

BUDGET GUIDELINES FOR ENGINEERING SERVICES

DOCUMENT 1 – INFRASTRUCTURE AND TRANSPORTATION

(VERSION 1)



ASSOCIATION OF CONSULTING
ENGINEERING COMPANIES
BRITISH COLUMBIA



ENGINEERS &
GEOLOGISTS
BRITISH COLUMBIA

Budget Guidelines for Engineering Services

Document 1 – Infrastructure and Transportation (version 1)

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BUDGET GUIDELINES FOR ENGINEERING SERVICES

DOCUMENT 1 – Infrastructure and Transportation (version 1)

This document is the first in a series of documents on *Budget Guidelines for Engineering Services*. It replaces the Transportation and Infrastructure component of *Budget Guidelines for Consulting Engineering Services – 2009*. The Building Engineering Services component of the 2009 document remains valid until replaced by a new document in the *Budget Guidelines for Engineering Services* series.

Executive Summary

This document is written to provide the client and the consulting engineering professional with guidelines to prepare adequate engineering services budgets for transportation and infrastructure projects.

These budget guidelines are appropriate for the conventional design–tender–construct method of project delivery. They are not applicable to alternative project delivery methods.

The budgeting of engineering services is not a complicated process, but too often these services are inadequately estimated at the beginning of a project. This imposes financial constraints, limits value-added engineering during the design phase, and ultimately affects the success of the project. It is, therefore, important that both the client and the consulting engineering professional develop budgets using a consistent methodology that takes into account all of the services required throughout the life cycle of the project and that applies tried and tested techniques.

This document describes both the range of services that can be provided by professional engineers and the level of service that is required to meet the standard of practice identified in the Engineers and Geoscientists BC practice guidelines. The practice guidelines are available on the Engineers and Geoscientists BC website (www.egbc.ca), formerly known as the Association of Professional Engineers and Geoscientists of BC, or APEGBC. The guidelines identify the level of effort, standard of practice, and due diligence a member must provide to fulfill their professional obligation under the [Engineers and Geoscientists Act](#), [Bylaws](#), and [Code of Ethics](#).

Guidance is also provided on how to estimate allowances for services at the beginning of a project and how to refine this, as the project is developed, using estimates for core detailed design services based upon historical norms and more detailed estimates for value-added services when and where required.

This document should be read in conjunction with other ACEC guidelines published at www.acec-bc.ca, including:

- [InfraGuide – Best Practice for Selecting a Professional Consultant](#)
- [Appointing Your Consulting Engineer Using Qualifications Based Selection](#)
- [Consulting Engineers Fee Guideline](#)

If clients are developing engineering services budgets prior to retaining a consulting engineering company, they are encouraged to contact an ACEC-BC Consulting Engineering company to assist them in scoping out a budget for the project. If they choose not to, the following table can be used to help ensure adequate engineering services budgets.

Table 4-1 Engineering and Contingency Allowance for Various Stages of Transportation and Infrastructure Projects	
Project Stages	Engineering and Contingency Allowance
1. Advisory services (feasibility study)	60%
2. Preliminary design services	50%
3. Final design services	40%
4. Tender services	Provided by consultant

For negotiating scope of work and budget with a selected engineering company, they can use the Engineering Services Fee Budget spreadsheet provided in Appendix 6: Budget Calculation Sheets.

A large portion of the engineering services budget (final design and tender services) can be established or cross-checked using Table 4-2.

Table 4-2 Engineering Services Budgeting for Final Design and Tender Services (See Appendix for Scope of Service and Definition of Scope)		
Cost of Construction	Fee	
Less than \$1,000,000	Use Other Methods	
\$1,000,000 - \$2,000,000	\$68,000 on first \$1,000,000	plus 5.8% on next \$1,000,000
\$2,000,000 - \$5,000,000	\$126,000 on first \$2,000,000	plus 5.6% on next \$3,000,000
\$5,000,000 - \$10,000,000	\$294,000 on first \$5,000,000	plus 5.4% on next \$5,000,000
\$10,000,000 - \$15,000,000	\$565,000 on first \$10,000,000	plus 5.3% on next \$5,000,000
\$15,000,000 - \$20,000,000	\$828,000 on first \$15,000,000	plus 5.2% on next \$5,000,000
Over \$20,000,000	\$1,086,288 on first \$20,000,000	plus 5.2% on balance

Ongoing relationships between a client and a consulting engineer are encouraged. Should a client wish to select a consulting engineer for a project, it is recommended that it be done using a qualifications-based selection (QBS) process. This allows the client the benefit of developing the scope and consulting engineering budget collaboratively with the selected consulting engineer.

It is recommended that clients use the industry standard engineer–client agreements included in Appendix 7: Recommended Industry Standard Engineer–Client Agreements.

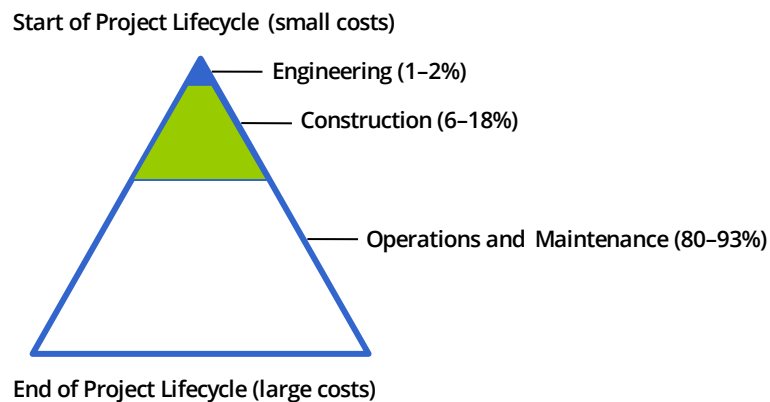
1.0 Don't Jeopardize Your Project with Low Engineering Fees

Nineteenth century author and Oxford University scientist John Ruskin is believed to have said:

"It is unwise to pay too much, but it is worse to pay too little. When you pay too little you sometimes lose everything because the thing bought was incapable of doing the thing you bought it to do."

- attributed in *Chicago Daily Tribune*, 29 Jan. 1928

How does this statement relate to engineering services for transportation and infrastructure projects? The following diagram shows the breakdown of the cost of a typical transportation and infrastructure project.



The engineering costs, at 1–2%, are a minor component of the entire project. Working collaboratively with a consulting engineer to establish the scope of work and subsequent engineering budget gives the client the best opportunity to manage and potentially reduce the remaining 98% to 99% of the project's life cycle cost.

An adequate level of effort at the engineering stage can:

- Ensure proper cost-benefit analysis of options can be performed, therefore maximizing the project's success,
- Reduce construction costs by having the time to research, investigate, and analyze new construction techniques for projects. A reduced engineering budget would deter this creativity,
- Reduce long-term operations and maintenance (O&M) costs and extend the life of the utility by researching new and innovative approaches to reduce O&M costs.

Clients should ensure that adequate budgets for engineering services are established for these projects. Failure to budget sufficient funds and time for engineering services can therefore be costly, particularly in the early stages of the project's life cycle.

2.0 Range of Services

All transportation and infrastructure projects have common components in their range of services, and each requires services specific to that project. Services can be grouped into the following general categories:

- **Advisory Services** – opinions, investigations, feasibility studies, inspections
- **Preliminary Design Services** – definition of the parameters of design
- **Detailed Design** – definition of the solution for construction
- **Tender Services** – documentation for obtaining a contract price
- **Construction Related Services** – contract administration and verification of design
- **Resident Engineering Services** – inspection of the construction
- **Project Management Services** – management of the project and team participants
- **Construction Management Services** – management of the construction contracts

Each category includes many sub-categories. These are listed in Appendix 1: Categories of Services Offered by Consulting Engineers for Transportation and Infrastructure Projects.

The nature of an individual project determines the scope of its required services, with some projects requiring more or less of different elements.

- There are a number of basic services related to final design and tendering that are generally performed across all projects. Their value can be related to the construction cost of the project, its complexity, and typical norms. These basic services are highlighted in Appendix 1.
- Other services vary depending upon the project's requirements and the roles and responsibilities allocated to the engineer and other parties. These services should be estimated using bottom-up principles, as outlined in the Section 3.0: Ways to Pay a Consulting Engineer.

In providing engineering services, an additional level of prime consultant services can be an important service to a project. Appendix 2: Prime Consultant Services describes this service.

All professional engineers must provide a minimum amount of involvement to meet the standard of care identified in the Engineers and Geoscientists BC practice guidelines (available online at www.egbc.ca). These guidelines identify the level of effort, standard of care, and due diligence that a member must provide to fulfill their professional obligation under the [Engineers and Geoscientists Act](#), [Bylaws](#), and [Code of Ethics](#).

Quality Assurance is a requirement of ACEC and Engineers and Geoscientists BC. Many consulting engineering companies are registered under the [Engineers and Geoscientists BC Organizational Quality Management Program](#). Appendix 3: Organizational Quality Management Program describes the quality assurance requirements of this Engineers and Geoscientists BC Program.

A number of fee adjustment factors should also be considered when preparing an engineering budget. Appendix 4: Fee Adjustment Factors outlines some variables that could affect an engineering services budget.

Full-time resident engineering services are recommended to be used for projects that have infrastructure buried or covered up to ensure both compliance with the specifications and accurate locating of the utility.

3.0 Ways to Pay a Consulting Engineer

Consulting Engineers can be compensated for the work they undertake based on one or more of three methods for calculating payment:

- Method 1 – time basis
- Method 2 – percentage of probable cost of construction
- Method 3 – fixed fee or lump sum, based on a defined scope of services.

The method selected depends largely on the stage of the project, its complexity and how well it is defined.

Appendix 5: Methods of Payment for a Consulting Engineer provides a more in-depth description of the three methods of calculating payment.

Table 3-1 outlines the preferred methods of remuneration for the various phases of transportation and infrastructure projects.

Table 3-1 Schedule of Methods of Remuneration for Transportation and Infrastructure Projects	
Category of Services	Recommended Method of Remuneration
1. Advisory Services	Time Basis or Fixed Fee *
2. Preliminary Design Services	Time Basis or Fixed Fee
3. Final Design	Fixed Fee or % Cost of Construction
4. Tender Services	Fixed Fee or % Cost of Construction
5. Construction Related Services	Time Basis or Fixed Fee
6. Resident Engineering Services	Time Basis
7. Project Management Services	Time Basis
8. Construction Management Services	Time Basis

* When the Fixed Fee method is used, it should include a well-defined scope of work and the ability to adjust the fee if the scope changes.

4.0 How to Budget Engineering Services

Section 1 of these guidelines discusses the importance of having an engineering budget that is sufficient to ensure a project's success. This section provides guidance on how to provide an allowance for engineering and how to calculate a detailed engineering budget.

4.1 Allowances

In order to provide guidelines to give a client tools for budgeting their projects, it is assumed that the client already has a construction budget established. Table 4-1 provides an engineering and contingency allowance for various stages of an engineering project. At a project's early stages, more uncertainty exists regarding the extent of engineering services that will be required for the project. Early stage uncertainties include both the extent of engineering services required and the extent of the costs the construction budget must cover. These two uncertainties are generally grouped as "engineering and contingency allowance." The allowance is reduced as the project progresses. For most projects, these allowances also cover legal, financial, and administration costs.

Table 4-1 Engineering and Contingency Allowance for Various Stages of Transportation and Infrastructure Projects	
Project Stages	Engineering and Contingency Allowance
1. Advisory Services (Feasibility Study)	60%
2. Preliminary Design Services	50%
3. Final Design Services	40%
4. Tender Services	Provided by consultant

Following tender services, most of the uncertainty of the project is resolved. The extent of engineering services has been established, the contractor has been selected, the contract price has been established and the length of construction time is known. At this point, the consultant can give the client a more precise estimate of the remaining engineering services required and a more refined contingency for construction and additional engineering services that may be needed.

4.2 Detailed Engineering Budgets

It is recommended that clients work with their selected engineer to develop the necessary scope of work and level of effort to meet the project goals and objectives. If a client develops a detailed engineering budget before selecting their consulting engineer, they are encouraged to contact an ACEC-BC consulting engineering company to assist them in this process. Depending on the complexity of the project, a consulting engineering company may or may not charge a fee for this service.

For most of the service categories listed in Section 2, a transparent approach to budgeting can be completed by the consulting engineer and reviewed by the client. This approach consists of the consulting engineer and client agreeing on the scope of services for the category and assigning the appropriate hours for the various staff assigned. Hourly rates for the various personnel assigned can be checked with the current ACEC-BC [Consulting Engineers Fee Guideline](#).

Appendix 6: Budget Calculation Sheets provides a blank copy of a Microsoft Excel spreadsheet for calculating engineering services by category. An example calculation is also provided.

A small number of categories in the final design and tender services sections represent a large component of the engineering services budget. Many clients find services in these categories to be less transparent. For this reason, Table 4-2 provides engineering services budgets based on a percentage of construction costs for the following categories:

Final Design

- Detailed design
- Working drawings
- Specification of tender documents
- Statement of probable cost

Tender Services

- Preparing tender call documents
- Reviewing tenders submitted and advising

Table 4-2 shows the recommended minimum fee budget scale for basic services for transportation and infrastructure projects.

Table 4-2 Engineering Services Budgeting for Final Design and Tender Services (See Appendix for Scope of Service and Definition of Scope)		
Cost of Construction	Fee	
Less than \$1,000,000	Use Other Methods	
\$1,000,000 - \$2,000,000	\$68,000 on first \$1,000,000	plus 5.8% on next \$1,000,000
\$2,000,000 - \$5,000,000	\$126,000 on first \$2,000,000	plus 5.6% on next \$3,000,000
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\$10,000,000 - \$15,000,000	\$565,000 on first \$10,000,000	plus 5.3% on next \$5,000,000
\$15,000,000 - \$20,000,000	\$828,000 on first \$15,000,000	plus 5.2% on next \$5,000,000
Over \$20,000,000	\$1,086,288 on first \$20,000,000	plus 5.2% on balance

Table 4-2 Notes:

1. This table is appropriate for projects of the following description:
 - Water, waste water and industrial waste treatment plants
 - Bridges which are asymmetric or are otherwise complicated, large dams or complicated small dams
 - Highways, urban and suburban arterial streets, grade crossing eliminations, highway and railway tunnels
 - Pumping stations, incinerators, intercepting and relief sewer, sanitary sewer lines under 600mm in diameter, water distribution lines under 400mm in diameter
 - Complex foundations, additions to or reconstruction of projects, power plants and distribution systems, airports with complex facilities and infrastructure
2. Should projects reflect a higher construction cost to design effort, the above table could be reduced by up to 25%. Examples are:
 - Bridges and other structures of conventional design, simple waterfront facilities
 - Railways, roads and streets
 - Conventional levees, flood walls and retaining walls, and small dams
 - Site development
 - Sewer and water tunnels (free air), storm sewers and drains, irrigation works (except pumping plants), sanitary sewer lines 600mm and larger, and water distribution lines 400mm and larger
 - Airports with small facilities
3. These fees do not cover disbursements or reimbursables. Reference should be made to the current ACEC-BC *Consulting Engineers Fee Guidelines*.
4. These fees do not include any applicable taxes.

5.0 How To Select A Consulting Engineer

5.1 Ongoing Relationships

It is recognized that ongoing relationships exist between clients and consulting engineers. These relationships can provide many advantages to clients, including:

- The consulting engineer's familiarity with the client's systems
- The personnel in both organizations know each other and who to contact when needed
- Consistency in long-term strategies for utilities improvements
- Increased availability by the consulting engineer for dealing with problems
- Possible assistance from the consulting engineer with funding applications
- Assistance from the consulting engineer in keeping up with changing standards

Clients are encouraged to maintain these long-term relationships and consider going into an engineering selection process only if they are not satisfied with the existing relationship.

5.2 Selecting a Consulting Engineer

Previous sections of this document have discussed the benefits of a client developing the consulting engineering budgets collaboratively with the selected consulting engineer. A consulting engineer selection processes should not include a fee component, and qualifications-based selection (QBS) should instead be used as the selection process.

The ACEC-BC website (www.acec-bc.ca) includes information and testimonials of this approach.

The greatest benefit to the client with QBS is that they get to develop the scope of work and engineering budgets in collaboration with the selected consulting engineer to the benefit of the project. With 43 of the 50 states in the US having adopted the QBS approach, it is becoming a standard method for selecting and hiring consulting engineers in North America.

Some of the selection criteria that can be used by a client in selecting their consulting engineer using QBS are:

- References from other clients (don't just call the ones that the consulting engineer provides as references).
- Past related experience of current personnel
- Capacity of the firm

6.0 Managing the Project

The client should work with the project's selected consulting engineer to develop roles and responsibilities for each party. The scope of work for the project's first stage should be clearly defined and an appropriate engineering services budget agreed to. A process should be determined to accommodate any changes in scope of work that may occur as the project proceeds.

The client and consulting engineer should then enter into a legally binding agreement for the consulting engineering services for the project. It is recommended that one of the following industry standard engineer-client agreements should be used for these contracts:

1. [ACEC Document No. 31](#)
2. Master Municipal Construction Documents – [Client/Consultant Agreement](#)

Consulting engineering services for additional phases of the project can be added to the schedules of these engineer-client agreements by mutual consent.

7.0 References

- Association of Consulting Engineering Companies – British Columbia. Consulting Engineers Fee Guideline. Available online at <https://www.acec-bc.ca/media/63173/acecbcfeguide.pdf> [accessed 3/12/2018].
- Association of Consulting Engineers of Canada. 2010. Document No. 31 – 2010 – Engineering Agreement Between Client and Engineer. Available online at https://www.acec-bc.ca/media/63140/101-doc_31-english.pdf [accessed 9/11/2017].
- Association of Consulting Engineering Companies – British Columbia. 2006, Appointing Your Consulting Engineer Using Qualifications Based Selection. Available online at <https://www.acec-bc.ca/media/6032/QBS06.pdf> [accessed 9/11/2016].
- Engineers and Geoscientists BC. No date. Code of Ethics. Available online at <https://www.egbc.ca/getmedia/e8d858f5-e175-4536-8834-34a383671c13/APEGBC-Code-of-Ethics.pdf.aspx> [accessed 9/25/2017].
- Engineers and Geoscientists BC 2015. Organizational Quality Management Manual. Available online at <https://www.egbc.ca/getmedia/90d276d3-7680-45b7-8086-daf68feb8ecd/APEGBC-Organizational-Quality-Management-Manual.aspx> [accessed 9/25/2017].
- Engineers and Geoscientists BC 2014. Bylaws. Available online at <https://www.egbc.ca/getmedia/e0c7d14c-ed74-4872-9a58-0a4bb2cd59b7/APEGBC-Bylaws.pdf.aspx> [accessed 9/25/2017].
- Master Municipal Construction Document Association (MMCD). MMCD Client/Consultant Agreement. Available online at <https://www.mmcd.net/media/19054/client-Consultant-Agreement.pdf> [accessed 9/11/2016].
- National Guide to Sustainable Municipal Infrastructure: Innovations and Best Practices (InfraGuide) - Selecting a Professional Consultant. Available online at https://www.acec-bc.ca/media/6023/DMIP_11_Selecting_a_Professional_ConsultantWEB.pdf [accessed 9/11/2016].
- Province of British Columbia. 1996. Engineers and Geoscientists Act [RSBC 1996] Chapter 116. Available online at http://www.bclaws.ca/civix/document/id/complete/statreg/96116_01 [accessed 9/11/2016].

