

CONTRACT DOCUMENTS
FONTHILL POOL REFURBISHING
TOWN OF PELHAM

EO 90605(05)

April, 1990

THE PROCTOR & REDFERN GROUP
Consulting Engineers and Planners
Corbloc Bldg.
80 King Street, 2nd Floor
St. Catharines, Ontario
L2R 7G1

**FONTHILL POOL REFURBISHING
TOWN OF PELHAM**

EO 90605(05)

**ADDENDUM NO. 1
APRIL 16, 1990**

This addendum shall form an integral part of the Contract Documents. Include the related costs in the tender price. Insert this addendum behind the cover page of the Contract Documents.

1. Remove page 6 of Section 00300 - Form of Tender and replace with the revised enclosure, signed and dated accordingly.

2. Section 08110 - Hollow Metal Doors with Frames

Add Item 3.04 Application of Paint

- A. Paint doors and frames with one (1) prime coat, and two (2) finish coats with brown paint to match existing brown on exterior of equipment room.

3. Section 15200 - Piping and Miscellaneous Equipment

Add Item 2.06 Propane Gas Fired Pool Heater

- A. Supply a heater capable of maintaining the pool temperature during normal operating conditions as specified by manufacturer's specifications.

Contractor's Signature

Date

FT.06 SCHEDULE OF TENDER PRICES

FONTHILL POOL REFURBISHING
PELHAM, ONTARIO

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ITEM NO.	DESCRIPTION	TOTAL PRICE
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SECTION 'D' - PROVISIONAL ITEMS

D.01	Design and install a propane gas fired pool heater	\$.
D.02	Contingency Allowance	Lump Sum \$ 4,300.00

	TOTAL	\$
	SECTION 'D'	=====

Contractor's Signature: _____

Date: _____

PROCTOR & REDFERN LIMITED
TENDERER'S CHECK LIST

Before submitting your tender, check the following points:

1. Has your tender been signed, sealed and witnessed? ☐
2. Have you enclosed the Tender Deposit, i.e. certified cheque or bid bond? (whichever is required by the Contract Documents) (not applicable) ☐
3. Have you enclosed the Agreement to Bond, signed and sealed by your proposed Surety? (not applicable) ☐
4. Have you completed all schedules and prices in the Form of Tender? ☐
5. Have you indicated and included the Contingency Allowance in the Form of Tender? (if you are required to do so) ☐
6. Have you indicated the number of addenda included in the tender price? ☐
7. Have you shown the time for completion of the work? (if applicable) ☐
8. Have you listed your Sub-Contractors? (if applicable) ☐
9. Have you listed your Experience in Similar Work? (if applicable) ☐
10. Have you listed your Senior Staff? (if applicable) ☐
11. Have you listed the Tenderer's Plant? (if applicable) ☐
12. Are the documents complete? ☐

Note: Items 13 and 14 are for Ministry of Transportation and Communication projects only.

13. Have you completed the Qualification Rating and forwarded to the Ministry of the Transportation and Communications? (if applicable) ☐
14. Have you enclosed the Form of Tender stamped "For Tendering Purposes Only" (if applicable) ☐

Note: 1. Your tender will be informal and may be disqualified if ANY of the foregoing points (if applicable) have not been complied with.

MAKE SURE THAT YOU SEAL THE TENDER IN AN ENVELOPE AND MARK THEREON THE CONTRACT NAME AND E.O. NUMBER.

LIST OF CONTRACT DOCUMENTS AND DRAWINGS

The following shall form the Contract Documents:

	<u>Paper Colour</u>	<u>No. of Pages</u>
Addenda Numbered _____ to _____	Green	
Tenderer's Check List	Orange	1
List of Contract Documents and Drawings	Pink	1
Tendering Information	Blue	3
Form of Tender	Yellow	9
Tendering Statements:		
Agreement	White	1
List of Sub-Contractors (CD-3)	White	1
Tenderer's Experience in Similar Work (CD-4)	White	1
Sub-Contractor's Experience in Similar Work (CD-4a)	White	1
Tenderer's Senior Staff (CD-5)	White	1
Tenderer's Plant (CD-6)	White	1
Schedule of Equivalents (CD-7)	White	1
Supplementary General Conditions	Blue	2
General Conditions of Contract	Blue	12
Project Specifications:		
Section 01010 - General	White	3
Section 01061 - Environmental Considerations	White	5
Section 02200 - Removals, Excavating, Backfilling and Grading	White	1
Section 03300 - Cast In Place Concrete	White	6
Section 08110 - Hollow Metal Doors with Frames	White	2
Section 15200 - Piping and Miscellaneous Equipment	White	4

LIST OF DRAWINGS

Drawing No.	Description
OPSD 900.01	Chain Link Fence
OPSD 900.03	Chain Link Fence
A4-90605(05)-SK1	Typical Cross Section of Reinforced Concrete Pool Deck

The following is not part of the Contract Documents but is provided for general information:

Drawing Description

Fonthill Pool Piping, April 1959

Fonthill Pool - Equipment Room Piping, April 1959

SECTION 00100 - TENDERING INFORMATION

TL.01 DELIVERY AND OPENING OF TENDERS

- A. Sealed tenders, marked with the name of the project, will be received by -

Mr. Allen Peters
Director of Parks and Recreation
Town of Pelham
P.O. Box 400
Fonthill, Ontario
L0S 1E0

up to noon, local time -

April 19, 1990

- B. The tenders will be opened publicly as soon after the closing time as possible.
- C. Tenders shall be completed on the detachable Form of Tender included in the Contract Documents.

TL.02 DISCREPANCIES

- A. If a Tenderer finds discrepancies in, or omissions from the Contract Documents, or if he is in doubt as to their meaning, he shall notify the Engineer, who may issue a written addendum. Neither the Owner nor the Engineer will make oral interpretations of the meaning of the Contract Documents.
- B. Should the Tenderer not agree that the materials and methods specified, or designed on the Drawings, will provide an installation to meet the requirements of the project, he shall notify the Engineer in writing, stating his reason for objection and may submit a suggested alternative. In such an event, the Engineer may choose to issue an addendum.
- C. Addenda issued during the tendering period shall be allowed for by the Tenderer.

TL.03 EXAMINATION OF SITE

- A. The Tenderer shall visit the site of the Work before submitting his tender and shall by personal examination satisfy himself as to the local conditions that may be encountered during construction of the Work. He shall make his own estimate of the facilities and difficulties that may be encountered and the nature of the subsurface materials and conditions. A site meeting will be held at 2:00 p.m. April 12, 1990.

- B. He shall not claim at any time after submission of his tender that there was any misunderstanding of the terms and conditions of the Contract relating to site conditions.

TI.04 SALES TAX

- A. The Tenderer shall include or exclude sales tax in accordance with current sales tax legislation taking into account any changes that have been made known by the Government and that will occur during the life of the Contract.
- B. If sales taxes are increased or decreased, or other amendments are made in the legislation, during the course of the Contract, that alter tax amounts carried in the Contract price, an adjustment will be made accordingly.
- C. The Contractor shall keep records and invoices of accounts subject to Federal and Provincial Sales Tax for the purpose of establishing taxes paid and for substantiation in the event of changes to the tax legislation during the course of the Contract.
- D. The Tenderer shall contact the Sales Tax authorities and determine what the applicable taxes are and the procedures for tax exemption and/or refunding and include related administrative costs in the tender.

TI.05 PROOF OF ABILITY

- A. The Tenderer shall be competent and capable of performing the various items of Work. The Tenderer shall complete the following statement sheets, which shall form a part of the Contract Documents:
 - 1. Tenderer's Experience on Similar Work (CD-4) with list of specific examples completed within the last 5 years, with appropriate references
 - 2. Sub-contractor's Experience in Similar Work (CD-4a)
 - 3. Tenderer's Senior Staff to be employed (CD-5)
 - 4. Tenderer's Plant to be used (CD-6)
- B. The Tenderer may be required to furnish additional statements covering other matters, including financial resources.
- C. For the Performance part(s) of the Work the Tenderer shall submit with his tender:
 - 1. Details of proposed design.
 - 2. A description of proposed design.

TI.06 BONDING

- A. No bonding is required for this project.

TI.07 SUB-CONTRACTORS

- A. The Tenderer shall submit with his tender the names and addresses of Sub-contractors he proposes to use and the value for the subtrades listed in Form CD-3 'List of Sub-contractors'.

TI.08 ACCEPTANCE OF TENDERS

- A. The lowest or any tender need not necessarily be accepted by the Owner. The Owner reserves the right to delete items from the Schedule of Tender Prices and/or negotiate with the low bidder.

TI.09 EQUIVALENTS

- A. When an article is specified by its trade or other name (whether such name is followed by the phrase 'or approved equal' or not), the Tenderer shall base his tender price on the supply of the named article and no other.
- B. The Tenderer may submit with his tender suggested equivalents to those articles specified by trade or other names. Such submissions shall be made on Form CD-7 attached and shall show the name of the article specified, the name and description of the suggested equivalent, and the total revision to the tender price that would result if the equivalent were accepted.

SEC. 00300 - FORM OF TENDER

FT.01 TENDER PRICE

1. Tender by - Name - Gall Construction O/A
Acapulco Pool Limited

Address -- 1232 Victoria
Street North
Kitchener, Ontario
N2B 3C9

Date - April 19, 1990

2. To - Town of Pelham

A. I (We), the undersigned, having fully examined the locality and Place of the Work, having fully investigated the conditions of the Work, having read and understood the Contract Documents (comprised of the tendering information, supplementary conditions, general conditions, specifications and drawings, including all supplements, addenda and revisions to same to the date of this tender) and having secured all of the information necessary to enable me (us) to submit this tender, hereby agree and offer to perform the totality of the Work described in the Contract Documents, in accordance with the Contract Documents, for the total Tender Price of One Hundred and five thousand, four hundred and three dollars (\$ 105,403)

FT.02 CONTINGENCIES AND ALLOWANCES

A. We agree that the Tender Price includes the contingency sum of \$4,300 and that no part of this sum shall be expended without the written direction of the Consultant, any part not so expended shall be deducted from the Contract Price.

FT.03 ADDITIONS AND DEDUCTIONS

A. The Tenderer agrees that, if this tender is accepted by the Owner:

1. he will carry out any additional or extra work (including the supplying of any additional products pertaining thereto) or will delete any work as may be required by the Consultant in accordance with the Contract; and,
 2. the carrying out of any work referred to in paragraph 1 above or the issuance by the Consultant of a Contract Change Order relating to such work or the acceptance by the Tenderer of such Contract Change Order shall not, except as expressly stated in such Contract Change Order, waive, affect or vary any of the terms of the Contract or of any Contract Change Order previously issued by the Consultant or any of the rights of the Owner or of the Consultant under the Contract.
 - (A) The Schedule of Items and Prices shall apply where applicable;
 - (B) If the above Schedule is inapplicable the prices shall be determined in accordance with the General Conditions as amended by the Supplementary Conditions.
- B. The Tenderer agrees that he is not entitled to payment of the Contingency Allowance except for additional work carried out by him in accordance with the Contract and only to the extent of such additional work, as authorized by the Consultant in writing.

FT.04 ADDENDA

- A. We agree that we have received addenda 1 to 1 inclusive, and the tender price includes the provisions set out in such addenda.

FT.05 CONTRACT TIME

- A. We agree to commence the Work as specified, to proceed continuously to completion and to complete the Work by June 15, 1990.

