

CORPORATION OF THE VILLAGE OF COBDEN

By-Law Number 1989-4

BEING a by-law to authorize the upgrading and operation of a sewage works system pursuant to Section 210, paragraph 51 of the Municipal Act, R.S.O. 1980. chapter 302, as amended, and Part 1 of the Public Utilities Act R.S.O. 1980 Chapter 423 as amended.


WHEREAS, the Council of the Corporation of the Village of Cobden deems it necessary and in the public's interest that the sewage system be upgraded and operated to service the Village,

AND WHEREAS, the engineering studies and professional opinion have been obtained with respect to the necessity, utilization, design criteria and related matters with respect to the said project,

NOW THEREFORE, the Council of the Corporation of the Village of Cobden enacts as follows:

1. THAT the upgrading and operation of a sewage works system, as described in Schedule "A" attached hereto, be hereby authorized.
2. THAT the plans, studies, engineering and design criteria and construction proposal of such system be approved.
3. THAT the construction of the said system shall be carried out under the supervision of the Ministry of the Environment.
4. THAT the Corporation of the village of Cobden, by resolution, accept the tender or tenders of a person or persons, firm or firms, corporation or corporations as may be acceptable by council and authorizes the Reeve and Clerk to enter into and execute contracts on behalf of the Corporation before any construction is carried out, based on such tenders.
5. THAT the debentures of \$ 405,000 to be issued for the loan to be effected to pay for the cost of the system when completed shall bear interest at such rate as council may determine and the debentures shall be payable over a period not exceeding 20 years.
6. THAT the estimated cost of the system is described in Schedule "A" attached hereto.
7. THIS by-law shall not take effect until the approval of the Ontario Municipal Board is obtained.

READ a first, second, and passed upon the third reading this 20th day of January 1989.

  
REEVE

  
CLERK-TREASURER



## 7. RECOMMENDED IMPROVEMENTS AND ESTIMATED COST

### 7.1. General

Schedule "A"

Recommendations to improve the Village sewage collection system are shown on the Proposed Sanitary and Storm Sewer Improvement Plans with proposed phasing. A brief description of the work is described below with estimated capital costs. As well, the recommendations are phased and listed in order of priority.

### 7.2. Sanitary Sewer Improvements

#### Phase I (1989):

1. Provide a 250mm (10 inch) diameter sanitary sewer on:
  - Boundary Road from 25m southwest of Bonnechere Street to Pembroke Street
  - Pembroke Street from Boundary Road to 35m northward from Boundary Road to existing manhole in front of Laundromat.

Provide service connections on Pembroke Street

2. Provide 250mm diameter sanitary sewer on:
  - Dixon Street from Meadow Street to unnamed Right-of-Way (R.O.W.)
  - unnamed R.O.W. from Dixon Street to Gould Street
  - Gould Street from unnamed R.O.W. to Jason Street
  - Jason Street from Gould Street to Crawford Street
  - Crawford Street from Jason Street to Bromley Street
  - Bromley Street from Crawford Street to Simpson Street
3. Provide a 200mm (8 inch) diameter sanitary sewer on:
  - Crawford Street from Bromley Street to Main Street
  - Main Street from 115m southwest of Ross Street to 260m southwest of Ross Street
4. Provide a 3.5 L/s (46 Igpm) sewage pumping station on Morton Street 65m west of John Street

Subtotal:

\$719,000.00

Phase II (1990):

1. Provide 250mm diameter sanitary sewer on:
  - Bromley Street from Simpson Street to John Street
  - John Street from Bromley Street to Morton Street
  - Morton Street from John Street to 65m west of John Street
  
2. Provide 200mm diameter sanitary sewer on:
  - Main Street from Crawford Street to 70m west of Crawford Street
  - Main Street from 70m east of John Street to 110m east of Ross Street

Subtotal:

\$279,000.00

Phase III (1991):

1. Provide a 200mm diameter sanitary sewer on:
  - Dixon Street from 70m southwest of Pembroke Street to 145m southwest of Pembroke Street
  - Jason Street from Crawford Street to Simpson Street
  - Gould Street from Main Street to 110m north of Main Street
  - Morton Street from Crawford Street to John Street

Subtotal:

\$180,000.00

Phase IV (1992):

1. Provide a 200mm diameter sanitary sewer on:
  - Main Street from Bonnechere Street to 60m southwest of Bonnechere Street
  - Bonnechere Street from Main Street to Boundary Road
  - Muskrat Street from Bonnechere Street to 60m southwest of Bonnechere Street

Provide a 1.4 L/s (18 Igpm) sewage pumping station on Bonnechere Street at Boundary Road, with a 100mm diameter forcemain on Boundary Road from Bonnechere Street to 25m southwest of Bonnechere Street

2. Provide a 200mm diameter sanitary sewer on Gould Street from Cowley Street to 185m north of Gould Street

3. Provide a 0.3 L/s (4 Igpm) sewage pumping station on Cowley Street, 75m northeast of Pembroke Street and 100mm diameter forcemain from Pembroke Street to 75m northeast of Pembroke Street

Subtotal: \$406,000.00

TOTAL ESTIMATED SANITARY SEWER CAPITAL COST: \$1,584,000.00

### 7.3. Storm Sewer Improvements

#### Phase I (1989):

1. Provide two 1000mm diameter culverts on Bonnechere Street 43m northwest of Boundary Road and improve existing ditch
2. Provide a 1050mm diameter storm sewer on Meadow Street from 90m west of Pembroke Street to Dixon Street and improve existing ditch
3. Provide a 900mm diameter storm sewer on Dixon Street from Meadow Street to the unnamed R.O.W.
4. Provide a 750mm diameter storm sewer on the unnamed R.O.W. from Dixon Street to Gould
5. Provide a 380mm diameter storm sewer on Gould Street from Main Street to unnamed R.O.W.
6. Provide a 680mm diameter storm sewer on:
  - Gould Street from unnamed R.O.W. to Jason Street
  - Jason Street from Gould Street to Crawford Street
  - Crawford Street from Bromley Street to Jason Street
  - Bromley Street from Crawford Street to Simpson Street
7. Provide a 450mm diameter storm sewer on Crawford Street from Main Street to Bromley Street
8. Provide a 300mm diameter culvert on Ross Street 110m north of Archibald Street

Subtotal: \$507,000.00

Phase II (1990):

