



ASSOCIATION OF CONSULTING
ENGINEERING COMPANIES | SK

**SCHEDULE OF RECOMMENDED FEES
TO BE CHARGED FOR
GENERAL ENGINEERING AND GEOSCIENCE
PROJECTS AND SERVICES**

January 2022



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FOREWORD

Engineering and geoscience services are those services provided by a person conducting the “practice of professional engineering” or the “practice of professional geoscience” as defined in The Engineering and Geoscience Professions Act, including such works or processes requiring the skilled application of the principles of mathematics, physics, mechanics, aeronautics, hydraulics, electricity, chemistry or geology in their development and attainment; and includes such reporting, advising, valuing, measuring for, laying out, designing, directing, constructing or inspecting by any person under the general supervision of a professional engineer or professional geoscientist. The role played by an engineer or geoscientist in managing the undertaking of a project or work of construction, often referred to as “Project Management”, is also recognized in the above definition. The role of “Prime Consultant”, whereby the professional member manages the work of sub-consultants and specialists, is often part of project management although it may be recognized as a separate task.

A professional engineer or geoscientist who provides consulting services shall perform the services on a professional fee basis. This schedule of fees is authorized by the Association of Consulting Engineering Companies - Saskatchewan (ACEC-SK) and establishes suggested fees for the services enumerated. The fee guidelines presented herein are updated annually based on the original guidelines published in 2003 by the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS).

Through the course of 2007, APEGS and ACEC-SK mutually agreed that the maintenance of a recommended consulting fee document was more appropriately performed by ACEC-SK. APEGS is the licensing and regulatory body for the engineering and geoscience professions. It was agreed that ACEC-SK as the representative of consulting firms should have custody of the recommended fees for consulting engineering and geoscience.

In proposing the following guidelines, it is the ACEC-SK position that in the end, the fee agreed upon by a Consultant and Client is based upon a clear understanding of the project scope, agreed upon terms of reference, and a proper consideration of risk associated in successfully completing the project. ACEC-SK recognizes that when both the Client and Consultant view the fee as fair and proper, this ensures that proper professional practice is undertaken in completing the project. In the end, both parties recognize and obtain fair value.

Both engineers and geoscientists may use this document, since ACEC-SK recognizes that both types of members share similar principles of professional practice. Therefore, the determining factors as to rates charged by an engineer or geoscientist are: the level of specialist skill, the amount of experience, and the relative value of the service offered.

Users of this document should note that the word “fee” as used in this document refers to the net fee payable to the professional engineer or professional geoscientist, exclusive of applicable taxes. This definition recognizes circumstances where the practitioner may work as a sub-consultant to another professional who is the prime consultant on a work of engineering or geoscience.

Further information regarding fees in general or with respect to specific cases may be secured from the office of Association of Consulting Engineering Companies - SK, #12, 2010 - 7th Avenue, Regina S4R 1C2. Beverly MacLeod, Executive Director, Cell 306-531-8253, Email: bmacleod@acec-sk.ca

ACEC-SK 2022 GENERAL RECOMMENDED SCHEDULE OF FEES

ACEC-SK is recommending a 1% increase in hourly rates for Saskatchewan Consulting Engineering services for 2022. Information about how a fee is developed was prioritized in the updated publication, the result of work done by a Task Group struck to review the Fee Guideline document.

General Guidelines for Fees Charged by Professional Engineers and Geoscientists (January 2022)
Approved, ACEC-SK Board of Directors, December 9, 2021.

*On behalf of the Association of Consulting Engineering Companies – Saskatchewan
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1. ACKNOWLEDGEMENTS

This update of the “Fees Guidelines” is a co-operative effort of the Board of Directors and corporate member firms of the Association of Consulting Engineering Companies - Saskatchewan.

The document supersedes previous versions prepared by the Association of Professional Engineers and Geoscientists of Saskatchewan (“APEGS”), the Association of Consulting Engineering Companies - Saskatchewan (“ACEC-SK”), and the Saskatchewan Construction Panel (“SCP”). The structure and general principles of past versions is retained in this new version. The excellent and thorough work of APEGS and its volunteers in preparing past versions of this document is acknowledged.

The permission of the Association of Professional Engineers, Geologists and Geophysicists of Alberta (“APEGGA”) to use portions of their guidelines document is also acknowledged.

Special thanks and acknowledgements are due to the members of the ACEC-SK Task Group that reviews this document annually, and all members of the ACEC-SK Board of Directors.

The Association would also like to thank the volunteers who contributed to the development of the original document. Their comments and suggestions contributed to its overall usefulness.

2. INTRODUCTION

This document presents a recommended Schedule of Fees to provide an equitable basis for the remuneration for professional engineering and professional geoscience services, whether provided as a sole practitioner, in partnership, or in an incorporated practice. The fees noted herein are suggestions only and are considered to be commensurate with the provision of competent and responsible professional engineering or professional geoscience services.

