500 plus 0.165% over \$60M	\$180,800 plus 0.176% over \$60M	\$192,100 plus 0.187% over \$60M	\$203,400 plus 0.198% over \$60M	\$226,000 plus 0.22% over \$60M	\$248,600 plus 0.242% over \$60M	\$271,200 plus 0.264% over \$60M
\$80M to <\$100M	\$202,500 plus 0.15% over \$80M	\$216,000 plus 0.16% over \$80M	\$229,500 plus 0.17% over \$80M	\$243,000 plus 0.18% over \$80M	\$270,000 plus 0.20% over \$80M	\$297,000 plus 0.22% over \$80M	\$324,000 plus 0.24% over \$80M
\$100M to <\$130M	\$233,250 plus 0.135% over \$100M	\$248,800 plus 0.144% over \$100M	\$264,350 plus 0.153% over \$100M	\$279,900 plus 0.162% over \$100M	\$311,000 plus 0.18% over \$100M	\$342,100 plus 0.198% over \$100M	\$373,200 plus 0.216% over \$100M
\$130M to <\$160M	\$273,000 plus 0.128% over \$130M	\$291,200 plus 0.136% over \$130M	\$309,400 plus 0.145% over \$130M	\$327,600 plus 0.153% over \$130M	\$364,000 plus 0.17% over \$130M	\$400,400 plus 0.187% over \$130M	\$436,800 plus 0.204% over \$130M
\$160M to <\$200M	\$311,250 plus 0.12% over \$160M	\$332,000 plus 0.128% over \$160M	\$352,750 plus 0.136% over \$160M	\$373,500 plus 0.144% over \$160M	\$415,000 plus 0.16% over \$160M	\$456,500 plus 0.176% over \$160M	\$498,000 plus 0.192% over \$160M
>\$200M	\$359,350 plus 0.113% over \$200M	\$383,200 plus 0.12% over \$200M	\$407,150 plus 0.128% over \$200M	\$431,100 plus 0.135% over \$200M	\$479,000 plus 0.15% over \$200M	\$526,900 plus 0.165% over \$200M	\$574,800 plus 0.18% over \$200M

CONSTRUCTION COSTS (hst/gst extra)



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3.6 Categories of Buildings

A building generally will fall into one of the categories on this list, according to its type and complexity. Buildings not listed in any of these categories belong in the category to which they most closely relate.

Category 1

- 1.1 Warehouse (10 percent maximum office area, but not exceeding 600 sq. m)
- 1.2 Barn, Stable, Storage, Kennel, Shed
- 1.3 Parking Garage (free-standing)
- 1.4 Shopping Centre, Large Mercantile Store, Factory (excluding tenant fit-up)

Category 2

- 2.1 Multiple Housing, e.g., Condominium, Co-operative and Rental Apartment Building
- 2.2 Institutional Residence, e.g., Dormitory, Parks Bunkhouse
- 2.3 Motel, Motor Inn

Category 3

- 3.1 General Purpose Office Building
- 3.2 Armed Forces Base and Yard, Armoury, Drill Hall, Aircraft Hangar
- 3.3 Summer Camp, Resort Building, Trailer Park, Marina
- 3.4 Elementary Schools, Day Care Centres
- 3.5 Specialized Airport Facility, e.g., Security Control, Garbage Incinerator, Electronic Maintenance, Aircraft Garbage Dump Station, Aircraft De-Icing Station
- 3.6 Freight Handling Facility
- 3.7 Bowling Alley

Category 4

- 4.1 Defined Purpose Office Building
- 4.2 Bank, Stock Exchange
- 4.3 Swimming Pool (indoor), Ice Arena (indoor), Gymnasium, Covered Ice Rink
- 4.4 Sports and Fitness Facility, Recreational Building
- 4.5 Grandstand, Stadium, Arena
- 4.6 Convention Hall, Exhibition Building, Hotel
- 4.7 Manufacturing, Processing or Specialized Storage Plant, Postal Plant, Abattoir, Distillery
- 4.8 Ambulance Station, Fire Station, Post Office



- 4.9 Restaurant, Bar, Lounge
- 4.10 Minimum Security Correctional Institution
- 4.11 Club Building, Country Club, Community Centre, Golf Club House
- 4.12 Tenant Fit-up, Space Planning
- 4.13 Maintenance Building, Service Garage, Gas and Fuel Station, Car Dealership
- 4.14 Place of Worship, Monastery, Convent
- 4.15 Central Utility Plant
- 4.16 Junior and Senior High School