1. Provide a 680mm diameter storm sewer on Bromley Street from Simpson Street to John Street
2. Provide a 600mm diameter storm sewer on John Street from Bromley Street to Main Street
3. Provide a 380mm diameter storm sewer on John Street from Main Street to Morton Street
4. Provide a 530mm diameter storm sewer on Main Street from John Street to the east limit of the C.P.R. R.O.W.
5. Provide a 300mm diameter storm sewer on:
  - Morton Street from John Street to 75m west of John Street
  - Main Street from the east limit of the C.P.R. R.O.W. to 122m west of the east limit of the C.P.R. R.O.W.
  - the easement from Main Street to Morton Street

Subtotal:

\$292,000.00

Phase III (1991):

1. Provide a 300mm diameter storm sewer on:
  - Dixon Street from Pembroke Street to 77m southwest of Pembroke Street
  - Dixon Street from Meadow Street to Boundary Road
  - Boundary Road from Dixon Street to 105m southwest of Dixon Street
  - Gould Street from Main Street to 110m north of Main Street
  - on Gould Street from Meadow Street to 85m north of Meadow Street
  - Crawford Street from Cowley Street to Main Street
  - Morton Street from Crawford Street to 110m west of Crawford Street
  - Simpson Street from Jason Street to 100m west of Jason Street

2. Provide a 380mm diameter storm sewer on:
  - Crawford Street from Main Street to Morton Street
  - Jason Street from Crawford Street to Simpson Street

Subtotal: \$281,000.00

Phase IV (1992):

1. Provide a 300mm diameter storm sewer on:
  - Cowley Street from Pembroke Street to Gould Street
  - Gould Street from Cowley Street to 40m south of Cowley Street

Subtotal: \$36,000.00

TOTAL ESTIMATED STORM SEWER CAPITAL COST: \$1,116,000.00

7.4 Total Project Cost Summary

Total Estimated Sanitary Sewer Capital Cost: \$1,584,000.00

Total Estimated Storm Sewer Capital Cost: \$1,116,000.00

Total Estimated Project Capital Costs: \$2,700,000.00  
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PROJECT NO. 3-0773.....

DATE *April 11, 1989*.....

**SCHEDULE "A" TO BY-LAW # 1989-4**

**AGREEMENT FOR ENGINEERING SERVICES**

**BETWEEN**

**THE CORPORATION OF THE**

VILLAGE OF COBDEN

**AND**

GREER GALLOWAY & ASSOCIATES LIMITED

**CONSULTING ENGINEER**

**COVERING**

**DESIGN AND SUPERVISION OF CONSTRUCTION**

**OF**

SEWER SYSTEM IMPROVEMENTS

IN THE VILLAGE OF COBDEN

**PROJECT ENGINEERING BRANCH**

Project No. 3-0773

THIS AGREEMENT, made in triplicate, this 11<sup>th</sup> day of April One Thousand Nine Hundred and Eighty

B E T W E E N: THE CORPORATION OF THE VILLAGE OF COBDEN hereinafter called the "Employer"

OF THE FIRST PART

- and -

GREER GALLOWAY & ASSOCIATES LTD. hereinafter called the "Consulting Engineer"

OF THE SECOND PART

WHEREAS the Employer proposes to proceed with the works described below (hereinafter referred to as the "works")

Part	Description	Estimated Cost \$	Classi- fication (BASIC or COMPLEX)
	Sewer System improvements	\$2,700,000	Basic
	together with all related appurtenances located in the Village of Cobden at a total estimated cost for construction of	\$2,700,000	

and agrees to pay to the Consulting Engineer for professional services in relation thereto fees in accordance with the schedules, classifications and other provisions hereof and



WHEREAS the Consulting Engineer has agreed to perform the professional services for and in connection with the works at the fees therefor and upon the terms and conditions as herein set forth,

NOW THEREFORE THIS AGREEMENT WITNESSETH that the Employer and the Consulting Engineer hereby mutually covenant and agree as follows:

DUTIES OF  
CONSULTING  
ENGINEER

1. That the Consulting Engineer will supply to the satisfaction of the Employer the following in accordance with the Terms of Reference set out in Appendix "A" hereto:
  - (a) A general description of the recommended works and an estimate of the cost therefor taking into account the financial capabilities and the future needs of the Municipality and incorporating such other requirements as the Employer may direct, if the Consulting Engineer has not previously furnished such description and estimate to the Employer or if previously furnished information is out-of-date.
  - (b) All incidental services necessary for the preparation of complete and comprehensive design calculations, plans, specifications and other documents for the works and will supply the said documents in such quantities as may be required by the Employer. The Employer may require the Consulting Engineer to submit preliminary copies of such documents during the design period.
  - (c) A "Property Report" relating to all property, easements, crossings, permits and other rights or interests necessary for the construction, maintenance and operation of the works including relevant plans, estimated values and other information that may be of value. This report shall be submitted to the Employer well in advance of calling for tenders.
  - (d) A written recommendation on and an estimate of the cost of site investigations, boreholes and soil tests that are considered to be necessary followed, after a site investigation report has been obtained from a soil engineering consultant, by a letter giving the Consulting Engineer's comments on the report and stating what action he has taken in designing the works and what action he proposes during the construction of the works to implement the recommendations of the report and to avoid or to deal with any anticipated problems due to ground conditions.
  - (e) A report, substantiated by photographs and if necessary by samples, describing the nature, extent and condition at the date of tendering of roads, driveways, sidewalks, shoulders, grass verges,

ditches, drains, fences, walls, trees, bushes, lawns, and other things through or adjacent to which the works will be constructed. Should any significant changes take place at or adjacent to the site of the proposed works between the period of tendering and the commencement of construction, the relevant information shall be noted and reported to the Employer.

- (f) All material including completed applications, drawings and information required for or in connection with all approvals, licences, rulings, permits, permissions, authorities, agreements and privileges, the obtaining of which is not the responsibility of a contractor of the Employer, required for the construction, financing or putting into operation of the works. The Consulting Engineer shall ascertain what approvals etc., are required for the works, shall advise the Employer thereof, shall prepare the necessary material therefor, and, if required by the Employer, shall make application on behalf of the Employer.
- (g) All necessary resident field engineers and inspectors to supervise fully the construction and, if required by the Employer, the maintenance or rectification of the works, unless otherwise provided herein.
- (h) A flow diagram in the case of water or sewage treatment plants and lift stations in sufficient detail to show flows, pipe sizes, valves, by-passes etc., and any future extensions proposed. This flow diagram is to be included in the drawings submitted to the Employer before the Tender call.
- (i) Copies of all correspondence relating to the project between the Consulting Engineer, the contractor and others, including the Soils Engineering Company.
- (j)
  - (1) Monthly reports of the progress of the works accompanied by construction progress charts, estimates of the value of the work performed during the month and progress payment certificates in respect of each contract relating to the works, all within five days after the end of such month.
  - (2) Weekly reports of sewer and watermain construction within 5 days after the end of each week.
- (k) Photographs of the works taken during the period of construction of the works in accordance with the

requirements set out in the Ministry of the Environment's "Information for Consulting Engineers" manual.