For the purposes of this schedule, the following definitions apply:

<i>Client</i>	The Consultant's Client.
<i>Consultant</i>	The party contracting with the Client to provide professional engineering or professional geoscience services.
<i>Contractor</i>	The party contracting with the Client or Owner for the provision of labor, materials and equipment for the execution and quality control of the work.
<i>Cost of Construction</i>	The final contract price, including the cost of any additions or change orders, for construction of an engineering or geoscience work including taxes (GST / PST).
<i>Fee</i>	The net fee payable to the professional engineer or professional geoscientist.
<i>Owner</i>	The person or persons who will own the work or works upon completion of the contract between the Client and the Contractor
<i>Practice of Professional Engineering</i>	Any kind of planning, designing, composing, measuring, evaluating, inspecting, advising, reporting, directing or supervising, or managing any of the foregoing, that requires the application of engineering principles and that concerns the safeguarding of life, health, property, economic interests, the public interest or the environment.
<i>Practice of Professional Geoscience</i>	The application of principles of geoscience that include, but are not limited to, principles of geology, geophysics and geochemistry, to any act of acquiring or processing data, advising, evaluating, examining, interpreting, reporting, sampling or geoscientific surveying, that is directed toward: <ul style="list-style-type: none">• the discovery or development of oil, natural gas, coal, metallic or non-metallic minerals, precious stones, water or other natural resources; or• the investigation of surface or sub-surface geological conditions
<i>Professional Member</i>	A person or persons providing professional engineering services or professional geoscience services. In this case, the term refers to a member of APEGS.
<i>Professional Practice</i>	The set of generally accepted ethical and business practices, apart from a member's specific technical skills, that invest a member with the requirements to provide professional engineering or geoscience services to the public.
<i>Written Agreement</i>	The legal contract between the Client and Consultant that set forth as a minimum the scope of work, schedule of execution, basis of the fees, and payment conditions and more – rights and responsibilities, disputes and remedies).

3. CATEGORIES OF SERVICES

The type, nature, and extent of professional services required for an engineering or geoscience project will vary according to the characteristics and complexity of the project. Professional services in the engineering and geoscience disciplines may require one time consultation or may extend from inception of a project to its realization. For the purpose of determining an appropriate fee basis, consulting services for engineering and geoscience projects are divided into categories according to the nature of the assignment and the predictability of the cost of providing the service without compromising professional standards of practice and conduct.

The current scope of professional practice includes engineering services (such as pre-design, design, construction, software design, environmental engineering, biotechnology), and geological and geophysical services.

The basis for ensuring successful execution of a project is establishing a clear scope, a list of required tasks and deliverables, concise terms of reference, and a suitable written agreement. Documents concerning the forms of written agreements and contract forms as provided by the Association of Consulting Engineering Companies-Canada, may be obtained from their website at www.acec.ca

For the purpose of determining an appropriate fee basis, consulting services are divided into the following seven (7) categories:

- I. Consultative and Advisory Services
- II. Pre-Design Services
- III. Design Services
- IV. General Engineering or Geoscience Services During Construction or Field Projects
- V. Resident Engineering or Geoscience Services During Construction or Field Projects
- VI. Geological or Geophysical Services of Defined Scope
- VII. Geological or Geophysical Services on Comprehensive Projects

The categories of services are explained in detail in subsections 3.1 to 3.7.

In addition to the Categories of Services provided in this document, the Association recognizes additional specialized services, including the following:

- Consulting Professional Engineers as prime consultants on building projects;
- Consulting Professional Engineers providing services to prime consultants on building projects; and
- Consulting Professional Geoscientists as prime consultants on resource exploration and development projects.

Guidelines for recommended fees and performance standards for building projects are provided in the “Companion Document” – Schedule of Recommended Fees to be Charged for Specialized Engineering Projects and Services in the Building Field.

3.1 Category I - Consultative and Advisory Services

For this category of service, the scope of the project may be difficult to predict accurately. The amount of analysis and the number of consultations required to produce optimum service cannot always be established with reasonable precision. The payment for consultative and advisory services is normally on a time basis. Examples of this category are:

1. Expert testimony;
2. Appraisals or studies based on existing data;
3. Valuations, including economic valuations;
4. Rate structure and tariff studies;
5. Technical representation on behalf of the Client;
6. Inspection, testing or other services concerning the collection, analysis, evaluation and interpretation of data and information leading to specialized conclusions and recommendations;
7. Natural resource reserve evaluations, estimations, and audits;
8. Management services (other than construction management); and
9. Emergency response/contingency plans.

3.2 Category II - Pre-Design Services

These services apply to assignments that establish requirements for design and include such matters as:

1. Scope of Project;
2. Survey and geotechnical investigations, and other tests;
3. Analysis of conditions or methods of operation, economic analysis, analysis of location of the project, evaluation of alternative design concepts and similar matters undertaken to establish the sizes, capacities, locations, methods of operation, operating costs, and other principal features which form the basis for conclusions and recommendations on the design and undertaking of a project;
4. Quality Assurance and Quality Control; and
5. Environmental impact assessment.

3.3 Category III - Design Services

These services consist of the preparation of engineering design, drawings and specifications as well as other appropriate contract documents. Design services follow after the basis for design has been established under Categories I and II (see above). Design normally includes the following services:

1. Preparation of preliminary sketches and development of specification notes;
2. Preparation of calculations, equipment selection, working drawings, and specifications;
3. Preparation of cost estimates and completion schedules;
4. Assisting in preparing tender packages and calling for tenders;
5. Analysis of Tender Responses and advising the Client regarding tender acceptance; and
6. Designing software/systems.

Unless otherwise agreed, all original drawings and specifications are the property of the Consultant. The Client is entitled to a copy of the plans and specifications for record purposes only. The Client shall not use or permit the use of any of these for the construction of another project without obtaining the consent of and remunerating the Consultant for the use of the said plans and specifications. Further guidelines

concerning the re-use of plans, specifications, and reports are provided in Section 5.3 - Re-Use of Plans, Specifications, and Reports.