FT.06 SCHEDULE OF TENDER PRICES

FONTHILL POOL REFURBISHING
PELHAM, ONTARIO

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ITEM NO.	DESCRIPTION	TOTAL PRICE
=====		
SECTION 'A' - PIPING, VALVES AND FITTINGS		
A.01	Remove and dispose abandoned sand filter tanks from the equipment room	\$ 4,120
A.02	Remove and dispose all old piping, valves and fittings	\$ 1,030
A.03	Design and install new piping, valves and fittings as necessary to provide a 4 hour turnover rate including connections to existing equipment/piping	\$ 9,800

TOTAL		\$14,950
SECTION 'A'		=====

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EO 90605(05)

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FT.06 SCHEDULE OF TENDER PRICES

FONTHILL POOL REFURBISHING
 PELHAM, ONTARIO

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ITEM NO.	DESCRIPTION	TOTAL PRICE
=====		
SECTION 'B' - POOL DECK RECONSTRUCTION AND SHELL REFURBISHING		
B.01	Remove and dispose existing pool deck, diving board platform, and guard chairs	\$ 6,272
B.02	Remove and dispose existing chain link fence	\$ 1,781
B.03	Design and install a reinforced concrete pool deck (150 mm thickness min.) including grounding of deck and equipment	\$27,106
B.04	Repair cracks, sandblast and paint pool shell including 150mm black disc, depth marks (Town will supply paint)	\$11,015 -----
TOTAL		\$46,174
SECTION 'B'		=====

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FT.06 SCHEDULE OF TENDER PRICES

FONTHILL POOL REFURBISHING
 PELHAM, ONTARIO

ITEM NO.	DESCRIPTION	TOTAL PRICE
SECTION 'C' - MISCELLANEOUS EQUIPMENT		
C.01	Supply and install 1.8 m high chain link security fence including gate	\$ 5,590
C.02	Design and install perimeter Water Collection Drain along the south and north sides of the pool deck	\$ 3,185
C.03	Design and install water surface skimmer system	\$ 9,100
C.04	Supply and install water circulation pump to provide a 4 hour turnover rate including connections	\$ 4,300
C.05	Supply and install in-pool ladders	\$ 904
C.06	Supply and install 1 guard chairs	\$ 1,945
C.07	Supply and install pool slide	\$ 2,098
C.08	Supply and install hollow metal doors with grilles and frame set complete including removal and disposal of existing (filter room)	\$ 2,135
C.09	Supply and install automatic level control	\$ 2,750
C.10	Supply and install flowmeter	\$ 690
TOTAL		\$32,697
SECTION 'C'		

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FT.06 SCHEDULE OF TENDER PRICES

FONTHILL POOL REFURBISHING
 PELHAM, ONTARIO

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ITEM NO.	DESCRIPTION	TOTAL PRICE
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SECTION 'D' - PROVISIONAL ITEMS

D.01	Design and install a propane gas fired pool heater	\$ 7,282
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D.02	Contingency Allowance	Lump Sum \$ 4,300
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TOTAL	\$11,582
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SECTION 'D'	=====
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FT.06 SCHEDULE OF TENDER PRICES

FONTHILL POOL REFURBISHING
 PELHAM, ONTARIO

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ITEM NO.	DESCRIPTION	TOTAL PRICE
=====		
SUMMARY		

	SECTION 'A' - PIPING, VALVES AND FITTINGS	\$ 14,950
	SECTION 'B' - POOL DECK RECONSTRUCTION AND POOL SHELL REFURBISHING	\$ 46,174
	SECTION 'C' - MISCELLANEOUS EQUIPMENT	\$ 32,697
	SECTION 'D' - PROVISIONAL ITEMS	\$ 11,582

	TOTAL	\$105,403
		=====

FT.07 DECLARATIONS OF TENDERER

- A. The Tenderer declares that no person, firm or corporation other than the Tenderer has any interest in this tender or in the proposed Contract for which this tender is made.
- B. The Tenderer declares that this tender is made without any connection, comparison of figures or arrangements with, or knowledge of, any other corporation, firm or person making a tender for the same Work and is in all respects fair and without collusion or fraud.

FT.08 CONDITIONS OF TENDER

- A. This tender is irrevocable from the official closing time and is unconditionally open for acceptance for 60 days after the official closing time, whether any other tender has been previously accepted or not.

FT.09 DISCLAIMER

- A. The Tenderer agrees and knowledges there is no representation, warranty, collateral agreement or condition, whether direct or collateral, or expressed or implied, which induced the Tenderer to submit this tender, or on which reliance is placed by the Tenderer, or which affects this tender.

OFFERED ON BEHALF
OF THE CONTRACTOR

SIGNATURE

CONTRACTOR'S SEAL

SIGNATURE

COMPANY NAME

WITNESS

ADDRESS

DATE

Proctor & Redfern Limited
Project EO 90605(05)
Contract No.

For the construction of Fonthill
Pool Refurbishing, Pelham, Ontario

AGREEMENT

This Agreement made in triplicate this day of 1990 , between

Gall Construction O/A Acapulco Recreational Contractor hereinafter called "The Contractor",
AND
The Corporation of the Town of Pelham hereinafter called "The Owner"

WITNESSETH, that the Contractor agrees with the Owner to perform all the Work in accordance with the Contract Documents referred to in the tender of the Contractor dated the 23 day of April , 1990 (which shall be deemed to form part of this Contract) to the satisfaction of the Engineer for the total contract price of \$105,403 which Contract Documents are attached hereto and which are hereby expressly made part of this Contract.

The Owner hereby agrees with the Contractor, that in consideration of the Work being performed by the Contractor as specified, the Owner shall pay the Contractor for said Work in accordance with the prices set out in the Form of Tender attached hereto, and in accordance with the provisions set out in the attached Contract Documents.

Time shall be deemed the essence of this Contract.

IN WITNESS WHEREOF the parties hereto have executed this Agreement under their respective corporate seals and by the hands of their proper officers thereunto duly authorized.

SIGNED, SEALED AND DELIVERED in the presence of:

OWNER

Name

The Corporation of the Town of Pelham

Signed Murray Hackett ADMINISTRATOR

Murray Hackett, Clerk-COORDINATOR

Name and Title

Signed M. Collins

M. COLLINS - MAYOR

Name and Title

Witness

Name and Title

CONTRACTOR

Name

Gall Construction O/A

Acapulco Recreational Contractors

Signed Bernhard G. Gall

Bernhard G. Gall, President

Name and Title

Signed

Name and Title

Witness

Name and Title

Statement Sheet
CD-3

LIST OF SUB-CONTRACTORS

SUB-TRADE	NAME OF SUB-CONTRACTOR	ADDRESS OF SUB-CONTRACTOR	VALUE OF SUB-CONTRACT
Fence	Boyer Fence	Victoria St. N Kitchener, ON	
<p>Note to Tenderer - Refer to Articles 3 of the General Conditions and TI.08 of Tendering Information.</p> <p>- Names and addresses must be filled in and submitted with the tender. If a sub-contractor is not to be used for any work listed then show "by own forces."</p>			

Proctor & Redfern Limited
Consulting Engineers
November, 1977

TENDERER'S EXPERIENCE IN SIMILAR WORK

YEAR COMPLETED	DESCRIPTION OF CONTRACT	FOR WHOM WORK PERFORMED	NAME OF CONSULTANT ENGINEER	VALUE
90	25m Pool	City of Fredericton	.	\$385,000.
89	25m Pool	City of Toronto		\$217,000.
88	25m Pool	Fort Erie YMCA		\$402,000.
89	25m Pool	Glen Abbey Rec. Centre		\$285,000.
Note to Tenderer - Refer to article TI.05 of Tendering Information				

Proctor & Redfern Limited
Consulting Engineers
November, 1977

Statement Sheet
CD-4a

SUB-CONTRACTOR'S EXPERIENCE IN SIMILAR WORK

YEAR COMPLETED	DESCRIPTION OF CONTRACT	FOR WHOM WORK PERFORMED	NAME OF CONSULTANT ENGINEER	VALUE
89	Boyer Fencing	Acapulco Pools		\$15,000.
89	Boyer Fencing	Acapulco Pools		\$25,000.
Note to Tenderer - Refer to article TI.05 of Tendering Information				

Proctor & Redfern Limited
Consulting Engineers
November, 1977

TENDERER'S SENIOR STAFF

NAME	APPOINTMENT	QUALIFICATIONS AND EXPERIENCE
<u>Office</u>		
Bernhard Gall	President	20 years-Pool Building
David Gall	Project Co-ordinator	10 years-Pool Building
Mike Reid	Project Co-ordinator	10 years-Pool Building
<u>Field</u>		

TENDERER'S PLANT

The Tenderer shall list the plant, machinery and equipment he proposes to use on the work.

PLANT OWNED:

- Case Backhoe
- GMC Dump Truck
- Concrete Conveyer

PLANT TO BE RENTED OR LEASED:

PLANT TO BE PURCHASED:

SECTION 00800 - SUPPLEMENTARY GENERAL CONDITIONS

SC.01 GUARANTEE PERIOD

- A. The guarantee period for the Contract shall be twelve months, unless an extended guarantee period is called for in any specific Section.

SC.02 INSURANCE

- A. Damage insurance
 - 1. Notwithstanding the provisions of Section 29 of the General Conditions, no 'Damage Insurance' will be required on this Contract.

SC.03 LIQUIDATED DAMAGES

- A. Should the Contractor fail to complete the Work in accordance with the Contract and to the satisfaction of the Engineer, within the time specified in the Form of Tender, or as amended on the written authority of the Engineer, the Contractor shall pay to the Owner the sum of \$400 for each calendar day that the Work shall remain unfinished after such time.
- B. Such payments are agreed upon and fixed as liquidated damages that the Owner will suffer by reason of delay and default, and not as a penalty. The Owner may deduct and retain the amounts of such liquidated damages out of the moneys which may be due or become due to the Contractor under the Contract.

SC.04 HOLDBACK FOR RECTIFICATION AFTER ACCEPTANCE OF THE WORK

- A. To cover rectification costs during the guarantee period, the Owner will retain a percent of the value of Work done as indicated in the table below, such amount being held back after the value of the Work performed reaches 70 percent of the Contract Price. This holdback will be retained for a period of 1 year from the 'Acceptance Date' which is described in Section 36 of the General Conditions. Additional moneys will be held back as required by Provincial Statutes.

Contract Value	Percent
up to \$100,000	5
\$100,000 to \$500,000	4
\$500,000 to \$1,000,000	3-1/2
\$1,000,000 to \$2,000,000	3

SC.05 RELEASE OF HOLDBACK

- A. Holdbacks held under the provisions of the Construction Lien Act will be released upon application by the Contractor, and will be subject to the requirements of the Act.

SC.06 PERFORMANCE WORK

- A. The Contractor shall be responsible for the design of the Work, the supply of materials and complete construction of the Work, and for inspection required during construction to ensure that the requirements of the Contract Documents are fulfilled.
- B. The Contractor shall submit design briefs prepared by an appropriate qualified personnel for the Engineer's review.