- (l) Change orders recommended by the Consulting Engineer for approval by the Employer containing or accompanied by explanations and details of quantities and unit prices and prepared in accordance with the instructions on the Ministry's Change Order form.
- (m) Documents for the purpose of obtaining quotations from suppliers for materials, equipment or services required for the works. Such documents shall be prepared and the quotations shall be obtained, reviewed and submitted by the Consulting Engineer in accordance with the directions and procedures set out in the Ministry's "Information for Consulting Engineers" manual.
- (n) A complete set of as-constructed drawings of the works, drawn or printed on approved material from which clear prints may readily be obtained, upon completion of the works. If the works are carried out in parts, the Employer may require the as-constructed drawings of any part to be furnished upon completion of construction of such part. As-constructed drawings shall be complete in all respects and shall fulfill the requirements set out in the Ministry's "Information for Consulting Engineers" manual. Unless otherwise instructed by the Employer, the Consulting Engineer shall send to the Employer a set of as-constructed drawings for checking by the Employer. The Employer will have prints made at its expense for its records and will then return to the Consulting Engineer the original set.

When the Consulting Engineer has been retained to do the General Supervision, but not the Site Supervision, he shall be supplied with "marked-up" drawings for his use in preparing the "as-constructed" drawings.

- (o) The Works Diary for each contract of the project upon completion of construction of the works covered by such contract, if site supervision of construction is provided by the Consulting Engineer, compiled in accordance with the instructions contained in the Ministry's standard Works Diary.
- (p) Two sets of "Operating and Maintenance Instructions" for all equipment supplied or installed for the works, including drawings of such equipment, lubrication instructions and lists of replacement parts, all

as prepared and furnished by the equipment suppliers concerned, and any special instructions which in the opinion of the Consulting Engineer are necessary or desirable for the efficient operation of the works, all to be supplied to the Employer before the works are put into operation.

- (q) Two sets of all shop drawings, bearing the Consulting Engineer's approval or review stamp, issued for the works, to be supplied to the Employer on completion of the works or at such other time as the Employer may require.
- (r) Detailed written reports in a form approved by the Director of Project Engineering on all tests required by all contracts relating to the works and on any further tests or inspection of the works which the Employer may require.
- (s) A report on the construction of the works in general accompanying the Certificate of Substantial Performance for each contract and giving the Consulting Engineer's opinion on the performance and general quality of workmanship of the contractor and the main sub-contractors, difficulties encountered during construction, possible difficulties that may arise because of ground or other conditions, points on which careful observation or frequent inspections should be made and other items of interest.
- (t) A detailed final measurement of the works constructed under each contract relating to the works on the Ministry's "FINAL MEASUREMENT" forms.
- (u) A breakdown of the cost of the various parts of the works in such manner and in such categories as the Employer may reasonably require for insurance or other purposes.
- (v) Such other information and assistance as may be required by the Employer for the preparation or the performance of any contract for the construction, maintenance or rectification of the works or with respect to any matters arising incidentally thereto, including all assistance required in any litigation arising out of the construction of the works and negotiations with municipal, provincial, federal and other authorities having jurisdiction in respect of any matter relating to the proposed works.
- (w) All information which, in the opinion of the Employer, is relevant to the design, construction, maintenance, rectification or operation of the works, which is in the possession of the Consulting Engineer, at the request of the Employer.

- (x) All equipment, apparel, accommodation (other than site accommodation) staff and assistance required to enable the Consulting Engineer to perform the services provided for by this Agreement at his expense except as hereinafter provided.
- (y) A covering letter accompanying the Final Certificate for each contract stating what inspections were made by the Consulting Engineer before preparing the Final Certificate and stating that the Consulting Engineer is satisfied that the works are in satisfactory condition and that the Contractor has fulfilled his obligations under the Contract.
- (z) Where the Ministry of the Environment acts as agent of the Employer for the duration of the Agreement the Consulting Engineer shall:
  - (a) submit all correspondence, reports, invoices, payment certificates, contract documents and drawings and submissions required under clauses 1(a) to 1(y) above to the Ministry for review;
  - (b) utilize Ministry of the Environment forms and documents in preparing contract documents and during the supervision of the construction.

INSURANCE

- 2. That the Consulting Engineer agrees to carry, in respect of all motor vehicles used by his staff in connection with the work, public liability and property damage insurance in an amount satisfactory to the Employer and agrees to furnish the Employer with evidence of such insurance upon request.

OTHER SERVICES

- 3. That where, in the opinion of the Employer, any of the following items or services are necessary for the design or construction of the works the Employer will authorize the provision of and will pay for:
  - (a) Site investigations, boreholes and soil tests by a specialist firm or company to ascertain sub-surface ground conditions at the site of the proposed works and the preparation of a report thereon by such firm or company.
  - (b) Ontario Land Surveyor services.
  - (c) Special inspection or testing services in the factory or field by a specialist firm or company.
  - (d) The fees payable to the issuing authorities in respect of the approvals, licences, rulings, permits, permissions, authorities, agreements and privileges referred to in Section 1(f) hereof.

The Consulting Engineer shall advise the Employer of the necessity or desirability of such items or services.

EFFECTIVE  
DATE OF  
AGREEMENT

4. That all obligations under this agreement shall be deemed to commence from the 10<sup>th</sup> day of May 1988.

AGENT OF  
THE EMPLOYER

5. (1) The Crown shall act as agent of the Employer for carrying out the agreement until the Consulting Engineer is notified in writing to the contrary.

(2) The Director of the Project Engineering Branch of the Ministry of the Environment or such other person or persons as he from time-to-time designates in writing for particular purposes of the contract, shall act for the Employer.

(3) If the Crown ceases to be the agent of the Employer, the Employer may, from time-to-time, by resolution designate a person or persons to act for the Employer for particular purposes under this contract.

PAYMENT

6. That the Consulting Engineer, having complied with the terms of this Agreement, will be paid by the Employer in the manner and at the times hereinafter set out:

(a) PRELIMINARY REPORT

The Consulting Engineer shall be paid for such report in accordance with Schedule "A" of Appendix "B" hereof. The Employer may credit a portion (to be agreed upon with the Consulting Engineer) of the fee payable for such report to the fee payable for the design of the works.

The Consulting Engineer shall submit with his account a detailed statement of the nature of the services performed by, the classification of, the salaries paid to and the time and dates worked by the personnel involved, the expenses incurred and such other information relating to the preparation of the report as the Employer may request.