3.4 Category IV - General Engineering or Geoscience Services During Construction or Field Projects

These consist of office and field services during the construction or field operations period following the award of the contract. As used in this schedule, “General Engineering or Geoscience Services During Construction or Field Projects” shall include the following services:

1. Review shop drawings, plans, maps, and other documents as provided for in the terms of the contract documents;
2. Periodic visits to the site by the Consultant or the Consultant's fully authorized representative to become generally familiar with the progress and quality of the work;
3. Keeping the Client informed on the progress and quality of the work;
4. Guidance to the Contractor or Client in the interpretation of contract documents;
5. Examination of progress claims for the purpose of recommending and/or approving progress payments;
6. Final inspection and warranty inspection (if applicable).

Under Category IV, the Consultant is not expected to make exhaustive or continuous on-site inspections. The number of site visits is at the discretion of the Consultant. Engineering or Geoscience Services as herein described do not include the direction of persons or selection, direction or approval of methods and equipment employed by the Contractor in any phase of the construction, field work, or placing in operation of any plant or equipment.

3.5 Category V - Resident Engineering or Geoscience Services During Construction or Field Projects

These services consist of supplying resident staff on the project to determine if the Contractor is carrying out the work in accordance with the contract documents. If required by the Client, resident services may include:

1. Ensuring that all work will satisfy the intent of the design and will conform substantially with plans and specifications;
2. Arranging for and carrying out all necessary field-testing of material and equipment installed;
3. Investigating, reporting on and advising on unusual circumstances which may arise during construction, or undertaking of field operations;
4. Preparing Contractor's payment certificates;
5. Detailed final inspection, liaison and other assistance required to expedite the acceptance and takeover of the work by the Client or its agency;
6. Calling job meetings and generally following up on costs, schedules, etc.;
7. Ensuring that the Contractor is aware that the work is to be undertaken in compliance with Occupational Health and Safety Legislation; and
8. Ensuring that the Contractor, if required by the construction contract, is recording details of construction necessary to modify contract drawings to Record Drawings.

A clearly defined Written Agreement should be made between the Client and the Consultant outlining the extent to which Resident Services are to be provided.

Engineering or Geoscience Services as herein described do not include the direction of persons or selection, direction or approval of methods and equipment employed by the Contractor in any phase of the construction, field work, or placing in operation of any plant or equipment.

3.6 Category VI – Geological or Geophysical Services of Defined Scope

This type of assignment will not normally require analysis of alternatives or much discussion with clients in order to optimize the services being provided. These services are characteristically routine in nature and could be performed by a Professional Geoscientist (geologist or geophysicist), or by a technologist acting under the direct supervision of the responsible Professional Geoscientist. Services within this category are based upon established criteria, examples of which are:

1. On-site geoscience duties at a drill site (any type of resource or geotechnical drilling operations);
2. Supervision of data acquisition and data processing;
3. Supervision and Quality Assurance / Quality Control of laboratory work; and
4. Supervision of Contractors (i.e. geophysical, line-cutting, sampling) in the field during exploration programs.

3.7 Category VII – Geological or Geophysical Services on Comprehensive Projects

Assignments in this category can involve aspects of both Categories I and VI but the level of service required is more comprehensive and typically longer term. The complexity and/or scope of the project may also include the provision of both engineering and geoscience services by the Consultant. In providing such services, the Consultant provides directly, or through subcontract or sub-agreement, all or a portion of the requirements for personnel, equipment, and ancillary services. These projects may involve some on-site work. Examples of geoscience work in this category are:

1. Assessment of a mineral, or oil/gas play;
2. Assessment of a geographic area by geological, geochemical, geophysical, or other technical means;
3. Examination and recommendations regarding a geologic formation at a particular geographic location;
4. Reservoir analysis; and
5. Assessment of a mineral property or oil/gas lease.

4. SCHEDULE OF FEES

Remuneration for the services in the various categories of engineering and geoscience may be based on one or more of the following scales. It is important to emphasize that the Association recognizes no distinction between an engineer and geoscientist in the matter of professional practice and hence, the setting of professional fees.

Users of this document should note that the word “fee” as used in this document refers to the **net fee payable** to the professional engineer or professional geoscientist. This definition recognizes circumstances where the professional member may work as a sub-consultant to another professional who is the prime consultant on a work of engineering or geoscience.

4.1 What's in a Fee?

Selection Process – Best Practice for Selecting a Consulting Engineering Firm

Selecting an engineering firm should be regarded not as a cost but rather as an investment. Quality engineering can contribute greatly to controlling project construction cost and schedule as well as result in lower long-term project life cycle costs.

Qualifications Based Selection is the recommended competitive process for consultant selection. It will add the greatest value for clients. This selection process diverges from price-based selection practices in that it allows consultants to demonstrate how they can add maximum value to a client's project rather than focusing on how to minimize their fees to ‘win’ an assignment. More information about Qualifications Based Selection is available in The Best Practice for Selecting Your Consulting Team and the Federation of Canadian Municipalities National Guide to Sustainable Infrastructure Best Practice Guide on Selecting a Professional Consultant, both of which can be found on www.acec-sk.ca.

Regardless of the selection process utilized, ACEC-SK recommends a formal client/consultant agreement be established describing the terms and conditions of the engagement prior to beginning the work.