SCHEDULE OF EQUIVALENTS

SPECIFIED ARTICLE	NAME OF SUBMITTED EQUIVALENT	CATALOGUE NO. ETC. OF SUBMITTED EQUIVALENT	PROPOSED PRICE REVISION

GENERAL CONDITIONS OF THE CONTRACT

SUBJECT INDEX

Assignment	42	Material, Ownership of	15
Automobile Insurance	26	Materials, Rejection of Work &	20
Bond, Performance	41	Material, Supply of	16
Certificate, Total Completion	36	Materials and Workmanship	13
Certificate, Final	38	Notices	4
Certificates, Insurance Policies and	30	Operational Risks	12
Certificates, Progress	34	Ownership of Documents	23
Changes in the Work	18	Ownership of Plant and Material	15
Claims, Insurance	31	Payments	37
Cold Weather	14	Performance Bond	41
Commencement & Completion	5	Performance of the Work	11
Compensation, Workers'	27	Plant and Material, Ownership of	15
Completion & Commencement	5	Policies and Certificates, Insurance	30
Contractors, Sub	3	Premises, Use of	6
Contractor, Terminate Employment of	40	Progress Certificates	34
Damage Insurance	29	Public Safety	10
Damage, Loss or	28	Rejection of Work and Materials	20
Definitions	1	Restoration	7
Details and Instructions	17	Risks, Operational	12
Disputes	19	Safety, Public	10
Documents	2	Shop Drawings	22
Documents, Ownership of	23	Statutes	9
Drawings, Shop	22	Sub-Contractors	3
Engineer	21	Substantial Performance	
Final Certificate	38	& Holdback Release	35
Guarantee	39	Superintendence	43
Holdback Release,		Supply of Material	16
Substantial Performance &	35	Terminate Employment of Contractor	40
Hours of Work	32	Total Completion Certificate	36
Instructions, Details and	17	Use of Premises	6
Insurance Claims	31	Utilities	8
Insurance, Automobile	26	Valuation	33
Insurance, Damage	29	Weather, Cold	14
Insurance, Liability	25	Work, Changes in	18
Insurance, Policies & Certificates	30	Work, Hours of	32
Liability	24	Work and Materials, Rejection of	20
Liability Insurance	25	Work, Performance of	11
Loss or Damage	28	Workmanship and Materials	13
		Workers' Compensation	27

PROCTOR & REDFERN LIMITED
Consulting Engineers

GENERAL CONDITIONS OF THE CONTRACT

1. Wherever used in the Contract Document, or other documents forming part of the Contract:

- (a) the word "Contract" means: the Contract to do the Work, the Bonds or Securities, the Addenda (if any), the Specifications, the General and Supplementary General Conditions, the Tendering Information, the List of Contract Documents, the Drawings, and other documents referred to or connected with the Agreement, except that the soils report and any other soils information are not a part of the Contract Documents.
- (b) the word "Owner" means the person or corporation accepting the Tender.
- (c) the word "Contractor" means the person or corporation to whom the Contract for the Work has been awarded.
- (d) the word "Sub-contractor" means the person or corporation having a contract with the Contractor (or with another sub-contractor) for the performance of a part or parts of the Work included in the Contract, or for the supplying of material for the Contract and worked to a special design according to the Drawings and Specifications.
- (e) the word "Engineer" means Proctor & Redfern Limited, Consulting Engineers, and its duly authorized representatives.
- (f) the word "Work" or "Works" means labour, materials and other things required to be done, that are shown, described or implied in the Contract Documents and includes extra and additional Work that may be ordered by the Engineer and the words "work" or "works" have the same meaning.
- (g) the word "provide" means supply labour, materials, equipment, handling and cartage required for complete installation of the item concerned.

- 2. (a) The Contract Documents shall be signed and sealed, in duplicate, by the Owner and the Contractor.
- (b) The Contract Documents are complementary and what is called for by any one shall be as binding as if called for by all. The intention of the Documents is to include plant, labour and materials (except as specifically excepted) necessary for the complete and proper performance of the Work.
- (c) Drawings and Specifications shall be read and interpreted together. Work not specifically described, but obviously necessary for the satisfactory completion of the Work for the purpose intended shall be supplied and performed by the Contractor as though it had been described and shown in the Drawings and Specifications.
- (d) Reference to published standard specifications shall be to the edition current at the time of the signing of the Contract Documents.

- 3. (a) Without the written consent of the Engineer, the Contractor shall not change the Sub-contractors named in the Contract.
- (b) The Contractor shall be held as fully responsible to the Owner for the acts and omissions of its Sub-contractors (and of persons directly and indirectly employed by them) as for the acts and omissions of persons directly employed by the Contractor.
- (c) The Contractor shall bind every Sub-contractor to the terms of the Contract Documents, as far as applicable to the Sub-contractor's Work.
- (d) Nothing in the Contract Documents shall create any contractual relation between Sub-contractors and the Owner.
- (e) Division of the Specifications into sections or subsections shall be only for clarity of reading and reference, and shall not be taken to be a division into trades, subtrades or sections of Work of any kind.

- 4. (a) Any notice or communication to the Contractor shall be deemed to be legally well and sufficiently given and served, if:
 - (i) handed to the Contractor or its authorized representatives, or
 - (ii) posted or sent to the address given in the Tender, or,
 - (iii) posted or sent to the Contractor's domicile or usual place of business, or
 - (iv) posted or sent to the place where the Work is, or is to be, performed, or
 - (v) posted to or left at its last known address.

1. DEFINITIONS

2. DOCUMENTS

3. SUB-CONTRACTORS

4. NOTICES

- (b) In notices to the Contractor with respect to Work and repairs required to be performed under the Contract (or with respect to other matters), it shall not be obligatory for the Engineer to specify minutely and in detail everything required, nor to specify by measurement the exact extent or place where the Work and repairs are to be performed.

Reference may be made in such a notice to the sections in the Contract bearing upon the matter, the general location, and the general description of the Work and repair to be performed.

5. COMMENCE- MENT AND COMPLETION

- (a) The Contractor shall obtain materials and start Work when the Contract Documents have been signed by the Owner and the Contractor, and when the Engineer has issued a written instruction to commence.
- (b) No Progress Certificate shall release the Contractor from responsibilities under the Contract, nor be taken as evidence of acceptance of Work or material, nor as a waiver of provisions of the Contract.
- (c) The Contractor shall protect the Work from damage from every cause, and shall, on completion, leave the Work in a good and satisfactory condition. The Work shall be finished in all respects and shall comply with the Contract in every particular.
- (d) On completion, surplus materials and rubbish shall be removed, damages to adjacent property caused by the Contractor shall be made good, and the site shall be made clean and neat.

6. USE OF PREMISES

- (a) The Contractor shall confine its plant, labour and materials within limits specified in the Contract or as otherwise indicated by law or as directed by the Engineer. The Contractor shall not unreasonably encumber the site with plant and materials.
- (b) The Contractor shall not load, or permit to be loaded, the structure with a weight that may endanger its safety.
- (c) The Contractor shall comply with the Engineer's directions regarding signs and advertisements.
- (d) The Contractor shall use the premises only for the construction of the Work forming the Contract.

7. RESTORATION

- (a) Unless otherwise specified, the Contractor shall restore lands and other property to their original condition.
- (b) The Contractor shall not trespass on private property. If it is necessary for the Contractor to enter private lands, the Contractor shall first obtain the landowner's written permission and shall assume responsibility for claims that may result.
- (c) The Contractor shall maintain the flow of water in ditches, culverts and watercourses. At the conclusion of construction, ditches, culverts and watercourses shall be restored in a neat and workmanlike manner to a condition at least equal to the original.

8. UTILITIES

Unless otherwise specified, the Contractor shall provide utility services, such as water, electricity, heat and gas, needed for the execution of the Work.

9. STATUTES

- (a) In matters affecting the performance of the Work, the Contractor shall comply with relevant statutes, by-laws and regulations of Federal and Provincial Governments and of Municipal Corporations. The Contractor shall also comply with relevant regulations made under such statutes, by-laws and regulations.
- (b) Unless otherwise specified, the Contractor shall pay fees, procure licences and certificates, deposit Contract Documents and give notices required by the foregoing statutes, by-laws, and regulations.

10. (a) During the progress of the Work, the Contractor shall keep the site and the Work in as tidy a condition as practicable. The Contractor shall not deposit materials on a street, sidewalk, boulevard or other public or private property without the approval of the representative of the Municipality or the authority having jurisdiction over such public or private property. Materials so deposited shall be removed without delay as soon as possible and when directed.
- (b) If the Work is closed, suspended or stopped for the winter (or for other acceptable reasons), the Contractor shall remove material from streets, sidewalks, boulevards and other public property.
- (c) The Contractor shall ensure that the charges of explosives used, and the time at which they are exploded, shall be such as not to cause suffering, inconvenience or injury to persons nor damage to property.
- (d) Explosives shall be properly housed and protected, and no explosives that have deteriorated shall be used. Proper methods of handling and thawing frozen explosives shall be followed. In blasting operations, the Contractor shall exercise the greatest care at all times.
- (e) The Contractor shall provide, erect and maintain necessary barriers, fences and other proper protection, and shall provide and maintain watchmen and lights as may be necessary to ensure the safety of the public and others. Unless otherwise specified, the Contractor shall keep streets and sidewalks open for use by the public. The Contractor shall provide, erect and maintain a sufficient number of detour signs, and other proper notices, wherever the use of streets or sidewalks is dangerous due to the Contractor's operations.
- (f) When Work is performed at night, the Contractor shall provide, erect and operate a sufficient number of lights to enable the Work to be performed satisfactorily.

**10.
PUBLIC SAFETY**

11. (a) The Contractor shall complete the Work in accordance with a schedule set down in co-operation with the Engineer at the time of the award of the Contract. Amendments to this schedule may be made by the Engineer, on application by the Contractor.
- (b) Should the Engineer be of the opinion that the quantity or quality of labour or plant supplied by the Contractor is not sufficient, or that the methods being employed are not such as will ensure that the Work will be completed within the specified time, the Contractor shall forthwith improve the quality and increase the number of men employed, shall make revisions to the plant, and shall improve its Work methods to the satisfaction of the Engineer.

**11.
PERFORMANCE
OF THE WORK**

12. (a) Damage, loss, expense and delay incurred or experienced by the Contractor in the performance of the Work, by reason of unanticipated difficulties, bad weather, strikes, wars, acts of God, or other mischances, shall be borne by the Contractor and shall not be the subject of a claim for additional compensation or an extension to the completion time.
- (b) The position of pole lines, conduits, watermains, sewers and other underground and overground utilities and structures is not necessarily shown on the Contract Drawings, and where shown, the accuracy of the position of such utilities and structures is not guaranteed. Before starting Work, the Contractor shall inform itself of the exact location of such utilities and structures, and shall assume liability for damage to them. Unless otherwise specified, the Contractor shall support such utilities and structures, or temporarily remove them, and restore them, to the satisfaction of the owners of the utilities and structures.

**12.
OPERATIONAL
RISKS**

13. (a) Workmanship shall be first-class and material new and of best quality. The Contractor shall pay due regard to the neat and attractive appearance of the finished Work.
- (b) If ordered by the Engineer, the Contractor shall make such openings in the Work as are needed to re-examine the Work, and shall forthwith make the Work good again. Should the Engineer find the Work so opened to be faulty, the whole of the expense of opening, checking and making good shall be borne by the Contractor. Should the Engineer find the Work opened to be in an acceptable condition, such expense will be borne by the Owner.
- (c) The Contractor shall remove and make good defective Work, and the entire cost of such removal and making good shall be borne by the Contractor.

**13.
WORKMANSHIP
AND MATERIALS**

14.
COLD
WEATHER

When Work is allowed or ordered by the Engineer to be performed in cold weather, the Contractor shall provide suitable means for heating and protection, and the materials shall be heated and protected. All Work that may be injured by frost, and which cannot be satisfactorily performed, shall be put in a proper and satisfactory condition, and shall be protected from damage by frost. Unless otherwise specified, the cost of such protection shall be borne by the Contractor.

15.
OWNERSHIP
OF PLANT
AND
MATERIAL

- (a) The Contractor's plant, and materials to be incorporated into the Work, shall, at the option of the Owner, become and continue to be under the control of the Owner from the time of arrival on the site until the completion of the Work.
- (b) The Contractor shall not remove such plant or material from the site without the Owner's consent. No payment of money will be made by the Owner with respect to such plant.