(b) DESIGN

(1) Design Fee

For design a fee in accordance with the classifications shown on page 1 of this

Agreement and Schedule "B" or Schedule "C" of Appendix "B" hereto, whichever is applicable.

The Employer will determine the classification (i.e., "basic" or "complex") of the project or the parts of the project for the purpose of calculating fees and the Employer's decision shall be final.

If a project includes works in each classification the cost of the "Basic" works and the cost of the "Complex" works shall be considered separately in determining the applicable cost brackets in Schedule "B" or Schedule "C", whichever applies, of Appendix "B" hereto from which the percentage fees shall be derived.

When the Consulting Engineer has prepared preliminary drawings and specification notes and these have been approved by the Employer, the Consulting Engineer shall receive 10% of the percentage fee for design herein provided for based on the estimated cost of the works excluding any contingency allowances.

When the Consulting Engineer has completed the tender documents and the Employer has received tenders and the Consulting Engineer's report and recommendation thereon, the Employer will pay to the Consulting Engineer except as otherwise herein provided the full design fee based on the lowest tender received, or upon such other tender as the Employer may accept, excluding any contingency allowances, less any part of the design fee already paid as herein provided save that the design fee shall be based upon a sum not greater than the total shown on page 1 hereof except as otherwise provided hereinafter. Any additional design work by the Consulting Engineer that may become necessary to bring the cost of the works down to or closer to the said total shall be at the expense of the Consulting Engineer, unless otherwise approved in writing by the Employer.

The Employer shall, at the request of the Consulting Engineer, make interim payments during the period when design work is in progress, the amounts and frequency of such payments being at the discretion of the Employer.

If, after the Employer has received tenders, the work is not proceeded with, the payments provided for above shall be the total fees due to the Consulting Engineer.

If, after the design and tender documents have been completed to the satisfaction of the Employer, tenders are not called, the Consulting Engineer shall be paid a design fee based upon the total shown on page 1 hereof, subject to the following paragraph hereof.

If, in the opinion of the Employer, an unreasonably long period of time has elapsed, through no fault of the Consulting Engineer, between the date when the Employer was first notified of the total shown on page 1 hereof and the date when tenders were or could have been called, the Employer will, if required for design fee purposes, adjust the said total by applying such construction cost index or indices for such period of time as he considers reasonable and the total so adjusted shall then apply.

If, after the Employer has received tenders, the work is proceeded with then the fee for design shall be based upon the actual cost of the works and the design fee percentages provided for herein, and any adjustment in payments on this account shall be made within thirty days after the completion of the works to the satisfaction of the Employer.

For the purpose of calculating fees the actual cost of the works shall not be reduced on account of any subsidies received by the Employer, shall include the amounts of all extras and additions to and deductions from the contract or contracts but shall not include:

- (I) Cost of property or easements or any other interest or interests in land.
- (II) Cost of engineering services.
- (III) Cost of services paid for by the Employer under Sections 3(a) or 3(b) hereof unless in the opinion of the Director of Project Engineering the Consulting Engineer was required to carry out a substantial amount of work in relation to those services.



- (IV) Costs of services paid for by the Employer under Sections 3(c) or 3(d) hereof.
- (V) Administrative, engineering, legal or compensation costs incurred by the Employer.
- (VI) Cost of groundwater exploration, well development and test pumping supervised by the Employer.
- (VII) Sales taxes or other taxes in respect of which the Employer obtains refund or exemption.
- (VIII) Additional costs incurred by the Employer as a result of errors or negligence by the Consulting Engineer's staff.

If, at the request of the Employer, used materials or equipment and/or materials or equipment supplied by the Employer are incorporated into the works designed by the Consulting Engineer, the actual cost of the works may, for the purpose of calculating fees include the fair market price of such materials and/or equipment as if they were purchased new. The Employer may require that the Consulting Engineer obtain and submit to the Employer quotations to establish such fair market prices.

If, after the basic design of the works has been agreed to, changes in such basic design are ordered by the Employer, the Consulting Engineer shall be paid an additional fee on account thereof in accordance with Schedule "A" hereof, or on such other basis as may be agreed upon, except as otherwise provided for herein.

In claiming payment for design in accordance with Schedule "A" or Schedule "C" hereof the Consulting Engineer shall submit to the Employer with his account a detailed statement of the personnel involved, the classification of the personnel, the time worked, the expenses incurred and such other information as the Employer may require.

(2) Incidental Expenses

The cost of travelling, living and other approved incidental expenses (not already

claimed under Section 6(a) hereof) necessarily incurred by the Consulting Engineer in obtaining information at the site of the proposed works for use in preparing the material referred to in Sections 1(b), 1(c), 1(d), 1(e) and 1(f) hereof.

When claiming such incidental expenses the Consulting Engineer shall submit to the Employer detailed expense sheets, receipts and mileage records. Reimbursement for car mileage shall be at the rate paid by the Consulting Engineer to the staff involved subject to the maxima shown in section 6(g).

Whenever the Consulting Engineer submits an invoice or receipt to claim reimbursement of an expense incurred, such invoice or receipt shall be the original save that if the original is not available for submission, a copy will be accepted provided that it is endorsed "Certified that this invoice/receipt has not previously been submitted" and is signed by a responsible officer of the Consulting Engineer.

(3) Printing

For the actual costs to the Consulting Engineer of printing all documents in excess of 15 sets per contract required for approval purposes or for issuance to prospective tenderers and to contractors, sub-contractors or suppliers.

(The words "in excess of 15 sets per contract" shall be deleted when the documents are for works or parts of the works to which fee Schedules "A" or "C" of the Appendix hereto apply).

When claiming reimbursement for printing costs the Consulting Engineer shall submit to the Employer a list of the plans and other documents printed showing to whom they were issued accompanied by receipts relating to printing costs. Such costs may include the cost of stencils, paper, covers, binders, duplicating and reproduction but shall not include stenographic costs (except when payment for design is in accordance with Schedule "A" or Schedule "C" of Appendix "B").

(4) Computer Charges

The Consulting Engineer may utilize an electronic digital computer in carrying out the design of the works and may, where this Agreement provides for design to be paid for in accordance with Schedule "A" or Schedule "C" of Appendix "B" hereto, claim payment for or reimbursement of the cost of using the computer for such design provided that the basis of payment has previously been approved by the Employer for this project. If the Consulting Engineer proposes to utilize a computer service and claim payment as provided for above, he shall notify the Employer of the type of computer service proposed and the hourly rate to be charged therefor at the time he returns to the Employer this Agreement signed by him. Once the hourly rate has been approved by the Employer, no further approval of the computer rate is necessary for work done under this Agreement.