Appendix 1

Categories of Services Offered by Consulting Engineers for Transportation and Infrastructure Projects

TABLE 1B
Categories of Service Offered by Consulting Engineers for Transportation and Infrastructure Projects

■ Basic Services ○ Additional Services

1. ADVISORY SERVICES	2. PRELIMINARY DESIGN SERVICES	3. FINAL DESIGN	4. TENDER SERVICES
<ul style="list-style-type: none"> ○ Preparation or review of engineering program ○ Expert testimony ○ Appraisals, valuations, studies, reports ○ Feasibility analysis ○ Accident investigations ○ Preliminary concept sketch ○ Preliminary specification notes ○ Development of work estimate ○ Litigation/ Claims/ Insurance assistance ○ Detailed analysis of owning and operating costs ○ Special grants and loans ○ Translation and interpretation ○ Project management scheduling assistance ○ Assistance in preparing purchase enquiries ○ Value engineering ○ Quality assurance 	<ul style="list-style-type: none"> ○ Scope of project ○ Statement of probable cost ○ Preliminary design reports, alternative conceptual proposals, sketches, schematics, specifications ○ Scheduling ○ Documents for financing ○ Geotechnical Investigative Surveys ○ Permits and licences ○ Environmental assessments ○ Revision of existing designs ○ Life cycle costing ○ Detailed cost estimates ○ Engineering surveys, profiles and cross-sections ○ Quality assurance ○ WorkSafeBC coordination 	<ul style="list-style-type: none"> ■ Detailed design ■ Working drawings ■ Specifications and tender documents ■ Statement of probable cost ○ Detailed cost estimates ○ Reinforcing bar schedules ○ Provision for client supplied equipment not in contract ○ Demolition documents ○ Tenant improvements ○ Fast-track construction or sequential tendering ○ Preparation of shop drawings ○ Environmental design ○ LEED® documentation ○ Design brief ○ Draft O&M Manual ○ Draft commissioning plan ○ Emergency response plan ○ Quality assurance ○ Geotechnical design 	<ul style="list-style-type: none"> ■ Preparing tender call documents ■ Reviewing tenders submitted and advising ○ Alternative conceptual proposals ○ Prequalification of contractors ○ Coordinating other consultants' documents ○ Non-tender construction contracts ○ Bills, materials, detailed cost estimates ○ Tender advertisement ○ Quality assurance

When remuneration Method 2 – Percentage of Cost of Construction is used, the services indicated with “■” (Basic Services) for categories 3 and 4 are the services covered by the fees in Table 4-2. Services indicated with “○” are considered Additional Services.

TABLE 1B (continued)
Categories of Service Offered by Consulting Engineers for Transportation and Infrastructure Projects

■ Basic Services ○ Additional Services

5. CONSTRUCTION RELATED SERVICES	6. RESIDENT ENGINEERING SERVICES	7. PROJECT MANAGEMENT SERVICES	8. CONSTRUCTION MANAGEMENT SERVICES
<ul style="list-style-type: none"> ○ Assisting in the preparation of contract ○ Review of shop drawings ○ Field review ○ Progress review ○ Quality assurance ○ Testing monitoring ○ Change order costing ○ Document interpretation ○ Payment recommendation ○ Substantial performance review ○ Advising client and contractor of continuing or newly observed defects or deficiencies ○ Year end warranty review ○ System start-up and documentation ○ Post-warranty period follow-up ○ Fast-track construction or sequential tendering ○ Maintenance manuals and drawings ○ Certification and testing of systems ○ Commissioning/ training ○ Environmental monitoring ○ Record drawings ○ Contract Administration ○ Quality assurance ○ LEED® documentation and certification service ○ LEED® compliance energy model 	<ul style="list-style-type: none"> ○ Supplying resident staff on the project to determine if the contractor is carrying out his work in general conformance with the contract documents. ○ Quality assurance 	<ul style="list-style-type: none"> ○ Consultant selection ○ Conceptual studies ○ Economic feasibility ○ Planning/scheduling/monitoring and controlling ○ Estimating/budgeting and cost control ○ Arranging financing ○ Procurement ○ Risk management ○ Commissioning ○ Prime consultant Services ○ Quality assurance 	<ul style="list-style-type: none"> ○ Contract strategy, administration and expediting ○ Construction logistics, planning, scheduling and manpower forecasts ○ Labour relations, safety ○ Field office management, temporary facilities ○ Materials receiving and warehousing ○ Progress monitoring, trending and reporting ○ Cost performance monitoring, trending and claims processing ○ Quality assurance

When remuneration Method 2 – Percentage of Cost of Construction is used, the services indicated with “■” (Basic Services) for categories 3 and 4 are the services covered by the fees in Table 4-2. Services indicated with “○” are considered Additional Services.

Appendix 2
Prime Consultant Services

Prime Consultant Services

The role of Prime Consultant is defined in most jurisdictions in BC as the role of the coordinating registered professional or CRP. When more than one consulting discipline is necessary on a project, it is expected that one of the disciplines will take on the role of CRP. This creates a point of coordinated communication for both the client and the authority having jurisdiction with the other consulting engineers.

The role of Prime Consultant typically includes a series of unique responsibilities, which may include, but are not necessarily limited to the following:

1. Negotiating the scope of professional services, compensation, and terms of payment with other consultants where applicable.
2. Preparing a time schedule based upon the client's program for the project, in agreement with the client and other consultants where applicable.
3. Identifying and assisting the client in obtaining any regulatory permits and approvals.
4. Obtaining from the client, or arranging for the performance of surveys, sub-surface and soil investigations, and obtaining of other necessary data.
5. Arranging for the project conferences with the client and maintaining coordination on all project matters.
6. Establishing and coordinating design standards with the concurrence of other consultants, where applicable, and coordinating statements of probable construction costs.
7. Where construction is involved:
 - a. Preparing and arranging for the printing, publication, and distribution of the construction contract documents.
 - b. Advising the client on construction contract procedures, compiling a list of bidders, and aiding in negotiations with the selected contractor.
 - c. Performing general administration during construction as CRP, consistent with the role of the consultant as defined by the Canadian Construction Documents Committee (CCDC).
 - d. With the assistance of the other consultants, recommending acceptance of the work. In most jurisdictions, recommendation of acceptance of the work is identified by release of a Letter of Assurance by the CRP.

Appendix 3
Organizational Quality Management Program

PREFACE

Engineers and Geoscientists BC introduced the Organizational Quality Management (OQM) Program in recognition of the significant influence that Organizations have on the practice of the professions by the Engineering/Geoscience Professionals they employ.

The OQM Program, as documented in this *OQM Manual*, aims to address that influence and provide guidance for professional practice Quality Management at the organizational level for Engineering/Geoscience Professionals. This voluntary, self-funded program is available to all Organizations that employ professional engineers or professional geoscientists in BC and provide products or services requiring the application of professional engineering or professional geoscience. Engineering/Geoscience Professionals remain ultimately responsible and accountable for their engineering or geoscience work, and for carrying out that work in a manner that meets their professional obligations.

One key finding from the 2009 report of Engineers and Geoscientists BC's Professional Renewal Program was that Quality Management policies of Organizations employing Engineering/Geoscience Professionals have a significant impact on the practice of the professions. In response, Engineers and Geoscientists BC established a task force of representatives from Organizations providing engineering- or geoscience-related products and services in manufacturing, consulting, utilities, construction, mining, and municipal and provincial government. In 2010, this task force launched a pilot program to help Organizations implement policies and procedures that are consistent with the Quality Management obligations that their Engineering/Geoscience Professionals have under the *Engineers and Geoscientists Act (Act)* and Bylaws. The pilot OQM Program evaluated nine Organizations in the high tech, consulting, construction, government, manufacturing, and utilities sectors.

In December 2010, Engineers and Geoscientists BC Council approved the development of the OQM Program and the establishment of the OQM Committee. The OQM Committee reports to the Professional Practice Committee and has responsibility for implementing the Engineers and Geoscientists BC-administered OQM Program.

In creating the OQM Program, Engineers and Geoscientists BC has **not** created a Quality Management System for Organizations. Instead, this *OQM Manual* provides guidance to Organizations on how to confirm, adapt, adopt, or create policies and procedures within their Quality Management System that are consistent with the Quality Management requirements that their Engineering/Geoscience Professionals must meet under the *Act* and Bylaws that govern them. Such policies and procedures would form an important component of the Organization's overall Quality Management System.

Engineers and Geoscientists BC will issue an OQM certificate to Organizations that have implemented policies and procedures consistent with these requirements:

- Apply relevant Engineers and Geoscientists BC professional practice guidelines (*OQM Manual*, Section 2)

- Retain complete project documentation (*OQM Manual*, Section 3)
- Carry out documented checks of engineering and geoscience work using a written quality control process (*OQM Manual*, Section 4)
- Carry out documented independent review of structural designs prior to construction (*OQM Manual*, Section 5)
- Appropriate use of seal (*OQM Manual*, Section 6)
- Have Engineering/Geoscience Professionals directly supervise engineering or geoscience work that they delegate to others (*OQM Manual*, Section 7)
- Carry out documented field reviews during implementation or construction (*OQM Manual*, Section 8)

As described in Section 9 of this manual, Organizations have a number of options to implement the OQM Program and achieve OQM certification, to the benefit of their customers, the public, Engineering/Geoscience Professionals and the Organization.

For your convenience, **Section 10: Appendix** in this manual includes links to the Engineers and Geoscientists BC Quality Management guidelines that are available for download from the Engineers and Geoscientists BC website.

Table P-1 explains the difference between the *OQM Manual* and the Quality Management guidelines.

TABLE P-1: Differentiating between the OQM Manual and the Quality Management Guidelines

CATEGORIES FOR COMPARISON	OQM MANUAL	QUALITY MANAGEMENT GUIDELINES
PURPOSE	<ul style="list-style-type: none"> • Provides resources to any Organization wishing to support its Engineering/Geoscience Professionals by implementing policies and procedures consistent with the Quality Management requirements 	<ul style="list-style-type: none"> • Provides standards of practice for complying with the Quality Management requirements
AUDIENCE	<ul style="list-style-type: none"> • Organizations that employ Engineering/Geoscience Professionals 	<ul style="list-style-type: none"> • Engineering/Geoscience Professionals
DIRECTION	<ul style="list-style-type: none"> • Voluntary 	<ul style="list-style-type: none"> • Mandatory to follow intent
RELATIONSHIP	<ul style="list-style-type: none"> • Collective, with its own terminology; all nine sections are written to complement each other 	<ul style="list-style-type: none"> • Standalone documents with their own definitions
CONTENT	<ul style="list-style-type: none"> • Why and what to do with guidance about how to comply with the <i>OQM Manual</i> 	<ul style="list-style-type: none"> • Why and what to do, but not how to do it
OUTCOME OF USE	<ul style="list-style-type: none"> • OQM certification and exemption from random practice reviews for Engineering/Geoscience Professionals employed by OQM-certified Organizations 	<ul style="list-style-type: none"> • Meeting the Quality Management requirements as stated in the <i>Act</i> and Bylaws
OUTCOME OF FAILURE TO USE	<ul style="list-style-type: none"> • No OQM certification and possible market disadvantage 	<ul style="list-style-type: none"> • Potential for disciplinary action against Engineering/Geoscience Professionals

Appendix 4
Fee Adjustment Factors

Fee Adjustment Factors

The design and construction industry has become increasingly complex. Many projects have unique factors that must be considered when determining an appropriate engineering fee. Examples of factors to consider in the development of an engineering budget follow. This is not intended to be a comprehensive list, but rather as an indication of how seemingly common project considerations can impact the consultant team if they are not accounted for when determining fees.

1. Project Delivery Method

The type of project delivery or procurement of construction services can vary from the traditional design-bid-build methodology. Complex projects, newer delivery methods, pre-purchasing of major equipment, and contractors with limited experience result in more time expended by the consulting engineer. For example, unit price contracts or construction management arrangements that result in multiple owner-contractor agreements often increase construction phase administration and require an increase in consulting engineer fees.

2. Project Documentation and Building Information Modeling (BIM)

Many clients are now demanding that client-specific digital standards of documentation or document control be applied. This requires a learning curve for the consulting engineer that could vary from system to system or client to client. In addition, the trend into building information modeling (BIM) can result in the need to provide drawing information in multiple formats to facilitate office use, field use, and client record keeping. Use of BIM has also shifted the fee structure by requiring more time during the design phase to develop and maintain the model as the project evolves. As such, this additional effort requires compensation. However, such increases may be offset by the BIM goal of having fewer conflicts in the fields, leading to potential savings from fewer claims in the construction phase.

3. Approvals and Authorities Having Jurisdiction

The number of approvals required by authorities having jurisdiction continues to grow. This affects the consulting engineer in a number of ways. For example, having to have phased building permits results in multiple drawing submissions, or formalized documentation for issues such as demonstrating quality management or compliance with local energy utilization bylaws must be submitted. When the authority having jurisdiction demands more than a basic building permit submission, consulting engineers' fees need to be adjusted accordingly.

4. New Technologies

New technology in the form of new building products, new means to increase energy performance, design tools and advanced construction methods is continually emerging. Requests by clients to incorporate the latest innovations can be costly, as the risks related to new products are unknown, the potential for unfamiliar testing and certification requirements increases, and/or the need for approval of documentation unfamiliar to the consulting engineer becomes more likely. In some cases, additional specialist consultants may be required.

5. Project Location and Site Conditions

The best-qualified consulting engineer may not be geographically close to the project site. As such, considerable reimbursable expenses may be incurred by the consulting engineer. Also, the use of the site may dictate construction-sequencing limitations and may require the consulting engineer to supply personnel outside normal working hours to facilitate meetings or construction field review services.

These factors need to be considered when determining consulting engineering fees.

6. Demobilization and Remobilization (stop and start-up of workforce)

Occasionally a project must stop due to delays in funding or other circumstances beyond the control of the consulting engineer. This requires reassignment of staff and, in some cases, may force release of personnel. The issue of lost opportunity is less tangible, given the consulting engineer was previously committed to the project. Similarly, if projects that are on hold are suddenly restarted, significant staffing moves may be necessary to service the client's needs adequately. This can create a significant financial impact on the consulting engineer; a fee adjustment is required when this occurs.

7. Seismic safety-related costs

Certain areas of British Columbia are prone to a high risk of strong earthquake hazard. Sites underlain by subsurface conditions that would perform poorly under strong earthquake shaking may require involved geotechnical characterization, ground improvement, and/or complex structural design to satisfy performance expectations. The costs related to these items may be in part independent of normal construction costs for the particular item of infrastructure and should be considered when determining fees.

Appendix 5
Methods of Payment for a Consulting Engineer

Method 1 – Time Basis

ACEC-BC and Engineers and Geoscientists BC recommend using the Time Basis method when the scope of engineering services is difficult to determine, cannot be determined, is not well defined, or when the consultant is not in total control of the required time and disbursements at any stage of the project.

All time expended on the assignment is billable, including time spent travelling, time in the consulting engineer's office, and time on the client's premises or elsewhere. Billable time also applies to technical and clerical services, including, but not limited to, scheduling and clerical staff engaged in producing correspondence and documents such as reports and specifications. Billable time also includes all costs associated with development of or determining the scope of the project.

The consultant can be expected to closely monitor progress and provide regular status reports on the project.

A variation to the Time Basis method is to include an "upset limit" on time-related fee budgets. To develop the "upset limit", assumptions are made based on very little information. ACEC-BC and Engineers and Geoscientists BC discourage the use of "upset limits"— their use does not promote optimal solutions, because it results in the consultant defining tasks before proper planning and the clear project definition has occurred. In addition, the method leads to the consultant closely monitoring changes to their originally defined scope, which can promote an adversarial relationship with the client.

Time Basis-method fees should be invoiced in accordance with the ACEC-BC [Consulting Engineers Fee Guideline](#).

Special Expertise

Fees for senior personnel rendering specialized or expert service or testimony for which they are eminently qualified should be twice the hourly rates.

Salary Adjustments

Salary adjustments during the life of a project are normally reflected in adjustments to charge-out rates unless noted otherwise by agreement.

Method 2 - Percentage of Cost of Construction

Fees based on the percentage of cost of construction may be suitable for engineering services where the cost of the consulting engineering service is a function of the construction of installation costs and where the project scope and construction or installation budgets are well defined. Where the cost of construction for an individual discipline within an overall project is under \$1,000,000, methods other than Method 2 should be used for those components.

Client agreements should clearly define whether the cost of construction is based on an estimate established at commencement of a project or on the completed actual construction cost.

Fees for full-time resident engineering are in addition to fees determined under Method 2. For full-time resident engineering, Method 1 - Time Basis is recommended.

Table 4-2 is the recommended table for determining the fee budget as a percentage of the cost of construction.

Cost of Construction for Engineering Projects

The cost of construction includes the following:

- The total cost of all materials, equipment and labour (including duty, taxes, grants- in-aid and subcontractors' and general contractors' overhead and profit) necessary to complete the work for which the consulting engineer prepares drawings and specifications or for which the consulting engineer is responsible to the client.
- In the event that the client furnishes material, equipment, services or other labour that is incorporated in the work, the cost of construction includes the fair market value of those materials or equipment as if newly purchased. In addition, the cost of construction includes the current prices of labour or other services at the time of construction. In the event construction does not proceed, market prices at the estimated time of construction shall prevail.
- In the event that the client or contractor furnishes used material or equipment at the client's request, the cost of construction includes the fair market value of those materials or equipment as if newly purchased.

Fee budgets are based on the cost of construction including all extras to the construction contract. No deduction may be made from the consulting engineer's fee because of penalties or damages claimed by the client from the contractor or other sums withheld from the contractor. The cost of construction does not include professional fees and reimbursements payable to the consulting engineer.

Method 3 - Fixed Fee or Lump Sum Contract

A fixed fee or lump sum contract is suitable if the scope and schedule of the project are sufficiently defined to allow the consulting engineer to accurately estimate the effort required. This type of contract is frequently developed from time-based projections or specific service requirements for particular tasks. It is also often derived from the appropriate percentage fee method. Disbursements may or may not be included in the lump sum.

This method provides cost certainty for clients and encourages innovation and efficiency by the consultant.

Appendix 6
Budget Calculation Sheets

**ABC Municipality
North Road Water Main
Fee and Disbursement Schedule – Engineering Construction Services**

Services	Senior Engineer	Junior Engineer	Resident Engineer	Survey Assistant	Admin	Total Fees	Disbursements	Subconsultants	Total Fees, Disbursements & Subconsultants
	\$220	\$125	\$125	\$70	\$70	\$	\$	\$	\$
Hourly Charge Out Rate									
1 Tendering	16	32			2	7,660.00	2,000.00		9,660.00
2 Resident Engineering Services			800			100,000.00	7,205.00		107,205.00
3 General Engineering Services	128					28,160.00			28,160.00
4 Review Shop Drawings		16				2,000.00			2,000.00
5 Prepare Progress Draws		16				2,000.00			2,000.00
6 Attend Site Meetings	16					3,520.00			3,520.00
7 Electrical programming						-	355.00	7,100.00	7,455.00
8 Structural Inspection						-	214.00	4,275.00	4,489.00
9 Environmental						-	28.00	552.00	580.00
10 Post Construction Services	16	24	80		16	17,640.00			17,640.00
Disbursements (8% of fees)						-	12,878.40		12,878.40
TOTAL	176	88	880	-	18	160,980.00	22,680.40	11,927.00	195,587.40

Notes:

1. This budget assumes 4 months of full time Resident Inspection. Should this time be extended, the construction services budget will be increased accordingly to accommodate that inspection.
2. This budget assumes a 50 hour work week for the Inspector to include travel time to the site.
3. Disbursements for Resident Engineering Services are mileage \$0.50/km x 14,410 km.