16.
SUPPLY OF
MATERIAL

Unless otherwise specified, the Contractor shall supply materials, and when requested shall furnish for review representative samples of materials. Substitution of materials specified shall be made only on the written acceptance of the Engineer.

17.
DETAILS
AND
INSTRUCTIONS

- (a) The Contractor shall not deviate from or alter the Work required by the Contract Documents without the written authority of the Engineer. Ambiguities, omissions or discrepancies that may arise will be explained and adjusted by the Engineer, who may issue to the Contractor instructions directing the changes to be made in the Work.
- (b) If necessary for the proper performance of the Work, the Engineer may issue additional instructions, as drawings or otherwise, and such instructions shall become parts of the Contract. The Work shall be performed in conformity with such instructions, and the Contractor shall do no additional Work without such instructions.
- (c) The Contractor shall perform and observe the provisions of the Contract and carry out the written directions of the Engineer. Should the Contractor refuse or neglect to carry out the written instructions of the Engineer within seven (7) days, the Engineer may
 - (i) take such steps (including the procuring of plant, labour and material) and arrange for such Work as he may consider advisable, or
 - (ii) at the option of the Owner, exercise the powers given in Section 40.

The cost so incurred may be deducted or collected under the provisions of the Contract, and such action taken by the Engineer shall not relieve the Contractor from liability under the Contract.

- (d) The Contractor shall not perform any Work that it considers not to be a part of the Contract and for which additional payment will be claimed until first notifying the Engineer in writing of the nature of such work and the amount of payment to be claimed or the basis on which its claim will be calculated.

18.
CHANGES IN
THE WORK

- (a) Without invalidating the Contract, the Owner or the Engineer may make changes by altering, adding to, or deducting from the Work, the value of the Contract being adjusted accordingly. Such Work shall be performed under the conditions of the original Contract.

Unless otherwise specified, the value of such alterations, additions and deductions shall be determined by agreement between the Contractor and the Owner before the Work is performed. Adjustment of time will be determined by the Engineer at the time of ordering alterations, additions and deductions, and such adjustments shall not affect the validity of the Contract.

- (b) The Owner shall not be liable for the cost of additional Work or materials which are supplied by the Contractor but which are not provided for in the Contract Documents, and are not required by the written instruction of the Engineer.

19.
DISPUTES

- (a) Contractor's Claim

Any claim that the Contractor may have against the Owner based on any dispute or difference of any kind whatsoever arising out of the Contract or work shall not be grounds for delay in the Work but shall be referred by the Contractor in writing to the Engineer not later than fifteen days after the Contractor becomes aware of the circumstances giving rise to such dispute or difference. Such reference to the Engineer shall contain a concise statement of the relevant facts. The Engineer may require additional information to assist him in his review of the claim.

In the event of any claim by the Contractor arising out of or in any way related to the Contract, no court proceeding shall be commenced until 60 days after the Contractor has submitted to the Owner in writing full particulars of the claim, including such of the Contractor's records as may be relevant, and answered fully all reasonable requests for information by the Owner (or by the Engineer if the Owner so designates). The requirements of this condition precedent to the said proceedings are supplementary to any other conditions of the Contract and shall not be construed as in any way modifying such other conditions which are to remain in full force and effect.

The claim shall be settled by the Engineer who shall communicate his decision in writing to the parties and such decision shall forthwith be given effect by the parties, and the Contractor shall proceed with the Works with all due diligence in accordance therewith, whether or not such claim shall be referred to a court of competent jurisdiction.

(b) Owner's Claims

Any claim which the Owner may have against the Contractor based on any dispute or difference of any kind whatsoever arising out of the Contract or Work may, at the option of the Owner, and after notification in writing to the Contractor, be settled in accordance with the procedure set out in subsection (a) hereof and the provisions thereof shall apply mutatis mutandis.

20. The Engineer may condemn and reject Work which, in his opinion, is not in accordance with the Contract Documents or the Engineer's instructions, and the Engineer will require the substitution of proper materials. Rejected materials shall be promptly removed from the site.

**20.
REJECTION OF
WORK AND
MATERIALS**

21. (a) The Engineer will make such decisions as are necessary with respect to:
- (i) Discrepancies in the Contract Documents, or
 - (ii) Differences of opinion or misunderstanding that may arise as to the meaning of the Contract, or
 - (iii) Omissions or misstatements in the Contract Documents, or
 - (iv) Quality, dimensions and sufficiency of plant, materials or Work, or
 - (v) The due and proper execution of the Work, or
 - (vi) The measurement, quantity or valuation of the Work, including additional Work and deductions, or
 - (vii) Other questions or matters arising out of the Contract.

**21.
THE ENGINEER**

The Engineer's decision as to matters referred to in this section shall be binding upon the parties concerned.

- (b) When the Engineer makes a decision under this section, the Contractor shall immediately proceed with Work affected by the decision. Additions to or deductions from the Contract price shall be made only as provided for in the Contract, and no revisions to the completion time shall be made, unless decided by the Engineer.
- (c) The Engineer may at reasonable times visit, enter and check at buildings, factories, workshops, works or sites wherever materials are being prepared, made or treated, or where other Work is being performed in connection with the Contract. The Engineer may also take such samples as he may consider necessary.

22. (a) Shop Drawings will be reviewed only to check general arrangement and conformance with the design concept of the project and compliance with the Contract Documents.
- (b) Where the Engineer requires Shop and Setting Drawings, the Contractor shall submit them in sufficient time to allow for examination by the Engineer and for any corrections that he may require to be made. The Contractor shall not commence Work on items covered by Shop Drawings (where such drawings have been requested) before the Engineer's review.
- (c) The Contractor shall make changes in Shop and Setting Drawings as the Engineer requires consistent with the Contract and shall submit revised prints to the Engineer. When submitting Shop and Setting Drawings, the Contractor shall notify the Engineer of every change made from the Contract Documents.
- (d) Review of Shop Drawings by the Engineer shall not relieve the Contractor from compliance with requirements of the Contract Documents, nor relieve him of responsibility for errors made in the Shop Drawings.
- (e) The Contractor shall be responsible for confirming and correlating quantities and dimensions; selecting fabrication processes and techniques of construction; and co-ordinating the Work of Sub-contractors.

**22.
SHOP
DRAWINGS**

- (f) Prior to submission to the Engineer the Contractor shall review Shop Drawings. By this review the Contractor represents that he has determined and verified field measurements, field construction criteria, materials, catalogue numbers and similar data or will do so and that he has checked and co-ordinated each Shop Drawing with the requirements of the Work and of the Contract Documents. The Contractor's review of each Shop Drawing shall be indicated by stamp, date and signature of a responsible person.
- (g) Shop Drawings shall be properly identified by the name of the project, the E.O. number, the item and the area in which the item is to be used. Where options occur on the Shop Drawing, the option proposed to be used shall be marked. If applicable, the related Specification Section shall be indicated.

**23.
OWNERSHIP OF
DOCUMENTS**

Contract Documents, including Drawings, Specifications, models and similar items supplied by the Engineer are his property. Such Documents are not to be used on other work and, with the exception of the signed Contract Documents, shall be returned by the Contractor to the Engineer on the completion of the Work.

**24.
LIABILITY**

The Contractor shall assume the defence of and shall indemnify and save harmless the Owner from claims:

- (a) resulting from the performance of the Work, or
- (b) resulting from any of the Contractor's operations, or
- (c) caused by reason of the existence, location or condition of the Work, or
- (d) caused by reason of any material, plant or labour used in the Work, or
- (e) arising from an act of commission or omission on the part of the Contractor, or
- (f) relating to inventions, copyrights, trademarks, patents (and rights to them) used in doing the Work, or in the use and operation of Work on completion, unless otherwise specified.

**25.
LIABILITY
INSURANCE**

The Contractor shall insure and maintain insurance against liability for bodily injury and property damage that may arise with respect to the Work being performed under the Contract. Such insurance shall:

- (a) be in the joint names of the Owner, the Contractor, the Sub-contractors and the Engineer, and
- (b) include coverage for:
 - (i) Contractual liability, and
 - (ii) Cross liability, and
 - (iii) Contingent Employer's liability, and
 - (iv) Completed Operations liability, and
 - (v) Non-owned automobile liability, and
- (c) have an inclusive limit at least equal to \$1,000,000, unless otherwise specified, and
- (d) remain in force until the issue by the Engineer of the Final Certificate, except the Completed Operations liability shall remain in force for the duration of the Guarantee period.

**26.
AUTOMOBILE
INSURANCE**

The Contractor shall insure and maintain insurance against liability for bodily injury and property damage caused by automobiles owned by the Contractor and used on the Work. Such insurance shall have an inclusive limit at least equal to \$1,000,000. An automobile shall be as defined in the Highway Traffic Act.

**27.
WORKERS'
COMPENSATION**

The Contractor shall pay such assessments as will protect him and the Owner from claims under the Workers' Compensation Act.

**28.
LOSS OR
DAMAGE**

The Owner shall not be answerable or accountable for loss or damage by fire or otherwise of the Work, or part of the Work, or for material, equipment, or similar items to be incorporated into the Work.

The Contractor shall properly guard the Work and make good loss or damage of whatever nature or origin that may arise out of the Contract, until the Work is complete as indicated by the issue by the Engineer of the Total Completion Certificate.

29. The Contractor shall insure the Work and maintain such insurance against "all risks", which shall, unless otherwise specified, include flood and earthquake. Such insurance shall:

**29.
DAMAGE
INSURANCE**

- (a) be in the joint names of the Owner, the Contractor and the Sub-contractors, and the Engineer,
- (b) be for an amount equal to 100% of the total contract price and cover labour, materials, equipment and similar items to be incorporated into the Work, and that are on the site of the Work, or in transit to such site, and
- (c) remain in force until the issue by the Engineer of the Total Completion Certificate.

30. (a) When the successful Tenderer is notified that his Tender has been accepted, he shall deposit with the Owner

**30.
INSURANCE
POLICIES AND
CERTIFICATES**

- (i) a copy of damage insurance policy as required in Section 29, and
- (ii) copies of liability and automobile insurance policies indicating compliance with Sections 25 and 26.

- (b) Insurance policies shall stay in force and not be amended, cancelled or allowed to lapse without thirty (30) days' prior notice.

- (c) The Contractor shall deposit certificates with the Owner indicating that the Contractor has paid assessments under the Workers' Compensation Act as provided in Section 27. Such certificates shall be deposited:

- (i) at the time of award of the Contract, and
- (ii) at intervals of six months during the course of the Contract, and
- (iii) before issue of the Substantial Performance Certificate after substantial performance, and
- (iv) before issue of the Final Certificate.

31. (a) Claims or alleged claims received by the Contractor shall be dealt with immediately by the Contractor. If a claim is settled to the satisfaction of the claimant, the Contractor shall submit to the Engineer a copy of the claimant's release.

**31.
INSURANCE
CLAIMS**

- (b) If a claim or alleged claim is rejected by the Contractor and/or his insurance company, the Contractor shall report this fact in writing to the Engineer.

- (c) Should 30 days elapse after the claim or alleged claim has been received by the Contractor, and the Contractor is not able to report settlement or rejection of the claim, it shall report to the Engineer the steps being taken with respect to the claim.

32. The Engineer may prohibit the Contractor from performing Work during hours of the day in which the Engineer, in his judgement, deems such operations to be a disturbance or nuisance to the public.