Fee Arrangements

The word "fee" is defined as the money paid for services rendered. Depending on the project type, nature of the work, and the terms and the conditions of the client/consultant agreement, the following fee arrangements for consulting engineering professional services are commonly used:

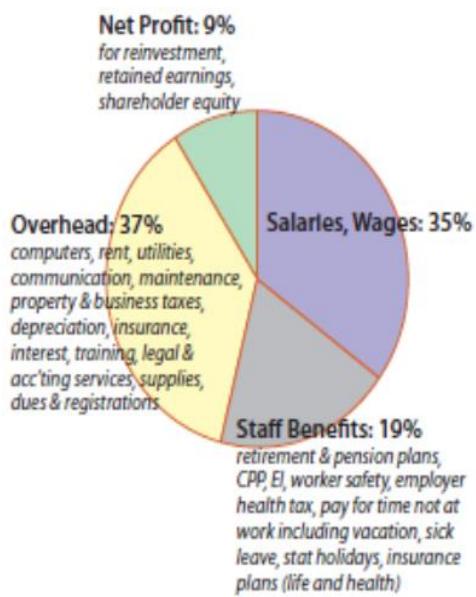
1. **Fixed fee** – A lump sum arrangement is recommended when the scope of services and schedule can be very clearly defined and understood. Fees of this type can be developed from the bottom up or derived as a percentage of construction cost. For instance, when the Prime Consultant assigns sub-consultants to complete portions of the design, the fees for those services can range between 80% and 100% of the Prime Consultant's fee for that portion of the design. The percentage fee may also apply only to the labour component of a fee with expenses considered extra. The consulting engineer assumes a risk to perform the work within the fixed fee offered. The consulting engineer's return for assuming this risk is built into the fixed fee and therefore a breakdown is not usually provided.
2. **Hourly** – A time and material arrangement is recommended in situations when the scope of services and/or schedule cannot be clearly defined (see Development of Hourly Rates &

Charges for Disbursements sections below for details). Rather than commit to an upset limit which imposes a fixed return for unknown risks, it is recommended that the consulting engineer monitor fees and provide the Client with regular status and forecast updates.

3. **Per diem** Per day fees is a variation on the hourly rate type fee arrangement whereby a cap on hours per day is effectively implied.
4. **Expenses** – fixed fee, hourly or per diem arrangements include internal and external costs. Internal costs include photocopying, printing, couriers, fax, telephone, etc., and historically, these costs were tracked individually. In recent years, professional services providers (including consulting engineering, legal, and accounting firms) have moved to a percentage of labour charges for these costs, e.g. typically 5-10%. This streamlines the tracking and billing process for both consulting engineering firms and their clients. External costs include out-of-pocket expenses for mileage, meals, lodging, etc. as well as sub-consultants where applicable, and these costs may be subject to a mark-up for handling costs (See Charges for Disbursements section below for details).
5. **A Combination of These Arrangements** – may be employed for projects where a large part of the scope can be defined, i.e. fixed fee, but where additional services may be required, e.g. hourly or per diem.

Development of Hourly Rates

Since the Consulting Engineer is not only a professional engineer but also a businessperson, the fee charged to clients must cover pertinent business costs and margin as illustrated in the Typical Distribution of Consulting Fees graphic.



Each consulting firm has a unique mix of professional, technical, and administrative support staff with differing levels of experience, expertise, and responsibility. These individuals are grouped into various staff classifications accordingly. To enable the recovery of the costs associated with overhead and staff benefits, as well as to generate a profit, consulting firms typically develop hourly rates predicated on a multiplier of salary costs. Engineering consultants do not provide fees based on multipliers of salary because the Personal Information Protection and Electronic Documents Act (Canada) restricts how personal salary information can be collected, used or disclosed in the course of commercial activities. Rate provision is not problematic, but the provision of an individual's salary cost multiplier applicable to a rate can allow a client to determine that person's salary. Since engineering fees are increasingly subject to public scrutiny and to audit, personal salary information could easily become public.

The recommended **minimum hourly rates** presented in this Fee Guideline are predicated on staff working at a reasonable chargeability rate in a consulting engineering office. However, for unique assignments, a consulting engineer can revisit the rates examining the circumstances under which an employee is working. For example, a seconded employee's benefits may be no different than those for an office-based employee. However, the remaining elements may be different and may hold the potential to lower the hourly rate over the extent of the project. Similarly, if the work is highly

specialized and/or high risk in nature and a consulting engineering firm has niche resources to do the work, then this may hold the potential to increase the hourly rates charged.

Staff classifications describing various levels of responsibility, experience and training are presented on a subsequent page. Recommended minimum hourly rates for those categories are presented below. With some interpolation, most engineering and technical positions can be categorized to align within these classifications. For multiple year assignments, it is recommended that a rate escalation clause be included in the terms and conditions of the client/consultant agreement.

4.2 Scale 1 – Time Basis, All Projects

Scale 1 is to be used for the following categories:

Category I	- Consultative and Advisory Services
Category II	- Pre-Design Services
Category V	- Resident Services During Construction or Field Projects
Category VI	- Geological or Geophysical Services of Defined Scope
Category VII	- Geological or Geophysical Services on Comprehensive Projects

Scale 1 may be used as an alternative to Scale 2 for:

Category III	- Design Services
Category IV	- General Engineering or Geoscience Services During Construction or Field Projects

This scale is particularly suitable where the scope of engineering or geoscience services cannot be predetermined or is difficult to ascertain. The recommendations presented herein may be modified or adjusted depending upon special circumstances unique to the project, such as:

- Unusual levels of complexity or risk;
- Unique specialized knowledge;
- Remote or difficult location;
- Hazardous environment; or
- Particular market conditions.

In certain circumstances and in specialized fields, the Client and Consultant may agree that the work shall be undertaken on a “fixed fee” or “day rate” basis. In such a circumstance, it is recommended that the Consultant use Scale 1 to estimate the fee based upon a reasonable assessment of the number of hours required to successfully conclude the project. Typically “fixed fee” projects can be precisely defined in terms of scope, required work, and deliverables.

Alternative business arrangements between the Client and Consultant, such as retainers and “standing offers”, are not in contradiction of these Guidelines, provided that they are based upon Scale 1 rates and definitions.

