



*High Commissioner of India
Brunei Darussalam*

**PROPOSED CONSTRUCTION OF CHANCERY, HIGH
COMMISSIONER'S RESIDENCE, STAFF RESIDENCES AND
AUXILIARY FACILITIES BUILDINGS
FOR THE HIGH COMMISSION OF INDIA
BRUNEI DARUSSALAM**

**FINANCIAL BID DOCUMENT
(VOLUME 1 OF 2)**

ARKITEK REKAJAYA
Architects & Interior Designers

OTHMAN & ASSOCIATES
Civil & Structural Engineers

LKA KONSULT SDN BHD
Mechanical & Electrical Engineers

MRBC PARTNERSHIP
Quantity Surveyors

PTE159

January 2020

INSTRUCTIONS TO TENDERER

1. Tenderers will provide with as follows:
 - (a) One loose bound set of tender documents and,
 - (b) One set of tender drawings.
 - (i) The Earnest Money Deposit (EMD) (submitted at Technical bid) will retain as on opening of Financial Bid and will be returned for unsuccessful bidder on acceptance of lowest price.
 - (ii) For successful bidder, EMD will be returned on received of irrevocable unconditional performance bond in the form of Banker's Guarantee.
 - (iii) In case the bidder withdraw their bid before the expiry of the validity, or before issue of letter of acceptance, or makes modification in the terms & conditions of the tender, his EMD will be forfeited.
 - (iv) If the lowest bidder fails to furnish the prescribed Performance Guarantee, or fails to sign the agreement in time, or fails to respond to request, or fails to provide required information (non-responsive), his EMD will be forfeited automatically without any notice.
 - (v) In case the Contractor fails to commence the work on commencement date as specified in the contract document, the Employer without prejudice to any right or remedy, be at liberty to forfeit whole of the EMD or Performance Guarantee as the case may be.
2. Tenderers are to deliver the tender in sealed envelopes marked:-

PRIVATE AND CONFIDENTIAL

TENDER FOR :

PROPOSED CONSTRUCTION OF CHANCERY, HIGH COMMISSIONER'S RESIDENCE, STAFF RESIDENCES AND AUXILIARY FACILITIES BUILDINGS FOR THE HIGH COMMISSION OF INDIA, BRUNEI DARUSSALAM

TO :

**AMIR CHAND
HEAD OF CHANCERY
HIGH COMMISSION OF INDIA
BAITUSSAYIFAA, SIMPANG 40-22
JALAN SUNGAI AKAR
BANDAR SERI BEGAWAN BC3915
BRUNEI DARUSSALAM**

not later than 2.00 p.m. on **21st February 2020**

Instructions to Tenderer

3. The tender documents shall be Form of Tender, these instructions to Tenderer, Appendices, the Articles of Agreement and Conditions of Contract, Specifications, Bills, Schedules and Drawings.
4. All tenders submitted shall remain open for consideration for One Hundred and Eighty Days (180) days (validity period) from the final date for submission of tenders and no tenderer may withdraw his tender within that period. In Case the tender is not decided towards the end of validity period, the Employer may request the tenderer to extend the validity for another 180 days for the tender and EMD. If tenderer withdraws his offer after such extension, the Employer shall be at liberty to forfeit the EMD absolutely.
5. Tenderers are advised that amounts inserted in the Summary and rates priced in the bill section must correctly reflect the cost of the works. If during evaluation of tenders and in the Quantity Surveyor's opinion, amounts do not correctly reflect the cost of the particular section of works or rates do not correctly reflect the cost of the particular item the tender may be rejected or considered for acceptance subject to adjustment to provide a more equitable distribution of cost. **THE TOTAL TENDER SUM FOR THIS TENDER IS A LUMP SUM FIXED PRICE TENDER (Exclusive of All Taxes and Levied Duties).** No Conditional tender will be accepted.
6. Tenderers are required to acquaint themselves with all matters relating to the proposed contract prior to submitting their tenders and are advised to study / examine the drawings, bills and the scope of work carefully at his own expense and responsibility
7. Should tenderers find any discrepancy, error or omission in the tender documents, they shall notify the Architect / S.O. immediately.
8. Tenderers are to submit with their tender, detailed programmes showing their proposals for achieving the completion of this project within the specified and their proposed times, all in accordance with the requirements of the tender documents.
9. Any amendment / alteration to tender document by the bidder will not be considered valid.
10. Tenderers are instructed to treat this tender as strictly confidential and not reveal anything about this tender either to the public or to the press.
11. Tenderers are to bear all expenses incurred in the preparation of this tender.
12. The Employer is not bound to accept the lowest or any tender.
13. The tender shall be deemed to have been calculated on a firm price basis and not subject to any price fluctuation in cost of materials, labour, plant, etc. Prime Cost and Provisional Sums are subject to actual expenditure, and no claim arising from re-measurement (except for variation / instruction / provisional quantity if any).