***Reader should refer to the annual Consulting Engineers Fee Guideline for current charge-out rates**

Appendix No. 7
Recommended Industry Standard Engineer Client Agreements



ASSOCIATION OF CONSULTING ENGINEERING COMPANIES-CANADA

DOCUMENT NO. 31 - 2010

ENGINEERING AGREEMENT BETWEEN CLIENT AND ENGINEER

Rights and Privileges

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Users are advised to first consult with legal counsel prior to agreeing to any changes to the agreement outlined in this document.

1981
Revised 1991
Addendum 1996
Revised 2009
Revised 2010

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SCHEDULE A - ENGINEER’S SCOPE OF SERVICES A-1

SCHEDULE B – FEES AND REIMBURSABLE EXPENSES B-1

ENGINEERING AGREEMENT BETWEEN CLIENT AND ENGINEER

dated as of the _____ day of _____, 20__.

by and between:

(Insert legal name and address)
hereinafter called the “Client”

and:

(Insert legal name and address)
hereinafter called the “Engineer”.

AGREEMENT

The *Client* and *Engineer* agree as follows:

A-1 THE SERVICES

1.1 The *Engineer* will provide *Services* in connection with the following *Project*:

(Insert a short description of the Project)

The location of the *Project* (the “*Place of the Work*”) is as follows:

(Insert the address, location or legal description of the site of the Work)

1.2 The *Engineer* will provide *Services* for the *Project* in accordance with Schedule A – ENGINEER’S SCOPE OF SERVICES.

1.3 Any change to the *Services* listed in Schedule A – ENGINEER’S SCOPE OF SERVICES will be made by written order signed by both parties identifying the change plus adjustments, if any, to the *Engineer’s Fees* and *Reimbursable Expenses* and time for completion of the *Services*.

A-2 AGREEMENT AND AMENDMENTS

- 2.1 This *Engineering Agreement* constitutes the entire agreement between the *Client* and the *Engineer* relating to the *Project*, and supersedes all prior agreements between them, whether written or oral, respecting the *Services*. No other terms, conditions or warranties, whether express or implied, form a part of this *Engineering Agreement*.
- 2.2 This *Engineering Agreement* may be amended only by a written document signed by both the *Client* and the *Engineer*.

A-3 ENGINEERING AGREEMENT DOCUMENTS

The following sections and documents form part of and are incorporated into the *Engineering Agreement*:

In this *Engineering Agreement*:

- Agreement
- Definitions
- General Conditions
- Schedule A - ENGINEER'S SCOPE OF SERVICES
- Schedule B - FEES AND REIMBURSABLE EXPENSES

Other documents:

*

**(Insert here, attaching additional pages if required, a list of all other sections and documents, including any supplementary conditions, other schedules and lists that are to be incorporated into the Engineering Agreement.)*

A-4 FEES AND REIMBURSABLE EXPENSES

- 4.1 The *Fees* for the *Services* of the *Engineer* are set forth in Schedule B – FEES AND REIMBURSABLE EXPENSES.
- 4.2 *Reimbursable Expenses* are the costs and charges identified in Schedule B – FEES AND REIMBURSABLE EXPENSES that are incurred by the *Engineer* in performing the *Services*.

A-5 PAYMENT

- 5.1 The *Client* will pay to the *Engineer* the *Fees* and *Reimbursable Expenses* set out in this *Engineering Agreement*.
- 5.2 The *Engineer* will issue monthly invoices for *Fees* and *Reimbursable Expenses*, together with applicable *Value Added Taxes*.
- 5.3 The *Engineer's* invoices are due when presented. Invoices unpaid by the *Client* 30 days after presentation will bear interest of _____ % per annum calculated monthly.

A-6 NOTICES

- 6.1 A *Notice* will be addressed to the recipient at the address set out below. The delivery of a *Notice* will be by personal delivery, receipted courier delivery or by facsimile. A *Notice* delivered by one party in accordance with this *Engineering Agreement* will be deemed to have been received by the other party on the first *Working Day* after actual delivery. An address for a party may be changed by *Notice* to the other party setting out the new address in accordance with this Article.
- 6.2 Although the parties may use electronic communications for the purposes of general communication, e-mail will not be used for delivery of a *Notice*.
- 6.3 The addresses for the parties are as follows:

*Client**

*(name of Client)**

(address)

(facsimile number)

*Engineer**

*(name of Engineer)**

(address)

(facsimile number)

**(If it is intended that a specific individual or officer must receive the Notice, indicate that individual's name and/or office.)*

A-7 LANGUAGE OF THE CONTRACT

- 7.1 *(For use in the Province of Quebec.)* The parties confirm their wish that this *Engineering Agreement* as well as any other related documents including future amendments, *Notices* and correspondence be drawn in English. Parts of the *Engineering Agreement* may be included as available in English or in French or both, according to the language or languages in which they originally were drawn.

Les parties confirment leur volonté que cette convention de même que tous les documents s'y rattachant, y compris tous amendements, avis et correspondance futures, soient rédigés en anglais. Des portions de la Convention d'ingénierie sont incluses telles que disponibles, soit en français ou en anglais ou les deux, selon la langue ou les langues dans lesquelles la portion pertinente de la Convention d'ingénierie aura été rédigée à l'origine.

A-8 SUCCESSION

- 8.1 This *Engineering Agreement* will inure to the benefit of and be binding upon the parties, and upon their executors, administrators, successors and permitted assigns.

(Signatures next follow)

IN WITNESS WHEREOF the parties hereto have executed this *Engineering Agreement* as of the day and year first above written.

CLIENT

WITNESS

(only required where the Client is an individual)

name of Client

signature

name and title of person signing

signature

name and title of person signing

ENGINEER

WITNESS

(only required where the Engineer is an individual)

name of Engineer

signature

name and title of person signing

signature

name and title of person signing

signature

name and title of person signing

signature

name and title of person signing

signature

name and title of person signing

signature

name and title of person signing

Where legal jurisdiction, local practice, or Client or Engineer requirements calls for:

- (a) proof of authority to execute this document, attach such proof of authority in the form of a certified copy of a resolution naming the representative(s) authorized to sign the Engineering Agreement for and on behalf of the corporation or partnership; or*
- (b) the affixing of a corporate seal, this Engineering Agreement should be properly sealed.*

DEFINITIONS

1. Construction Contract

Construction Contract means the contract between the *Client* and the *Contractor* for the performance of the *Work* by the *Contractor*.

2. Construction Administration Services

Construction Administration Services means those services, if any, which relate to the administration of the *Construction Contract* and which are identified as such in Schedule A – ENGINEER’S SCOPE OF SERVICES and which form part of the *Services*.

3. Construction Contract Documents

Construction Contract Documents means all documents relating to the *Work* issued by or through the *Engineer* that are incorporated into the *Construction Contract* and all variations and modifications issued by or approved by the *Engineer*.

4. Construction Contract Time

Construction Contract Time means the period from the *Notice* to proceed with the *Work* issued to the *Contractor* to the completion date of the *Work* in accordance with the *Construction Contract*.

5. Construction Cost

Construction Cost means the total cost to the *Client* of the *Work*, and includes:

- (a) all materials, equipment, labour, *Value Added Taxes*, *Contractor’s* overhead and profit provided in accordance with the *Construction Contract Documents*;
- (b) the cost of all installations for the *Project* carried out by parties other than the *Contractor*;
- (c) the cost of all *Work* carried out under the *Construction Contract*;
- (d) refunds or sales tax exemptions on any materials or equipment, or both;
- (e) the cost of *Work* carried out by direct labour or direct purchase of materials or equipment by the *Client* at prevailing prices;
- (f) the value of new or old materials provided by the *Client*;
- (g) the value of all deletions made by the *Client* from the *Work* after the *Engineer* has completed a design for the deleted items as a part of the *Work*; and
- (h) the value of any monetary damages or set offs retained by the *Client* from the *Contractor* with respect to the *Work*;

but does not include:

- (i) *Fees and Reimbursable Expenses* of the *Engineer*;
- (j) the fees and reimbursable expenses of *Consultant of the Client*;

- (k) the salary of the *Client's* representative or other salary and administrative costs of the *Client*;
 - (l) the cost of land and any related rights or easements; or
 - (m) the costs of items, such as equipment, furniture or fixtures, that do not form a part of the *Construction Contract*.
- 6. Consultant or Consultant of the Client**
Consultant or *Consultant of the Client* means a registered or licensed professional engineer, architect, or other specialist engaged directly by the *Client* other than the *Engineer* or *Sub-Consultants of the Engineer*.
- 7. Contractor**
Contractor means a person or entity contracting with the *Client* to perform some or all of the *Work*.
- 8. Coordinate or Coordination**
Coordinate or *Coordination*, when referring to the *Services* of the *Engineer*, means the management and supervision of communications between the *Engineer* and a *Sub-Consultant* or a *Consultant of the Client*.
- 9. Engineering Agreement or Agreement**
Engineering Agreement or *Agreement* means this agreement between the *Client* and the *Engineer*, including all of the documents identified in Article A-3 ENGINEERING AGREEMENT DOCUMENTS and any amendments thereto.
- 10. Engineering Documents**
Engineering Documents means drawings, plans, models, designs, specifications, reports, photographs, computer software if proprietary to the *Engineer*, surveys, calculations and other data, including computer print outs, contained in the *Construction Contract Documents* or which are otherwise used in connection with the *Project*, and which were prepared by or on behalf of the *Engineer* and are instruments of service for the execution of the *Work*.
- 11. Fees**
Fees means those fees that are identified in Schedule B – FEES AND REIMBURSABLE EXPENSES and which are payable by the *Client* to the *Engineer*.
- 12. Hazardous Substances**
Hazardous Substances means any toxic or hazardous solid, liquid, gaseous, thermal, or electromagnetic irritant or contaminant, and includes, without limitation, pollutants, moulds, and hazardous and special materials and wastes whether or not defined as such in any federal, provincial, territorial, or municipal laws, statutes, or regulations.
- 13. Notice**
Notice means a written communication between the parties that is delivered in accordance with the provisions of Article A-6 – RECEIPT OF AND ADDRESSES FOR NOTICES. Use of the verb “**to notify**” means to send a *Notice* in the above manner.

14. Place of the Work

Place of the Work means the designated site or location of the *Work* identified in this *Engineering Agreement*.

15. Project

Project means the total endeavour contemplated in this *Engineering Agreement* of which the *Services* and the *Work* may be the whole or a part.

16. Project Budget

Project Budget means the estimated cost of the *Work*, including the *Services* and other professional services, but excluding expenses relating to site acquisition, promotion and marketing.

17. Reimbursable Expenses

Reimbursable Expenses means those expenses that are identified in Schedule B – FEES AND REIMBURSABLE EXPENSES and which are payable by the *Client* to the *Engineer*.

18. Services

Services means those services that are identified in Schedule A – ENGINEER'S SCOPE OF SERVICES.

19. Shop Drawings

Shop Drawings means drawings, diagrams, illustrations, schedules, performance charts, technical brochures, and other data that are to be provided by the *Contractor* or by others to illustrate details of a portion of the *Work*.

20. Sub-Consultant or Sub-Consultant of the Engineer

Sub-Consultant or *Sub-Consultant of the Engineer* means any registered or licensed professional engineer, architect, or other specialist engaged by the *Engineer* to perform a discreet scope of services in connection with the *Project*, but does not include employees of the *Engineer* or consultants working under a personal services agreement with the *Engineer*.

21. Substantial Performance of the Work

Substantial Performance of the Work means, where defined in the lien legislation applicable to the *Place of the Work*, the meaning given to that term in the lien legislation. If such legislation is not in force or does not contain such definition or if the *Work* is governed by the Civil Code of Quebec, *Substantial Performance of the Work* will have been reached when the *Work* is ready for use or is being used for the purpose intended and is so certified by the *Engineer* or by the certifier, if any, appointed under the *Construction Contract*, as the case may be.

22. Suspension Expenses

Suspension Expenses means expenses incurred by the *Engineer*, including demobilization and remobilization expenses, which are directly attributable to suspension of the *Services* by the *Client*.

23. Termination Expenses

Termination Expenses means expenses incurred by the *Engineer* which are directly attributable to termination of the *Services* and include the *Engineer's* expenses reasonably and necessarily incurred in winding down the *Services*.

24. Value Added Taxes

Value Added Taxes means such sum as levied upon the *Fee*, *Reimbursable Expenses* and the *Work* by a Federal, Provincial or Territorial Government and is computed as a percentage of the same and includes the Goods and Services Tax, the Quebec Sales Tax, the Harmonized Sales Tax, and any similar tax, the payment or collection of which is imposed by legislation.

25. Work

Work means the total construction and related services required by the *Construction Contract*.

26. Working Day

Working Day means a day other than a Saturday, Sunday, statutory holiday or statutory vacation day that is observed by the construction industry in the area of the *Place of the Work*. Reference to a day, other than a *Working Day*, indicates a calendar day.

GENERAL CONDITIONS

PART 1 AGREEMENT DOCUMENTS

GC 1.1 If there is a conflict within the *Engineering Agreement*, the order of priority of the documents which make up the *Engineering Agreement*, from highest to lowest, will be:

- (a) Agreement;
- (b) Definitions;
- (c) Any supplementary conditions to the General Conditions;
- (d) General Conditions;
- (e) Schedule A – ENGINEER’S SCOPE OF SERVICES;
- (f) Schedule B – FEES AND REIMBURSABLE EXPENSES;
- (g) Other schedules to the *Engineering Agreement*.

GC 1.2 The documents which make up the *Engineering Agreement* are complementary, and what is required by any one will be as binding as if required by all.

GC 1.3 Words and abbreviations with well known technical or trade meanings are used in the *Engineering Agreement Documents* in accordance with such recognized meanings.

GC 1.4 References in the *Engineering Agreement Documents* to the singular will be considered to include the plural as the context requires.

GC 1.5 References in the *Engineering Agreement Documents* to regulations and codes are considered to be references to the latest published version as of the signature date of the *Engineering Agreement*, unless otherwise indicated.

PART 2 LAW OF THE CONTRACT

GC 2.1 The law of the *Place of the Work* will govern the interpretation of the *Engineering Agreement*.

GC 2.2 The *Client* acknowledges receipt of sufficient information from the *Engineer*, including information concerning the *Fees* and *Services* of the *Engineer*, so as to allow the *Client* to assess the nature, extent and cost of the *Services* of the *Engineer* and the obligations which the *Client* assumes under this *Engineering Agreement*.

PART 3 RIGHTS AND REMEDIES

GC 3.1 Except as expressly provided in the *Engineering Agreement Documents*, the duties and obligations imposed by the *Engineering Agreement Documents* and the rights and remedies

available thereunder will be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

GC 3.2 No action or failure to act by the *Client* or *Engineer* will constitute a waiver of a right or duty afforded or imposed under this *Engineering Agreement*, except as may be specifically specified in writing.

PART 4 ASSIGNMENT

GC 4.1 Neither party may assign this *Engineering Agreement* in whole or part without the written consent of the other, which consent will not be unreasonably withheld.

PART 5 ENGINEER'S RESPONSIBILITIES

GC 5.1 The *Engineer* is bound by the legislation governing the *Engineer's* profession. Nothing in this *Engineering Agreement* requires the *Engineer* to derogate from obligations prescribed by law that are binding upon the *Engineer*.

GC 5.2 The *Engineer* will provide the *Services* in accordance with this *Engineering Agreement* and with the degree of care, skill, and diligence normally provided by engineers in the performance of comparable services in respect of projects of a similar nature to that contemplated by this *Engineering Agreement*.

GC 5.3 The *Engineer* will maintain records of *Reimbursable Expenses* and time records for *Services* performed for which the *Fee* is computed on an hourly basis. These records will be maintained to acceptable accounting standards and made available to the *Client* at mutually convenient times during the term of this *Engineering Agreement* and for a period not exceeding one year following completion of the *Services*.

GC 5.4 The *Engineer* will:

- (a) not be responsible for the performance by the *Contractor*, subcontractors, suppliers or any other contractors of the *Work* or for the failure of any of them to carry out the *Work* in accordance with the *Construction Contract*;
- (b) not be responsible for, nor control, direct or supervise, the construction methods, means, techniques, sequences or procedures of the *Contractor*, subcontractors, suppliers, or any other contractors;
- (c) not be responsible for acts or omissions of the *Consultant of the Client*, or the *Contractor*, subcontractors, suppliers, or any other contractor;
- (d) not be responsible for safety precautions and programs required in connection with the *Work* or for general site safety at the *Place of the Work* under applicable health and construction safety legislation at the *Place of the Work*;
- (e) not be responsible for the advice of any independent expert engaged either by the *Client* or the *Contractor*, whether or not recommended by the *Engineer*; and
- (f) not be responsible to make exhaustive or continuous on-site reviews.

GC 5.5 The *Engineer* may engage *Sub-Consultants* to enable the *Engineer* to provide the *Services*. Should the *Client* reasonably object to a *Sub-Consultant* engaged by the *Engineer*, the *Client* may request the *Engineer* to replace the *Sub-Consultant*. In this event, the *Client* will pay all costs resulting from termination and replacement of that *Sub-Consultant* and the parties will adjust the *Fees* and time for completion of the *Services* to take into account the termination and replacement.

GC 5.6 The *Engineer* will *coordinate* the activities of its *Sub-Consultants*.

GC 5.7 The *Engineer* has discretion, where the *Client* provides equipment or materials for the *Project*, to request the *Client* to arrange that items to be used or installed in the *Work* first be tested or verified before being used for the purposes intended by the *Client* or be validated by an appropriate certificate of compliance.

Upon receipt of the requested test or verification reports or certificate of compliance, the *Engineer* will *notify* the *Client* of the *Engineer's* acceptance or refusal of equipment or materials concerned, with or without such reservations as the *Engineer* considers to be appropriate. If the *Client* insists upon using an item to which the *Engineer* has objected or expressed reservations in writing or if the *Client* declines to arrange to test, verify or certify an item as requested by the *Engineer*, the *Client* will be considered to have waived any recourse against the *Engineer* resulting from the use of such item or from a defect or inadequacy in such item.

GC 5.8 The *Engineer* is entitled to rely upon the accuracy and completeness of information and data furnished by the *Client*, including information and data originating from a *Consultant of the Client*, whether such *Consultant* is engaged at the request of the *Engineer*, the *Client* or otherwise.

GC 5.9 The *Engineer* is entitled to rely upon the accuracy and completeness of records, information, data and specifications furnished by:

- (a) government authorities and public utilities; and
- (b) by manufacturers and suppliers of equipment, material or supplies.

Should such records, information, data, and specifications prove to be erroneous or inaccurate, the *Engineer* is entitled to make the necessary changes to the *Engineering Documents* at the expense of the *Client*.

GC 5.10 The *Engineer* is not responsible for manufacturing defects in equipment, material or supplies specified or recommended by the *Engineer*.