The following recommendations are not binding in any manner upon any member of ACEC-SK. However, they are approved by the ACEC-SK Board of Directors for the guidance and benefit of the

public and members as reflecting a fair and reasonable valuation of professional services rendered by engineering and geoscience consultants.

The following are recommended fees for standard projects for 2022:

Category	Rate (\$CDN/hour)	Category	Rate (\$CDN/hour)
E1	\$130.00	T1	\$ 100.00
E2	\$150.00	T2	\$ 115.00
E3	\$180.00	T3	\$ 135.00
E4	\$215.00	T4	\$ 145.00
E5	\$240.00	T5	\$ 165.00
E6	\$265.00	T6	\$ 185.00
E7	\$310.00	T7	\$ 205.00

Personnel Categories

The following categories, originally taken from the APEGGA “2007 Value of Professional Services” document, are intended as a guide to determining the hourly fee appropriate for a given staff member.

Personnel Categories	
The following categories are intended as a guide to determining the hourly fee appropriate for a given staff member.	
Professional Services	Authorized Responsibilities
E1 Engineer in Training or Members in Training	Engineer in Training or Members in Training
E2 Assistant Project Engineer	Engineering or geoscience assignments of limited scope and complexity. Work supervised in detail may give guidance to members-in-training, technicians, technologists, Contractor employees, etc.
E3 Project Engineer	Independently puts out responsible and varied engineering or geoscience assignments. Work not generally supervised in detail. May give guidance to 1 or 2 other engineers or geoscientists but supervision of other engineers or geoscientists is not usually a continuing responsibility.
E4 Supervisory Engineer	First level of direct and sustained supervision over engineers or geoscientist
E4 Specialist Engineer	First level of full specialization in complex engineering applications (research, design, product application, sales, etc)
E5 Management Engineer	Has authority over supervisory engineers or geoscientists or a large group containing both professionals and non-professionals
E5 Advanced Specialist Engineer	In addition to specialization, generally exercise authority over a group of highly qualified professionals engaged in complex engineering applications
E6 Senior Management Engineer	Has authority over several related professional groups in different fields, each under a management engineer or geoscientist
E7 Senior Specialist Engineer	Recognized authority in a field of major importance and generally exercises authority over a group of highly qualified professionals engaged in complex engineering applications

Technical Services	Authorized Responsibilities
T1 Technician	Under close supervision carried out straightforward duties such as preparing uncompleted or repetitive drawing, maintaining drawing files and assisting with field survey. Little independent judgment required. Acts according to standardized procedures. No previous experience required
T2 Technician/Technologist	Under close supervision supports engineering personnel in field, design and/or ACAD drafting. Performs clearly defined, straightforward tasks. Acts according to standardized procedures. Carries out straightforward computational work using standard accept formulae and manuals
T3 Technician/Technologist	Under direct supervision supports engineering personnel in field, design, drawing production and/or construction specifications and quality control. Performs variety of defined assignments with some independent judgment required. May provide technical advice to less experienced technicians / technologist in same area of specialty
T4 Technician/Technologist	Under minimal supervision carries out design tasks and/or complex ACAD assignments and/or performs field quality control functions. Analyzes, provides recommendations and makes decisions with regard to technical problems encountered. May provide technical advice or supervise the daily activity of all lower level technical staff with regard to processes and procedures. Verifies accuracy and adequacy of their work
T5 Technician/Technologist	Supervises directly or indirectly the work of junior personnel while at the same time undertaking project related functions on a continual basis. May function as "Lead CAD" on projects in support of the Project Manager. Prepares production and progress reports as required. Assists the Project Manager in determining personnel and man-hour requirements. Reviews and verifies accuracy of work carried out by others
T6 Technician/Technologist	Independently manages design functions on projects. Supervises the activities of other staff in execution of projects. Assists in recruitment and management of personnel as required. May assume role of Project Manager on projects. Technologists may take technical responsibility for projects within the limits of the approved scope of practice. Assists with marketing
T7 Technician/Technologist	Independently represents the company with clients on an ongoing basis. Manages and supervises staff on a continual basis. Manages major projects. Responsible for identifying and pursuing market opportunities in area of specialization. Technologists may take technical responsibility for projects within the limits of the approved scope of practice. Responsible for assisting in recruitment, career reviews and salary reviews for staff under their direct supervision. Typical role is that of Group Manager or Discipline Lead

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4.3 Scale 2 - Percentage of Cost of Construction

This scale is suggested for Categories III and IV, where the cost of construction and/or installation arises from the engineering services performed. It does not cover services performed under Category I or Category II for preliminary investigation to establish requirements for design, nor does it cover items such as public communication programs or meetings, the preparation of shop drawings, or drawings of record, reinforcing steel schedules and bills of material, professional services in subsurface investigations and in the inspection and testing of materials, registered land surveys, commissioning of systems or processes, assistance in the operation of a plant or process, or the supplying of reproductions of drawings.

Of the fee charged, 80% shall be attributable to design (Category III), and 20% to the general engineering services during construction (Category IV).

The following scale of fees does not include rates for services on buildings whether contained within civil or municipal engineering projects or otherwise, unless the cost of the building is incidental to the total cost of the project (for example, the design of a building envelope). If the building is itself an engineering work, then the professional member should use the guidelines set forth in the "Companion Document" – Schedule of Recommended Fees to be Charged for Specialized Engineering Projects and Services in the Building Field.