(c) GENERAL SUPERVISION

(1) Supervision Fee

The expressions "general supervision of construction" and "site supervision of construction" as used in this Agreement do not, and shall not be deemed to, imply any assumption by the Consulting Engineer of responsibility for the adequacy of construction methods selected or safety measures provided by any contractor or sub-contractor.

The fee for general supervision of construction of the works shall be on a time scale basis per Schedule "A" of Appendix "B" hereto.

The fee for general supervision shall become payable to the Consulting Engineer thirty days after the completion of the works to the satisfaction of the Employer and the receipt by the Employer to its satisfaction of the items listed in Section 1(h) to 1(w) hereof. The Employer shall make progress payments to the Consulting Engineer as work progresses, the amount and frequency of such payments being at the discretion of the Employer.

In claiming payment for general supervision the Consulting Engineer shall submit to the Employer with his account a detailed statement of the

personnel involved, the classification of and salaries paid to such personnel, the dates and time worked, the expenses incurred and such other information as the Employer may require.

Included in the work of general supervision, but without limiting the scope of such work, is the provision of an engineer or engineers from the staff of the Consulting Engineer's head office or permanent branch office for carrying out regular inspections of the works during the period of construction and for carrying out inspections of the works in relating to the preparation and checking of lists of deficiencies, the rectification of deficiencies, the issuance of completion certificates and the release of holdback monies.

(2) Incidental Expenses

The cost of travelling, living and other approved incidental expenses necessarily incurred on general supervision by staff from the Consulting Engineer's head office or established branch office for inspections or visits to the site of the works or for visits to any plant or factory as approved by the Employer where the Consulting Engineer is required to investigate, test or inspect materials or equipment, together with the cost of any long distance telephone calls and telecommunications required by the work.

When claiming such incidental expenses the Consulting Engineer shall submit to the Employer detailed expense sheets, receipts and records of distance travelled. Reimbursement for car travel shall be at the rate paid by the Consulting Engineer to the staff involved subject to maxima for southern areas and northern areas (the designation of areas being as decided by the Director of Project Engineering) as set out in Section 6(g) hereof.

(d) SITE SUPERVISION

(1) Supervision Fee

Where the Employer and the Consulting Engineer agree that at least one full time Resident Inspector or Resident Engineer is required, then all site supervision staff employed under this Agreement shall be paid for on the basis of payroll cost related to this project multiplied by a factor of 1.8 for periods of time in excess

of 2 months notwithstanding that some of the site supervision staff may be required only intermittently. For periods of time up to 2 months, a payroll factor of 2.0 shall be utilized.

Where the Employer and the Consulting Engineer agree that a full time Resident Inspector or Resident Engineer is not required, then the Consulting Engineer shall provide site supervision staff on an intermittent basis as necessary and all such staff shall be paid for on the basis of payroll cost related to this project multiplied by a factor of 2.0.

The resident staff provided by the Consulting Engineer shall be suitably qualified and experienced for the work involved and shall carry out supervision, inspection and the keeping of records of construction and, if required by the Employer, of rectification and maintenance of the work. Well before construction commences, the Consulting Engineer shall notify the Employer of the names, qualifications, experience and salaries of the proposed resident staff and where such staff will reside and shall submit an estimate of the total cost of site supervision for the project. The appointment of resident staff, their place of residence during the period of construction and the salaries to be paid shall be subject to the approval of the Employer. If increases or increments in salaries are proposed during the period of construction, the approval of the Employer shall first be obtained.

The supervision by the Consulting Engineer, with the prior approval of the Ministry, of field work referred to in Section 3(a) hereof and the field work carried out by the Consulting Engineer to obtain the information referred to in Section 1(e) hereof shall be paid for by the Employer on the basis provided for above for site supervision.

(2) Incidental Expenses

The cost of approved incidental expenses necessarily incurred by the Consulting Engineer's resident staff in the site supervision of the works and as approved. These incidental expenses may include the cost of films, developing and printing incurred in furnishing to the Employer the photographs required by Section 1(k) hereof.

When claiming such incidental expenses the Consulting Engineer shall submit to the Employer detailed expense sheets, receipts and records of distance travelled. Reimbursement for car travel shall be at the rate paid by the Consulting Engineer to the staff involved subject to maxima for southern areas and northern areas (the designation of areas being as decided by the Ministry as set out in Section 6(g) hereof. Alternatively, the Employer may approve payment of a fixed weekly allowance to be agreed upon with the Consulting Engineer, to cover such incidental expenses.

(e) SPECIAL SERVICES BY CONSULTING ENGINEER

(1) Salaries of Staff

For work done by the Consulting Engineer at the request of the Employer in relation to arbitration, litigation, the failure or bankruptcy of a contractor or sub-contractor on a Ministry project or special services not provided for elsewhere in this Agreement. Payment will be in accordance with Schedule "A" hereof or on such other basis as may be agreed upon. The Consulting Engineer shall submit to the Employer with his account for such work, a detailed statement of the work performed, the personnel involved, the dates on which the work was performed and such other information as the Employer may request.

Special services may include attendance by a representative of the Consulting Engineer at the request of the Ministry at meetings with authorities or organizations other than the Employer or at hearings if such attendance is considered by the Employer to be additional to the services normally expected of the Consulting Engineer. Such special services shall include the preparation at the request of the Ministry of material specially required for such meetings or hearings where such material is not already available.

(2) Incidental Expenses

The cost of approved incidental expenses necessarily incurred by the Consulting Engineer's staff in performing the special services referred to in Section 6(e)(1) above. Claims for such expenses shall be submitted separately from all other claims.

(f) ADMINISTRATION COSTS

The Consulting Engineer may claim a mark-up of 5% to cover office administration costs when claiming reimbursement of eligible expenses. This mark-up is not applicable to fees paid to a mechanical, electrical, architectural, structural or similar sub-consultant whose work is normal to the services required under this Agreement, to overtime premium costs or to negotiated allowances for either living costs or business travel but will be applicable to items such as invoices from soil engineering consultants and Ontario Land Surveyors engaged by the Consulting Engineer in relation to this Agreement.

(g) MILEAGE CHARGES

Whenever in this Agreement reference is made to reimbursement for car mileage, the rates (shall be 24¢/km for both northern and southern areas) or such other rate(s) as may be approved by the Ministry from time-to-time.

(h) INVOICES

All invoices and expense claims submitted by the Consulting Engineer to the Employer shall be identified by the Section number and sub-section letter hereof to which they relate and shall be headed "Preliminary Report", "Design", "General Supervision", "Site Supervision" or "Special Services as the case may be.