**32.
HOURS
OF WORK**

Such prohibition may be made notwithstanding prior consent, order, agreement or requirement in the Contract that stipulates maximum or minimum hours of Work.

33. (a) At monthly intervals, the Contractor and the Engineer shall make a valuation of the Work and materials supplied under the Contract. Should the Engineer wish to measure the Work or materials supplied, the Contractor shall assist in such measurements and furnish particulars required.

**33.
VALUATION**

- (b) The monthly valuations described in subsection (a) above shall not bind the Owner, the Contractor or the Engineer to final valuation of the Work to be performed under the Contract, but shall be construed as approximations only for the purpose of Progress Certificates.

- (c) The final valuation of the Work shall be prepared as soon as possible after the whole of the Work has been completed.

34. The Contractor shall be entitled to receive partial payments upon the certificate of the Engineer of the value of Work performed and materials supplied.

**34.
PROGRESS
CERTIFICATES**

Unless otherwise specified, ninety per cent (90%) of the estimated value of the performed Work and materials supplied will be certified, less amounts retained under Section 37.

For Progress Certificates, the Engineer's decision as to the estimated value of performed Work and material supplied shall be final, but shall not be binding on him, the Contractor or the Owner in the establishing of the final value of the Work, nor shall it be taken as evidence as to ownership of, or payment for the Work.

**35.
SUBSTANTIAL
PERFORMANCE
AND HOLDBACK
RELEASE**

Holdbacks held under the provision of the Construction Lien Act will be released upon application by the Contractor, and will be subject to the requirements of the Act. The Contractor's applications shall be made in the forms included as Appendices 1 and 2 to these General Conditions. When the Engineer is satisfied that the Work meets the requirements of Substantial Performance in the Construction Lien Act he will issue a Substantial Performance Certificate.

**36.
TOTAL
COMPLETION
CERTIFICATE**

- (a) When the Work required to be performed under the Contract has been completed in every respect and is acceptable to the Engineer, a final valuation of the Contract will be prepared by the Contractor and the Engineer.
- (b) The Contractor shall submit to the Engineer a statement indicating the Contractor's valuation of the Work according to records available to the Contractor. The Engineer will review this statement and either accept it or submit detail reasons for revisions that, in his opinion, should be made.
- (c) Should the Engineer consider it advisable, the Engineer will prepare a final valuation of the Work and submit it to the Contractor who shall either accept it or submit detail reason for revisions that, in his opinion, should be made.
- (d) When the Engineer and Contractor have reached agreement as to the final value of the Work, the Engineer will issue a Total Completion Certificate, detailing the valuation of the Contract, and certifying its acceptance at a certain specific date, referred to as the "acceptance date".
- (e) Should the Engineer and Contractor be unable to reach agreement as to the final value of the Work within a reasonable period, the Engineer will issue his Total Completion Certificate detailing his valuation of the Contract and certifying acceptance of the Work at a certain specific date, referred to as the "acceptance date".

**37.
PAYMENTS**

As well as moneys held back as required by Provincial Statutes, the Owner may retain a percentage of the value of the performed Work under conditions set out in the Supplementary General Conditions of Contract.

**38.
FINAL
CERTIFICATE**

Provided the provisions of the Contract have been fully met, the Engineer will issue a Final Certificate one year after the acceptance date, unless otherwise specified.

**39.
GUARANTEE**

- (a) The Contractor shall guarantee that the Work shall for a specified period from the acceptance date remain in a condition acceptable to the Engineer, and that he will make good in a permanent manner, satisfactory to the Engineer, imperfections due to materials or workmanship used in the construction, and damages caused by such imperfections. The decision of the Engineer shall be final as to the nature and cause of such imperfections and the necessity for remedying them.

Should the Contractor fail to comply with the directions of the Engineer, the Engineer may, after giving the Contractor forty-eight (48) hours' written notice, make arrangements for performance of the necessary Work, and the cost may be deducted or collected by the Owner as provided in the Contract.

- (b) Notwithstanding the provisions of subsection (a) of this section, the Engineer may, in cases of danger or public safety, make such immediate arrangements for repair as he sees fit, and the Engineer will inform the Contractor of such action. The cost of such emergency Work shall be borne by the Contractor.
- (c) If the Engineer notifies the Contractor, in writing, of imperfections prior to the termination of the guarantee period, the Contractor shall make good the imperfections as required in subsection (a) above, notwithstanding that such Work of making good may commence after or extend beyond the end of the guarantee period. If any Work hereunder is to be performed beyond the end of the guarantee period, the guarantee period shall be extended until the performance of the Work is complete.

40. (a) The Owner may terminate the employment of the Contractor, if the Engineer certifies that sufficient cause exists to justify such action. Such termination of employment may be made:

**40.
TERMINATE
EMPLOYMENT
OF
CONTRACTOR**

- (i) if the Contractor should be adjudged a bankrupt, or
- (ii) if it should make a general assignment for the benefit of its creditors, or
- (iii) if a receiver should be appointed on account of its insolvency, or
- (iv) if it should take the benefit of any Act relating to insolvent debtors, or
- (v) if a winding up order be made against the Contractor, or
- (vi) if it should refuse or fail to supply enough plant, properly skilled labour or proper materials after having received seven (7) days notice in writing from the Engineer so to do, or
- (vii) if it should fail to make prompt payment to Sub-contractors and suppliers, or
- (viii) if it should persistently disregard laws, regulations or the instructions of the Engineer, or,
- (ix) if it should otherwise be guilty of a substantial violation of the provisions of the Contract.

- (b) Should the Owner terminate the employment of the Contractor, as provided in subsection (a) above, he shall give the Contractor seven (7) days' written notice of such termination of employment.
- (c) Should the Owner terminate the employment of the Contractor, as provided in subsection (a) above, he may take possession of the premises and of materials and plant on the premises, and may finish the Work by methods he may deem expedient, but without undue delay or expense. In such case, the Contractor shall not receive further payment until the Work is complete.
- (d) If the unpaid balance of the contract price exceeds the expense of finishing the Work (including compensation to the Engineer for his additional services), such excess shall be paid to the Contractor. If such expense exceeds the unpaid balance, the Contractor shall pay the difference to the Owner. The additional expense incurred by the Owner due to the Contractor's default shall be certified by the Engineer.

41. The Contractor, together with a Surety Company approved by the Owner and authorized by law to carry on business in the Province in which the Work is to be performed, shall furnish a Performance Bond to the Owner in the form attached in the amount of 100% of the Contract price. The Bond shall unconditionally guarantee the performance of the Contract, shall be at the expense of the Contractor, and shall remain in effect until the issue by the Engineer of the Final Certificate.

**41.
PERFORMANCE
BOND**

42. The Contractor shall not assign the Contract, or any part of it without the written consent of the Owner, nor shall the Contractor assign moneys due, or to become due, to it without the written consent of the Owner.

**42.
ASSIGNMENT**

43. The Contractor shall employ a competent supervisor and necessary assistants who shall at all times, be in attendance at the place of the Work while Work is being performed.

**43.
SUPERINTENDENCE**

The supervisor shall be satisfactory to the Engineer and shall not be changed except for good reason and only then after consultation with the Engineer.

The supervisor shall represent the Contractor at the place of the Work and directives given to him by the Engineer shall be held to have been given to the Contractor.

The Contractor shall provide the Engineer with the name, address and phone number of the supervisor and other responsible person(s) who may be contacted for emergency or other reasons.

APPENDIX 1 OF THE GENERAL CONDITIONS OF THE CONTRACT
APPLICATION FOR RELEASE OF SUBCONTRACTOR'S HOLDBACK

Owner:

Project:

EO:

Contractor:

Sub-contract:

Sub-contractor:

1. We, _____ the said Sub-contractor hereby confirm that the Work under the said sub-contract was completed on _____, that the sub-contract price was \$ _____, and hereby request the issue of a certificate that such sub-contract Work has been completed.

Date: _____

Signature: _____

SEAL:

2. We, _____ the said Contractor hereby confirm that Work of the above sub-contract has been completed in accordance with the Contract Documents and that the sub-contract price was \$ _____, and hereby apply for a reduction in holdback with respect to the sub-contract, in accordance with the provisions of the Construction Lien Act.

Date: _____

Signature: _____

SEAL:

PROCTOR & REDFERN LIMITED
Consulting Engineers

MAY 1984

APPENDIX 2 OF THE GENERAL CONDITIONS OF THE CONTRACT
APPLICATION FOR RELEASE OF CONTRACTOR'S HOLDBACK

Owner:

Project:

EO:

Contractor:

We,
confirm

the said Contractor, hereby

- (i) that the Work under the above Contract is "substantially performed" as defined in the Construction Lien Act, and
- (ii) that there are no outstanding liens, garnishees, attachments or other charges affecting the Work, and
- (iii) That the value of Work performed to the date of substantial performance is \$ and
- (iv) that the value of Work remaining to be done is \$

and hereby apply for release of holdback moneys in accordance with the provisions of the Construction Lien Act.

Date: _____

Signature: _____

SEAL:

PROCTOR & REDFERN LIMITED
Consulting Engineers

MAY 1984

SECTION 01010

GENERAL

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. This Contract is for Work in the Town of Pelham to refurbish the existing Fonthill Pool.

1. Removal of the existing piping system and pool deck.
2. Design and install new piping system and pool deck.
3. Sandblast and paint pool shell.

1.02 DEFINITIONS

- A. The following are definitions of words found in the Specification:

1. "Work" - means supply labour, products, service handling and cartage required for complete performance of the item concerned.
2. "Provide" (and tenses of "provide") - means supply and install complete.
3. "Install" (and tenses of "install") - means install and connect complete.
4. "Supply" - means supply only.

1.03 SHOP DRAWINGS AND PRODUCT DATA

- A. Submit to the Engineer in accordance with the General Conditions six (6) copies, or one (1) sepia and one (1) white print of all shop drawings.
- B. Submit the shop drawings and product data sheets as specified in sections of the Specification.
- C. Show on the shop drawings the products, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for proper performance of the Work. Where products attach or connect to other products, indicate that such items have been co-ordinated, regardless of the Section under which the various products have been specified. Identify by

cross-references to design drawings and Specifications.

- D. Product data sheets are defined as manufacturer's catalogue sheets, brochures, literature, technical data, performance charts and diagrams and similar data used to illustrate quality, characteristics, capacity and performance of the specified, manufactured products.
- E. The Consultant will review the shop drawings and product data sheets and will indicate his review status by stamping shop drawing and product data sheets copies as follows:
 - 1. "Reviewed" or "Reviewed as Noted" - If the Consultant's review of a shop drawing or product data sheet is final, the Consultant will stamp the shop drawing or product data sheet "Reviewed" or "Reviewed as Noted" (appropriately marked) and keep his own required number of copies. The sepia and one white print will be returned to the Contractor.
 - 2. "Revise and Resubmit" - If the Consultant's review of a shop drawing or product data sheet is not final, the Consultant will stamp the shop drawing or product data sheet "Revise and Resubmit", mark the submission with his comments, keep one copy for his records, and return the sepia and a marked print to the Contractor. Revise the shop drawing or product data sheet in accordance with the Consultant's notations and resubmit.
- F. The shop drawing and the product data sheet reviews do not authorize changes in cost or time. Changes involving cost or time are authorized only by a signed change order.
- G. It is understood that the following is to be read in conjunction with the wording on the Consultant's shop drawing review stamp applied to each and every data sheet or drawing submitted:
 - 1. "This review by the Consultant is for the sole purpose of ascertaining general conformance with the Contract design concept. This review does not mean that the Consultant approves the detail design inherent in the shop drawings, responsibility for which remains with the Contractor, and such review does not relieve the Contractor of the responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents. Be responsible for confirming and correlating dimensions at the Place of the Work, for information

that pertains solely to fabrication processes or to techniques of construction and installation, and for coordination of the work of all subtrades".