Category 5

- 5.1 Terminal Building or Station, e.g., Air, Bus, Ferry, Rail
- 5.2 Police Station, Customs and Immigration Building
- 5.3 Cemetery Chapel, Mausoleum, Crematorium, Funeral Home, Undertaking Establishment
- 5.4 Concert Halls, Performing Arts Facilities, Theatre
- 5.5 City Hall, Town Hall, Chancery
- 5.6 Parliament Building, Mint, Treasury
- 5.7 Courthouse, Archives Building, Library
- 5.8 Medium Security and Multi-level Security Correctional Institution
- 5.9 Casinos and Gaming Facilities
- 5.10 Extended Care, Convalescent, Geriatrics Nursing Facility
- 5.11 Amusement Park Building, Zoo, Botanical Garden
- 5.12 University and College Teaching Buildings
- 5.13 Specialized Agricultural Building, e.g., Dairy Barn, Swine Operation, Poultry Laying House

Category 6

- 6.1 Hospital, Chronic Care Facility, Psychiatric Facility, Medical Research Facility, Dental Building, Clinics e.g., Veterinary Health, Radiology
- 6.2 Communications Building, Radio or TV Facility
- 6.3 Art Gallery, Museum, Observatory, Planetarium, Aquarium
- 6.4 Science Building, Laboratory Building, Weather Station
- 6.5 Combined Flight Services/Passenger Services Building
- 6.6 Radar Building, Air Traffic Services School, Meteorological Services Building
- 6.7 Specialized Parks Building, e.g., Park Administration Building, Beach Change House and Washrooms, Amphitheatre, Park Warden Station, Kitchen Shelter
- 6.8 Official Government Residence, Consulate, Embassy, Custom Residence, Custom Swimming Pool



Category 7

- 7.1 Emergency Operations Centre
- 7.2 Decorative Work, Exhibition Display, Public Garden, Promenade, Fountain, Commemorative and Funeral Monument, Fortifications
- 7.3 Air Traffic Control Tower
- 7.4 Opera House
- 7.5 Critical Care Facility
- 7.6 Data Centre and Computer Centre
- 7.7 Maximum Security Correctional Institution

3.7 Functional Cost Analysis

For functional cost analysis services described in section 1.11 above, the PQS's fee should be charged in accordance with section 3.11 "Hourly Charges".

3.8 Multi-Building Projects

On projects comprising two or more separate buildings in a complex, the foregoing Fee Schedule shall apply to each building as if on separate projects.

3.9 Alteration Work

The foregoing Fee Schedule shall apply only to new work. The costs for projects involving alterations, renovations or heritage designated building may be subject to additional fees.

3.10 Post Tender Services

For post tender services described in section 2 above, the PQS's fee should be charged in accordance with section 3.11 "Hourly Charges".

3.11 Other Services

Fees for other services should be negotiated, or charged in accordance with section 3.11 "Hourly Charges".

3.12 Fees for Mechanical and Electrical Quantity Surveyors

- a) Mechanical PQS fees should be proportional to the value of the mechanical value of the construction budget
- b) Electrical PQS fees should be proportional to the value of the electrical value of the construction budget



3.13 Disbursements

Disbursements normally include, but are not limited to, the following, and should be charged at cost plus an allowance for overheads, or as otherwise set out in Article 2.5 of the Form of Agreement.

- Travelling and living expenses
- Long distance telephone calls and facsimile transmissions
- Photocopying and/or printing
- Courier services
- Any other agreed disbursements

3.14 Payment of Accounts, Interest & Copyright

The PQS's fees shall be paid monthly in direct proportion to the amount of work done, or as otherwise set out in the Form of Agreement. The PQS's account for fees and disbursements is due when presented. Accounts overdue by 30 days or more will be subject to interest charges as set out in the Form of Agreement.

Payment of the PQS's fees give the Client the right to use, for their intended purpose only, the documents prepared by the PQS as instruments of service. The copyright and ownership of these instruments of service remains with the PQS and may not be used for any other project, or sold, or offered for sale (or as part of a sale of property) by the Client, unless the PQS has given written consent accordingly.

4.0 Requests for Proposals

4.1 Recommended Format

1. If first placing an advertisement to solicit expressions of interest, the following brief information should be provided.