Instructions to Tenderer

14. The prices entered in the Bills shall, except in so far as it is otherwise provided, be deemed to cover all the contractor's obligations under the contract and all matters and things necessary for the proper execution and completion of the works.
15. Mechanical & Electrical Services installation shall be carried out by qualified Mechanical & Electrical Contractor registered with Department of Electrical Services / Ministry of Development. Certificate of Registration is to submit with the tender.
16. Measurement of the project in the form of Bills of Quantities will be included in the document as **guidance** to the tenderers only. The tenderer shall make his own assessment from all drawings issued at the time of tendering before submitting the tender to satisfy himself as to the actual quantum / value of the works required under the contract and allow accordingly. **Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claims for misinterpretation of this clause will be entertained.** The unit rates inserted in the Bills of Quantities will however constitute rates for pricing all variations arising from Architect's Instructions. Should there be any additions, omissions or substitution of any works to which the unit rates cannot be fairly applied, this work will then be measured and valued in accordance with the conditions of contract.
17. The Bills of Quantities should be read and priced in conjunction with tender drawings and specification. Prices shall include all works shown on drawings and / or bills.
18. Tenderer is to price all items in the bills. If any item is not priced it shall be deemed to be included in the other rates / prices in the bills.
19. The 'Superintending Officer' shall be Arkitek RekaJaya.
20. Variation in the project shall be with the approval of the Employer. The rate quoted in BOQ shall be used for variations if there are any changes in Employer's requirement and scope of works and/or any items finish specified in the finalised Contract is required to be changed by the Employer. Other than this there shall not be any variation entertained whatsoever. Further variations shall be deducted / added at the rates provided in the BOQ.
21. The period of completion is 18 months from the date of works commencement.
22. Only the Engineer-in-Charge / SO has the right to award EOT on approval by the Employer (Mission / Ministry).
23. Sub-Contracting shall only be allowed for specialist works. No part of interior and civil works are allowed to be sub-contracted.
24. The Form of Tender with suitable entries made in the blank spaces must be signed by a person authorised to sign the Tender and shall be dated.

25. Decision on bid will be taken based only on the final price quoted on the Form of Tender. Lump sum Fixed Price / Amount as quoted in the Form of Tender shall be the basis for deciding the tender quote.

If amount quoted on the Form of Tender is more than amount worked out on Schedule of Quantity, the rates on Schedule of Quantity shall not be altered / adjusted. If amount quoted on the Form of Tender is less than amount worked out on Schedule of Quantity, the rates on the Schedule of Quantity shall be adjusted in the ratio to match with quoted final price on the Form of Tender.

26. The Contractor shall maintain the irrevocable unconditional Performance Guarantee at the full amount until the completion of the works or project. If the Contractor fail to maintain the Performance Guarantee in the full amount, the Employer may be registered letter sent to the Contractor, terminate his employment under the contract without necessity for any legal or other formality or reference to judicial proceedings.
27. At any time prior to the date of opening of the tender, the Employer / Ministry may issue an addendum in writing to all tenderer deleting, varying or extending any item.

Unless it is in formal manner described above, any representation or explanation to the tenderer shall not be considered valid or binding on the Employer as to the meaning of anything connected with the Tender Document.

The date and time for submission may be differed by an official notification in writing issued by the Employer to all tenderer. Tenders received after this date will not be considered.