TABLE 1 - PROJECTS OF AVERAGE COMPLEXITY

Less than \$0.4 M	Use Scale 1 (M = 1 million dollars)
0.5M – 1.0M	\$ 45,000 on first 0.5M + 7.0% on remainder
1.0M – 2.0M	\$ 77,000 on first 1.0M + 6.0% on remainder
2.0M – 3.5M	\$140,000 on first 2.0M + 5.5% on remainder
3.5M – 7.0M	\$219,000 on first 3.5M + 5.3% on remainder
7.0M – 10.0M	\$405,000 on first 7.0M + 5.1% on remainder
10.0M – 15.0M	\$555,000 on first 10.0M + 4.9% on remainder
15.0M – 20.0M	\$809,000 on first 15.0M + 4.7% on remainder
20.0M – 30.0M	\$1,050,000 on first 20.0M + 4.6% on remainder
Over 30.0M	\$1,510,000 on first 30.0M + 4.5% on remainder

Examples of typical projects of average complexity are:

- Airport facilities other than buildings
- Aqueducts and canals
- Bridges and other structures of conventional design, including infrastructure renewal
- Commercial and industrial parks
- Conventional levees, flood walls and retaining walls
- Irrigation works, except pumping plants
- Outdoor recreational facilities
- Railways, roads and streets
- Reservoirs, tanks, and small dams
- Sanitary sewers 600 mm and larger and sewer and water tunnels (free-air)
- Simple waterfront facilities
- Storm water retention/detention facilities, storm sewers and drains in new subdivisions
- Water distribution lines 400 mm and larger in diameter
- Reservoir analysis for defined petroleum and natural gas pools
- Geoscience services, including geophysical, geochemical surveys, and geological mapping

TABLE 2 - PROJECTS OF ABOVE AVERAGE COMPLEXITY

Less than \$0.4M	use Scale 1 (M = one million dollars)
0.5M – 1.0M	\$ 50,000 on first 0.5M + 9.0% on remainder
1.0M – 2.0M	\$ 94,000 on first 1.0M + 7.5% on remainder
2.0M – 3.5M	\$172,000 on first 2.0M + 6.5% on remainder
3.5M – 7.0M	\$265,000 on first 3.5M + 6.3% on remainder
7.0M – 10.0M	\$485,000 on first 7.0M + 6.1% on remainder
10.0M – 15.0M	\$665,000 on first 10.0M + 5.9% on remainder
15.0M – 20.0M	\$970,000 on first 15.0M + 5.7% on remainder
20.0M – 30.0M	\$1,262,000 on first 20.0M + 5.6% on remainder
Over 30.0M	\$1,822,000 on first 30.0M + 5.5% on remainder

Examples of projects of above average complexity are:

- Additions to or reconstruction of projects
- Bridges which are asymmetric or are otherwise complicated
- Complicated waterfront and marine terminal facilities
- Compressor and pumping stations

- Power plants and electrical sub-stations
- Foundations
- Elimination of grade crossings
- Highway and railway tunnels
- Highways and urban and suburban arterial streets
- Incinerators and waste disposal sites
- Intercepting and relief sewers
- Large dams or complicated small dams
- Light rail transit
- Refineries and petrochemical plants
- Industrial/Agricultural processing plants
- SCADA systems
- Resource exploration, exploitation, and evaluation drilling programs
- Reservoir analysis of several pools, and/or regional hydro-geological investigations
- Sanitary sewer lines under 600 mm in diameter
- Sewer and water tunnels including storage
- Water distribution lines under 400 mm in diameter
- Water, waste water, and industrial waste treatment plants
- Bio-engineering systems
- Software design and modification

5. SPECIAL SERVICES AND CONDITIONS

Special services and conditions are those that are not part of an existing agreement, but which may arise during the undertaking of a project due to unavoidable and unpredictable circumstances. It is important that for all special services and conditions, the Consultant and Client should mutually determine the appropriate fee basis to be used.

The following statements reflect the general principle that the Time Basis should be used in circumstances where the scope of the assignment is not well defined. In circumstances where the amount of work involved in the service can be accurately predicted, both Consultant and Client may agree that billing on a “Fixed Fee” basis is appropriate.

5.1 Drawings of Record and Post-Construction Services

If Drawings of Record are required, the Consultant shall be reimbursed for such drawings on Scale 1, or at a negotiated fee according to the project requirements and the written agreement.

5.2 Abandonment of Project

If the project or a portion of the project is abandoned or suspended through no fault of the Consultant, except in the case where tenders are received, the Consultant shall receive fees as determined under Scale 1, i.e. on a time basis. Where tender prices have been received, the fee may be based on Scale 1 (Time Basis), or Scale 2 (Percentage of Cost of Construction) applied to the lowest *bona fide* tender. The intent of this payment schedule is to enable the Consultant to recover costs associated with efforts expended to date. The fee should include an appropriate allowance for costs resulting from the suspension, and the compensation should be mutually agreeable to both Client and Consultant.

5.3 Re-Use of Design, Plans, Specifications, and Reports

In general, the design, plans, specifications, or report prepared by the Consultant, who is a professional engineer or professional geoscientist are intended for one project only, except in the case of projects, studies and reports that are undertaken on behalf of a number of clients, with their knowledge and consent.

In determining the situation concerning the re-use of plans, specifications, and reports, the Consultant should recognize that three distinct circumstances are recognized:

- The re-use by a client on another project (in a circumstance in which the professional member is not involved), which must have the permission of the professional member and/or holder of the Certificate of Authorization;
- The re-use by a client on another project (in a circumstance in which the professional member is involved), which calls for a reduced fee; and
- The re-use by the professional member for another client, which must have the permission of the Client, failing which, it would be considered unethical.

In the third case - i.e. the re-use of material by the Consultant for a project undertaken for a client that is not the original client - it is very important for the Consultant to negotiate with the Client the terms of re-

use so that the written agreement between the Consultant and Client provides clear instructions that such re-use is permissible.