(i) AUDIT

The Consulting Engineer shall maintain in his office accurate records of the names and classifications of, the hours and dates worked by, the salaries paid to and the nature of the work carried out by all members of his staff engaged on this project. These records shall be retained by the Consulting Engineer for not less than two years after the completion of construction of the works and shall be made available upon request at any reasonable time for inspection for audit purposes by any authorized officer or audit agent of the Employer or the Crown. Normally, such audit will only be carried out in relation to work in respect of which the Consulting Engineer has submitted invoices involving fees calculated on a time scale basis.

In addition, an authorized officer or audit agent of the Employer or the Crown shall have the right to inspect for audit purposes at any

reasonable time such records of the Consulting Engineer as the said officer or agent considers pertinent to verifying or establishing the payroll burden (or fringe benefit) percentage applicable during any particular fiscal year to invoices submitted by the Consulting Engineer based upon salaries paid and hours worked.

The Consulting Engineer shall co-operate with and shall provide every reasonable assistance to such aforesaid officer or audit agent who wishes to carry out an inspection or audit of the Consulting Engineer's records as outlined above.

- SUBLETTING 7. That if the Consulting Engineer proposes to engage the service of any person (other than in the full time employment of the Consulting Engineer), firm or company to carry out any part of the services which the Consulting Engineer is required by this Agreement to provide, he shall give particulars below (otherwise the Consulting Engineer shall enter "NONE PROPOSED").

 TERRASPEC GEOTECHNICAL ENGINEERS

- Soils Investigation and Material Testing during Construction.

- LIMITING OF ENGINEERING SERVICES 8. That the Employer may decide to have the Consulting Engineer provide design and general supervision only or design only. In either such event, the Employer will notify the Consulting Engineer of such decision prior to the commencement of construction.

Design and general supervision shall include all the services herein provided for with the exception of those required under Section 1, sub-Sections (k) and (o) which sub-Sections together with Section 6 (Six) Sub-Section (d) shall not be applicable if the Consulting Engineer is not required to provide site supervision of construction.

Design only shall include all the services herein provided for up to and including the submission to the Employer of recommendations on tenders and quotations received but shall not include the services required under Section 1, sub-Sections (g), (j), (k), (l), (n) to (t) and (y) all inclusive which sub-Sections, together with Section 6 (Six),



sub-Sections (c) and (d) shall not be applicable if the Consulting Engineer shall be required to carry out design only.

WORK  
DISCONTINUED  
DELETED,  
REVISED OR  
ADDED

9. That should the Employer for any reason and at any time decide to discontinue the work or delete any part of the work or delete any of the services required of the Consulting Engineer in respect of any part of the work, the Employer shall not be liable or obliged to pay to the Consulting Engineer under this Agreement anything beyond the payment for professional services performed by the Consulting Engineer pursuant to this Agreement at the date of such discontinuance or deletion as determined by the Employer anything herein contained to the contrary notwithstanding.

The Employer may revise or add to the description of the works as set out on page 1 hereof and may amend the estimated costs or classifications shown thereon to take account of such revisions or additions. Fees payable to the Consulting Engineer shall take into account such revisions or additions and work carried out by the Consulting Engineer prior to such revisions or additions, all as provided for herein.

Discontinuance, deletion, revision or addition as provided for above shall not require the execution of a formal amendment to this Agreement but the Employer may issue to the Consulting Engineer an appropriate revision of the table on page 1 hereof taking into account the required changes.

RESPONSI-  
BILITY

10. (1) Subject to paragraph (2) hereof, no act, forbearance, or omission of the Employer, its servants or agents, at any time or times, arising out of or in any manner connected with:
- (a) the Consulting Engineer's performance of or failure to perform the terms of this Agreement, or any amendment thereof, or substitution therefor; or
  - (b) the matter of the construction, re-construction, alteration, replacement, inspection, repair or maintenance of the works referred to in this Agreement or in any amendment thereof or any substitution therefor or the failure to carry out any of the aforementioned matters;

shall relieve the Consulting Engineer from any obligation, duty or liability whatsoever arising out of, or in any manner connected with

(i) this Agreement or any amendment therefor or substitution therefor; or

(ii) the matter of the construction, reconstruction, alteration, replacement, inspection, repair or maintenance of the said works, or the failure to carry out any of the aforementioned matters;

and any such act, forbearance or omission by the Employer, its servants or agents referred to in paragraph (1) hereof shall not be pleaded by the Consulting Engineer by way of defence, set off, counterclaim or otherwise, in any legal action or proceeding.

(2) Paragraph (1) shall not apply to any act, forbearance or omission referred to in paragraph (1) hereof if, at a time when in the opinion of the Employer it is reasonable to do so, the Consulting Engineer brings to the attention of the Employer written objections to such act, forbearance or omission, together with adequate reasons therefor, and thereafter receives written instructions from or on behalf of the Employer that relate to but do not substantially accept or approve the said objections and reasons and the Consulting Engineer complies with such instructions in accordance with good engineering practice.

FAILURE OF  
CONSULTING  
ENGINEER

11. That, without prejudice to any other remedy available at any time to the Employer, should the Consulting Engineer fail from any cause whatsoever to perform the services required of him by this Agreement or fail to perform such services in a manner satisfactory to the Employer, then in either case and except in the case of an emergency of which the Director of Project Engineering shall be the sole judge, the Employer may, after 48 hours written notice to the Consulting Engineer, take the services or any part thereof out of the hands of the Consulting Engineer and may appoint any other person in the place of the Consulting Engineer to perform such services at such reasonable remuneration or charges as the Employer may deem necessary, or may take such other steps as the Employer may consider advisable in order to secure satisfactory completion of the services, and the Consulting Engineer shall in any case be liable for all damage and extra expenditure which may be incurred by reason thereof; and in any such case the payment of all monies then due under this Agreement shall be suspended. In the case of an emergency

Project No. 3-0773

determined as aforesaid, the Employer, without previous notice and without process or suit at law, may take the action and shall have the power hereinbefore in this Section referred to. The written notice hereinbefore referred to shall be deemed to be sufficiently given if mailed by prepaid post or delivered to the last address of the Consulting Engineer known to the Employer. Where the Employer has taken the services required hereby or any part thereof out of the hands of the Consulting Engineer, then upon the completion of the services herein provided for, the Employer shall certify what amount if any remains due to the Consulting Engineer in respect of the said services after making due allowance for any addition to be allowed to or deductions or charges to be borne by the Consulting Engineer under this Agreement or shall certify what amount, if any, shall be owing to the Employer in respect thereof.