28. Tenderer may be disqualified for any reason including, but not limited to the following:
- a) If a tenderer sets forth any conditions which are unacceptable to the Employer
 - b) If any tender is submitted under a name other than the name of the individual firm partnership or corporation on that was issued the tender document
 - c) If there is evidence of collusion between tenderer
 - d) If tender sets forth any offer to conditionally discount, reduce or modify its tender
 - e) If tender price is disclosed before opening of the tender
29. All payment shall be released as progress payments on the basis of certificate signed by the Mission / Authorised representative of the Employer. Contractor is to furnished detailed work schedule and payment schedule to Employer for approval before forms part of the agreement. All permissible deduction shall be affected during the Progress Payment.

FORM OF TENDER

TENDER FOR

PROPOSED CONSTRUCTION OF CHANCERY, HIGH COMMISSIONER'S RESIDENCE, STAFF RESIDENCES AND AUXILIARY FACILITIES BUILDINGS FOR THE HIGH COMMISSION OF INDIA, BRUNEI DARUSSALAM

TO :

**AMIR CHAND
HEAD OF CHANCERY
HIGH COMMISSION OF INDIA
BAITUSSAYIFAA, SIMPANG 40-22
JALAN SUNGAI AKAR
BANDAR SERI BEGAWAN BC3915
BRUNEI DARUSSALAM**

Gentlemen

1. Having examine the Drawings, Articles of Agreement, Conditions of Contract, Contract Bills, Specification, Schedules and Appendices, we, the undersigned offer to contract for and perform the whole of the Works as are detailed all in accordance with the Tender Documents, for a Lump Sum Fixed Price of Brunei Dollars as stated on the MAIN SUMMARY (MS/1) for High Commissioner's Residence, Chancery, Staff Residences & Auxiliary Facilities Buildings _____
_____(B\$ _____)

NOTE: The above Lump Sum Fixed Price tender exclusive of all taxes and all legal connection charges

2. We undertake if this Tender is accepted:
 - (a) to complete and deliver into your hands the said Works for High Commissioner's Residence, Chancery, Staff Residences & Auxiliary Facilities Building for Eighteen (18) months from the date of order to commence work;
 - (b) that we will execute an Agreement in the form incorporated in these Tender Documents;
 - (c) that, notwithstanding that such Agreement shall not have been executed, we will commence work as comprised in this Contract within two weeks of the receipt by us of the order of the Architect to commence work.

3. If this Tender is accepted we will provide sufficient sureties or obtain the **IRREVOCABLE UNCONDITIONAL** guarantee of a Bank to be jointly and severally bound with us in a sum of Five Percent (5%) of the total value of the Contract for the due performance of the Contract (see Appendix A sample of document). We propose for your approval as Surety the following Bank:

Full Title of Bank

Address

who have signified their willingness to act.

4. Should any mathematical errors or pricing errors be found in our Bills resulting in either a net addition to, or a net deduction from the said Tender Amount, We agree to the method of percentage adjustment as prescribed. In any case we agree to abide by the Tender Amount as referred to in paragraph 1 above.
5. We agree to abide by this Tender for a period of 180 days from the date of submission of same and it shall remain binding upon us and may be accepted at any time before the expiration of the said period.
6. We agree that unless and until a formal agreement is prepared and executed this Tender together with your acceptance thereof, shall constitute a binding contract between us.
7. We agree that we are not entitled to claim for losses or additional expenses caused by delay beyond your control.

8. We understand that your are not bound to accept the lowest or any tender.

Date this _____ day of _____ 20 _____

Signature _____ in the capacity of _____

duly authorised to sign tenders for and on behalf of _____

(In Block Letters)

Witness's Name _____

Signature _____

Address _____

Occupation _____

APPENDIX I

(Referred to as the Appendix in the Conditions of Contract)

Particular Interpretations

Defects Liability Period
(from the day named in the
Certificate of Practical
Completion of the Works)

Twelve (12) Months

Minimum Amount of Third
Party Insurance

Limit B\$1,000,000.00 any
one accident. Number of
accidents unlimited

Date for Possession

Date for Completion

Liquidated and Ascertained
Damages

0.5% per week limited to 10%
of Accepted Tender Cost will
be computed from day to day
basis