GC 5.11 The *Engineer* will not accept a commission or other compensation from a manufacturer, supplier or contractor involved in the *Project*. The *Engineer* will have no financial interest in the materials or equipment specified or recommended by the *Engineer* as part of the *Services*. However, ownership of less than 1% of the securities issued by a company whose securities are traded on a recognized securities exchange will not be deemed to constitute a financial interest.

GC 5.12 Where the *Engineer* does not provide *Construction Administration Services* under this *Engineering Agreement* but the *Client* nevertheless requests the *Engineer* to attend at the

Place of the Work for any reason, the *Engineer* will not incur any liability to the *Client* for having attended at the *Place of the Work* unless the *Client* makes a specific request to the *Engineer* in writing stating why the *Client* has requested the *Engineer's* attendance and the *Engineer* has agreed to attend for that sole purpose. In such event, the only responsibility of the *Engineer* will be to respond to the *Client's* specific request provided such request falls within the mandate and competence of the *Engineer*.

PART 6 CLIENT'S RESPONSIBILITIES

- GC 6.1 The *Client* will promptly fulfill all of the *Client's* responsibilities so as not to impede the *Engineer's* orderly performance of the *Services*.
- GC 6.2 The *Client* will fully advise the *Engineer* in writing of the *Client's* requirements in connection with the *Project*, including the *Project Budget* and time constraints of the *Client*.
- GC 6.3 The *Client*, when so *notified* by the *Engineer*, will make available to the *Engineer* all information or data pertinent to the *Project* which is required by the *Engineer* to perform the *Services*.
- GC 6.4 The *Client*, when so *notified* by the *Engineer*, will directly engage the services of a specialist to provide information or to perform ancillary services that are necessary to enable the *Engineer* to carry out the *Services*. Ancillary services may include, but are not limited to, topographic surveys and mapping of the *Place of the Work*, site services reports, technical investigations, geotechnical reports, quantity surveys and testing services. The parties will jointly agree on the selection of any such specialist.
- GC 6.5 Should the *Client* not provide the information required by the *Engineer* to perform the *Services* as mentioned in GC 6.3 or not accept the request of the *Engineer* to engage a specialist as mentioned in GC 6.4, the *Engineer* will be entitled at the *Engineer's* option and upon a further *Notice* to the *Client* either to terminate this *Engineering Agreement* or to be relieved of any responsibility for the consequences of the *Client's* decision not to provide the information or to engage a specialist as requested by the *Engineer*.
- GC 6.6 The *Client* will ensure that *Consultants of the Client* have adequate professional liability insurance, commensurate with the services they will provide for the *Project* and the *Work*.
- GC 6.7 Should the *Engineer* be required to act as the agent of the *Client* in order to perform some of the *Services*, the *Client* will authorize the *Engineer* in writing to act as the *Client's* agent for such purposes as may be necessary. Where the *Engineer* acts as the *Client's* agent pursuant to a written authorization, the *Client* is responsible for the authorized actions of the *Engineer* as agent of the *Client*. The *Client* will indemnify the *Engineer* for damages and expenses incurred by the *Engineer*, including reasonable legal fees, when acting as agent of the *Client*.
- GC 6.8 The *Client* will promptly consider requests by the *Engineer* for directions or decisions and diligently inform the *Engineer* of the *Client's* direction or decision within a reasonable time so as not to delay the *Services*.
- GC 6.9 The *Client* will pay the *Engineer* as provided in this *Engineering Agreement*.

- GC 6.10 The *Client*, at the request of the *Engineer*, will furnish reasonable evidence to the *Engineer* that financial arrangements have been made to fulfill the *Client*'s payment obligations under this *Engineering Agreement* before signing the *Engineering Agreement*, and promptly from time to time thereafter.
- GC 6.11 The *Client* will *notify* the *Engineer* of any material change in the *Client*'s financial arrangements that affect the *Client*'s ability to fulfill the *Client*'s payment obligations under this *Engineering Agreement*.
- GC 6.12 The *Client* will provide those legal, accounting, insurance, bonding and other counselling services which are necessary for the preparation of tenders or requests for proposals and the like or for the performance of other *Services* of the *Engineer*. If the *Client* is unable to provide such counselling services and requests the *Engineer* to do so, the *Client* will reimburse the *Engineer* for expenses incurred in securing any such counselling services.
- GC 6.13 The *Client* is responsible for obtaining legal advice regarding tenders, requests for a proposal or information, bids, contract awards and the like, regarding the *Project*. The *Client* is responsible for decisions relating to the issuance, validity or award of tenders, proposals or bids and for the resulting consequences, even where the *Services* require the *Engineer* to review or assist in the preparation of tenders, proposals or bids and the like or to make recommendations regarding them or regarding the qualification or selection of bidders.
- GC 6.14 The *Client* will arrange where necessary for the *Engineer*'s access to the *Place of the Work* or other required locations to enable the *Engineer* to perform the *Services*.
- GC 6.15 The *Client* will designate in writing an individual to act as the *Client*'s representative who will have authority to transmit instructions to and receive information from the *Engineer*.
- GC 6.16 The *Client* will promptly *notify* the *Engineer* whenever the *Client* or the *Client*'s representative becomes aware of any defects or deficiencies in the *Services*, the *Engineering Documents* or in the *Construction Contract Documents*.
- GC 6.17 The *Client* will obtain required approvals, licences, and permits from municipal, governmental or other authorities having jurisdiction over the *Project* so as not to delay the *Engineer* in the performance of the *Services*.
- GC 6.18 The *Client* will not enter into contracts with *Consultants of the Client* or *Contractors* that are incompatible or inconsistent with the *Services* to be provided under this *Engineering Agreement*.

PART 7 CONSTRUCTION ADMINISTRATION

- GC 7.1 This PART 7 CONSTRUCTION ADMINISTRATION applies only when and to the extent that the *Engineer* provides *Construction Administration Services* under Schedule A – ENGINEER'S SCOPE OF SERVICES.
- GC 7.2 *Construction Administration Services* provided by the *Engineer* are for the benefit of the *Client*.

- GC 7.3 The *Engineer* will have authority to act on behalf of the *Client* but only to the extent provided in the *Construction Administration Services*.
- GC 7.4 The *Client* may modify or extend the duties, responsibilities, and authority of the *Engineer* as set forth in the *Construction Administration Services* with the written consent of the *Engineer*.
- GC 7.5 *Notices*, instructions, requests, claims, or other communications between the *Client* and the *Contractor* and between the *Client* and any *Consultants of the Client* will be made by or through the *Engineer*, unless the *Client notifies* the *Engineer* otherwise.
- GC 7.6 The *Engineer*, in the first instance, will be the interpreter of the requirements of the *Engineering Documents* and will make findings on all claims made by either the *Client* or the *Contractor* under the *Construction Contract*, and on all matters relating to the interpretation of the *Engineering Documents*, unless otherwise provided in the *Construction Contract*.
- GC 7.7 The *Engineer*, if specified in the *Construction Administration Services* and in the contracts among the *Client* and its *Consultants*, will *coordinate* the activities of the *Consultants of the Client*.
- GC 7.8 The *Engineer* will visit the *Place of the Work* at such intervals as the *Engineer*, in the *Engineer's* judgment, considers to be appropriate relative to the progress of construction in order to enable the *Engineer* to assess whether the *Contractor* is carrying out the *Work* in general conformity with the *Engineering Documents*. Only *Work* which the *Engineer* has reviewed during the construction will be considered to have been assessed. Should the *Engineer* comment on parts of the *Work* which the *Engineer* has not reviewed, the comments of the *Engineer* must be construed as being assumptions only and must not be relied upon unless the *Client notifies* the *Engineer* to review, and the *Engineer* reviews, the parts of the *Work* in question.
- GC 7.9 The *Engineer* is not responsible for performance of the *Construction Contract*. The *Contractor* is solely responsible for the execution, quality, schedule and cost of the *Work*.
- GC 7.10 The *Engineer* is not responsible to the *Client*, the *Contractor* or any *Consultant of the Client* for the means, methods, techniques, sequences, procedures and use of equipment for the *Project*, whether or not reviewed by the *Engineer*, which are employed by the *Contractor* or by a *Consultant of the Client* in executing, designing or administering the *Work*; or for the services of a *Consultant of the Client*; or for commissioning and start-up of any facility or equipment; or for health and safety precautions and programs incidental to the *Project* or to the commissioning and start-up of any facility or equipment.
- GC 7.11 No acceptance by the *Engineer* of the *Work* or of the services of the *Consultants of the Client*, whether express or implied, will relieve the *Contractor* or the *Consultants of the Client* from their responsibility to the *Client* for the proper performance of the *Work* or their services.
- GC 7.12 Unless otherwise specifically stated within the *Engineering Documents* or included in the *Construction Administration Services*, the *Contractor's Shop Drawings* will be reviewed by the *Engineer* only for the limited purpose of checking for general conformance with information given and the design concept expressed in the *Construction Contract Documents*. The *Engineer's* review of *Shop Drawings* is not for the purpose of determining the feasibility

or constructability of the *Work* detailed within the *Shop Drawings* or the accuracy or completeness of:

- (a) details such as dimension and quantities;
- (b) instructions for installation or performance of equipment or systems;
- (c) *Contractor's* construction means, methods, techniques, sequences or procedures; or
- (d) safety precautions for those engaged in the *Work* or others at the *Place of the Work*.

GC 7.13 Where required by the *Services*, at the end of the *Project* the *Engineer* will compile and deliver to the *Client* a reproducible set of record documents showing significant changes made to the *Work*, based upon, without additional verification on the part of the *Engineer*, updated record drawings, as-built and other data provided by the *Contractor*, *Consultants of the Client*, or other parties.

PART 8 CERTIFICATIONS BY THE ENGINEER

GC 8.1 This PART 8 CERTIFICATIONS BY THE ENGINEER applies only when and to the extent that the *Engineer* is required to issue certifications under Schedule A – ENGINEER'S SCOPE OF SERVICES.

GC 8.2 The *Engineer* will issue those certifications which the *Engineer* is required to give as part of the *Services* with the degree of care, skill, and diligence normally provided by engineers issuing comparable certifications in respect of projects of a similar nature to that contemplated by this *Engineering Agreement*, based upon data reasonably available to the *Engineer*.

GC 8.3 If included in the *Construction Administration Services*, the *Engineer's* issuance of a certificate for payment constitutes a representation by the *Engineer* to the *Client*, based on the *Construction Administration Services* performed by the *Engineer* and on review of the *Contractor's* schedule of values and applications for payment, that, to the best of the *Engineer's* information and belief:

- (a) the *Work* has progressed to the value indicated;
- (b) *Work* observed by the *Engineer* while performing *Construction Administration Services* conforms generally with the *Construction Contract Documents*; and
- (c) the *Contractor* is entitled to payment in the amount certified.

GC 8.4 The *Engineer's* issuance of a certificate for payment is subject to:

- (a) review and evaluation of the *Work*, to the extent specified in the *Services*, as it progresses for general conformity with the *Construction Contract Documents*;
- (b) the results of any subsequent tests required by the *Construction Contract Documents*;
- (c) correction of deviations from the *Construction Contract Documents* detected prior to completion or after completion, as the case may be; and

- (d) any specific qualifications stated in the certificate for payment.

GC 8.5 The *Engineer's* issuance of a certificate for payment is not a representation that the *Engineer* has inquired into the *Contractor's*:

- (a) use or allocation of monies paid on account of the contract price specified in the *Construction Contract*; or
- (b) compliance with obligations imposed on the *Contractor* by law, including requirements of workplace health and safety legislation at the *Place of the Work*.

PART 9 CONSTRUCTION COST AND CONTRACT TIME ESTIMATES

GC 9.1 This PART 9 - CONSTRUCTION COST AND CONTRACT TIME ESTIMATES applies only in the event the *Services* require the *Engineer* to provide the *Client* with an estimate of the probable *Construction Cost* or *Construction Contract Time*, whether to assist the *Client* with a call for tenders for the *Work* or otherwise.

GC 9.2 The parties acknowledge that an estimate of probable *Construction Cost* and an estimate of *Construction Contract Time* provided by the *Engineer* are subject to change and are contingent upon factors, including market forces, over which the *Engineer* has no control. The *Engineer* does not guarantee the accuracy of such estimates nor does the *Engineer* represent that bids, negotiated prices or the time for performance will not vary from such estimates. More definitive estimates regarding costs and time for performance may be assessed only when bids and negotiated prices are received for the *Work*.

PART 10 TERMINATION AND SUSPENSION

GC 10.1 This *Engineering Agreement* is terminated on the earliest of:

- (a) the date when the *Engineer* has performed all of the *Services*; or
- (b) the date of termination if termination occurs in accordance with this GC 10 TERMINATION AND SUSPENSION.

GC 10.2 If the *Engineer* is a natural person practicing alone (and not part of a company or a partnership) and should the *Engineer* die or become seriously incapacitated before having supplied all of the *Services*, either the *Client* or the estate or legal representative of the *Engineer* may terminate this *Engineering Agreement* upon *Notice* to the other, with effect from the date of decease or, in the case of serious incapacity, from the date of the *Notice* of termination.

GC 10.3 If the *Engineer* is in material default in the performance of any of the *Engineer's* obligations under this *Engineering Agreement*, the *Client* will *notify* the *Engineer* that the default must be corrected. If the *Engineer* does not correct the default within 30 days after receipt of such *Notice* or if the *Engineer* does not take reasonable steps to correct the default if the default is not susceptible of immediate correction, the *Client* may terminate this *Engineering Agreement* upon further *Notice* to the *Engineer*, without prejudice to any other rights or recourses of the *Client*. Such termination will not release the *Client* from its obligation to pay

- all *Fees* and *Reimbursable Expenses* incurred by the *Engineer* up to the date of termination in the manner provided in this *Engineering Agreement*.
- GC 10.4 If the *Client* is in material default in the performance of any of the *Client's* obligations set forth in this *Engineering Agreement*, including but not limited to the non-payment of *Fees* and *Reimbursable Expenses* of the *Engineer* in the manner specified in this *Engineering Agreement*, the *Engineer* will notify the *Client* that the default must be corrected. If the *Client* does not correct the default within 30 days after receipt of such *Notice*, the *Engineer* may terminate this *Engineering Agreement* upon further *Notice* to the *Client*. In such event, the *Client* will promptly pay the *Fees* and *Reimbursable Expenses* of the *Engineer* that are incurred and unpaid as of the date of such termination, plus the *Termination Expenses*, without prejudice to any other rights or recourses of the *Engineer*.
- GC 10.5 If the *Client* is unwilling or unable to proceed with the *Project*, the *Client* may suspend or terminate this *Engineering Agreement* by *Notice* of 30 days to the *Engineer*. Upon receipt of such *Notice*, the *Engineer* will perform no further *Services* other than those reasonably necessary to suspend or terminate that portion of the *Project* for which the *Engineer* is responsible. In such event, the *Client* will pay all of the *Fees* and *Reimbursable Expenses* incurred by the *Engineer* up to the date of suspension or termination, plus the *Suspension Expenses* or *Termination Expenses*, as the case may be, in the manner provided for in this *Engineering Agreement*.
- GC 10.6 If the *Client* suspends performance of the *Services* at any time for more than 30 consecutive or non-consecutive days through no fault of the *Engineer*, then the *Engineer* may choose to terminate this *Engineering Agreement* upon *Notice* to the *Client*. In this event, the *Client* will promptly pay the *Fees* and *Reimbursable Expenses* of the *Engineer* that are incurred and unpaid as of the date of such termination, plus the *Termination Expenses*, without prejudice to any other rights or recourses of the *Engineer*.

PART 11 OWNERSHIP AND USE OF DOCUMENTS, PATENTS AND TRADEMARKS

- GC 11.1 The *Engineering Documents* are the property of the *Engineer*, whether the *Work* is executed or not. The *Engineer* reserves the copyright therein and in the *Work* executed therefrom. The *Client* is entitled to keep a copy of the *Engineering Documents* for its records.
- GC 11.2 The *Engineer* retains ownership of all patents, trademarks, copyrights, industrial or other intellectual property rights resulting from the *Services* or from concepts, products, or processes which are developed or first reduced to practice by the *Engineer* in performing the *Services*. The *Client* will not use, infringe or appropriate such proprietary rights without the prior consent and compensation of the *Engineer*.
- GC 11.3 Provided the *Fees* and *Reimbursable Expenses* of the *Engineer* are paid, the *Client* will have a non-exclusive license to use any proprietary concept, product or process of the *Engineer* which relates to or results from the *Services* for the life of the *Project* and solely for purposes of its maintenance and repair.
- GC 11.4 The *Engineer* warrants that the designs, drawings, and calculations developed by the *Engineer* under this *Engineering Agreement* will not infringe the patent, copyright, trade mark or other intellectual property rights of another person.

- GC 11.5 The *Engineer* will retain the original of the *Engineering Documents* and of those parts of the *Construction Contract Documents* which are generated by the *Engineer*, including computer-generated designs relating thereto, but excluding any models or graphic presentations specifically commissioned and paid for by the *Client*.
- GC 11.6 Should the *Client* use the *Engineering Documents* or provide them to third parties for purposes other than in connection with the *Project* without *notifying* the *Engineer* and without the *Engineer's* prior written consent, the *Engineer* will be entitled either to compensation for such improper use or to prevent such improper use, or to both. The *Client* will indemnify the *Engineer* against claims and costs (including legal costs) associated with such improper use. In no event will the *Engineer* be responsible for the consequences of any such improper use.
- GC 11.7 Should the *Client* alter the *Engineering Documents* without *notifying* the *Engineer* and without the *Engineer's* prior written consent, the *Client* will indemnify the *Engineer* against claims and costs (including legal costs) associated with such improper alteration. In no event will the *Engineer* be responsible for the consequences of any such improper alteration.
- GC 11.8 The *Client* may not use the *Engineering Documents* without having paid the *Fees* and *Reimbursable Expenses* of the *Engineer*. The *Engineer* is entitled to injunctive relief should the *Engineering Documents* be used without payment of the *Fees* and *Reimbursement Expenses* provided for in this *Engineering Agreement*.
- GC 11.9 The *Engineering Documents* are not to be used on any other project without the prior written consent and compensation of the *Engineer*.

PART 12 BUILDING CODES AND BY-LAWS

- GC 12.1 The *Engineer* will interpret building codes and by-laws as they apply to the *Project* at the time of design to the best of the *Engineer's* ability. As the *Work* progresses, building codes and by-laws may change or the interpretation by an authority having jurisdiction may differ from the interpretation of the *Engineer*. In this event, the *Client* will compensate the *Engineer* for any additional *Services* of the *Engineer* that are required in order to have the *Work* conform to such changes or interpretations.

PART 13 PROJECT OWNERSHIP, IDENTIFICATION AND CONFIDENTIALITY

- GC 13.1 The *Client* represents to the *Engineer* that the *Client* is the owner of the *Place of the Work*. If the *Client* is not the owner, the *Client* will *notify* the *Engineer* of the identity of the owner before signature of this *Engineering Agreement*.
- GC 13.2 The *Engineer* will be identified on *Project* signage and promotional material whenever other *Project* design professionals are mentioned. The *Engineer* may refer to the *Project* in the *Engineer's* promotional material.
- GC 13.3 Information regarding the design, functionality, equipment, management, costs, or progress of the *Project* is confidential where one party has *notified* the other party of the confidential or proprietary nature of such information and where such information is not public knowledge. The parties agree not to disclose confidential information to third parties, except

to the extent required for performance of the *Services* or where required by law or by mutual consent of the parties.