1. Heading: i.e. ***Request for Expressions of Interest for Professional Quantity Surveying and Cost Consulting Services.***
2. The ***name of the project and its location.***
3. A brief description of the project and the scope of quantity surveying services required. i.e. ***Consultant services to establish project budget and cost control during design and construction for new Junior High School.***
4. The ***name of your organization.***
5. Contact: ***name, address, phone, fax and e-mail.***

2. When requesting proposals, the following information should be provided to PQSs who will be submitting proposals.

1. Heading: i.e. ***Request for Proposals for Professional Quantity Surveying and Cost Consulting Services.***
2. The ***name of the project and its location.***



3. As detailed a description of the project as is possible, including, i.e. ***New 10,000 m² four storey multi-tenant office building or Renovations and Alterations to existing 25,000m² Junior High School.***

4. As detailed a breakdown of the ***project budget*** as possible.

5. The ***project client***.

6. The number of copies required of the proposal and the time, date and location for receipt of proposals.

7. The requirements of the project PQS. i.e.

The PQS will provide written elemental cost estimates in accordance with the current CIQS elemental format, at the following stages of project development.

- Feasibility Study – Class D Estimate(s)
- Functional Program – Class D Estimate(s)
- Schematic Design – Class C Estimate(s)
- Design Development – Class B Estimate
- 50%-66% Contract Documents – Class B Estimate
- Pre-Tender Contract Documents Class A Estimate

The PQS may also

- Review the documents as issued for tender
- Review and price accordingly all addenda during the tender period
- Prepare a written post tender analysis of the bids received, and;
- Prepare a functional cost analysis

4.2 Proposal Requirements

PQSs submitting proposals should detail their experience, qualifications, specialized abilities, resumes of key personnel, recent projects undertaken of a similar nature and their proposed fees for carrying out the defined scope of quantity surveying work in addition to the following information that should be used in connection with the suggested evaluation form included in section 4.4.

- The PQS with overall responsibility for the project.
- The project team indicating the names of individuals who will work on the project, their responsibilities, disciplines and experience. (Client reserves the right to approve all consultants proposed by the submitting firm).
- Provide a time frame to complete each estimate, with a brief description of current office workload and the ability to complete the commission within the suggested time frame. It is understood that “time is of the essence” for this project.



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- List the firm's experience in Cost Consulting for the project type.
- Past performance in Cost Consulting
- Provide a current list of client references, including name of organization, contact person, title and phone number. A minimum of three references is recommended.

Proposals may also include the following requirements:

Submitting PQS must:

- Have the lead PQS registered with the chapter holding jurisdiction in the location of the work.
- Have Principals qualified as PQS's and members in good standing with CIQS.
- Have Mechanical and Electrical sub-consultants qualified as PQS and members in good standing with CIQS.
- Have staff and sub-contractors available for attendance at all meetings as required for the project.
- Make available on request all information to the Project Manager noted in the RFP.
- Assemble the necessary team required to complete all aspects of the project. Individual contracts will not be signed with individual consultants.
- Include fees in accordance with the schedule of services and charges for all services.
- Include an estimate (if requested) for reimbursable expenses required for the completion of the project in accordance with the guidelines.

Other general information that may be included in a Request for Proposal includes:

- The proposal must be signed by the person(s) authorized to sign on behalf of the Proponent and bind the Proponent to statements made in response to this RFP.
- Proposals are to be irrevocable and open for acceptance for 30 days from date of submission.
- The Client reserves the right to negotiate changes after proposals have been evaluated and the contract awarded.
- The contents of the selected proposal, these Terms of Reference and all further correspondence related to it will become a part of any contract entered into by the parties, and will be binding on all parties. Should any discrepancy in terms and conditions arise between the Proponent's documentation and the documentation of the Client, the Client's documentation will prevail.
- Submitting Proponents are solely responsible for their own expenses in preparing a proposal and for subsequent negotiations with the Client, if any. If the Client elects to reject any or all proposals, the Client will not be liable to any proponent for any claims or damages incurred by the submitting Proponent in preparing the proposal.
- Proponents are encouraged to seek clarification if required by contacting the Project Manager noted in the RFP.



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4.3 Submission Evaluation

1. From review of the proposals submitted, interview the proponent you have ranked highest (usually three to five) and complete a consultant evaluation for each of the proponents. A suggested format for an evaluation form follows.
2. Ensure that the preferred proponent seems able to work with you. Check their references, especially other clients.
3. Advise unsuccessful PQSs of the basis upon which you made the selection and reasons why their proposal was not accepted. This advice may be in an oral or written form, and should be provided individually to each proponent.