Extension of Time

By the Engineer-in-Charge after
approval of the Employer

Appendix I

(Referred to as the Appendix in the Conditions of Contract)

Particular Interpretations

Advance Payment Recovery

Refer to Clause 14.2

Value of Works to be done
before Interim Certificates
will be certified

At the discretion of the
Engineer / S.O. (minimum 4%
of total Contract Value)

Period for Honouring of
Certificates

Thirty (30) Days

Percentage of total value
of materials on site to
be certified

Eighty Percent (80%)

Percentage of Certified
value retained

Five Percent (5%)

Limit of Retention Fund

Five (5%) Percent of
Contract Sum from each
running account build up to
DLP

Period of Final Measurement
and Valuation (from the day
named in the Certificate of
Practical Completion of
Works)

Six (6) Months

Banker's Guarantee

Five (5%) Percent of
Contract Sum & to be release on
final payment after completion
of project

LIST OF PREVIOUS EXPERIENCE

The Tenderer shall detail below past experience on works of a similar nature.

Item	Name of Job/ Owner/ Nature of Works	Contract Sum	Scheduled Construction Time	Actual Construction Time	Architect

Note: This supplementary information is for assisting the S.O./ Architect in compiling the Contract recommendation and will be treated as a minimum requirement.

Signature of Tenderer

Signature of Witness

Address _____

Address _____

Date _____

Date _____

SCHEDULE OF TECHNICAL SITE STAFF AVAILABLE FOR THE PROJECT

Each Tenderer is to enter below his staff available for the project.

Category	Number	When Starting	When Finishing	Remarks
Engineers				
Assistants to Last				
Land Surveyors				
Quantity Surveyors				
Assistants to Last				
Site Agent				
Foreman				

Note: This supplementary information is for assisting the S.O./ Architect in compiling the Contract recommendation and will be treated as a minimum requirement. If so required the S.O./ Architect reserves the right to request for additional technical site staff from time to time at no extra cost.

Signature of Tenderer

Signature of aWitness

Address _____

Address _____

Date _____

Date _____

SCHEDULE OF ANTICIPATED IMMIGRANT CRAFTSMEN
AND LABOUR REQUIREMENTS

Each Tenderer shall detail below his anticipated immigrant craftsmen and labour requirements for the project. This information is required for central planning purpose only and does not blind the Contractor or the Government of Negara Brunei Darussalam in any way.

Tenderer’s Current Licence to employ Immigrant Labour – Number _____

Description	Anticipated Number Required
Labourer	
Concretor	
Steel Bender	
Mason	
Drainlayer	
Carpenter	
Steelworker	
Welder	
Electrician	
Plumber	
Painter	
Driver	
Mechanic	
Plant Operator	
(Any classification not included above)	

Note: This supplementary information is for assisting the S.O./ Architect in compiling the Contract recommendation and will be treated as a minimum requirement.

Signature

Address _____

Date _____

Signature of Witness

Address _____

Date _____

SENARAI KERJA-KERJA YANG SEDANG DIBUAT DI-BRUNEI
DARUSSALAM
(DI-ISIKAN OLEH SEMUA PEMBORONG DAN DI-KEMBALIKAN BERSAMA
DENGAN BORANG TAWARAN)
List of Current Jobs in Negara Brunei Darussalam
(To be filled up by contractors and returned together with the form of tender)

No.	Nama Projek <i>(Name of Project)</i>	Letak <i>(Location)</i>	Harga <i>(Cost)</i>	Tarikh Siap <i>(Date Completed)</i>	% Kerja yang telah diBuat <i>(% Completed)</i>

Tandatangan Saksi:
Signature of Witness:

Tandatangan Pemborong:
Signature of Tenderer:

Tarikh:
Date _____

Tarikh:
Date _____

SENARAI KERJA2 YANG AKAN DI-SUB-CONTRACT
(Proposed List of jobs to be Sub-Contracted)

Bil. No.	Kerja-Kerja (Works)	Kapada (To)	Ulasan (Remarks)

Tandatangan Saksi:
Signature of Witness:

Tandatangan Pemborong:
Signature of Tenderer:

Tarikh:
Date _____

Tarikh:
Date _____

MAKLUMAN MENGENAI DENGAN PENGGUNAAN QUOTA BURUH
(Information on the Distribution of Approval Labour Quota)

No. Quota Buroh yang telah di-benarkan: _____
(Quota number approved)

Tarikh: _____
(Date of approval)

Jumlah di-benarkan: _____
(Total no. approved)

Senarai kerja2 yang sedang menggunakan Quota Buroh & jumlah2-nya :
(List of current jobs on approved labour quota)

Bil. No.	Nama Projeck (Name of Project)	Jumlah Tenaga Manusia (No. of Quota used)
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.		
	Jumlah: (Total):	
	Baki yang belum digunakan (Balance of Labour quota not used)	

Tandatangan Saksi:
Signature of Witness:

Tarikh:
Date _____

Tandatangan Pemborong:
Signature of Tenderer:

Tarikh:
Date _____

Pemborong dikira memasukkan harga bagi menyediakan wang tahanan kepada Pejabat Buruh bagi pekerja-pekerja asing mereka dan tidak ada tambahan harga akan diberi bagi perkara ini.
(Tenderers are deemed to include costs of providing deposits to Labour Department for their foreign workers and no claims will be entertained on this matter.)

**SENARAI JUMLAH TENAGA MANUSIA YANG AKAN DISERTAKAN
UNTUK PROJECT INI (JIKA BERJAYA):**

Proposed Manpower Allocation and Additional Labour quota required:

Bil: No.	Nama Jawatan <i>(Name of Posts)</i>	Jumlah <i>(Total)</i>
	Jumlah Besar: <i>(Total)</i>	

Jumlah quota buruh yang masih ada:
(No. of labour quota still
available): _____

Jumlah quota buruh yang dikehendaki
(Total additional labour quota required): _____

Tandatangan Saksi:
Signature of Witness:

Tandatangan Pemborong:
Signature of Tenderer:

Tarikh:
Date

Tarikh:
Date

SENARAI PERKAKAS2 & KENDERAAN YANG AKAN DI-GUNAKAN UNTOK PROJEK

Proposed list of equipment to be used for this job if successful

No.	Jenis (Type)	Jumlah (Quantity)	Model No.	Muatan (Capacity)	Ulasan (Remarks)

Tandatangan Saksi:
Signature of Witness:

Tandatangan Pemborong:
Signature of Tenderer:

Tarikh:
Date _____

Tarikh:
Date _____



Fédération Internationale des Ingénieurs-Conseils
International Federation of Consulting Engineers
Internationale Vereinigung Beratender Ingenieure
Federación Internacional de Ingenieros Consultores

Conditions of Contract for **Construction**

FOR BUILDING AND ENGINEERING WORKS DESIGNED BY THE EMPLOYER

GENERAL CONDITIONS
PARTICULAR CONDITIONS
SAMPLE FORMS



GENERAL CONDITIONS

GUIDANCE FOR THE
PREPARATION OF
PARTICULAR CONDITIONS

Conditions of Contract
for **CONSTRUCTION**

FOR BUILDING AND ENGINEERING WORKS
DESIGNED BY THE EMPLOYER

FORMS OF LETTER OF
TENDER, CONTRACT
AGREEMENT AND
DISPUTE ADJUDICATION
AGREEMENT

First Edition 1999
ISBN 2-88432-022-9

FEDERATION INTERNATIONALE DES INGENIEURS-CONSEILS
INTERNATIONAL FEDERATION OF CONSULTING ENGINEERS
INTERNATIONALE VEREINIGUNG BERATENDER INGENIEURE
FEDERACION INTERNACIONAL DE INGENIEROS CONSULTORES



ERRATA to the First Edition, 1999

The following significant errata are corrected in this reprinting of the First Edition of the Construction Contract. Several minor typographical errors and layout irregularities have also been corrected.

GENERAL PROVISIONS

Foreword	In figure “Typical sequence of Payment Events envisaged in Clause 14”, change “14.11 Contractor issues Final Statement ...” to “Contractor submits Final Statement ...”.
Page 2	In the middle of the third line of Sub-Clause 1.1.2.9, delete “under”.
Page 26	In the title of Sub-Clause 8.1, substitute “Works” for “Work”.
Page 56	In the penultimate line, delete the parentheses “(“ and “)”.
Page 60	Sub-Clause 20.3, in the line following sub-paragraph (d), delete “Particular Conditions” and substitute “Appendix to Tender”.
Page 68	In the third line of Clause 9, delete the two words “notice to”.