PART 14 INSURANCE AND LIABILITY

GC 14.1 The *Engineer* will carry professional liability insurance of \$250,000 per claim and \$500,000 in the aggregate within any policy year. Coverage will be maintained continuously from the commencement of the *Services* until completion or termination of the *Services* and, subject to availability at reasonable cost, for 2 years after completion or termination of the *Services*.

GC 14.2 The *Client* may choose to increase the amount or the coverage of the *Engineer's* professional liability insurance above that provided in GC 14.1 so as to obtain additional insurance that is specific to the *Project*. The *Engineer* will cooperate with the *Client* to obtain such additional insurance, at the *Client's* expense.

GC 14.3 If the *Engineer* carries professional liability insurance for amounts greater than those specified in GC 14.1, such insurance will be available under this *Engineering Agreement* only up to the amount specified in GC 14.1 plus, if applicable, the amount of additional insurance obtained under GC 14.2.

GC 14.4 Where the *Project* involves construction, the *Client* will provide or arrange for *Project* specific liability (wrap-up) insurance and property ("broad form"/builder's risk) insurance in respect of the *Work* and include the *Engineer* thereunder as an additional insured.

GC 14.5 The *Engineer's* liability for claims which the *Client* has or may have against the *Engineer* or the *Engineer's* employees, agents, representatives and *Sub-Consultants* under this *Agreement*, whether these claims arise in contract, tort, negligence or under any other theory of liability, will be limited, notwithstanding any other provision of this *Engineering Agreement*:

- (a) to claims brought within the limitation period prescribed by law in the jurisdiction in which the *Project* is located or, where permitted by law, within 2 years of completion or termination of the *Services*, whichever occurs first; and
- (b) to re-performance of defective *Services* by the *Engineer*, plus:
 - (i) where claims are covered by insurance under section GC 14.1, and, if applicable, by any additional insurance under section GC 14.2 - to the amount of such insurance; or
 - (ii) where claims are not covered by insurance under section GC 14.1, and, if applicable, by any additional insurance under section GC 14.2 - to the amount of \$250,000.

GC 14.6 The *Engineer* will not be liable for the failure of any manufactured product or any manufactured or factory assembled system of components to perform in accordance with the manufacturer's specifications, product literature or written documentation.

GC 14.7 Where the *Engineer* is a corporation or partnership, the *Client* and *Consultants of the Client* will limit any claim they may have to the corporation or partnership, without liability on the part of any officer, director, member, employee, or agent of such corporation or partnership.

GC 14.8 The liability of each party with respect to a claim against each other is limited to direct damages only and neither party will have any liability whatsoever for consequential or indirect loss or damage (such as, but not limited to, claims for loss of profit, revenue, production, business, contracts or opportunity and increased cost of capital, financing or overhead) incurred by the other party.

GC 14.9 The *Engineer* is not responsible for the identification, reporting, analysis, evaluation, presence, handling, removal or disposal of *Hazardous Substances* at or adjacent to the *Place of the Work*, unless specified in Schedule A – ENGINEER’S SCOPE OF SERVICES, or for the exposure of persons, property or the environment to *Hazardous Substances* at or adjacent to the *Place of the Work*.

GC 14.10 Subject to the limitations of liability set out in this *Engineering Agreement*, each party will indemnify the other party, to the extent of the fault or negligence of the indemnifying party, for damages and costs (including reasonable legal fees) resulting from:

- (a) claims of third parties; or
- (b) a breach of contractual obligations under this *Engineering Agreement* by the indemnifying party or anyone for whom that party is responsible; or
- (c) negligent or faulty acts or omissions of the indemnifying party or anyone for whom that party is responsible.

PART 15 DISPUTE RESOLUTION

GC 15.1 The parties will make reasonable efforts to resolve disputes arising under this *Engineering Agreement* by amicable negotiations. They agree to provide frank, candid and timely disclosure of relevant facts, information and documents to facilitate these negotiations, without prejudice to their rights and recourses.

GC 15.2 If a dispute has not been resolved by negotiations, either party may *notify* the other party that it wishes the dispute to be resolved by mediation. If the parties are unable to agree upon the choice of a mediator, either party may apply to a superior court in the jurisdiction where the *Project* is located to appoint a mediator.

GC 15.3 Should mediation not resolve the dispute, a party may refer the unresolved dispute to the courts or, upon mutual agreement, to any other form of dispute resolution, including binding arbitration.

GC 15.4 Unless the parties otherwise agree, any mediation or arbitration under this *Agreement* will be conducted in accordance with the latest edition of CCDC 40 - Rules for Mediation and Arbitration of Construction Disputes, as applied to and compatible with this *Engineering Agreement*, save that arbitration will be limited to a single arbitrator.

GC 15.5 Any endeavour to resolve disputes arising out of this *Engineering Agreement* by negotiation, mediation or other means of dispute resolution, including arbitration, will be conducted on a confidential basis.

- GC 15.6 The parties agree to submit to the exclusive jurisdiction of the courts in *Place of the Work* if a dispute is to be resolved by the courts, or to mediation or arbitration at the *Place of the Work* if a dispute is to be resolved by mediation or arbitration.

PART 16 PAYMENT

- GC 16.1 The *Client* will pay to the *Engineer* the amount of the *Fees* and *Reimbursable Expenses* of the *Engineer* together with applicable *Value Added Taxes*, when invoiced by the *Engineer* for *Services* which have been rendered, in accordance with Article A5 – PAYMENT and Schedule B – FEES AND REIMBURSABLE EXPENSES.
- GC 16.2 In the event the *Client* disputes in good faith a portion of the *Fees* and *Reimbursable Expenses* invoiced by the *Engineer*, the *Client* will pay the uncontested portion within the prescribed time.
- GC 16.3 Disputes regarding *Fees* and *Reimbursable Expenses* of the *Engineer* will be resolved in the manner specified in PART 15 - DISPUTE RESOLUTION.
- GC 16.4 Where the *Engineer* provides *Construction Administration Services* which extend beyond the period contemplated at the time this *Engineering Agreement* was signed, the *Engineer* will *notify* the *Client* and, upon mutual agreement of the parties, the *Fees* of the *Engineer* will be increased in order to take into account the extended time required for providing the *Construction Administration Services*.
- GC 16.5 Should the *Client* request a change to the *Project* or *Work* which requires the *Engineer* to provide additional *Services* beyond those contemplated at the time the *Engineering Agreement* is signed, before undertaking such additional *Services* the *Client* and the *Engineer* will agree in writing upon the *Engineer's* remuneration and time for providing the additional *Services*. Failing an agreement with the *Client*, the *Client* will pay the *Engineer* for the additional *Services* at the hourly rates set out in Schedule B – FEES AND REIMBURSABLE EXPENSES and any additional *Reimbursable Expenses* incurred, and grant a reasonable extension of time to the *Engineer* for the performance of the additional *Services*.
- GC 16.6 Should the *Client* request a change to the *Project* or *Work* which renders useless a part of the *Services* already provided, the *Client* nonetheless will pay the *Engineer* in accordance with this *Engineering Agreement* for *Services* already provided which the change has rendered useless.
- GC 16.7 Should it prove necessary for the *Engineer* to rework or revise the plans and specifications forming part of the *Services* for reasons which the *Engineer* could not reasonably foresee when the *Engineering Agreement* was signed, or owing to the default or the insolvency of the *Client* or the *Contractor* or a subcontractor, or as a result of the *Client's* suspension of the *Services* or *Work* on the *Project*, or because of damage to the *Project* by fire or some other cause, the *Client* will pay the *Engineer* for any reworked or revised plans and specifications at the hourly rates set out in Schedule B – FEES AND REIMBURSABLE EXPENSES.

PART 17 SEVERABILITY

GC 17.1 If any provision of this *Engineering Agreement* is declared by a court of competent jurisdiction to be invalid, illegal, or unenforceable, such provision will be severed from this *Engineering Agreement* and the other provisions of this *Engineering Agreement* will remain in full force and effect.

(End of the General Conditions. Schedules A and B next follow.)





Schedules to ACEC Document 31

**ENGINEERING AGREEMENT
BETWEEN CLIENT AND ENGINEER**



SCHEDULE A - ENGINEER’S SCOPE OF SERVICES

Note: when determining the Services to be provided, the parties should take into account that:

- *the identified Services are predicated upon the Client entering into a single Construction Contract.*
- *some identified Services are a function of whether the Engineer is acting either:*
 - (a) as the lead professional who has overall Project responsibilities or*
 - (b) only as a professional who is subordinate to the lead professional. In the latter situation, the particular Services of the Engineer are limited to the Engineer’s specialization under this Agreement.*

The *Engineer* WILL PROVIDE the *Services* next described that are marked (X) in the column entitled YES and WILL NOT PROVIDE the *Services* which are marked (X) in the column entitled NO.

A-1 Consulting and Advisory Services

	Description of Services	Yes	No
If Consulting and Advisory Services WILL <u>NOT</u> BE PROVIDED, check this box:		<input type="checkbox"/>	
If Consulting and Advisory Services WILL BE PROVIDED, identify them by completing the following:			
1.1	Preparation and periodic updating of: <ul style="list-style-type: none"> • an estimate of probable <i>Construction Cost</i>; and • an estimate of <i>Construction Contract Time</i>. 	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Assistance in the preparation of pre-construction <i>Project</i> operating cost budgets.	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Preparation for and/or attendance at a public participation or information program.	<input type="checkbox"/>	<input type="checkbox"/>
1.4	Preparation for and/or participation in a value engineering program.	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Preparation of reports relating to the <i>Client's</i> long-range plans.	<input type="checkbox"/>	<input type="checkbox"/>
1.6	Preparation of operational studies.	<input type="checkbox"/>	<input type="checkbox"/>
1.7	Provision of renderings.	<input type="checkbox"/>	<input type="checkbox"/>
1.8	Provision of models.	<input type="checkbox"/>	<input type="checkbox"/>
1.9	Technical representation at meetings.	<input type="checkbox"/>	<input type="checkbox"/>

Initials	
<i>Client</i>	<i>Engineer</i>

A-1 Consulting and Advisory Services (continued)

	Description of Services	Yes	No
1.10	Preparation of specified alternative designs.	<input type="checkbox"/>	<input type="checkbox"/>
1.11	Calculation of quantities of <i>Work</i> to be performed.	<input type="checkbox"/>	<input type="checkbox"/>
1.12	Preparation of <i>Project</i> commissioning and start-up procedures.	<input type="checkbox"/>	<input type="checkbox"/>
1.13	Preparation of applications and supporting documents for governmental grants, loans, and subsidies.	<input type="checkbox"/>	<input type="checkbox"/>
1.14	Preparation of applications and supporting documents for payments in connection with the <i>Project</i> .	<input type="checkbox"/>	<input type="checkbox"/>
1.15	Assistance in obtaining required approvals, licences and permits from governmental authorities having jurisdiction over the <i>Project</i> .	<input type="checkbox"/>	<input type="checkbox"/>
1.16	Arrangement for the translation of documents into a language other than the language of this <i>Engineering Agreement</i>	<input type="checkbox"/>	<input type="checkbox"/>
1.17	Arrangement for special testing of the <i>Work</i> .	<input type="checkbox"/>	<input type="checkbox"/>
1.18	Investigation of specified conditions (such as failures, accidents, groundwater and drainage issues, stability, etc).	<input type="checkbox"/>	<input type="checkbox"/>
1.19	Preparation of operating or maintenance manuals, operating drawings or charts.	<input type="checkbox"/>	<input type="checkbox"/>
1.20	Assistance in litigation, arbitration, negotiation, or other legal or administrative proceedings on behalf of the <i>Client</i> , and all necessary preparation in respect thereof.	<input type="checkbox"/>	<input type="checkbox"/>
1.21	Provision of peer review of documents provided by <i>Consultants of the Client</i> .	<input type="checkbox"/>	<input type="checkbox"/>
	<p><i>Enter here any additional Consulting and Advisory Services or references to them in documents such as Requests for Proposals, Terms of Reference, or Statements of Requirements. Attach additional pages if required.</i></p> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>		

Initials	
<i>Client</i>	<i>Engineer</i>

A-2 Engineering Project Services

	Description of Services	Yes	No
If Engineering Project Services WILL <u>NOT</u> BE PROVIDED, check this box:		<input type="checkbox"/>	
If Engineering Project Services WILL BE PROVIDED, identify them by completing the following:			
2.1	Preparation of an engineering and <i>Project</i> implementation program based upon: a) the <i>Client's</i> written instructions regarding the <i>Project</i> requirements, b) the <i>Client's Project Budget</i> , and c) the <i>Client's</i> time constraints	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Preparation of a statement of requirements and <i>Project</i> design criteria to be used in the design process.	<input type="checkbox"/>	<input type="checkbox"/>
2.3	Coordination of <i>Consultants of the Client</i> (where the <i>Engineer</i> is the lead professional) .	<input type="checkbox"/>	<input type="checkbox"/>
2.4	Participation in or preparation of specified <i>Project</i> feasibility studies.	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Arrangement for expert and specialist studies for use in conceptual, preliminary, and detailed design services.	<input type="checkbox"/>	<input type="checkbox"/>
2.6	Preparation of and/or participation in environmental assessments and impact studies.	<input type="checkbox"/>	<input type="checkbox"/>
2.7	Review of environmental assessments and impact studies prepared by others.	<input type="checkbox"/>	<input type="checkbox"/>
2.8	Assistance in obtaining approvals of authorities having jurisdiction over the <i>Project</i> .	<input type="checkbox"/>	<input type="checkbox"/>
	<p><i>Enter here any additional Engineering Project Services or references to them in documents such as Requests for Proposals, Terms of Reference, or Statements of Requirements. Attach additional pages if required.</i></p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>		

Initials	
<i>Client</i>	<i>Engineer</i>

A-3 Conceptual Design Services

Description of Services		Yes	No
If Conceptual Design Services WILL <u>NOT</u> BE PROVIDED, check this box:		<input type="checkbox"/>	
If Conceptual Design Services WILL BE PROVIDED, identify them by completing the following:			
3.1	<ul style="list-style-type: none"> a) review of the statement of requirements provided by the <i>Client</i> b) analysis of information provided by the <i>Client</i>, including: <ul style="list-style-type: none"> i) conditions or methods of operations ii) technical and economic feasibility iii) location of the <i>Project</i>, and iv) similar matters c) establish the sizes, capacity, location, method of operation and other principal features which form the basis for the design of a proposed Project d) analysis of expert and specialist studies prepared in support of the Conceptual Design Service e) evaluation of alternatives f) preparation of concept sketches and developing specification notes g) preparation of a <i>Project</i> brief outlining the relevant criteria to be followed in preliminary and detailed design <i>Services</i> h) submission of conceptual design and <i>Project</i> brief for review and approval by <i>Client</i> 	<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Enter here any additional Conceptual Design Services or references to them in documents such as Requests for Proposals, Terms of Reference, or Statements of Requirements. Attach additional pages if required.</i></p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>			

Initials	
<i>Client</i>	<i>Engineer</i>

A-4 Preliminary Design Services

Description of Services		Yes	No
If Preliminary Design Services WILL <u>NOT</u> BE PROVIDED, check this box:		<input type="checkbox"/>	
If Preliminary Design Services WILL BE PROVIDED, identify them by completing the following:			
4.1	<ul style="list-style-type: none"> a) obtaining advice and information from any <i>Consultants of the Client</i> to carry out duties and responsibilities b) preparation of preliminary design including drawings or sketches illustrating and defining the design concept c) preparation of specification outlines d) preparation of preliminary design report covering alternatives, preliminary sketches, and outline specifications e) preparation of documents in support of applications for approval from authorities having jurisdiction regarding the <i>Project</i> or designated specific aspects of the <i>Project</i> f) submission of preliminary design report for review and approval by <i>Client</i> 	<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Enter here any additional Preliminary Design Services or references to them in documents such as Requests for Proposals, Terms of Reference, or Statements of Requirements. Attach additional pages if required.</i></p> <div style="border: 1px solid black; height: 300px; width: 100%;"></div>			

Initials	
<i>Client</i>	<i>Engineer</i>

A-5 Detailed Design Services

Description of Services		Yes	No
If Detailed Design Services WILL <u>NOT</u> BE PROVIDED, check this box:		<input type="checkbox"/>	
If Detailed Design Services WILL BE PROVIDED, identify them by completing the following:			
5.1	a) preparation of Engineering Documents b) preparation of bill of quantities c) preparation of documents in support of applications for approval from authorities having jurisdiction for the <i>Project</i> or designated specific aspects of the <i>Project</i> d) submission of <i>Engineering Documents</i> for review and approval by <i>Client</i> #	<input type="checkbox"/>	<input type="checkbox"/>
5.2	Preparation and submission of <i>Construction Contract Documents</i> for review and approval by the <i>Client</i> (where the <i>Engineer</i> is the lead professional). OR Review of <i>Construction Contract Documents</i> prepared by others.	<input type="checkbox"/> OR <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<p><i>Enter here any additional Detailed Design Services or references to them in documents such as Requests for Proposals, Terms of Reference, or Statements of Requirements. Attach additional pages if required.</i></p> <div style="border: 1px solid black; height: 300px; width: 100%;"></div>			

Initials	
<i>Client</i>	<i>Engineer</i>

A-6 Construction Procurement Services

	Description of Services	Yes	No
If Construction Procurement Services WILL <u>NOT</u> BE PROVIDED, check this box:		<input type="checkbox"/>	
If Construction Procurement Services WILL BE PROVIDED, identify them by completing the following:			
6.1	Advice regarding: a) the preparation of requests for proposals, requests for qualifications and tender information b) bid forms.	<input type="checkbox"/>	<input type="checkbox"/>
6.2	Assistance in the preparation of pre-qualification documents for procurement tenders or proposals.	<input type="checkbox"/>	<input type="checkbox"/>
6.3	Assistance in the preparation of tender documents incorporating relevant <i>Engineering Documents, Construction Contract Documents</i> and other documents prepared by <i>Consultants of the Client</i> on the <i>Project</i> .	<input type="checkbox"/>	<input type="checkbox"/>
6.4	Assistance in obtaining bids.	<input type="checkbox"/>	<input type="checkbox"/>
6.5	Assistance in the preparation of addenda.	<input type="checkbox"/>	<input type="checkbox"/>
6.6	Review of bids.	<input type="checkbox"/>	<input type="checkbox"/>
6.7	Assistance in the preparation of the <i>Construction Contract</i> .	<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Enter here any additional Construction Procurement Services or references to them in documents such as Requests for Proposals, Terms of Reference, or Statements of Requirements. Attach additional pages if required.</i></p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>			

Initials	
<i>Client</i>	<i>Engineer</i>

A-7 Construction Administration Services

Construction Administration Services include the scope of services indicated below. Note that Construction Administration Services do not include Construction Contract Resident Services, which are dealt with separately at A-8 if applicable.