It must be recognized that the work done for one client builds the knowledge base of the professional member and that designs, reports, plans, etc., may be similar. However, circumstances would suggest that they would not be identical and would have to be revised so as to be specific to the needs of the next client. This means that if the Consultant undertakes a project requiring the use, adaptation and/or correction of plans and specifications from a previously designed project for a similar or identical project for the same client on a different site and location, remuneration for such services is justifiable. This remuneration shall be based on a recommended royalty fee of two percent (2%) of the new Cost of Construction plus additional fees based on payroll cost times a factor as laid out in Scale 1 for all work required to adapt the plans and specifications. Notwithstanding the above, it must be recognized that a Consultant will, during the course of his or her career, accumulate knowledge based upon previous projects and that in many cases, this accumulation may not be attributable to any one particular client.

Furthermore, if general engineering or geoscience services during construction are required on a project where there has been re-use of plans and specifications, the fee charged shall be **twenty percent (20%)** of the recommended fee for full services as defined in this schedule, where these services are being provided by the original designing Consultant.

All disbursements and expenses incurred in the performance of these services shall be charged for in accordance with Section 5.

5.4 Renovation Work

Renovation work of a complex nature may be carried out under Scale 1. If renovation work is being done under scale 2 then the percentage of cost of construction shall be multiplied by 1.4.

5.5 Alternative Designs

“Design” means not only works of engineering, but also works of geoscience, including, but not limited to, the planning, design, and organization of field projects such as mapping, drilling, geophysical surveys, etc.

Whenever a client requires the Consultant to prepare complete designs or plans of one or more alternative methods of construction, installation, or field project for the purpose of tendering, the fee for the project shall consist of the normal fee as taken from this schedule based on the tender price of the accepted alternative plus charges as laid out in Scale 1, for all work required to prepare the alternative designs or plans.

5.6 Delay

When the completion of either a work of construction (engineering) or a field project (geoscience), is delayed beyond the completion date stated in the contract or agreement between Client and Consultant, and when the Consultant is retained on the basis of Scale 2, then the Consultant shall be reimbursed on the basis of Scale 1 for the extra services provided. In the event of a “force majeure”, then it is reasonable for the Consultant to charge a “standby” charge that is negotiated beforehand between the Client and Consultant and documented in the written agreement.

In the case of field projects that are delayed due to operational circumstances, it is important for the Consultant to negotiate any relevant standby charges with the Client prior to the commencement of the project. In the case of service provided in a remote location, the Consultant is justified in charging a standby fee in the event of delay, since it is not possible for the Consultant to undertake other work during the period of delay. In such cases, it is recommended that the standby fee be determined on the Time Basis, or on such other basis mutually agreeable to both Client and Consultant.

5.7 Extra Work Beyond Scope of Agreement

Service required beyond the agreed scope of an agreement, regardless of the original basis of fee, should be negotiated on a Time Basis, or on such other basis as mutually agreeable to both Client and Consultant. The increase in scope may be the result of changes recommended by the Consultant, or it may be the result of changes in the requirements of the Client.

5.8 Cost Plus Contracts

Where the work or a part of the work is executed on any “cost plus” basis, and the Consultant's burden is thereby increased, the charges shall be increased. This increase may be two percent (2%) of the cost of the work.

5.9 Separate Contracts

If the work or any part of the work is let under separate contracts, the Consultant's fee (Scale 2) shall be increased in proportion to the additional services provided and this increase may be two percent (2%) of the cost of the work under the separate contract.

5.10 Project Services When Performed By Someone Other Than The Original Consultant

In most cases the Consultant responsible for the planning of a project (Category I, II and III) would be retained to provide coordination, supervision, administration services, and reporting during the project. In circumstances where a Consultant is retained to perform services (Category IV) on a project for which others prepared the specifications, or others initiated the work, the Consultant's unfamiliarity with the project should be taken into account in the fee negotiation process. It is recommended that the fee be on a Time Basis.

5.11 Project Services When Performed By Someone Other Than A Professional Member

In circumstances where someone other than a professional member performs project services, for example, a technologist or technician, a **salary plus cost-plus factor** as agreed to by the Client and the Consultant should be used.

5.12 Travel Time And Remote Location Charge

Payment for travel time should be negotiated, taking into account the variations in circumstances from one project to another, and be included in the agreement.

Where projects are carried out in a remote/isolated location accommodation should be made to allow services that comply with the professional standards required by *The Engineering and Geoscience Professions Act* and standard business practices, as mutually agreed to by the Client and Consultant. Because the Consultant is required to live onsite, in most cases, it may be more appropriate to negotiate a “day rate”, i.e. a fixed daily fee for being on location for the entire 24-hour period of the day. If one is not required to live onsite, then Scale 1 is appropriate.

Consultants who work in the field often provide their own transportation in the form of a car, truck, or ATV. The Client must consider use of such a vehicle as part of the service provided by the Consultant, and must compensate the Consultant for the use of such a vehicle on the job site. It is appropriate for the Consultant to charge for such a vehicle at a rate that reflects the TOTAL cost of the providing the vehicle. Typically such rates would include the fixed costs for such a vehicle (i.e., capital cost allowance, insurance, license and registration and other applicable fixed costs) and a variable cost to account for operational costs (fuel, maintenance, and consumables, such as tires). The Consultant agreement can indicate payment to reflect the total cost of providing the vehicle will be made on a unit basis such as per kilometer, per diem, per month, etc.