GUIDANCE FOR THE PREPARATION OF PARTICULAR CONDITIONS

Page 14	Under Sub-Clause 14.9, delete “EXEMPTION” and substitute “RETENTION”.
Annexes	Delete “© FIDIC”.

ACKNOWLEDGEMENTS

Fédération Internationale des Ingénieurs-Conseils (FIDIC) extends special thanks to the following members of its Update Task Group: Christopher Wade (Group Leader), SWECO-VBB, Sweden; Peter L Booen (Principal Drafter), GIBB Ltd, UK; Hermann Bayerlein, Fichtner, Germany; Christopher R Seppala (Legal Adviser), White & Case, France; and José F Speziale, IATASA, Argentina.

The preparation was carried out under the general direction of the FIDIC Contracts Committee which comprised John B Bowcock, Consulting Engineer, UK (Chairman); Michael Mortimer-Hawkins, SwedPower, Sweden; and Axel-Volkmar Jaeger, Schmidt Reuter Partner, Germany; together with K B (Tony) Norris as Special Adviser.

Drafts were reviewed by many persons and organisations, including those listed below. Their comments were duly studied by the Update Task Group and, where considered appropriate, have influenced the wording of the clauses. Ihab Abu-Zahra, CRC – Hassan Dorra, Egypt; Mushtaq Ahmad, NESPAK, Pakistan; Peter Batty, Post Buckley International, USA; Roeland Bertrams, Clifford Chance, Netherlands; Bosen He, Tianjin University, China; Manfred Breege, Lahmeyer International, Germany; Pablo Bueno, TYPASA, Spain; Nael G Bunni, Consulting Engineer, Ireland; Peter H J Chapman, Engineer & Barrister, UK; Ian Fraser, Beca Carter Hollings & Ferner, New Zealand; Roy Goode, Oxford University, UK; Dan W Graham, Bristows Cooke & Carpmael, UK; Mark Griffiths, Griffiths & Armour, UK; Geoffrey F Hawker, Consulting Engineer, UK; Hesse & Steinberger, VDMA, Germany; Poul E Hvilsted, Elsamprojekt, Denmark; Gordon L Jaynes, Whitman Breed Abbott & Morgan, UK; Tonny Jensen (Chairman of FIDIC Quality Management Committee), COWI, Denmark; David S Khalef, Jordan; Philip Loots & Associates, South Africa; Neil McCole, Merz and McLellan, UK; Matthew Needham-Laing, Victoria Russell & Paul J Taylor, Berrymans Lace Mawer, UK; Brian W Totterdill, Consulting Engineer, UK; David R Wightman & Gerlando Butera, Nabarro Nathanson, UK; the Association of Japanese Consulting Engineers; the Construction Industry Authority of the Philippines; European International Contractors; ORGANISME de Liaison Industries Métalliques Européennes (“ORGALIME”); the International Association of Dredging Contractors; the International Bar Association; the Asian Development Bank; and the World Bank. Acknowledgement of reviewers does not mean that such persons or organizations approve of the wording of all clauses.

FIDIC wishes to record its appreciation of the time and effort devoted by all the above.

The ultimate decision on the form and content of the document rests with FIDIC.

FOREWORD

The Fédération Internationale des Ingénieurs-Conseils (FIDIC) published, in 1999, First Editions of four new standard forms of contract:

Conditions of Contract for Construction,

which are recommended for building or engineering works designed by the Employer or by his representative, the Engineer. Under the usual arrangements for this type of contract, the Contractor constructs the works in accordance with a design provided by the Employer. However, the works may include some elements of Contractor-designed civil, mechanical, electrical and/or construction works.

Conditions of Contract for Plant and Design-Build,

which are recommended for the provision of electrical and/or mechanical plant, and for the design and execution of building or engineering works. Under the usual arrangements for this type of contract, the Contractor designs and provides, in accordance with the Employer's requirements, plant and/or other works; which may include any combination of civil, mechanical, electrical and/or construction works.