END OF SECTION

SECTION 01061

ENVIRONMENTAL CONSIDERATIONS

PART 1 GENERAL

1.01 INTENT

- A. This Section covers the work for the protection of the environment during construction.
- B. The provisions of this Section are in addition to the provisions of other Sections of this Contract.

1.02 PROTECTION OF THE NATURAL ENVIRONMENT

- A. Be responsible for the protection of the natural environment of the site and surrounding areas, both land and water. Confine construction to designated areas and erect suitable barricades to protect areas on which no Work is designated to be performed.

1.03 INSPECTION

- A. Be advised that inspectors from the Ministry of the Environment and other authorities may make periodic visits to the site during construction. They have the power to order the Contractor to stop Work if the work, in their opinion is not being done to ensure compliance with environmental objectives. The Engineer's acceptance of the work may be withheld until the Ministry or other authorities concerned have issued their approval.

1.04 INCLEMENT WEATHER

- A. Make adequate protection and take precautions at times of inclement weather.
- B. Inclement weather or extra Work caused by such weather will not be accepted as reason for additional payment or an extension to the Time for Completion.

1.05 SURFACE DRAINAGE & WATERCOURSES

- A. Maintain ditches and watercourses for surface water drainage of the site and external properties during construction, and bear the responsibility for damage that may result by reason of not doing so.
- B. Incorporate appropriate sediment retention measures to ensure that sediment and other debris are not discharged to the adjacent ditches and watercourse.

- C. Locate and protect stockpiles of a semi-permanent nature to the satisfaction of the Engineer to ensure minimum environmental interference.

1.06 TREES

- A. Cut down trees only as shown on the Drawings or as designated by the Engineer.
- B. Take precautions to prevent damage to existing trees and shrubs, protect branches and foliage, protect trunks and stems, prevent machinery from travelling over roots within the 'drip-line' of the trees.
- C. Where damage does occur, have it repaired or replaced by a qualified person as directed by the Engineer.
- D. Where trees or shrubs are damaged beyond recovery, and cannot be replaced by similar plant material of the same type and size, pay penalties as established by the International Society of Arboriculture's booklet entitled 'A Guide to Professional Evaluation of Landscape Trees, Specimen Shrubs and Evergreens'.

1.07 NOISE CONTROL

- A. Adhere to local noise by-laws.
- B. Equip vehicles and equipment with efficient muffler devices to minimize noise levels in the vicinity of the site.
- C. Where necessary, place noise attenuation devices (barriers) around stationary pumps, compressors and other sources of noise.

1.08 DUST CONTROL

- A. Undertake dust control measures to prevent dust nuisances from any phase of the construction operation.
- B. Permitted dust control measures may include the application of calcium chloride or water. In general, the use of calcium chloride is to be kept to a minimum and is restricted to vehicle rights-of-way. Use more frequent applications of water in close proximity to watercourses. Obtain Engineer's acceptance before chemicals for dust control are used.
- C. Transport dusty materials in covered haulage vehicles.
- D. Transport wet materials in suitable watertight haulage

vehicles.

1.09 EQUIPMENT FUELLING, MAINTENANCE AND STORAGE

- A. Carry out refuelling, except the fuelling of backhoes and shovels, at acceptable refuelling areas.
- B. Obtain Engineer's acceptance of refuelling areas.
- C. Submit to the Engineer for review prior to starting works, procedures for the interception and rapid clean-up and disposal of fuel spillages which occur.
- D. Ensure the materials required for the clean-up of fuel spillages are readily accessible on site at all times.
- E. Refuelling of backhoes or shovels will be allowed at locations other than the the accepted refuelling areas, but not closer than 5 m from any watercourse.
- F. The cleaning of equipment in streams and lakes and the emptying of fuel, lubricants and pesticides into watercourses is prohibited. Contain construction debris and dispose of it in approved locations.
- G. Clean construction equipment prior to entering public roadways to prevent littering. Ensure the debris cleaned from equipment cannot gain access to storm sewers or watercourses.
- H. Store equipment and materials in an orderly manner and in locations acceptable to the Engineer.

1.10 ARCHAEOLOGY

- A. During the performance of the work, have regard to the requirements of the Ontario Heritage Act, RSO 1980, Chapter 59, and the Cemeteries Act; RSO 1980, Chapter 337.
- B. If any archaeological and historical resources are discovered during the performance of the work, the performance of the work in the area of the discovery is to halt. Notify the Ministry of Culture and Recreation for an assessment of the discovery. Do not resume work in the area of the discovery until cleared to do so by the Ministry.
- C. If the Work is delayed by archaeological discoveries or the Contractor is required to assist in an archaeological investigation, compensation will be paid the Contractor in accordance with the General Conditions.

1.11 RESTORATION

- A. In general, restore the site to condition equal to or, if specified elsewhere, to a condition better than existing conditions.
- B. Restore lands outside of the limits of the work which are disturbed by the work to their original condition in addition to complying with the General Conditions.

1.12 SPILLS REPORTING

- A. In the event of a spill or other emission of a pollutant into the natural environment, every person responsible for the emission or who causes or permits it must forthwith notify:
 - 1. the Ministry of the Environment (Tel: 1-800-268-6060)
 - 2. the municipality or the regional municipality within the boundaries of which the spill occurred;
 - 3. the owner of the pollutant, if known; and,
 - 4. the person having control of the pollutant, if known
 - 5. the Engineer of the spill, of the circumstances thereof, and of the action taken or intended to be taken with respect thereto.

1.13 CONTINGENCY PLAN

- A. Prior to commencing construction, prepare a contingency plan for the control and clean-up of a spill. The contingency plan to include:
 - 1. the names and the telephone numbers of the persons in the local municipalities to be notified forthwith of a spill
 - 2. the names and the telephone numbers of the representatives of the fire, the police and the health departments of the local municipalities who are responsible to respond to emergency situations
 - 3. the names and the telephone numbers of the companies experienced in the control and clean-up of hazardous materials that would be called upon in an emergency involving a spill
 - 4. the Contractor's proposal for the immediate

containment and control of the spill, the clean-up procedures to be initiated immediately and any other action to be taken to mitigate the potential environmental damage while awaiting additional assistance, and,

5. the name and the telephone number of the Contractor's representative responsible for preparing, implementing, directing and supervising the contingency plan.
- B. Ensure the immediate availability of the products with which to effect temporary repair to broken pipelines and other services so the spill or other emission of a pollutant is immediately controlled and stopped and to mitigate the damages.
 - C. Submit for the Consultant's review and the review of other responsible parties a copy of the Contingency Plan and make appropriate changes to it based on review comments received.

END OF SECTION

SECTION 02200

REMOVALS, EXCAVATING, BACKFILLING AND GRADING

PART 1 GENERAL

1.01 INTENT

- A. This Section covers the Work for removals, excavating, backfilling and grading for structures.

- 1. Disposal of unwanted material.

- 2. Excavating for Water Collection Drain.

1.02 DISPOSAL OF UNWANTED MATERIAL

- A. Remove unwanted material, such as piping, concrete, spoil or excess material from the site.

PART 2 PRODUCT

2.01 FILL AND BACKFILL

- A. Provide Granular 'A' material conforming to OPSS 1010 for backfill to structures, and concrete bedding.

PART 3 EXECUTION

3.01 EXCAVATION

- A. Excavate, clean and level. Remove loose material.

3.02 FILL AND BACKFILL

- A. Use Granular 'A' for fill and backfill to bottom of structure, compacted to 100 percent Standard Proctor Density at optimum moisture content.

END OF SECTION

SECTION 03300M
CAST IN PLACE CONCRETE

PART 1 GENERAL

1.01 INTENT

A. This Section covers cast-in-place concrete Work including -

1. Formwork
2. Reinforcing
3. Joints
4. Setting of anchor bolts and inserts
5. Concrete placing
6. Testing
7. Curing
8. Finishing
9. Water Collection Drain

1.02 STANDARDS

A. Comply with -

1. Ontario Building Code
2. National Building Code of Canada (NBC)
3. National Standards of Canada CAN3-A23.1-M77 and CAN3-A23.2-M77.

1.03 TESTING

A. Testing will be performed by a testing agency arranged by the Engineer.

B. To facilitate testing services -

1. Furnish such casual labour as is necessary to obtain and handle samples at the project and at the sources of materials.
2. Provide and maintain for the use only of the testing

agency, facilities conforming to CAN3-A23.2-3C-M77 acceptable to the agency for storing and curing of test cylinders.

3. Advise the testing agency sufficiently in advance of the operation to allow for the desired quality tests and for the assignment of personnel.
- C. Routine testing of materials, and resulting concrete for compliance with the technical requirements of the specifications, will be paid for by the Owner.
- D. Engage the testing agency and pay costs associated with testing required because of changes in materials or proportions of the mix requested by the Contractor, and extra testing of concrete or materials occasioned by their failure to meet the specification requirements.
- E. The use of testing services does not relieve the Contractor of his responsibility to furnish materials and construction in compliance with the Contract Documents.

1.04 MIX DESIGNS

- A. Submit to the Engineer for approval the following information -
 1. Statements certifying the materials as per CAN3-A23.1.
 2. Proposed mix designs.
 3. Thirty pairs of consecutive concrete cylinder test results together with calculations showing the coefficient of variation for the concrete produced in conformance with ACI 214 'Recommended Practice for Evaluation of Compression Test Results of Field Concrete'.

1.05 SUBMITTALS

- A. Prepare and submit shop drawings and product data sheets necessary for construction of the following:
 1. Pool deck consisting of a 150 mm (minimum) mesh reinforced concrete slab having a positive grade to the perimeter Water Collection Drain. Water level to be maintained at present level.
 2. Pool shell painting.
 3. Water Collection Drain - 100 mm diameter P.V.C. pipe

with four 100 mm diameter grates to collect water.

PART 2 PRODUCTS

2.01 MATERIALS FOR CONCRETE MIXES

- A. Use materials conforming to CAN3-A23.1-M77.
- B. Cement
 - 1. Use type 50 cement.
- C. Additives
 - 1. Air-entraining agents - use except in skim slabs and fill concrete.
 - 2. Ensure admixtures are compatible with each other and with construction materials used in contact with concrete.
 - 3. Do not use calcium chloride.

2.02 Reinforcement

- A. Welded wire mesh - Comply with CSA G30.5, or ASTM A185.

2.03 SANDBLASTING MATERIAL

- A. Clear-washed silica sand, free of foreign material, supplied in sealed sacks.

2.04 MIXES

- A. Structural Concrete
 - 1. Proportion in accordance with CAN3 A23.1-Table 11 Alternate Number 1, for Class 'B' exposure.
 - 2. Provide concrete strength at 28 days of -
 - a. 30 MPa for structures.
- B. Toppings, Screeds and Grouts
 - 1. Proportion in accordance with CAN3 A23.1 Table 11, Alternate Number 1 for Class 'B' exposure.
 - 2. Provide concrete strength at 28 days of - 30 MPa.

3. Use a minimum cement content of 360 kg/cu. metre.
 4. Use 10 mm maximum size aggregate for screeds and grouts and 10 mm max. size traprock aggregate for room floor toppings.
 5. Include additives.
 6. Provide concrete with a slump of 50 mm +25 mm.
- C. Polyvinyl Chloride Sewer Pipe
1. PVC gravity - flow sewer pipe - ASTM D3034.
 2. Pipe diameter and class - 100 mm, DR 28.
- D. Pool Deck Drains
1. Dura-Coated Cast Iron Body, polished nickel bronze.