The same principle applies when the professional engineer or professional geoscientist supplies communication devices, such as a cellular telephone. Again, it is appropriate for the Consultant to charge a per-diem, or per month charge to reflect the total cost of providing the equipment. Examples are: for cellular telephones, the cost of air time, maintenance, and eventual replacement cost; for specialty items such as computers, the total cost of providing such equipment.

5.13 Remuneration in Stock Options and Property Royalties

One common method to pay for a geoscientist’s services on a mineral or petroleum exploration project is to pay either a stock option, net smelter interest, or gross over-riding royalty on any minerals, petroleum, or natural gas derived from successful exploration and development activities. This is specifically the case if the project is the identification of an exploration prospect or “play”. In most cases, the geoscientist has taken the initiative in identifying the opportunity, undertaking the required technical work to validate the opportunity, and spent time and money in finding a company to undertake the required exploration.

In such a circumstance it is critical for the geoscientist to clearly indicate to clients, third party reviewers, and investors in the opportunity that such remuneration in the form of a stock option or royalty has occurred, and that the geoscientist is in a conflict of interest with respect to providing independent advisement or judgment pertaining to technical and economic aspects of the opportunity. In particular, National Instrument 43-101 (Mineral Properties) and National Instrument 51-101 (Oil and Natural Gas Properties) are very clear as to such conflicts of interest; for instance, a geoscientist who holds such an interest may not be considered a “Qualified Person” or write a “Qualifying Report”.

The Association of Consulting Engineering Companies - Saskatchewan takes the position that while remuneration in the form of stock options or property interests is acceptable, such payment removes the independence of the professional member, and such professional member must declare such a payment as a conflict of interest with respect to providing a professional opinion to reviewers and investors.

5.14 Progress Payment of Fee

Payment is due on date of invoice without holdback and is overdue thirty (30) days thereafter. Interest shall be charged on overdue accounts at normal business rates (typically eighteen percent [18%] per annum or the rates charged on overdue bank credit card balances). In the event of an overdue account service may be discontinued without liability on the part of the Consultant for consequential delay or loss. Costs of litigation or collection services required to obtain payment, if needed, are for the Client's account. Late payment of fees by the Client may also warrant the Consultant charging higher fees, especially if there is a substantial risk that the fees may not be paid.

Where amounts are disputed, the Client's account shall not be considered overdue if the Client has placed the disputed amount in trust to be released to the successful disputant after negotiation, litigation, or arbitration.

When the Consultant is engaged for services on Scale 1, unless otherwise agreed prior to the date of assignment, the Consultant shall present invoices monthly.

When the Consultant is engaged for services on Scale 2, the Consultant shall present invoices for the completed phases of the Consultant's assignment according to the following schedule:

RECOMMENDED PAYMENT SCHEDULE FOR TYPICAL CONSTRUCTION PROJECTS

Phase	Percentage of Fee (%)	Cumulative Fee (%)
Schematic design or conceptual planning phase	12.5	12.5
Preliminary design / planning phase	17.5	30.0
Upon completion of approximately 75% of the Contract	32.5	62.5
Contract documents / report	12.5	75.0
Tender period services	5.0	80.0
Construction of phase services	20.0	100.0

RECOMMENDED PAYMENT SCHEDULE FOR REPORTS

Phase	Percentage of Fee (%)	Cumulative Fee (%)
Schematic design or conceptual planning phase	12.5	12.5
Preliminary design / planning phase	17.5	30.0
Upon completion of approximately 75% of the Project	35.0	65.0
Project preliminary report	20.0	85.0
Project final report	15.0	100.0

If the Consultant is providing the service on a fixed cost basis, then it is recommended that either of the two payment schedules may be applicable. The Payment Schedule For Reports may be more appropriate for geoscience projects.

5.15 “Design / Build”

“Design / Build” is defined as a project where the Consultant is retained by a Contractor who provides a completed project to the Client (owner). These ventures include unique contract and financial arrangements. The fees payable to the Consultant are dependent on the specific arrangements between the Consultant and the Contractor.

5.16 “Public Private Partnership (P3)”

“P3” describes a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. These ventures include unique contract and financial arrangements. The fees payable to the Consultant are dependent on the specific arrangements of the partnership.

6. DISBURSEMENTS

The following items usually are not part of overhead cost of Professional Services and thus are treated as disbursements. Unless otherwise agreed between the Consultant and the Client, disbursements incurred by the Consultant in completing an assignment are properly chargeable to the Client.

The cost of all disbursements shall be increased by not less than five percent (5%) to cover office services and cost of handling, and shall be applicable to the following items:

1. Reproduction of drawings and documents for tender and construction purposes, except those required by the Contract Agreement;
2. Travel expenses, including the cost of rotation of personnel on a timely basis (where applicable);
3. Communications expenses, including facsimile messages, long distance telephone calls, cellular telephone charges, pager and Internet connections;
4. Living expenses for personnel where authorized by the Client;
5. Advertising for Tenders on the Client's behalf;
6. Use of special Consultants or sub-Consultants as approved by the Client;
7. Use of specialized equipment not included in normal overhead costs as detailed in the agreement;
8. Data and digital information, specialized software and licensing, customized software and application development, as stated in the Client Agreement;
9. Digital storage media and reproduction costs, including CD-ROM, DVD, and digital tape;
10. Use of computer services, when Scale 1 is in use;
11. Any other proper expense paid out by the Consultant on the Client's behalf, and not specifically named as covered by the normal fee;
12. Messenger and courier services;
13. Other similar expenses for items consumed on a project such as testing materials, survey stakes, etc.

Any increase from 5% is a matter of negotiation between Client and Consultant and will depend upon additional circumstances, such as total amount of disbursements, above-average accounting requirements, etc.