Conditions of Contract for EPC/Turnkey Projects,

which may be suitable for the provision on a turnkey basis of a process or power plant, of a factory or similar facility, or of an infrastructure project or other type of development, where (i) a higher degree of certainty of final price and time is required, and (ii) the Contractor takes total responsibility for the design and execution of the project, with little involvement of the Employer. Under the usual arrangements for turnkey projects, the Contractor carries out all the Engineering, Procurement and Construction (EPC), providing a fully-equipped facility, ready for operation (at the "turn of the key").

Short Form of Contract,

which is recommended for building or engineering works of relatively small capital value. Depending on the type of work and the circumstances, this form may also be suitable for contracts of greater value, particularly for relatively simple or repetitive work or work of short duration. Under the usual arrangements for this type of contract, the Contractor constructs the works in accordance with a design provided by the Employer or by his representative (if any), but this form may also be suitable for a contract which includes, or wholly comprises, Contractor-designed civil, mechanical, electrical and/or construction works.

The forms are recommended for general use where tenders are invited on an international basis. Modifications may be required in some jurisdictions, particularly if the Conditions are to be used on domestic contracts. FIDIC considers the official and authentic texts to be the versions in the English language.

In the preparation of these Conditions of Contract for Construction, it was recognised that, while there are many sub-clauses which will be generally applicable, there are some sub-clauses which must necessarily vary to take account of the circumstances

relevant to the particular contract. The sub-clauses which were considered to be applicable to many (but not all) contracts have been included in the General Conditions, in order to facilitate their incorporation into each contract.

The General Conditions and the Particular Conditions will together comprise the Conditions of Contract governing the rights and obligations of the parties. It will be necessary to prepare the Particular Conditions for each individual contract, and to take account of those sub-clauses in the General Conditions which mention the Particular Conditions.

For this publication, the General Conditions were prepared on the following basis:

- (i) interim and final payments will be determined by measurement, applying the rates and prices in a Bill of Quantities;
- (ii) if the wording in the General Conditions necessitates further data, then (unless it is so descriptive that it would have to be detailed in the Specification) the sub-clause makes reference to this data being contained in the Appendix to Tender, the data either being prescribed by the Employer or being inserted by the Tenderer;
- (iii) where a sub-clause in the General Conditions deals with a matter on which different contract terms are likely to be applicable for different contracts, the principles applied in writing the sub-clause were:
 - (a) users would find it more convenient if any provisions which they did not wish to apply could simply be deleted or not invoked, than if additional text had to be written (in the Particular Conditions) because the General Conditions did not cover their requirements; or
 - (b) in other cases, where the application of (a) was thought to be inappropriate, the sub-clause contains the provisions which were considered applicable to most contracts.

For example, Sub-Clause 14.2 [*Advance Payment*] is included for convenience, not because of any FIDIC policy in respect of advance payments. This Sub-Clause becomes inapplicable (even if it is not deleted) if it is disregarded by not specifying the amount of the advance. It should therefore be noted that some of the provisions contained in the General Conditions may not be appropriate for an apparently-typical contract.

Further information on these aspects, example wording for other arrangements, and other explanatory material and example wording to assist in the preparation of the Particular Conditions and the other tender documents, are included within this publication as Guidance for the Preparation of the Particular Conditions. Before incorporating any example wording, it must be checked to ensure that it is wholly suitable for the particular circumstances; if not, it must be amended.

Where example wording is amended, and in all cases where other amendments or additions are made, care must be taken to ensure that no ambiguity is created, either with the General Conditions or between the clauses in the Particular Conditions. It is essential that all these drafting tasks, and the entire preparation of the tender