PART 3 EXECUTION

3.01 STANDARD OF WORKMANSHIP

- A. Comply with CAN3 A23.1 'Concrete Materials and Methods of Construction'.

3.02 POOL DECK

- A. Design new pool deck and skimmer system to maintain present water level in pool.

3.03 RELEASES

- A. Provide notice of intent to pour between 24 hours and 7 days prior to the pour.

3.04 HOT WEATHER WORK

- A. Take hot weather precautions when the concrete temperature at any time exceeds 25 degrees C.

3.05 COLD WEATHER WORK

- A. Take cold weather precautions whenever the ambient temperature is, or is expected to be, at or below 5 degrees C.

3.06 CURING AND PROTECTION

- A. Minimum grade on pipe - 1.0%.
- B. Bedding - Granular 'A'.
- C. Pipe on the north and south perimeter of pool deck to outlet on slope to east of the pool.

3.11 CLEAN-UP

- A. Promptly as the work proceeds and upon completion, clean-up and remove from the site, rubbish and surplus material resulting from the Work of this Section.

END OF SECTION

SECTION 08110

HOLLOW METAL DOORS WITH FRAMES

PART 1 GENERAL

1.01 INTENT

- A. This Section covers hollow metal doors with frames Work including -

1. Hollow metal doors
2. Hollow metal frames
3. Core Insulation
4. Glazing stops
5. Protective shop coating

1.02 QUALITY ASSURANCE

- A. Standards

1. Conform to latest edition of referenced standards.

- B. Unless otherwise specified, fabricate doors and frames in accordance with the Canadian Steel Door and Frame Manufacturers' Association.

1.03 SUBMITTALS

- A. Prepare and submit shop drawings and product data sheets necessary for the installation of doors, frames and accessories in the equipment room.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Provide hollow metal doors, steel frames and accessories (locks, etc.) for entrance into equipment room.
- B. Galvanizing
1. Wipe-coated sheet, zinc coating wiped to average weight of 1 ml per 0.1 m², conform to ASTM A525.

2. Zinc-coated accessories, 30 ml per m2, galvanizing conform to CSA G164.

C. Hollow Metal Doors

1. Steel for hollow metal doors - 1.27 mm facing, 0.79 mm stiffening core, 150 o.c., 1.27 mm channel edging.

PART 3 EXECUTION

3.01 REMOVAL

- A. Remove existing doors, frame and accessories and dispose off site.

3.02 INSTALLATION

- A. Erect work plumb, true, square, straight, level, accurate to sizes detailed and free from distortion or defects detrimental to appearance and/or performance.

3.03 ADJUST AND CLEAN

- A. Shop clean, phosphatize and prime the doors and frames. After fixing the doors and frames, touch up and make ready for the field prime and finish coatings.

END OF SECTION

SECTION 15200
PIPING AND MISCELLANEOUS EQUIPMENT

PART 1 GENERAL

1.01 INTENT

- A. This Section covers the following Work -
1. Piping, valves and fittings
 2. Water circulation pump
 3. Water surface skimmer system
 4. Security fence
 5. Pool appurtenances

1.02 STANDARDS

- A. Comply with -
1. Ontario Building Code
 2. National Building Code of Canada (NBC)
 3. National Standards of Canada
 4. Ontario Provincial Standards (OPS)

1.03 EXAMINATION OF SITE

- A. Carefully examine all conditions at the site that will or may affect mechanical Work, and become familiar with site conditions, the building construction, finishes, and Work associated with mechanical Work in order that your tender price includes for everything necessary for completion of the mechanical Work.

1.04 PLANNING AND LAYOUT OF WORK

- A. The exact locations and routing of mechanical and electrical services are to be properly planned, co-ordinated and established with all affected trades prior to installation such that the services will clear each other as well as any obstructions. Generally, give the right of way to piping requiring uniform pitch and locate and arrange other services to suit.
- B. Prepare working detail drawings when deemed necessary by

the Engineer for all areas where a multiplicity of services and/or equipment occur, or where the Work due to architectural and structural considerations involves special study and treatment. Submit working detail drawings to the Engineer in shop drawing form for review before the affected Work is installed.

- C. Carry out all alterations in the arrangement of Work that has been installed without proper co-ordination, study, and review, even if in accordance with the Contract Documents, in order to conceal the Work behind finishes, or to allow the installation of other Work, without additional cost. In addition, make any alterations necessary in other Work required by such alterations, without additional cost.

1.05 SUBMITTALS

- A. Prepare and submit shop drawings and product data sheets as necessary, properly identified and dimensioned showing in detail the design, construction and performance of equipment and materials for:

1. Equipment room piping
2. Pool piping
3. Water circulation pump
4. Water surface skimmer system
5. Guard chairs and pool slide

1.06 WORK STANDARDS

- A. Where regulatory codes, standards and regulations are at variance with the Drawings and Specification, the more stringent requirement will apply.
- B. Where any code, regulation, by-law or standard is quoted it means, unless otherwise specifically noted, the current edition including all revisions or amendments at the time of the Contract. Where references are made to printed instructions, it means the current edition of such instructions.

1.07 RECORD DRAWINGS

- A. When Work begins at the site, clearly and accurately mark on a bound set of white prints of the Contract Drawings, on a daily basis, all changes and deviations from the routing of piping and ductwork and locations of equipment shown on the Contract Drawings. Changes and

deviations include those made by addenda, change orders, and site instructions, and changes and deviations indicated on supplemental drawings issued with addenda, change orders, and site instructions. Maintain the "as-built" white prints at the site for periodic inspection by the Engineer throughout the duration of the Work.

- B. Pay particular attention to accurately dimensioning the location of all concealed services terminated for future extension, all buried Work and services, and Work concealed within the building in inaccessible locations.

1.08 OPERATING AND MAINTENANCE INSTRUCTION MANUALS

- A. For each item of equipment for which a shop drawing is required (except for drains, plumbing fixtures and trim, and similar simple equipment), supply two, specific, indexed copies of equipment manufacturer's operating and maintenance instruction data. Consolidate each copy of the data in an identified hard cover three-ring binder.

1. A copy of each "reviewed" shop drawing.
2. Complete explanation of operation principles and sequences.
3. Complete part lists with numbers.
4. Recommended maintenance practices and precautions.
5. Complete wiring and connection diagrams.

1.09 WARRANTY

- A. Warrant the mechanical Work to be in strict accordance with the Contract Documents and free from defects for a period of one year from the date of issue of a Certificate of Substantial Performance of the Work.
- B. Repair and/or replace any defects that appear in mechanical Work within the warranty period, ordinary wear and tear and willful damage by or carelessness.

PART 2 PRODUCT

2.01 GENERAL

- A. Supply all materials required to complete the installation of all equipment and piping.

2.02 MATERIALS FOR PIPING, VALVES AND FITTINGS

- A. Schedule 40 or 80 rigid P.V.C. with solvent weld joints to CSA B137.3.

2.03 WATER CIRCULATION PUMP

- A. Supply pump to provide a four (4) hour turnover rate.

2.04 SECURITY FENCE

- A. Provide steel wire fabric fence, 2.4 m in height complete with single gate in accordance with OPSD-900.01 and 900.03.

2.05 APPURTENANCES

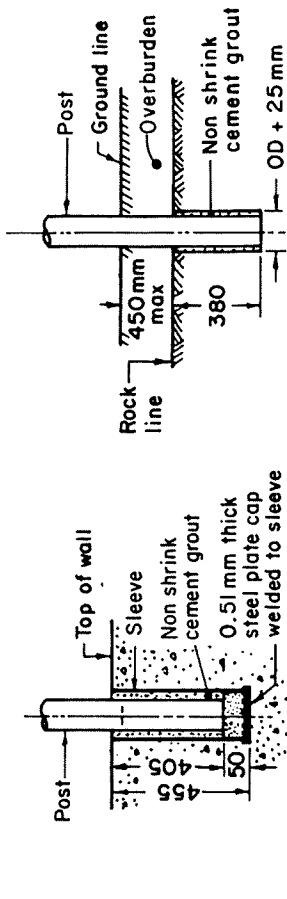
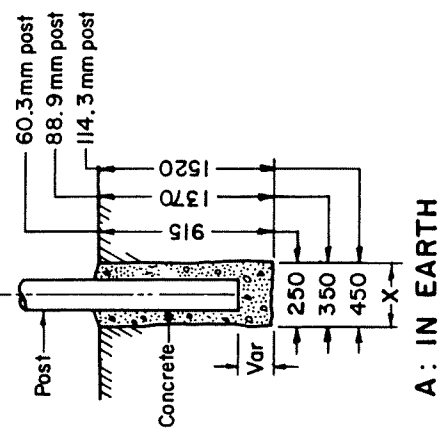
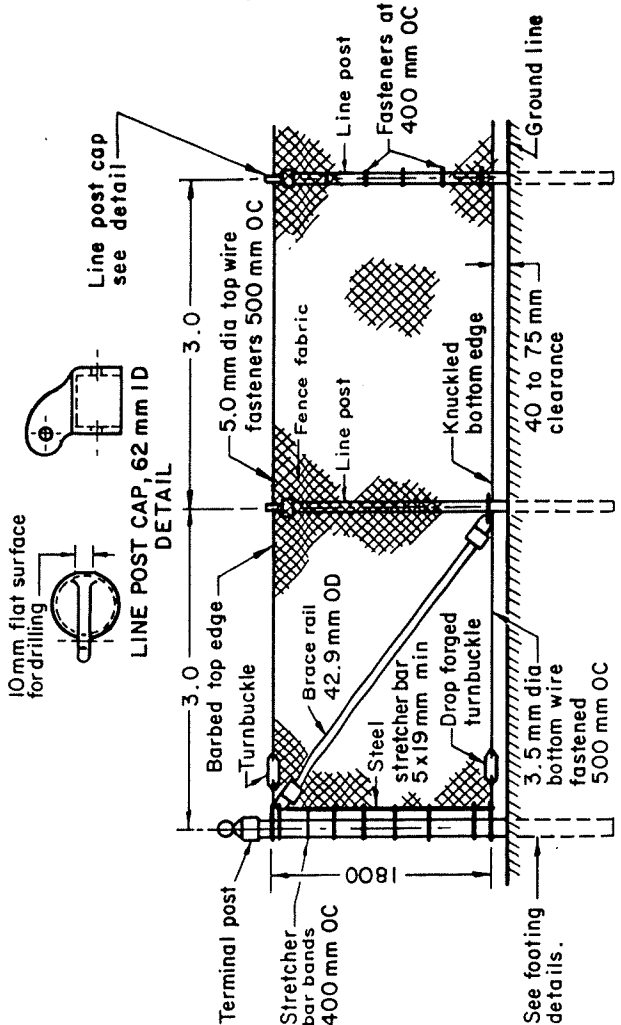
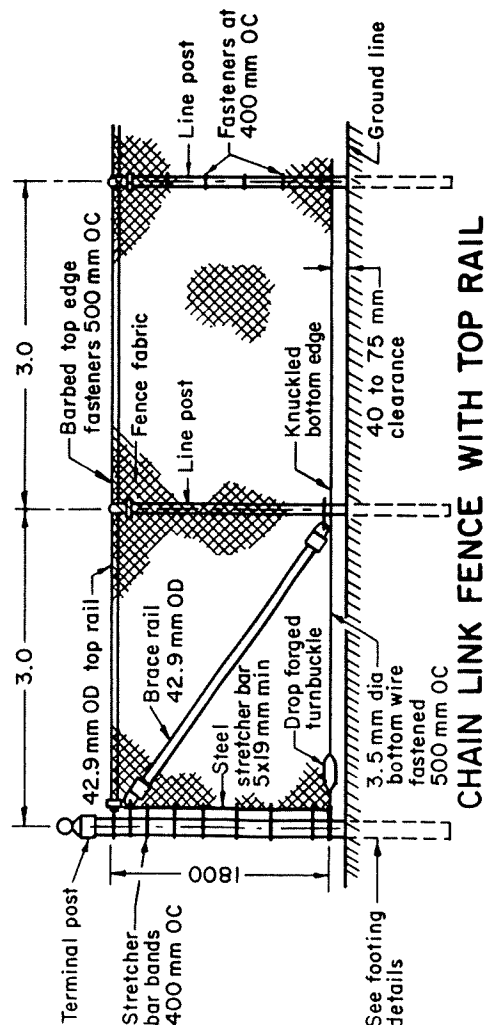
- A. Provide guard chairs (2) - Advance Pool Service Ltd., Paraflyte Lifeguard Chair, 01-A1325B, ladder at side or equivalent.
- B. Provide water slide (1) - Water Forms Canada Ltd., Yard Ape Slide or equivalent.
- C. Provide in-pool ladders (2) - Advance Pool Service Ltd., 01-HDL4T, four (4) treads or equivalent.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Provide all materials, labour and equipment to install complete, in full operational and guaranteed condition, all products referred to above.
- B. Install the products in strict accordance with the manufacturer's instructions and to the satisfaction of the Engineer.
- C. Be fully acquainted with all work involved in the complete installation of all products. At no time make any claim that any misunderstanding existed in regard to the nature or amount of work to be done.