ESTIMATED  
FEES AND  
EXPENSES

12. That the Consulting Engineer shall enter below against the appropriate items his estimated fees and expenses for the services to be provided under this Agreement, based upon the estimated costs of construction as set out on page 1 hereof:

Preliminary Report, plus E.A. Submission if required.	\$ 50,000.00
Expenses Re: Preliminary Report	\$ 5,000.00
Design of Basic Works	\$ 122,750.00
Design of Complex Works	\$ NIL
Expenses Re: Design	\$ 12,500.00
General Supervision of the Works	\$ 54,000.00
Expenses Re: General Supervision	\$ 5,500.00
Fee for Site Supervision	\$ 189,000.00
Allowances and expenses for Site Supervision	\$ 19,000.00
Other Costs: Soils Investigation & Material Testing during Construction.	\$ 34,000.00
Total Estimated Cost of Services:	<u>\$ 491,750.00</u>

The Consulting Engineer shall inform the Director in writing if it becomes apparent that any of the foregoing estimated costs will be exceeded and shall provide reasons for the increase in cost. The

Employer may require the Consulting Engineer to submit a revised list of the foregoing items with updated estimated costs. The Employer may, at his discretion, issue a revised list to the Consulting Engineer superseding the foregoing list without a formal amendment to this Agreement being required.

CONSULTING  
ENGINEER'S  
STAFF

13. The Consulting Engineer shall enter below the names and classifications or positions of the professional and senior technical staff to be assigned to carry out the work covered by this Agreement:

J. E. Hunton, B.E.S., MCIP, Project Manager  
W. T. Clouthier, P. Eng., Project Engineer - Municipal  
P. A. C. Scothorn, P. Eng., Project Engineer - Construction  
R. W. Howard, P. Eng., Project Engineer - Mechanical  
A. E. Erel, P. Eng., Project Engineer - Structural

The Consulting Engineer shall inform the Director in writing of any proposed additions to or changes in the foregoing list.

Before commencing work involving time scale fees, the Consulting Engineer shall notify the Employer in writing of the hourly rates and/or salaries proposed to be charged in respect of the relevant staff.

SPECIAL  
PROVISIONS

14. That if any of the Provisions of this Section should conflict with anything herein before contained, then the following provisions, if any, shall govern:

NIL

15. That this Agreement shall apply to and be binding on the parties hereto and their successors, administrators, executors and assigns and each of them.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands and seals on the day and year first above written or caused their corporate seals to be affixed, attested by the signature of their proper officers, as the case may be.

IF APPLICABLE

THE CORPORATION OF THE VILLAGE OF COBDEN

Approved by the Minister of Municipal Affairs and executed by him on behalf of \_\_\_\_\_

Per: [Signature]  
Reeve

Per: [Signature]  
Clerk-Treasurer

\_\_\_\_\_  
The Ministry of Municipal Affairs

Per: \_\_\_\_\_

For the Consulting Engineer

Witness \_\_\_\_\_

\* Greer Galloway & Assoc. Ltd.

Address \_\_\_\_\_

\*\* [Signature]

\*\*\* W.R. Galloway, P. Eng.  
President

Occupation \_\_\_\_\_

Witness \_\_\_\_\_

\*\*

Address \_\_\_\_\_

\*\*\*

Occupation \_\_\_\_\_

Company Seal

- \* Insert name of Consulting Engineer.
- \*\* Signature of partner or authorized signing officer.
- \*\*\* Insert title of signing officer, e.g., president, secretary, partner.

- NOTE: 1. In the case of a partnership, a red seal shall be affixed beside the signature of each partner and the signatures shall be witnessed.
2. In the case of a corporation, the corporation seal shall be affixed but the signatures need not be witnessed.

A P P E N D I X "A"

TERMS OF REFERENCE

VILLAGE OF COBDEN  
SEWAGE SYSTEM IMPROVEMENTS

PROJECT NO. 3-0773

GENERAL REQUIREMENTS

The Consulting Engineer is to provide professional services covering the design and supervision of construction for the improvement of the existing sewage system in the Village of Cobden which generally includes addressing the following problems:

frequent sewage overflows and bypassing from the combined sewers;

flooding of basements with sanitary sewage;

existing maintenance problems;

halted growth due to condition of existing sewage collection system.

It is important that the problems to be addressed in the works are defined in consultation and liaison with the Village of Cobden and the Ministry of the Environment.

Accordingly it is necessary to review all previous reports and other pertinent data relating to problems and deficiencies with the present sewage system, as well as recommending any investigations required to obtain additional information.

In carrying out the works the Consulting Engineer should refer to the applicable section(s) of the Ministry's "Guidelines for the Design of Sanitary Sewage Works, Storm Sewers (Interim), Water Distribution Systems, Water Storage Facilities, Servicing of Areas Subject to Adverse conditions, Water Supply for Small Residential Developments, Seasonally Operated Water Supplies and associated Appendices", "Guidelines for the Design of Water and Sewage Treatment Works" as well as the MEA "Class Environmental Assessment for the Municipal Sewage and Water Projects".

END OF APPENDIX "A"

APPENDIX "B"

to the agreement for Engineering Services for Project No. 3-0773

SCHEDULE "A" - Time Basis

Principals and Senior Officers .....\$105.00 per hour.

On a project which will involve any invoicing on the above mentioned or other time scale basis, the Consulting Engineer shall, before commencing work on the project, submit to the Director of Project Engineering Branch (hereinafter called the "Director"), a list giving the names of the personnel whose time will be charged on an hourly, or other time scale basis showing their classifications and stating in each case their proposed duties and responsibilities in relation to the project. Unless the information has been submitted previously and approved, the list shall show the proposed invoicing rates. Where the fee will be based upon payroll cost, the list shall show the actual salary to be paid to the employee, exclusive of any adjustment for payroll burden or working time. The Consulting Engineer shall furnish the Director with information relating to the experience and qualifications of any of the personnel listed if so requested by the Director.

Under this Schedule, the Employer will pay the Consulting Engineer for the services of other staff (other than the classifications set out above) necessarily engaged on the project for the time such staff is so engaged on the following basis:

- Payroll cost multiplied by 2.5 for the first \$8,000 of payroll cost relating to pre-design services or design work (except where design work is paid for mostly on a percentage fee basis per Schedule "B") for this project;
- Payroll cost multiplied by 2.0 for the balance of the payroll cost.