	Description of Services	Yes	No
If Construction Administration Services WILL <u>NOT</u> BE PROVIDED, check this box:			<input type="checkbox"/>
If Construction Administration Services WILL BE PROVIDED, identify them by completing the following:			
7.1	Periodic visits to the <i>Place of the Work</i> in accordance with GC 7.8 of PART 7 CONSTRUCTION ADMINISTRATION.	<input type="checkbox"/>	<input type="checkbox"/>
7.2	Attendance at meetings necessary to the coordination of the design, <i>Construction Administration Services</i> , and execution of the <i>Work</i> .	<input type="checkbox"/>	<input type="checkbox"/>
7.3	Preparation and distribution of <i>Notices</i> of change, change orders, and other necessary <i>Project</i> documentation during the course of the execution of the <i>Work</i> (where the <i>Engineer</i> is the lead professional).	<input type="checkbox"/>	<input type="checkbox"/>
7.4	Obtain advice, data, and information from <i>Consultants of the Client</i> when required.	<input type="checkbox"/>	<input type="checkbox"/>
7.5	Review of <i>Shop Drawings</i> in accordance with GC 7.12 of PART 7 CONSTRUCTION ADMINISTRATION.	<input type="checkbox"/>	<input type="checkbox"/>
7.6	Monitor compliance with the program of construction reviews and testing which may be required by the <i>Engineer</i> or imposed by law in connection with the execution of the <i>Work</i> by the <i>Contractor</i> .	<input type="checkbox"/>	<input type="checkbox"/>
7.7	Interpretation of the <i>Construction Contract Documents</i> (where the <i>Engineer</i> is the lead professional and if so provided in the <i>Construction Contract</i>).	<input type="checkbox"/>	<input type="checkbox"/>
7.8	Evaluation of <i>Contractor's</i> applications for payment.	<input type="checkbox"/>	<input type="checkbox"/>
7.9	Certification of the <i>Contractor's</i> applications for payment, subject to PART 8 CERTIFICATIONS BY THE ENGINEER (where the <i>Engineer</i> is the lead professional).	<input type="checkbox"/>	<input type="checkbox"/>
7.10	Review of an application for <i>Substantial Performance of the Work</i> noting defects and deficiencies observed in the <i>Work</i>	<input type="checkbox"/>	<input type="checkbox"/>
7.11	Certification of the <i>Contractor's Substantial Performance of the Work</i> , subject to PART 8 CERTIFICATIONS BY THE ENGINEER (where the <i>Engineer</i> is the lead professional).	<input type="checkbox"/>	<input type="checkbox"/>

Initials	
<i>Client</i>	<i>Engineer</i>

A-7 Construction Administration Services (continued)

	Description of Services	Yes	No
7.12	Review of the correction of defects and deficiencies observed in the <i>Work</i> when completed.	<input type="checkbox"/>	<input type="checkbox"/>
	<p><i>Enter here any additional Construction Administration Services or references to them in documents such as Requests for Proposals, Terms of Reference, or Statements of Requirements. Attach additional pages if required.</i></p> <div style="border: 1px solid black; height: 600px; width: 100%;"></div>		

Initials	
<i>Client</i>	<i>Engineer</i>

A-8 Construction Contract Resident Services

Construction Contract Resident Services are considered to be “resident” or “at site” when office facilities and staff assigned by the Engineer are on site full time for a continuous work period.

	Description of Services	Yes	No
If Construction Contract Resident Services WILL <u>NOT</u> BE PROVIDED, check this box:		<input type="checkbox"/>	
If Construction Contract Resident Services WILL BE PROVIDED, identify them by completing the following:			
8.1	Arranging for reference surveys for use in the <i>Contractor’s</i> layout of the <i>Work</i> (not including surveys of legal property boundaries).	<input type="checkbox"/>	<input type="checkbox"/>
8.2	Review of <i>Contractor’s</i> surveys and layout.	<input type="checkbox"/>	<input type="checkbox"/>
8.3	Regular site reviews of the <i>Work</i> of the <i>Contractor</i> to ascertain if the reviewed <i>Work</i> is in general conformance with the <i>Construction Documents</i> .	<input type="checkbox"/>	<input type="checkbox"/>
8.4	Arrangement of field-testing and inspection of materials and equipment for <i>Client’s</i> quality assurance program	<input type="checkbox"/>	<input type="checkbox"/>
8.5	Investigation, reporting, and providing recommendations on unusual circumstances that arise during the <i>Project</i> implementation.	<input type="checkbox"/>	<input type="checkbox"/>
8.6	Maintenance of sufficient data to outline current progress of the <i>Work</i> .	<input type="checkbox"/>	<input type="checkbox"/>
8.7	Final inspection at the conclusion of the <i>Project Construction Contract</i> , including any elements of commissioning agreed to as part of the <i>Client’s</i> acceptance program.	<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Enter here any additional Construction Contract Resident Services or references to them in documents such as Requests for Proposals, Terms of Reference, or Statements of Requirements. Attach additional pages if required.</i></p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>			

Initials	
<i>Client</i>	<i>Engineer</i>

A-9 Post Construction Engineering Services

Description of Services		Yes	No
If Post Construction Services WILL <u>NOT</u> BE PROVIDED, check this box:		<input type="checkbox"/>	
If Post Construction Services WILL BE PROVIDED, identify them by completing the following:			
Post Construction Engineering Services comprising the following:			
9.1	Provision of commissioning and start-up assistance.	<input type="checkbox"/>	<input type="checkbox"/>
9.2	Collection and organization of operating and maintenance manuals.	<input type="checkbox"/>	<input type="checkbox"/>
9.3	Identification of deficiencies during the warranty period at the <i>Client's</i> request.	<input type="checkbox"/>	<input type="checkbox"/>
9.4	Assistance in facility management or operations after commissioning and start-up.	<input type="checkbox"/>	<input type="checkbox"/>
9.5	Preparation of record documents in accordance with GC 7.13 of PART 7 CONSTRUCTION ADMINISTRATION.	<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Enter here any additional Post Construction Engineering Services or references to them in documents such as Requests for Proposals, Terms of Reference, or Statements of Requirements. Attach additional pages if required.</i></p> <div style="border: 1px solid black; height: 300px; width: 100%;"></div>			

Initials	
<i>Client</i>	<i>Engineer</i>

SCHEDULE B – FEES AND REIMBURSABLE EXPENSES

Note: when determining the Fees, the parties should take into account that:

- *the Fees are predicated upon the Client entering into a single Construction Contract*
- *some Fees are a function of whether the Engineer is acting either:*
 - (a) as the lead professional who has overall Project responsibilities or*
 - (b) only as a professional who is subordinate to the lead professional.*

B-1 Fees for Services

The following table identifies the method for determining the *Fees* due to the *Engineer* under this *Engineering Agreement* for the *Services* described in Schedule A:

Engineers Services (Refer to Schedule A)		Select Fee Basis Applicable to this Agreement		
		Hourly Rate Fees (B-1.1)	Fixed Fees (B-1.2)	Fees as % of Construction Cost (B-1.3)
A-1	Consulting and Advisory Services	<input type="checkbox"/>	<input type="checkbox"/>	N/A
A-2	Engineering Project Services	<input type="checkbox"/>	<input type="checkbox"/>	N/A
A-3	Conceptual Design Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A-4	Preliminary Design Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A-5	Detailed Design Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A-6	Construction Procurement Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A-7	Construction Administration Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A-8	Construction Contract Resident Services	<input type="checkbox"/>	<input type="checkbox"/>	N/A
A-9	Post Construction Engineering Services	<input type="checkbox"/>	<input type="checkbox"/>	N/A

Refer to Section B-1.1, B-1.2, and B-1.3 for a detailed description of the method for calculating the *Fees* due to the *Engineer*.

Reimbursable Expenses (Section B-2) are additional to the *Fees* due to the *Engineer*.

Value added taxes are not included in *Fees* and *Reimbursable Expenses*.

Initials	
<i>Client</i>	<i>Engineer</i>

B-1.1 Hourly Rate Fees

Hourly Rate *Fees* shall be calculated on an hourly basis as the *Project* progresses at the following rates:

- a) Principals \$ _____ per hour
- b) Senior staff \$ _____ per hour
- c) Intermediate staff \$ _____ per hour
- d) Junior staff \$ _____ per hour
- e) Clerical \$ _____ per hour
- f) _____ \$ _____ per hour
- g) _____ \$ _____ per hour
- h) _____ \$ _____ per hour

The rates in this table shall be applicable for (*select one*):

- the duration of the Engineering Agreement
- twelve months from the effective date of this Agreement at which time the rates will be increased by _____ %, unless otherwise agreed in writing by the parties
- other (*specify*)

(*Enter additional provisions below. Append extra pages if required.*)

Initials	
<i>Client</i>	<i>Engineer</i>

B-1.2 Fixed Fees

Fees for the project shall be calculated as a fixed fee of \$ _____, apportioned as follows:

Percentage	Milestone/Task
• _____ % of fee for	_____
• _____ % of fee for	_____
• _____ % of fee for	_____
• _____ % of fee for	_____
• _____ % of fee for	_____

The fixed fees shall be applicable for (*select one*):

- the duration of the Engineering Agreement
- twelve months from the effective date of this Agreement at which time the rates will be increased by _____ %, unless otherwise agreed in writing by the parties
- other (specify)

(Enter additional provisions below. Append extra pages if required.)

Initials	
<i>Client</i>	<i>Engineer</i>

B-1.3 Fees Based on Percentage of Construction Cost

Fees shall be calculated as _____ % of the *Construction Cost*, apportioned as follows (*where not applicable, insert Nil or N/A*):

- A-3 - Conceptual Design Services _____ %
- A-4 - Preliminary Design Services _____ %
- A-5 - Detailed Design Services _____ %
- A-6 - Construction Procurement Services _____ %
- A-7 - Construction Administration Services _____ %
- TOTAL FEE 100 %

Fees based on a percentage of the *Construction Cost* are NOT applicable to the following Services which should be calculated either on an Hourly Rate Basis (Section B-1.1) or a Fixed Fee Basis (Section B-1.2):

- A-1 - Consulting and Advisory Services
- A-2 - Engineering Project Services
- A-8 - Construction Contract Resident Services
- A-9 - Post Construction Engineering Services.

For purposes of Section B-1.3 (Fees Based on Percentage of Construction Cost) and notwithstanding Definition 5 (*Construction Cost*), when determining Fees based on a percentage, the *Construction Cost* is calculated in the following manner in regard to those phases of the *Engineering Agreement* which are applicable to the *Services* to be provided by the *Engineer*:

PHASE	BASIS FOR CALCULATION
A-3 - Conceptual Design services	The budget at the commencement of the conceptual design services as agreed by the Engineer and the Client.
A-4 - Preliminary Design services	The estimate of probable <i>Construction Cost</i> at the commencement of the preliminary design services as agreed by the Engineer and the Client.
A-5 - Detailed Design services	The estimate of probable <i>Construction Cost</i> at the commencement of the detailed design services as agreed by the Engineer and the Client.
A-6 - Construction procurement services	The estimate of probable <i>Construction Cost</i> at the commencement of the Construction procurement services as agreed by the Engineer and the Client.
A-7 - Construction Administration Services	The actual final <i>Construction Cost</i> .

Initials	
<i>Client</i>	<i>Engineer</i>

(Enter additional provisions below. Append extra pages if required.)

B-2 Reimbursable Expenses

Reimbursable Expenses incurred by the *Engineer* in carrying out the *Services* are subject to a mark-up of _____ % to cover office and administrative costs of the *Engineer* - unless otherwise agreed as follows:

(if applicable, indicate alternate methods for determining Reimbursable Expenses)

Reimbursable Expenses include the following expenses where incurred in relation to the performance of the *Services*:

- Transport, subsistence, and lodging in connection with the *Project* beyond _____ kilometres of the *Engineer's* office. Use of vehicles shall be charged at \$ _____ per kilometre.
- Long distance telephone and facsimile communications.
- Reproduction of information, drawings, specifications, and other documents necessary to the *Project*.
- Testing services.
- Courier and messenger services.
- Fees paid for securing approvals, permits, or licences from regulatory agencies having jurisdiction over the *Project*.
- Providing and maintaining *Project* site offices, telephones, facsimile as required for use by the *Engineer* and *Sub-Consultants of the Engineer*.
- Advertising incidental to the *Project*.

Initials	
<i>Client</i>	<i>Engineer</i>

- Obtaining necessary legal, accounting, insurance, bonding, and other counselling services pertaining to the *Project*.
- Specialized *Project* specific computer hardware and software charges and related expenses as agreed to between the *Client* and the *Engineer*.
- Customs, excise, or any other taxes incurred by the *Engineer* with respect to the *Services*, but excluding *Value Added Taxes*.
- Special or increased insurance coverage required by the *Client* according to paragraph GC 14.2.
- Fees and disbursements of *Sub-consultants* required in the performance of the *Services* where not included in the *Fees* in connection with the *Project*.
- Costs incurred by the *Engineer* in the performance of *Services* in connection with the *Project* where the *Engineer* has obtained the prior written approval of the *Client*.

Enter additional descriptions to be used. Append additional sheets if required

Initials	
<i>Client</i>	<i>Engineer</i>

INTRODUCTION

The Client/Consultant Agreement is a project of the Master Municipal Construction Document Association (MMCDA). The MMCDA is a partnership of the Consulting Engineers of British Columbia. The Road Builders and Heavy Construction Association, and the Municipal Engineer's Division of the Association of Professional Engineers and Geoscientists of British Columbia.

The objectives of the document are similar to those for the construction Contract Documents, namely fair to all parties, minimize the need for risk taking by the Consultant and provide an equitable means of resolving disputes, and addressing changes. Another primary objective is to provide the Consultant with adequate resources to foster innovation and analysis of alternatives to provide the best possible design and project for the Client.

ACKNOWLEDGMENTS

The document committee consisted of volunteers from the Consulting and Client sectors. The MMCDA wishes to acknowledge the following members of the Client/Consultant Agreement committee for their assistance and expertise during the preparation of the document.

Robert Campbell, P. Eng.	Binnie & Associates
Dave Kirk, P. Eng.	Delcan Consultants
To-hin Lau, P. Eng.	New East Consulting Services Ltd.
Robert Lee, P. Eng.	City of Surrey
Dave Smith, P. Eng.	Thurber Engineering Ltd.
Frank Wilton, P. Eng.	Citiwest Consulting Ltd.
Ken Wright, P. Eng.	City of Coquitlam, Chair

In addition legal review services were provided by John Haythorne, P.Eng. of Bull Houser and Tupper.

MMCDA CONTACTS

Comments on the Document are welcome to the Master Municipal Construction Association at:

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Or visit the MMCD web site at www.mmcd.net

MMCD Client/Consultant Agreement - for use to retain consulting services for municipal engineering projects, including projects using the Master Municipal Construction Documents.

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Agreement
Between Client and Consultant

(FOR USE TO RETAIN CONSULTING SERVICES ON MUNICIPAL ENGINEERING PROJECTS, INCLUDING PROJECTS USING THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS.)

THIS AGREEMENT made in duplicate this ____ day of _____, 20____.

BETWEEN:

(NAME , OFFICE ADDRESS AND FAX OF CLIENT)

(the "*Client*")

AND:

(NAME , OFFICE ADDRESS AND FAX OF CONSULTANT)

(the "*Consultant*")

Whereas the *Client* intends to engage the professional services of the *Consultant* in connection with the following project:

(TITLE OF PROJECT)

(the "*Project*")

The *Client* and the *Consultant* agree as follows:

DEFINITIONS 1.

- Definitions** 1.1 1.1.1 For the purposes of this *Agreement*, the following definitions will apply.

(a) “*Additional Services*” means services provided by the *Consultant* which are outside the scope of *Basic Services* under this *Agreement*.

(b) “*Agreement*” means this Agreement between the *Client* and the *Consultant*.

(c) “*Basic Services*” means the services which the *Consultant* is required to perform as identified under Schedule A of this *Agreement*.

(d) “*Business Day*” means a day other than a Saturday, Sunday or statutory holiday in British Columbia. A *Business Day* will end at 5:00 p.m. on that day.

(e) “*Client*” means the person, firm, corporation or municipality identified on page 1 of this *Agreement*.

(f) “*Consultant*” means the person, firm or corporation identified on page 1 of this *Agreement*.

(g) “*Contract*” means an agreement between the *Client* and a *Contractor* for the performance of all or part of the *Work*.

(h) “*Contract Administrator*” means the person, if any, identified as Contract Administrator in the *Contract Documents*.

(i) “*Contract Documents*” means the documents comprising the *Contract*.

(j) “*Contractor*” means the person, firm, or corporation who has entered into a *Contract* with the *Client*.

(k) “*Defined Remuneration Services*” means the *Services* where the cost of, and the time required for, the performance of such *Services* can be predicted to a reasonable level of accuracy by professionals experienced in providing services similar to the *Services*.

(l) “*Disbursement*” has the meaning set out in paragraph 5.2.

(m) “*Field Services*” means making such visits to the *Project* site at intervals appropriate to the stage of the *Work* as reasonably necessary to enable the *Consultant* to ascertain whether the *Contractor* is carrying out the *Work* in general conformity with the *Contract Documents*.

(n) “*Hazardous Materials*” means any material or substance which is a “hazardous product”, “contaminant”, “toxic substance”, “deleterious substance”, “special waste”, “dangerous good” or “reportable substance” that is identified or described in or defined by an applicable statute, regulation or law.

(o) “*Instruments of Service*” has the meaning set out in paragraph 7.2.1.

(p) “*Master Municipal Construction Documents*” means the latest edition, as of the date of this *Agreement*, of the Master Municipal Construction Documents published by The Master Municipal Construction Documents Association. (Copies of the documents can be purchased from Support Services Unlimited, Suite 302, 1107 Homer Street, Vancouver, BC, V6B 2Y1, Tel. 681-0295, or obtained on-line from www.mmcd.net.)

(q) “*Other Consultant*” means a registered or licensed Professional Engineer, Architect or other specialist, other than the *Consultant*, engaged directly by the *Client* in connection with the Project.

(r) “*Project*” means the project identified on page 1 of this *Agreement*.

(s) “*Proposal*” means the formal or informal written submission, if any, made by the *Consultant* to the *Client* prior to the execution of this *Agreement* describing proposed scope of services to be provided by the *Consultant*, or portion of such submission, which is accepted by the *Client* and attached to this *Agreement* as Schedule D.

(t) “*Services*” means all services to be provided by the *Consultant* under this *Agreement*.

(u) “*Sub-Consultant*” means any registered or licensed Professional Engineer, Architect or other specialist such as, without limitation, any geotechnical, environmental, legal, accounting, insurance or bonding specialist, engaged by the *Consultant* in connection with the *Services*.

(v) “*Termination Expenses*” means expenses reasonably and necessarily incurred by the *Consultant* as a direct result of the termination of this *Agreement* or the suspension of the *Services*.

(w) “*Variable Remuneration Services*” means the *Services* where the cost of, and the time required for, the performance of such *Services* cannot be predicted to a reasonable level of accuracy by professionals experienced in providing services similar to the *Services*. For illustration, *Variable Remuneration Services* may include:

- (1) negotiating real property rights required for the Project;
- (2) participating in public consultation processes beyond the level of effort as may be defined in this *Agreement*;
- (3) providing *Field Services* beyond the level of effort as may be defined in this *Agreement*; and
- (4) Obtaining permits, licenses or approvals for the Project from authorities having jurisdiction.

(x) “*Work*” means the labour, materials and equipment to be supplied and incorporated into the *Project* by a *Contractor* under a *Contract*.

SCHEDULES 2.

Schedules 2.1 2.1.1 The following schedules form a part of this *Agreement*:

- (a) Schedule A - Services
- (b) Schedule B - Fees
- (c) Schedule C - Insurance
- (d) Schedule D - Proposal (if any)
- (e) Schedule E – Other Conditions (if any)

SCOPE OF SERVICES 3.

Services 3.1 3.1.1 The *Consultant* shall in accordance with this *Agreement* perform and provide the *Services* described in this *Agreement*.