END OF SECTION



**D : IN SOLID ROCK
(OVERBURDEN LESS THAN 450mm)**

FOOTING DETAILS A, B, C and D

Post type	OD (mm)	Post length (m)		Sleeves OD (mm)
		Standard	Retaining walls	
Line post	60.3	2.6	2.0	88.9
End, corner, or straining post	88.9	2.9	2.3	114.3

CHAIN LINK FENCE WITH TOP WIRE

NOTE :
A All dimensions are in millimetres or metres unless otherwise shown.

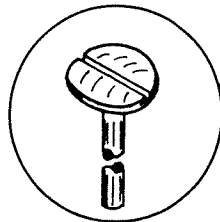
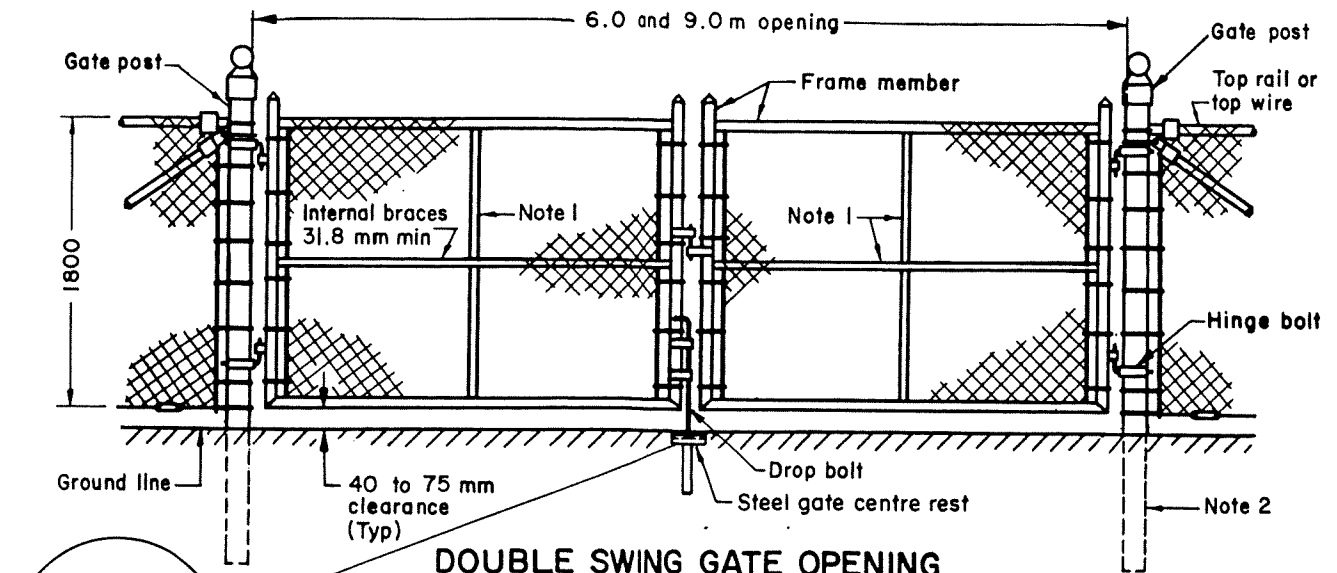
ONTARIO PROVINCIAL STANDARD DRAWING

Date 1988 05 11 Rev 3

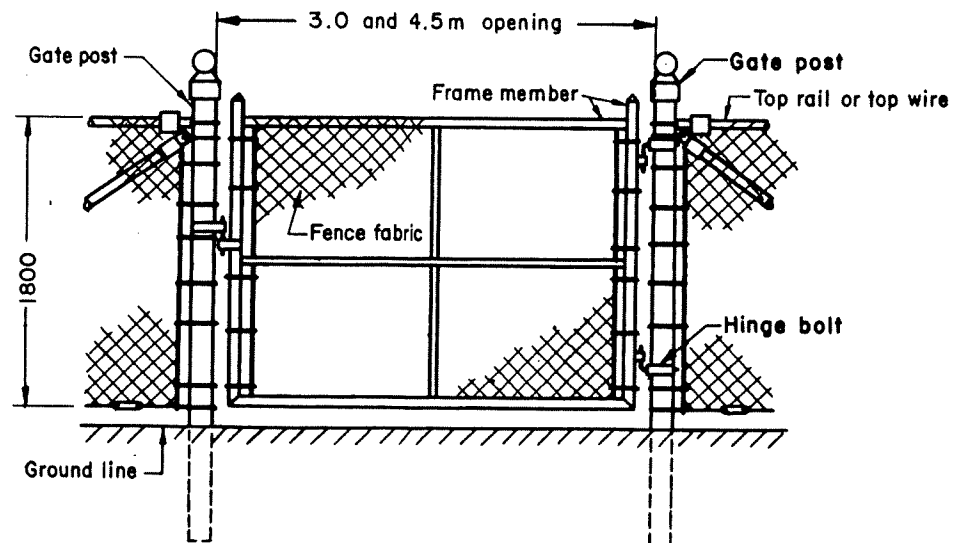
**CHAIN LINK FENCE
FOR ROADWAY INSTALLATIONS**

Date _____

OPSD - 900.01



**STEEL GATE
CENTRE REST**



SINGLE SWING GATE OPENING

GATE AND GATE POST DETAILS			
Gate type and Max opening (m)	Frame member Min OD (mm)	Post Dia Min OD (mm)	Post length standard (m)
Single swing 3.0	42.9	88.9	2.6
Double swing 6.0			
Single swing 4.5	48.3	114.3	2.9
Double swing 9.0			

NOTES:

- 1 Gate leaves greater than 3.6 m in width are supplied with diagonal braces.
 - 2 For footing details refer to OPSD-900.01.
- A All dimensions are in millimetres or metres unless otherwise shown.

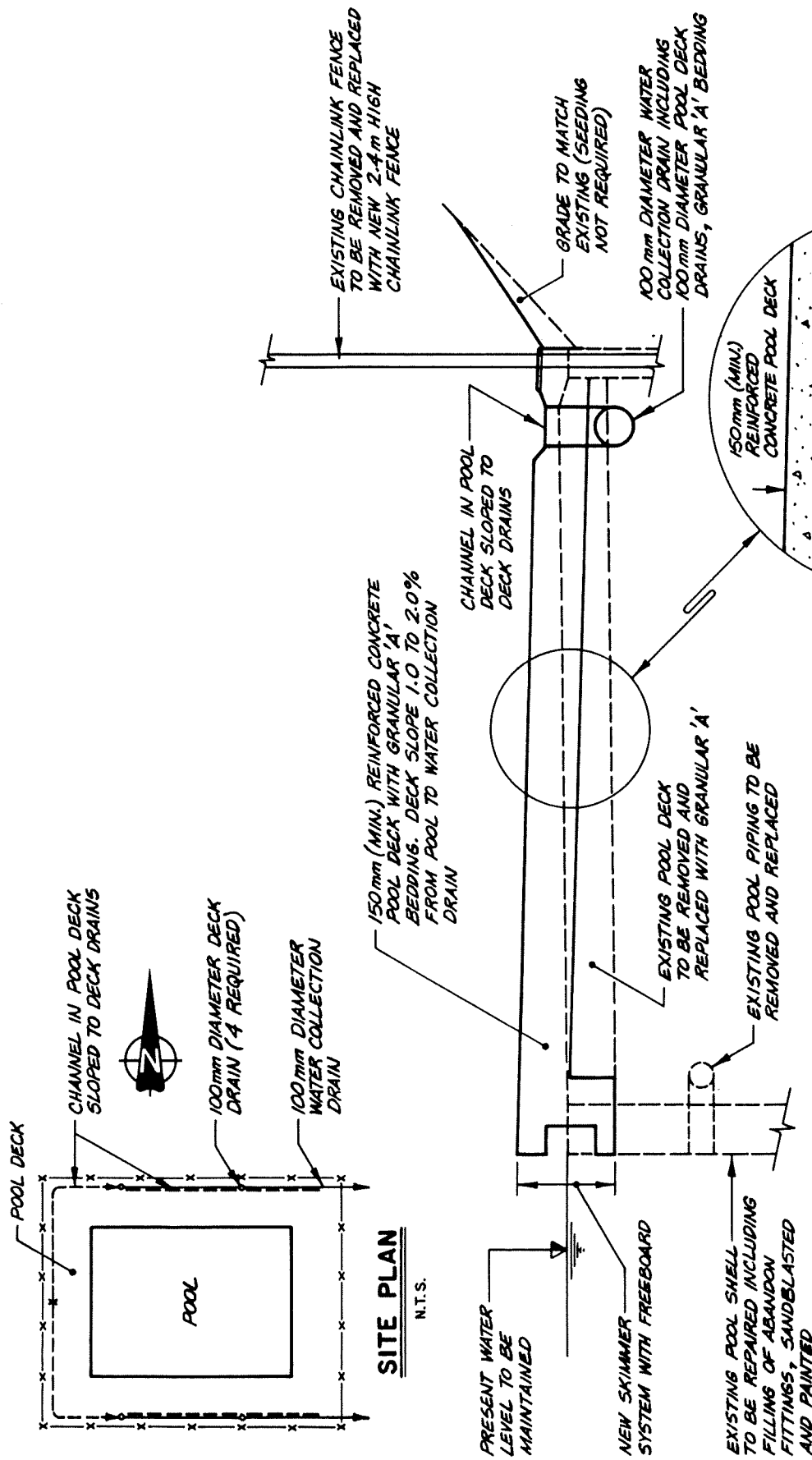
ONTARIO PROVINCIAL STANDARD DRAWING

Date 1988 05 11 Rev

**CHAIN LINK FENCE
GATES**

Date _____

OPSD - 900.03



N.T.S.

Drawing No. A4-90605(05)-SK1 Date: April 1990

Proctor & Redfern Group
Consulting Engineers and Planners



TYPICAL SECTION THROUGH NEW DECK

N.T.S.