4.4 Suggested Consultant Evaluation Form

Evaluation Date

Proponent	Points	Ranking
A.		
B.		
C.		
D.		

	points available	A.	B.	C.	D.
Team Experience & Capabilities					
Team experience & ability specific to project	25				
Past performance	20				
Current workload	5				
Proposal					
Organization & clarity	5				
Proposed methodology	10				
Ability to meet time lines	10				
Understanding of project objectives & goals	10				
Demonstration of understanding of related issues	5				
Compensation					
Fees	10				
Total	100				



5.0 Recommended Standard Form of Agreement

**CANADIAN INSTITUTE OF QUANTITY SURVEYORS/
INSTITUT CANADIEN DES ÉCONOMISTES EN CONSTRUCTION**

**STANDARD FORM OF AGREEMENT BETWEEN CLIENT AND
PROFESSIONAL QUANTITY SURVEYOR**

THIS AGREEMENT made in duplicate as
of the _____
day of _____
in the year _____

BETWEEN

(Hereinafter referred to as the "Client")

AND

(Hereinafter referred to as the "PQS")

FOR THE FOLLOWING PROJECT: _____
(Include detailed description of scope of work, project name, location and address)

NOW THEREFORE, the Client and the PQS for the considerations named
herein agree as follows:



ARTICLE 1.0 SERVICES

1.1 The PQS shall perform for the Client those services described in the SCHEDULE OF QUANTITY SURVEYING SERVICES as follows: -
(List services below or attach list)

1.2 At the request in writing of the Client, the PQS shall perform such additional work as may be agreed between the parties, such additional work to be as set out below, and or as subsequently agreed and paid as set out in Article 2.4.



ARTICLE 2.0 THE CLIENT’S RESPONSIBILITIES

2.1 The Client shall provide the information required by the PQS to perform his services. Such information shall be provided in sufficient time for the PQS to meet any scheduled date for the completion of his work. The Client agrees that the PQS shall be entitled to rely upon the accuracy and correctness of the documentation provided and any additional work required due to inaccuracies in the documentation will be paid for at the rates set out in Article 4.1.

2.2 The Client shall pay to the PQS, in addition to the undernoted fees and hourly rates, all applicable *Value Added Taxes*, which are excluded from all undernoted fees and hourly rates.

2.3 The Client shall pay to the PQS a fee for the services specified in Article 1.1 in accordance with the following terms:
(List amount of fee for each stage)

2.4 The Client shall pay to the PQS a fee for additional services specified in Article 1.2 in accordance with the following terms:
(List agreed fees for additional services)

2.5 The Client shall reimburse the PQS for the following disbursements charged at cost plus _____ percent to cover office services and handling:

2.6 All amounts included in this agreement are in Canadian funds.



ARTICLE 3.0 VARIATION OF FEE

3.1 If, after the PQS has commenced the services described in Article 1.0 of this agreement the construction budget is revised to a sum which is 10% or more above the approved budget, the PQS shall be paid an additional fee based on the time spent. The agreed rates shall be as noted in Article 4.0 of this agreement.

ARTICLE 4.0 HOURLY CHARGES

4.1 For additional services requested on the project but not identified in Article 1.2 of this agreement, the following rates will be charged.

Principal	\$_____per hour/diem
Principal performing other work	\$_____per hour/diem
Senior Quantity Surveyor	\$_____per hour/diem
Quantity Surveyor	\$_____per hour/diem
Junior Quantity Surveyor	\$_____per hour/diem
Technical Assistant	\$_____per hour/diem

ARTICLE 5.0 PAYMENT OF ACCOUNTS, INTEREST & COPYRIGHT

5.1 The PQS's fees shall be paid monthly in direct proportion to the amount of work done, or as otherwise set out in the Form of Agreement. The PQS's account for fees and disbursements is due when presented. Accounts overdue by 30 days or more will be subject to interest charges of _____% per annum as set-out in the Form of Agreement.

5.2 Payment of the PQS's fees give the Client the right to use, for their intended purpose only, the documents prepared by the PQS as instruments of service. The copyright and ownership of these instruments of service remains with the PQS and may not be used for any other project, or sold, or offered for sale (or as part of a sale of property) by the Client, unless the PQS has given written consent accordingly.