Basic Services 3.2 3.2.1 Without limiting any other provision of this *Agreement*, the *Consultant* shall perform and provide the following *Basic Services*:

- (a) Review Requirements At the commencement of the performance of the *Services*, and from time to time during the performance of the *Services*, review the *Client’s* total requirements for the *Project*, and advise the *Client* if the requirements cannot be met within the *Client’s Project* budget and schedule.

(b) Suggest Alternatives If requested by the *Client* suggest alternatives or changes to reduce the costs of the proposed *Project* so that the *Client's Project* budget and schedule can be met.

(c) Review Client Data Generally review information and data provided by or through the *Client* to determine its sufficiency and applicability and immediately notify the *Client* of errors or deficiencies. The *Consultant* shall be entitled to rely on the accuracy and completeness of such information and data except to the extent it contains errors or deficiencies that would be obvious or apparent to a consultant qualified in British Columbia to perform services similar in scope, nature and complexity to the *Services*. The *Consultant* shall not be responsible for information or data provided by *Other Consultants*.

(d) Submit Reports Submit technical memoranda, reports and drawings to the *Client* as necessary throughout the course of providing the *Services* and generally keep the *Client* informed in a timely manner by way of written reports on all issues relevant to the *Services*, including progress of the *Services*, any anticipated cost overruns and delays, and on decisions required to be made by the *Client*.

(e) Notice of Other Consultants Advise the *Client* in a timely manner of any *Other Consultant* or *Sub-Consultant*, other than those identified in the *Proposal*, necessary for the performance of the *Services*. If the need for such *Other Consultant* or *Sub-Consultant* would not reasonably have been anticipated at the time of submitting the *Proposal* by a consultant qualified to perform services similar in scope, nature and complexity to the *Services*, then the *Client* shall pay the cost of any such additional *Other Consultant* or *Sub-Consultant*, but if such consultant would reasonably have anticipated the need for the *Other Consultant* or *Sub-Consultant* then the *Consultant* shall pay such costs. If the *Client* does not agree to the engagement of such *Other Consultant* or *Sub-Consultant*, then paragraph 10.7 shall apply.

(f) Access to Property Advise the *Client* as soon as practicable of any need for access to public or private properties necessary to enable the *Consultant* to perform its *Services*.

(g) Notice of Defects Respond promptly to *Client's* notices of apparent defects and deficiencies in the performance of the *Services*.

(h) Approvals, Licences and Permits Advise the *Client* in a timely manner of any necessary approvals, licences and permits required by authorities having jurisdiction, and provide to the *Client* the documentation required by authorities having jurisdiction in connection with such approvals, licences and permits. As *Work* proceeds, monitor compliance with the terms of such approvals, licences and permits and advise the *Client* of the extent of compliance.

Services as Contract Administrator 3.3

3.3.1 If the *Client* appoints the *Consultant* under Schedule A to act as the *Contract Administrator* under the *Master Municipal Construction Documents*, or to perform similar contract administration services under a *Contract* based on a form other than the *Master Municipal Construction Documents*, then the *Consultant* shall provide such contract administration services and shall act on behalf of the *Client* in that capacity, only to the extent expressly provided in the *Contract Documents*. Unless specifically provided otherwise in Schedule A:

(a) all such contract administration services shall be deemed to be *Basic Services*; and

(b) all contract administration services under this paragraph 3.3.1, whether provided as *Basic Services* or *Additional Services*, shall be paid for as *Variable Remuneration Services*.

3.3.2 If appointed by the *Client* to provide contract administration services as described in paragraph 3.3.1, the *Consultant* shall:

(a) immediately upon such appointment nominate in writing a person reasonably acceptable to the *Client* to undertake such services;

(b) without limiting any other provision of this *Agreement* or the *Contract Documents*, inform the *Client* promptly of any observed defects or deficiencies in the *Work* of the *Contractor* and any failure by the *Contractor* to otherwise meet the requirements under the *Contract*; and

(c) give the *Client* prompt notice of possible budget overruns

and shall update the construction cost projection monthly with progress draw approvals.

3.3.5 Nothing in the *Contract Documents* shall create any contractual relationship between the *Consultant* and the *Contractor*.

Additional Services 3.4

3.4.1 The *Consultant* may, at the *Consultant's* absolute discretion and without invalidating this *Agreement*, decline to take on any *Additional Services* requested by the *Client* under this *Agreement* which the *Consultant* decides are beyond the *Consultant's* normal fields of expertise.

3.4.2 The *Consultant* shall not undertake any *Additional Services* without the prior written approval of the *Client*. Prior to proceeding with any *Additional Services*, the *Consultant* and the *Client* shall agree on the scope of the *Additional Services* to be performed and the basis of payment. If the *Additional Services* consist of any *Variable Remuneration Services*, the *Consultant* shall provide the *Client* with a cost estimate breakdown for the performance of such *Variable Remuneration Services* prior to undertaking such *Services*. If the *Client* gives approval for the performance of the *Additional Services*, the *Consultant* shall not exceed the scope or the cost estimate accepted by the *Client* for the *Variable Remuneration Services* without first providing timely written notice to the *Client* setting out the revised scope and/or cost estimate and a reasonable justification for the increase in scope and/or costs. The *Consultant* shall not proceed to provide any *Additional Services* in excess of the *Client* approved scope and cost estimate without the *Client's* prior written approval.

Standard of Service 3.5

3.5.1 The *Consultant* shall undertake and perform all *Services* with such degree of care, skill and diligence as would reasonably be expected from a consultant qualified in British Columbia to perform services similar in scope, nature and complexity to the *Services*. The *Consultant* warrants and represents that the *Consultant* is qualified and has sufficient expertise and experience to perform expeditiously and efficiently all of the *Services* in a proper and professional manner to the standard set out above.

**Compliance with
Laws** 3.6

3.6.1 In performing the *Services*, the *Consultant* shall in all respects comply with all applicable laws, rules, codes, regulations, bylaws, orders and ordinances of authorities having jurisdiction.

- Consultant's Representative** 3.7 3.7.1 Immediately upon execution of this *Agreement*, the *Consultant* shall designate in writing a representative to act as the *Consultant's* representative for the purposes of all communications with the *Client* under this *Agreement*, such representative to have authority to provide information to, and receive instructions from, the *Client*. The representative shall be available on a reasonably continuous basis during the performance of the *Services*, and for any periods when the representative is absent or unavailable a replacement with equivalent expertise and authority shall be appointed by the *Consultant*.
- Confidentiality** 3.8 3.8.1 The *Consultant* shall maintain confidentiality on all information, documentation and data provided by the *Client* to the *Consultant* or otherwise acquired by the *Consultant* during the course of carrying out the *Services*. Except with the prior written consent from the *Client*, or as required by law or an authority having jurisdiction, neither the *Consultant*, nor any of its employees, officers, agents, representatives or *Sub-Consultants*, shall divulge or disclose any of such information to third parties, or use any of such information for any purpose other than as required under this *Agreement* in connection with the *Project*.
- Sub-Consultants** 3.9 3.9.1 If the *Consultant* retains or employs any *Sub-Consultants* or other parties to assist in the performance of the *Services*, then the *Consultant* shall incorporate into any agreement with and shall bind such *Sub-Consultants* and other parties to all of the terms of this *Agreement*. The *Consultant* shall be responsible for such *Sub-Consultant's* and other parties' work, and for overseeing and coordinating such *Sub-Consultants'* or other parties' work.
- Key Personnel** 3.10 3.10.1 The *Consultant* shall maintain the key personnel as may be listed in the *Proposal* attached as Schedule D, or as otherwise specified in this *Agreement*, and shall not replace any of such key personnel without the *Client's* prior written agreement, which agreement shall not be unreasonably withheld or denied.
- Cooperation and Coordination** 3.11 3.11.1 The *Consultant* shall cooperate and coordinate with *Other Consultants* as necessary, but in no event, except as otherwise agreed in writing between the *Client* and the *Consultant*, shall the *Consultant* be responsible for the services or performance of any such *Other Consultants*.

**Hazardous Waste
and Environmental
Issues**

- 3.12 3.12.1 Unless otherwise specifically provided in this *Agreement*, the scope of *Basic Services* shall not include engineering services for the treatment or containment of *Hazardous Materials* or *Hazardous Materials* site remediation, and if provided, such services shall be considered *Additional Services*. The Client and the *Consultant* acknowledge and agree that such services require specialized knowledge and expertise, and consideration of additional provisions such as additional liability insurance.

**CLIENT'S DUTIES
AND
RESPONSIBILITIES
TO THE
CONSULTANT**

**Duties and
Responsibilities**

4. 4.1 4.1.1 The *Client* shall:
- (a) Description of Requirements Provide the *Consultant* with a written description of the *Client's* requirements for the *Project*, including, where applicable, the *Client's Project* budget and *Project* schedule.
- (b) Disclose Data Unless otherwise provided in this *Agreement*, make reasonable efforts to disclose and make available to the *Consultant*, in a timely manner and at no cost to the *Consultant*, all information or data in the *Client's* possession or control relevant to the performance of the *Services*.
- (c) Other Consultants When requested by the *Consultant* in writing, give due consideration to engaging, at the *Client's* own cost, *Other Consultants* as may be reasonably necessary for the *Consultant* to undertake the *Services*. The *Client* shall not have an obligation to retain any *Other Consultants* if requested to do so by the *Consultant*. All *Other Consultants* engaged by the *Client* at the *Consultant's* request shall be paid for by the *Client* and shall be reasonably acceptable to both the *Client* and the *Consultant*.
- (d) Timely Decisions Give timely consideration to all requests from the *Consultant*, including requests for decisions required relating to the *Services*, and inform the *Consultant* of the *Client's* decisions and provide all feedback in a timely manner so as not to unduly delay the *Consultant's*

performance of the *Services*.

(e) Access to Property Arrange and make provision for the *Consultant's* reasonable and ready access to public and private properties as necessary for the *Consultant* to perform the *Services*.

(f) Notice of Observed Deficiencies Give prompt notice to the *Consultant* whenever the *Client* becomes aware of any apparent defects or deficiencies in the *Services*.

(g) Permits, Licences and Permits Obtain required approvals, licences and permits from authorities having jurisdiction so as not to unduly delay the *Consultant* in the performance of the *Services*.

Client's Representative 4.2 4.2.1 Immediately upon execution of this *Agreement*, the *Client* shall designate in writing a representative to act as the *Client's* representative, for the purposes of all communications with the *Client* under this *Agreement*, such representative to have authority to provide instructions to, and receive information from, the *Consultant*. The representative shall be available on a reasonably continuous basis during the performance of the *Services*, and for any periods when the representative is absent or unavailable a replacement with equivalent expertise and authority shall be appointed by the *Client*.

Confidentiality 4.3 4.3.1 The *Client* shall maintain confidentiality on all information, documentation and data provided by the *Consultant* which is expressly identified in the *Proposal* or other provision of this *Agreement*, as being proprietary or confidential in nature. Except with the prior written consent from the *Consultant*, or as required by law or an authority having jurisdiction, neither the *Client* nor any of its employees, officers, agents, representatives or *Other Consultants* shall divulge or disclose any of such information to third parties, or use any of such information for any purpose other than as required under this *Agreement* in connection with the *Project*.

FEES, RATES AND DISBURSEMENTS 5.

Fees 5.1 5.1.1 The *Client* shall pay the *Consultant* the fees described in Schedule B as compensation for the *Services* provided by the *Consultant*.

5.1.2 The fees for *Defined Remuneration Services*, whether rendered as *Basic Services* or *Additional Services*, may be, on written agreement by the parties, either a lump sum fee or a fee based on the actual hours reasonably expended in performing such *Defined Remuneration Services* at the hourly charge out rates set out in Schedule B, but shall not exceed the maximum amount, if any, specified in Schedule B.

5.1.3 The fees for *Variable Remuneration Services*, whether rendered as *Basic Services* or *Additional Services*, shall be based on the actual hours reasonably expended in performing such *Variable Remuneration Services* at the hourly charge out rates as set out in Schedule B, but shall not exceed the maximum amount, if any, as estimated and approved under paragraph 6.3.

Disbursements 5.2

5.2.1 In addition to other amounts payable to the *Consultant* for the *Services* under this *Agreement*, the *Client* shall pay the *Consultant* the *Consultant's* actual out of pocket costs for the items set out below, as reasonably incurred by the *Consultant* or the *Sub-Consultants* to perform the *Services* and substantiated by supporting invoices reasonably acceptable to the *Client* (called in the aggregate the "*Disbursements*"), plus, unless specified otherwise in this *Agreement*, a 10% markup on all *Disbursements*. *Disbursements* means the costs of:

- (a) Reproduction of documents including reports or submissions to the *Client* or authorities having jurisdiction, and tender and construction documents;
- (b) Messenger or courier services, long distance telephone calls, faxes and postage;
- (c) Advertising on behalf of the *Client*, with the *Client's* prior written approval;
- (d) Travel expenses, with the *Client's* prior written approval;
- (e) Fees, including user fees, paid to authorities having jurisdiction in order to obtain necessary approvals, permits or licenses;
- (f) Fees paid to any authority having jurisdiction in order to obtain any required record information or data;
- (g) Federal, provincial or municipal taxes paid by the

Consultant in respect of the *Services*;

(h) Testing and laboratory services;

(i) Additional insurance required by the *Client* in excess of the insurance coverage specified in this *Agreement*;

(j) Expenses to provide, operate and maintain a *Project* site office, with the *Client's* prior written approval;

(k) Expenses to provide and operate specialized equipment of a kind not normally used by consultants providing services similar in nature and scope to the *Services*, with the *Client's* prior written approval, including, where requested by the *Client*, the applicable charge-out rates and an estimated total cost of using such equipment;

(l) Expenses to provide digitized data or transparency reproduction of plans, drawings, designs or models, if requested by the *Client*;

(m) Items specifically identified in Schedule B;

(n) Other costs reasonably incurred by the *Consultant* in the performance of the *Services* with the prior written approval of the *Client*.

Sub-Consultants 5.3

5.3.1 In addition to any other amounts payable by the *Client* to the *Consultant* under this *Agreement*, the *Client* will reimburse the *Consultant* for the fees and *Disbursements* the *Consultant* pays to *Sub-Consultants* as follows:

(a) Lump Sum Fees If a *Sub-Consultant* undertakes *Services* which the *Client* and the *Consultant* have agreed will be paid for on a lump sum basis, whether undertaken as *Basic Services* or *Additional Services*, then all fees payable by the *Client* will be included in the lump sum, and no additional amount will be payable by the *Client* on account of the *Sub-Consultant's* fees the *Consultant* pays to the *Sub-Consultant*;

(b) Hourly Rate Fees If a *Sub-Consultant* undertakes *Services* which the *Client* and the *Consultant* have agreed will be paid for based on the actual hours expended in performing such *Services*, whether undertaken as *Basic Services* or *Additional Services*, then the *Client* will reimburse the *Consultant* for the actual amount of fees the *Consultant* pays to the *Sub-Consultant*, plus a markup of 5% on the *Sub-Consultant* fees;

(c) Disbursements In addition to the fees as described in subparagraph (a) and (b) above, the *Client* will reimburse the *Consultant* for amounts the *Consultant* pays a *Sub-Consultant* for *Disbursements*, without markup to the *Consultant*. (A *Sub-Consultant* may claim its actual out of pocket costs of *Disbursements* as reasonably incurred in undertaking the *Services*, plus the markup specified in paragraph 5.2.1, or other markup as specified otherwise in this *Agreement*, on all such *Disbursements*.)

PAYMENT 6.

Payment Procedures 6.1

6.1.1 Each month, the *Consultant* shall submit to the *Client* an invoice for the *Consultant's* fees and *Disbursements*, and any charges of *Sub-Consultants* retained by the *Consultant* upon the *Client's* request as provided in this *Agreement*. Each invoice will be accompanied by supporting documentation as may reasonably be required by the *Client*.

6.1.2 The *Client* shall pay such invoices in full within thirty (30) calendar days of receipt. If the *Client* reasonably determines that the full amount of an invoice is not owing then the *Client* will pay the amount it determines is owing, and forthwith provide the *Consultant* with written reasons for any deduction in the amount of the invoice.

6.1.3 Accounts unpaid by the *Client* thirty (30) calendar days after presentation shall bear monthly interest calculated at 2% per annum over the prime commercial lending rate of the Royal Bank of Canada, which amount shall be due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

Defined Remuneration Services 6.2

6.2.1 Monthly claims for *Defined Remuneration Services* shall be based either on the actual hours of work performed by the *Consultant* and *Sub-Consultants*, or the percentage of the *Services* completed, depending on the manner of compensation agreed upon by the parties under paragraph 5.1.2, but the aggregate of all such claims shall not exceed the maximum amount, if any, specified in Schedule B. If compensation for *Defined Remuneration Services* is agreed by the parties to be based on actual hours of work performed as provided in paragraph 5.1.2, the *Consultant* shall keep, or cause to be kept, timesheets to support the hourly effort and shall make them available for review by the *Client* upon

request.

**Variable
Remuneration
Services** 6.3

6.3.1 Without limiting any other provision of this *Agreement*, the *Consultant* shall keep separate records of the hours and *Disbursements* applicable to the provision of any *Variable Remuneration Services* and, unless otherwise agreed in writing between the parties, shall submit to the *Client* a weekly summary, within 3 *Business Days* after the end of each week, setting out the *Variable Remuneration Services* performed in the previous week and applicable fees, together with an updated projection of *Variable Remuneration Services* still to be provided and the estimated fees and *Disbursements* to completion. If the *Client* does not dispute the fees set out in the summary by written notice to the *Consultant* within 7 *Business Days* of receipt, the fees and the updated projection will be deemed to be accepted by the *Client* and the fees and *Disbursements* shall be invoiced and paid in accordance with paragraph 5.

6.3.2 The *Consultant* shall not undertake any *Variable Remuneration Services*, whether or not identified in Schedule A, without the prior written approval from the *Client*. Prior to proceeding with any *Variable Remuneration Services*, the *Consultant* shall provide the *Client* with a description of the scope of the *Variable Remuneration Services* to be performed and a cost estimate breakdown for the performance of such *Variable Remuneration Services*. If the *Client* grants its permission for the performance of such *Variable Remuneration Services*, the *Consultant* shall not exceed the scope or the cost estimate accepted by the *Client* without first providing timely written notice to the *Client* setting out the revised scope and/or cost estimate and a reasonable justification for the increase in scope and/or costs. The *Consultant* shall not proceed to provide *Variable Remuneration Services* in excess of the *Client* approved scope and cost estimate without the *Client*'s prior written approval.

**OWNERSHIP AND
USE OF
DOCUMENTS** 7.
Service Continuity 7.1

7.1.1 The *Client* acknowledges that all plans, specifications, drawings and designs are provided by the *Consultant* to the *Client* on the assumption that the *Consultant* will continue with the *Services* during construction and installation relating to such plans, specifications, drawings or designs. Accordingly, such plans, specifications, drawings and designs may not be sufficient or reliable on their own in the absence

of such continuity of *Services*. The *Client* shall give due consideration to continuing with the *Consultant's Services* during construction and installation and shall consult with the *Consultant* prior to retaining any party other than the *Consultant* to continue the *Services* during construction and installation. If the *Consultant* is not retained to provide services during construction and installation then the *Consultant* shall not be liable in contract or in tort for any loss or damage incurred as a result of any defect or deficiency in any plans, specifications, drawings or designs provided by the *Consultant* to the *Client*, except where such defect or deficiency would be obvious or apparent to an experienced professional performing services similar to the *Services*.