In this context, "payroll cost" means actual salary paid per hour multiplied by a "payroll burden factor" (C) to cover contributions made by the Consulting Engineer towards company and Canada pension plans, health and medical insurance, group life and disability insurance, unemployment insurance or worker's compensation and then multiplied by an "available working time factor" (D) to provide an allowance of 290 hours per annum for vacation time, statutory holidays, sick time and professional development time.

In the foregoing paragraph, "actual salary paid per hour" means current annual salary divided by 1950 or 2080 hours for a 37½ or 40 hour work week respectively.

The calculation of Factor C shall not include any amounts or allowances for any bonus or profit sharing scheme or any general or administrative expenses incurred by the Consulting Engineer.

The calculation of Factor D shall assume total times of 1950 and 2080 hours per annum for 37½ and 40 hour work weeks respectively. Deduction of the allowance of 290 hours referred to above gives available working times of 1660 and 1790 hours per annum respectively and values of Factor D equal to 1.1747

(i.e.,  $\frac{1950}{1660}$ ) and 1.1620 (i.e.  $\frac{2080}{1790}$ )

respectively. In a case where neither of the above mentioned work weeks applies, the appropriate Factor D is to be calculated similarly.

The product of Factors C and D is known as Factor E, the Overall Payroll Burden Factor (see Ministry's current "PAYROLL BURDEN PERCENTAGE SUMMARY" form).

The following are further points relating to payroll burden matters:

- (1) The overall payroll burden factor applicable shall be the figure as approved by the Ministry of the Environment for office staff or field staff as the case may be based upon the Consulting Engineer's latest completed fiscal year.
- (2) The Consulting Engineer shall submit to the Director immediately after the execution of this Agreement, the Ministry of the Environment's current "PAYROLL BURDEN PERCENTAGE SUMMARY" form fully completed in respect of the Consulting Engineer's latest completed fiscal year, signed by an authorized signing officer of the Consulting Engineer and certified by the independent auditor who carried out the annual audit of the Consulting Engineer's accounts (unless the said form completed as required has previously been submitted to the Director).
- (3) The Consulting Engineer shall submit a further "PAYROLL BURDEN PERCENTAGE SUMMARY" form within four months after the end of each further fiscal year so long as he shall continue to work under agreement with the Employer.
- (4) The overall payroll burden factor derived from the form submitted in accordance with (3) above and approved by the Ministry of the Environment shall be used to adjust the Consulting Engineer's invoices to the Employer for time scale fees for the preceding fiscal year, unless the Consulting Engineer and the Director agree to waive such adjustment. The adjustment invoice shall be submitted to the Director within four months after the end of the fiscal year to which it relates, a separate invoice being submitted for each project.



- (5) Invoices submitted by the Consulting Engineer for hourly or other time scale fees shall show the names, classification and time worked by each person involved. In the case of time scale fees, the relevant salary exclusive of payroll burden or adjustment for working time shall be shown against each name. Employee Code Nos. will only be accepted in lieu of employees' names if a key list has previously been furnished to the Director for the relevant Agreement showing employee names, classifications and Employee Nos.

If agreed upon by the Consulting Engineer and the Director of Project Engineering, Senior Engineers and Specialists may be paid for on the basis set out above for "other staff" provided that such basis does not produce a rate exceeding that set out above for Principals and Senior Officers.

In special cases, the Director may approve hourly rates in excess of the aforementioned rates for Principals and Senior Officers rendering individual services on special assignments, as requested or approved by the Director, for which they are eminently qualified and for which they require little or no staff assistance. In each such case, the rate shall be subject to negotiation, shall be approved in advance by the Director and shall not exceed 50% more than the hourly rate for Principals and Senior Officers on normal assignments.

Invoices submitted in accordance with this Schedule shall be accompanied by full details to the satisfaction of the Director.

(continued on page 4)

SCHEDULE "B"

Table of Fees for Design of "Basic" works

COST OF WORKS		FEE FOR DESIGN ONLY
FROM \$	TO \$	
Less than	\$500,000	Payment in accordance with Schedule "A"
500,000	1.0M	27,400 on first \$500,000 + 4.70% on next \$500,000
1.0M	2.0M	50,900 on first 1.0M + 4.35% on next 1.0M
2.0M	4.0M	94,400 on first 2.0M + 4.05% on next 2.0M
4.0M	8.0M	175,400 on first 4.0M + 3.80% on next 4.0M
Over	\$8.0M	327,400 on first 8.0M + 3.70% on balance.

Note:

The maximum fee payable for the "Less than \$500,000" cost bracket shall be equal to the minimum fee payable for the "\$500,000 to \$1,000,000" cost bracket, i.e., \$27,400.

SCHEDULE "C"

Table of Fees for Design of "Complex" works

When the cost of construction of the "Complex" works is less than \$500,000, the fee payable shall be in accordance with Schedule "A".

When the cost of construction of the "Complex" works is \$500,000 or more, the fee for design payable in respect of such works shall be the sum of:

- (i) a Time Scale Fee derived in accordance with Table C.1 below, and
- (ii) a Percentage Fee derived from Table C.2 below.

Table C.1 - Time Scale Fee

The Consulting Engineer will be paid for the services of his personnel who are necessarily engaged on the applicable "Complex" works for the time that such personnel are so engaged on the following basis:

Principals and Senior Officers ..... \$89.00/hr.
All other staff engaged in design including preparation of reports documents and specifications relating thereto and including computer and clerical staff so engaged at:
- Payroll cost multiplied by 2.1 for the first \$8,000 of payroll cost related to this project. (NOTE: This higher multiplying factor is applicable only once on first \$8,000 of payroll cost; i.e., on pre-design work, on design under Schedule "A" or on design under Schedule "C").
- Payroll cost multiplied by 1.7 for the balance of the payroll cost.

Payroll cost is as defined under Schedule "A" hereof.

Except as otherwise stated above, the requirements and conditions set out under Schedule "A" hereof apply to Table C.1 hereof.

Table C.2 - Percentage Fee

COST OF WORKS		PERCENTAGE FEE FOR DESIGN ONLY
FROM \$	TO \$	
Less than	\$500,000	Payment in accordance with Schedule "A"
500,000	1.0M	5,500 on first \$500,000 + 0.87% of next \$500,000
1.0M	2.0M	9,900 on first 1.0M + 0.80% on next 1.0M
2.0M	4.0M	17,900 on first 2.0M + 0.75% on next 2.0M
4.0M	8.0M	32,900 on first 4.0M + 0.67% on next 4.0M
Over	\$8.0M	59,700 on first 8.0M + 0.65% on balance.

NOTE:

The total fee payable for the "less than \$500,000" cost bracket shall not exceed the total fee payable for Cost of Works = \$500,000 assuming identical staff time and payroll cost.