ARTICLE 6.0 TERMINATION

6.1 Either party may terminate this agreement at any time upon giving notice in writing at least thirty days prior to the date of termination. In the event of such termination, the PQS shall be paid for his services to the date of termination on the following basis:

ARTICLE 7.0 ARBITRATION

7.1 All matters in dispute between the parties under this agreement shall be submitted to arbitration by a single arbitrator in accordance with the laws of the Province of _____ at the application of either party. The award of the arbitration board shall be final and binding on both parties.

ARTICLE 8.0 INSURANCE

8.1 The PQS shall, during the term of this agreement, provide, maintain and pay for the following insurance: Comprehensive General Liability Insurance in an amount not less than \$ _____ inclusive per occurrence, insuring against bodily injury, personal injury and property damage. Automobile Liability on all vehicles owned, operated or licensed in the name of the PQS in the amount not less than \$1,000,000.

ARTICLE 9.0 OWNERSHIP OF DOCUMENTS

9.1 All estimates, budgets, reports, and similar documents prepared by the PQS shall remain the property of the PQS. The Client shall have access to all documents and worksheets related to the project and they shall be made available upon request. Should copies be required, they shall be prepared by the PQS. The cost of reproduction shall be borne by the Client.

9.2 All documentation provided to the PQS in the provision of services shall remain in the hands of the PQS. The PQS acknowledges that this is for record only and ownership of the documents so provided does not transfer to the PQS.



ARTICLE 10.0 CONFIDENTIALITY

10.1 The PQS shall not divulge any information that has been given to him or acquired by him on a confidential basis in the course of carrying out services as provided herein.

ARTICLE 11.0 COST ACCURACY

11.1 Pricing by the PQS reflects probable construction costs obtainable in the location of the project as of the date of the report and is a determination of fair market value for the construction of this project and should not be taken as a prediction of low bid.

11.2 This pricing assumes competitive bidding for every portion of the construction work including all subcontractors as well as the general contractor, and assumes a minimum of five (5) general bidders. If fewer bids are received, the bid results can be expected to be higher.

11.3 It is recognized, however, that the PQS does not have control over the cost of labour, materials or equipment, over a contractor's methods of determining bid prices, or over competitive bidding, market or negotiation conditions.

11.4 Accordingly, the PQS cannot and does not warrant or represent that bids or negotiated prices will not vary from this nor any subsequent estimate of construction cost or evaluation prepared by or agreed to by the PQS.

ARTICLE 12.0 ADDRESSES FOR NOTICE

12.1 Notices in writing between the Client and the PQS should be addressed as follows:

To the Client at:

To the PQS at:



**quantity surveying & cost consulting services
schedule of services and recommended charges**

IN WITNESS HEREOF the parties hereto have executed this Agreement in _____
on the day of _____ in the year _____.

CLIENT

name of client

signature

name and title of person signing

WITNESS

signature

name and title of person signing

**PROFESSIONAL QUANTITY
SURVEYOR**

name of professional quantity surveyor

signature

name and title of person signing

WITNESS

signature

name and title of person signing



quantity surveying & cost consulting services
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Contact Us

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Canadian Institute of
Quantity Surveyors

Institut canadien des
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Publications

The following publications are produced by the Canadian Institute of Quantity Surveyors. For ordering information, contact the Canadian Institute of Quantity Surveyors at (905) 477-0008 or order on-line at www.ciqs.org.

Method of Measurement of Construction Works

8th edition, 2006. ISBN # 978-1-896606-09-1

Elemental Cost Analysis, Measurement of Buildings by Area & Volume

4th edition, 2006. ISBN # 1-896606-07-5

Construction Budgeting

3rd edition, 2011. ISBN #978-1-896606-19-9

Canadian Building Law

5th edition, 2001. ISBN # 1-896606-34-2

Construction Planning & Scheduling – An Introduction

1st edition, 1997. ISBN # 1-896606-16-4

Available Services & Finding, Selecting and Engaging a Professional Quantity Surveyor/Services offerts & Guide pour rechercher, sélectionner et engager un économiste en construction agréé

2nd edition, 2006. ISBN # 1-896606-05-9

Quantity Surveying & Cost Consulting Services – Schedule of Services and Recommended Charges/Économie de la construction & services de consultation en coûts – Liste des services et honoraires recommandés

6th edition, 2012. ISBN # 978-1-896606-23-7

Career Information

2010 ISBN # 978-1-896606-21-0

Construction Economist (quarterly journal of the CIQS)

ISBN # 0836-6179

Index of Standard Abbreviations

2nd edition, 1994.

Estimate Pads (take-off paper)