Ownership 7.2

7.2.1 All concepts, plans, drawings, specifications, designs, models, reports, photographs, computer software, surveys, calculations, construction and other data, documents, and processes produced by the *Consultant* in connection with the *Project* (the "*Instruments of Service*"), including all copyright and other intellectual property therein, are and shall at all times remain the property of the *Consultant* unless otherwise agreed in writing between the parties.

7.2.2 The *Client* may copy and use any of the *Instruments of Service* for record and maintenance purposes and for any future renovation, repair, modification and extension work undertaken with respect to that part of the *Project* to which the *Services* relate.

7.2.3 In no event shall the *Client* copy or use any of the *Instruments of Service* for any purpose other than those noted above or in relation to any project other than the *Project* without the prior written permission of the *Consultant*. The *Consultant* shall not unreasonably withhold or deny such consent but shall be entitled to receive additional equitable remuneration in connection with its grant of consent.

7.2.4 The *Client* shall have a permanent non-exclusive royalty-free license to use any *Instruments of Service* which is capable of being patented or registered as a trademark for the life of the *Project* only. For the purposes of this paragraph, "life of the *Project*" means the period during which the physical asset or assets described on page 1 of this *Agreement* are designed, under construction or operational. The *Consultant* shall have full rights to any *Instruments of Service* arising from his *Services* which is capable of being patented or registered as a trademark and may use any such

Instruments of Service on any other project.

Changes to Instruments of Service	7.3	7.3.1 The <i>Client</i> accepts full responsibility for any changes made to any <i>Instruments of Service</i> without the prior written consent of the <i>Consultant</i> and shall indemnify and hold harmless the <i>Consultant</i> from any claims arising from use of such changed <i>Instruments of Service</i> .
INSURANCE AND LIABILITY	8.	
General Insurance Requirements	8.1	8.1.1 The <i>Consultant</i> shall obtain and maintain insurance policies as specified in Schedule C of this <i>Agreement</i> .
		8.1.2 The above insurance policies shall be approved by the <i>Client</i> prior to commencement of the <i>Services</i> , and the <i>Consultant</i> shall provide the <i>Client</i> with satisfactory evidence of such insurance at any time upon request.
		8.1.3 All policies shall contain a cancellation clause requiring the insurer to give at least 30 days' written notice to the <i>Client</i> prior to policy cancellation.
		8.1.4 Should the <i>Consultant</i> neglect to obtain or maintain insurance as required under this <i>Agreement</i> , or to provide satisfactory evidence of such insurance to the <i>Client</i> upon request, the <i>Client</i> may elect to either secure such insurance, at the <i>Consultant's</i> cost and without terminating this <i>Agreement</i> , in which event the <i>Consultant</i> shall reimburse the <i>Client</i> immediately upon demand for any costs reasonably incurred by the <i>Client</i> in that connection, or declare the <i>Consultant</i> to be in default, in which event the provisions of paragraph 10.1 shall apply.
Additional Insurance	8.2	8.2.1 If the <i>Client</i> for any reason requires the <i>Consultant</i> to obtain insurance in addition to that required under this <i>Agreement</i> , the <i>Consultant</i> shall use its best efforts to obtain such additional insurance. The <i>Client</i> will pay the premiums owing for such additional insurance.
Limits of Liability	8.3	8.3.1 In consideration of the provision of the <i>Services</i> by the <i>Consultant</i> to the <i>Client</i> under this <i>Agreement</i> , the <i>Client</i> agrees that any and all claims which the <i>Client</i> may have against the <i>Consultant</i> , its employees, officers, agents, representatives and <i>Sub-Consultants</i> in respect of the <i>Services</i> , howsoever arising, whether in contract or in tort, save and except for claims arising out of or in connection

with any malicious act or malicious omission under paragraph 9.1.1, shall be absolutely limited to the amount of the insurance available at the date such claim is brought, including any deductible portion therein, provided that neither the *Consultant* nor any of its employees, officers, agents, representatives nor *Sub-Consultants* has done anything to prejudice or impair the availability of such insurance.

8.3.2 In no event shall the *Consultant* be liable for any loss or damage occasioned by delays or other causes or circumstances beyond the *Consultant's* reasonable control.

INDEMNITY 9.

- 9.1 9.1.1 Notwithstanding the provision of any insurance coverage by the *Client*, and subject to paragraphs 8.3.1 and 8.3.2, the *Consultant* shall indemnify and save harmless the *Client*, its officers, employees, agents, successors, assigns, representatives, *Contractors* and *Other Consultants* from and against any losses, claims, damages, actions and causes of action, costs, expenses, judgments and proceedings arising out of or in connection with any error, or negligent or malicious act or omission, by the *Consultant* or any of its officers, agents, representatives, employees or *Sub-Consultants*, except to the proportionate extent of any contributing negligent or wrongful act or omission of the *Client*, or any of its officers, agents, representatives, employees, *Contractors* or *Other Consultants*. The terms and conditions of this indemnity provision shall survive the completion of all *Services* and the termination of this *Agreement* for any reason.

SUSPENSION AND TERMINATION 10.

- By Client due to Default of the Consultant** 10.1 10.1.1 If the *Consultant* is in default in the performance of any of the *Consultant's* material duties and responsibilities under this *Agreement*, then the *Client* may, by written notice to the *Consultant*, require such default to be corrected. If within 5 *Business Days* after receipt of such notice, such default shall not have been corrected or reasonable steps to correct such default shall not have been taken, the *Client* may, without limiting any other right or remedy the *Client* may have, give a further written notice to the *Consultant* to terminate this *Agreement*. In the event of such termination the *Client* shall pay for the cost of the *Services* rendered and *Disbursements* incurred by the *Consultant* pursuant to this

Agreement and remaining unpaid as of the effective date of such termination. Notwithstanding the above, the *Client* may deduct from amounts owing to the *Consultant* any reasonable additional costs and expenses incurred as a result of the *Consultant's* default, and if the payments owing to the *Consultant* are not sufficient to cover such costs then the *Consultant* shall immediately pay the *Client* the shortfall. In the event of termination for default, *Termination Expenses* shall not be payable by the *Client*.

**By the Consultant
due to Default of the
Client**

10.2 10.2.1 If the *Client* fails to make payment to the *Consultant* in accordance with this *Agreement*, then the *Consultant* may, by written notice to the *Client*, require that such default be corrected. If within 5 *Business Days* after receipt of such notice such default shall not have been corrected, or reasonable steps taken to correct such default, the *Consultant* may, without limiting any other right or remedy he may have, give a further written notice to the *Client* to terminate immediately this *Agreement*. In such event, in addition to any other rights or remedies the *Consultant* may have, the *Consultant* shall be paid by the *Client* for all *Services* performed and for all *Disbursements* incurred pursuant to this *Agreement* and remaining unpaid as of the effective date of such termination, plus *Termination Expenses*. In the event of any other default by the *Client*, the *Consultant* shall only have the right to claim damages, but not the right to terminate this *Agreement*.

**By the Client for
Own Reasons**

10.3 10.3.1 The *Client* has the right to suspend or terminate further performance of all or any portion of the *Services* at any time, for convenience or any other reason, by written notice to the *Consultant*. Upon receipt of such notice, the *Consultant* shall immediately discontinue the performance of the *Services* as instructed, whether being performed by the *Consultant* or any *Sub-Consultants*, except to the extent that those *Services* are reasonably necessary to comply with the *Client's* instructions, and shall preserve and protect all work in progress and all completed work. Any contracts relating to the *Services* entered into by the *Consultant* with a third party including a *Sub-Consultant*, shall, at the written request of the *Client*, be assigned to the *Client*.

10.3.2 In the event of suspension or termination under paragraph 10.3.1, the *Client* shall, in addition to any other rights or remedies the *Consultant* may have, pay the *Consultant* for that portion of the *Services* satisfactorily performed or completed to the date of the notice, including *Disbursements* incurred as provided under this *Agreement*, plus *Termination Expenses*.

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|--|------|---|
| By Mutual Consent | 10.4 | 10.4.1 If the <i>Project</i> is terminated by mutual consent of the parties, the <i>Consultant</i> shall be paid by the <i>Client</i> for all <i>Services</i> performed, and for all <i>Disbursements</i> incurred pursuant to this <i>Agreement</i> and remaining unpaid as of the effective date of such termination, plus <i>Termination Expenses</i> . |
| By the Consultant due to Client's Suspension in Excess of 60 Days | 10.5 | 10.5.1 If the <i>Services</i> are suspended by the <i>Client</i> at any time for more than 60 calendar days, either consecutive or in the aggregate, through no fault of the <i>Consultant</i> , then the <i>Consultant</i> may, at any time until such suspension is lifted by the <i>Client</i> , give written notice to the <i>Client</i> of termination due to suspension. If within 15 <i>Business Days</i> after receipt of such notice such suspension has not been lifted, the <i>Consultant</i> may, without limiting any other right or remedy the <i>Consultant</i> may have, give a further written notice to the <i>Client</i> to terminate this <i>Agreement</i> . In such event the <i>Consultant</i> shall be paid by the <i>Client</i> for all <i>Services</i> performed and for all disbursements incurred pursuant to this <i>Agreement</i> and remaining unpaid as of the effective date of such suspension, plus <i>Termination Expenses</i> . |
| Death or Incapacity | 10.6 | 10.6.1 If a party to this <i>Agreement</i> is an individual and dies or becomes incapacitated before completing the <i>Services</i> under this <i>Agreement</i> , this <i>Agreement</i> shall automatically terminate as of the date of the said death or incapacity, and payment shall be made in accordance with this <i>Agreement</i> for the <i>Services</i> performed and <i>Disbursements</i> incurred pursuant to this <i>Agreement</i> and remaining unpaid as of the effective date of termination. |
| Failure to Engage Other Consultants or Sub-Consultants | 10.7 | 10.7.1 If the <i>Client</i> does not give approval for the engagement of an <i>Other Consultant</i> or <i>Sub-Consultant</i> that under paragraph 3.2.1(e) the <i>Consultant</i> has advised the <i>Client</i> is necessary for the performance of the <i>Services</i> , then the <i>Consultant</i> may give 5 <i>Business Days</i> written notice of intended termination to the <i>Client</i> describing why the engagement of the <i>Other Consultant</i> or <i>Sub-Consultant</i> , as the case may be, is essential for the <i>Consultant</i> to perform the |

Services, and if the *Client* has failed or refused to engage the *Other Consultant* or *Sub-Consultant* then on further written notice to the *Client* the *Consultant* may terminate this *Agreement*.

DISPUTE RESOLUTION 11.

- Purpose** 11.1 11.1.1 The purpose of this paragraph is to establish a process whereby any dispute or difference of opinion under or in connection with this *Agreement* can be resolved in a fair, efficient and cost-effective manner.
- Amicable Negotiation** 11.2 11.2.1 Both parties shall use their best efforts to resolve any dispute or difference of opinion under or in connection with this *Agreement* by good faith amicable negotiations on a “without prejudice” basis, and shall provide frank, candid and timely disclosure of all relevant facts, information and documents to facilitate negotiations.
- Mediation** 11.3 11.3.1 If the dispute or difference of opinion is not resolved to the reasonable mutual satisfaction of the parties within 10 *Business Days* of the commencement of negotiations, or within such longer period as may be agreed to by the parties, the dispute or difference of opinion shall be submitted to mediation. Both parties agree not to make a request for arbitration or to commence litigation without first seeking agreement through the mediation process.
- 11.3.2 Mediation shall consist of structured, non-binding negotiations with the assistance of a mediator on a “without prejudice” basis. The mediator shall be appointed by agreement of the parties and shall be impartial and free from any actual or apparent conflict of interest. Failing such agreement, the mediator shall be appointed by the Executive Director of the Master Municipal Construction Document Association.
- 11.3.3 The costs of mediation shall be shared equally by both parties.
- Arbitration or Litigation** 11.4 11.4.1 If the dispute or difference of opinion is not resolved to the reasonable mutual satisfaction of both parties within 30 calendar days of the appointment of the mediator, or within such longer time as may be mutually agreed to by the parties, the dispute or difference of opinion may, upon the mutual written agreement of the parties, be submitted to binding arbitration in accordance with the laws of the Province of

British Columbia. If the parties do not agree to arbitration, each party shall be free to commence litigation without further notice.

Disputed Fees 11.5 11.5.1 If the dispute relates to the *Consultant's* fees or disbursements under this *Agreement*, the *Client* shall be entitled to withhold the amount of fees and/or disbursements which are in dispute and the balance of the fees and disbursements not in dispute shall be paid by the *Client* in accordance with this *Agreement*.

GENERAL 12.

Notices 12.1 12.1.1 All notices under this *Agreement* shall be in writing and delivered by hand, fax or pre-paid registered mail to the recipient's designated representative at the address set out on page 1 of this *Agreement*, and shall be considered to have been received:

- a) immediately upon delivery, if delivered by hand; or
- b) immediately upon transmission, if sent by fax, provided a confirmation has been received; or
- c) 3 *Business Days* from date of mailing, if sent by pre-paid registered mail.

12.1.2 Either party may, at any time, change its address for notice by giving written notice to the other party in accordance with this *Agreement*.

Assignment and Successors 12.2 12.2.1 Neither party shall assign this *Agreement*, or any portion of this *Agreement*, without the prior written consent of the other party.

12.2.2 If a party to this *Agreement* who is an individual or partnership should desire to bring in a partner or partners, it may do so, and such a change shall not be deemed to be a breach of this *Agreement*, provided that the other party is first notified in writing. The new or altered entity so created shall be deemed a successor entity to share the benefits and obligations of this *Agreement*.

12.2.3 If a party to this *Agreement* is a partnership, and a partner thereof either dies or retires then the remaining partner(s) therein shall be deemed a new successor entity to share the benefits and obligations of this *Agreement*.

Rights and Remedies	12.3	<p>12.3.1 The duties and obligations imposed by this <i>Agreement</i> and the rights and remedies available under this <i>Agreement</i> shall be in addition to and not in substitution for any duties, obligations, rights and remedies otherwise imposed by or available at law or equity.</p> <p>12.3.2 No action or failure to act by either party shall constitute a waiver by that party of any of its rights or remedies, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach under this <i>Agreement</i>.</p>
Conflicts of Interest	12.4	<p>12.4.1 The <i>Consultant</i> declares and confirms that it has no pecuniary or other interest in the business of any third party that would cause a conflict of interest or be seen to cause a conflict of interest in performing the <i>Services</i>. If any such conflict of interest occurs during the term of this <i>Agreement</i>, then the <i>Consultant</i> shall immediately declare it in writing to the <i>Client</i> and, at the direction of the <i>Client</i>, the <i>Consultant</i> shall promptly and diligently take steps to the satisfaction of the <i>Client</i> to resolve the conflict.</p>
Independent Contractor	12.5	<p>12.5.1 The <i>Consultant</i> shall be, and in all respects be deemed to be, an independent contractor and nothing in this <i>Agreement</i> shall be construed to mean that the <i>Consultant</i> is an employee of the <i>Client</i> or that any joint venture or partnership exists between the <i>Consultant</i> and the <i>Client</i>.</p>
Governing Law	12.6	<p>12.6.1 This <i>Agreement</i> shall be interpreted and construed according to the laws of British Columbia.</p>
Headings	12.7	<p>12.7.1 The headings included in this <i>Agreement</i> are for convenience only and do not form part of this <i>Agreement</i> and will not be used to interpret, define or limit the scope or intent of this <i>Agreement</i>.</p>
Number	12.8	<p>12.8.1 Unless otherwise specified, words importing the singular, include the plural and vice versa.</p>
Enurement	12.9	<p>12.9.1 This <i>Agreement</i> shall be binding upon and enure to the benefit of the parties hereto and their respective executors, administrators, successors and assigns.</p>

Entire Agreement 12.10 12.10.1 This *Agreement* constitutes the entire agreement between the parties relating to the matters covered in this *Agreement* and supersedes all prior agreements, negotiations, understandings and representations between the parties, whether written or oral, relating to the subject matter hereof unless specifically provided otherwise in this *Agreement*.

Unenforceability 12.11 12.11.1 If any provision of this *Agreement* is found to be invalid, illegal or unenforceable, it shall be severed from this *Agreement* and any such severance shall not affect the validity, legality or enforceability of the remaining provisions of this *Agreement*.

Conflicting Provisions 12.12 In the event of a conflict or ambiguity between a provision of Schedule D and another provision of this *Agreement*, including Schedules A, B, C or E of this *Agreement*, such other provision will prevail over the provision of Schedule D to the extent of the conflict or ambiguity.

OTHER CONDITIONS 13. See Schedule E.

IN WITNESS WHEREOF the parties hereto have executed this *Agreement* the day and year first written above.

Consultant:

(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

Client:

(FULL LEGAL NAME OF CLIENT)

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

Schedule A

SERVICES

A.1 The *Consultant* shall perform the following services as *Basic Services* under this *Agreement*:

A.1.1 *Defined Remuneration Services*:

A.1.2 *Variable Remuneration Services*:

Schedule B

FEES

- B.1 The *Client* shall pay the *Consultant* for *Defined Remuneration Services* as follows:

- B.2 The *Client* shall pay the *Consultant* for *Variable Remuneration Services* in accordance with the following hourly charge out rates:

- B.3 The *Disbursement* items referred to in paragraph 5.2.1(m), if any, shall be as follows:

Schedule C

INSURANCE

**Professional
Liability Insurance**

C.1 C.1.1 The *Consultant* shall obtain and maintain for the duration of the *Services* and for a minimum of 1 year thereafter, at its own cost, Professional Liability Insurance on terms and from an insurer satisfactory to the *Client*.

C.1.2 The Professional Liability Insurance policy shall insure the *Consultant's* legal liability for errors, omissions and negligent acts, to the extent of no less than:

\$500,000.00 per claim
\$1,000,000.00 aggregate

**General Liability
Insurance**

C.2 C.2.1 The *Consultant* shall obtain and maintain for the duration of the *Services*, at its own cost, the following insurance, on terms and from insurers satisfactory to the *Client*:

- a) Comprehensive General Liability coverage, covering premises and operations liability;
- b) Consultant's Contingency Liability coverage, covering operations of *Sub-Consultants*;
- c) Completed Operations Liability coverage;
- d) Contractual Liability coverage; and
- e) Owned and Non-owned Automobile Liability Insurance coverage.

C.2.2 The limits of coverage shall not be less than the following:

- (a) Bodily Injury Liability - \$2,000,000.00 each occurrence; \$2,000,000.00 aggregate products and/or completed operations
- b) Property Damage Liability - \$2,000,000.00 each occurrence; \$2,000,000.00 aggregate products and/or completed operations

- c) Owned & Non-owned Automobile - \$2,000,000.00
any one accident

C.2.3 A Cross Liability clause shall be made part of the Comprehensive General Liability Insurance.

Schedule D

PROPOSAL

(see attached)

Schedule E

ARTICLE 13 - OTHER CONDITIONS

The following provisions, if any, constitute Article 13 of this *Agreement* and amend, modify and supplement Articles 1 through 12 of this *Agreement* to the extent required. In the event of any conflict or inconsistency between the provisions of this Schedule E and any provision of Articles 1 through 12 of this *Agreement*, the provisions of this Schedule E shall prevail to the extent of that conflict or inconsistency.

13.1