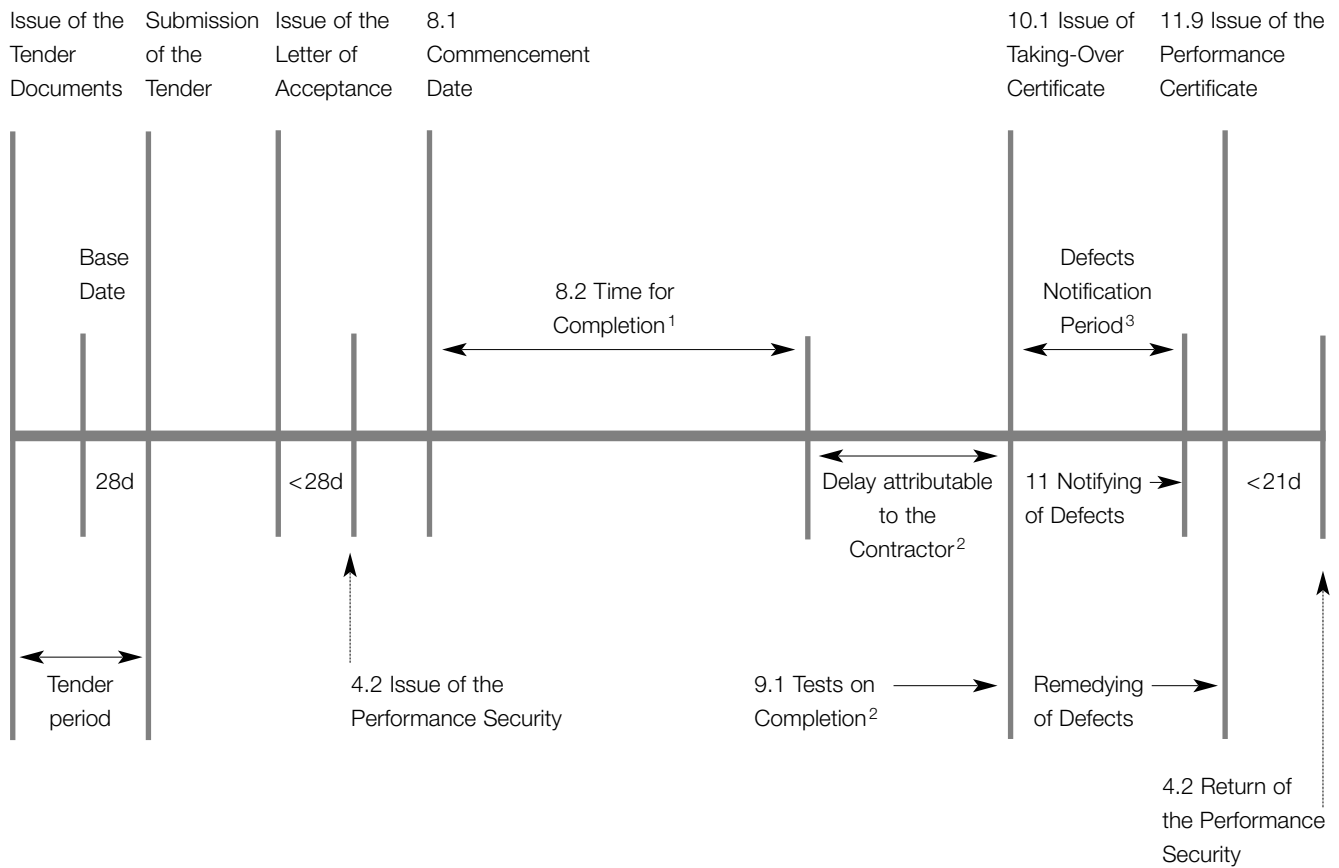
documents, are entrusted to personnel with the relevant expertise, including the contractual, technical and procurement aspects.

This publication concludes with example forms for the Letter of Tender, the Appendix to Tender (providing a check-list of the sub-clauses which refer to it), the Contract Agreement, and alternatives for the Dispute Adjudication Agreement. This Dispute Adjudication Agreement provides text for the agreement between the Employer, the Contractor and the person appointed to act either as sole adjudicator or as a member of a three-person dispute adjudication board; and incorporates (by reference) the terms in the Appendix to the General Conditions.

FIDIC intends to publish a guide to the use of its Conditions of Contract for Construction, for Plant and Design-Build, and for EPC/Turnkey Projects. Another relevant FIDIC publication is "Tendering Procedure", which presents a systematic approach to the selection of tenderers and the obtaining and evaluation of tenders.

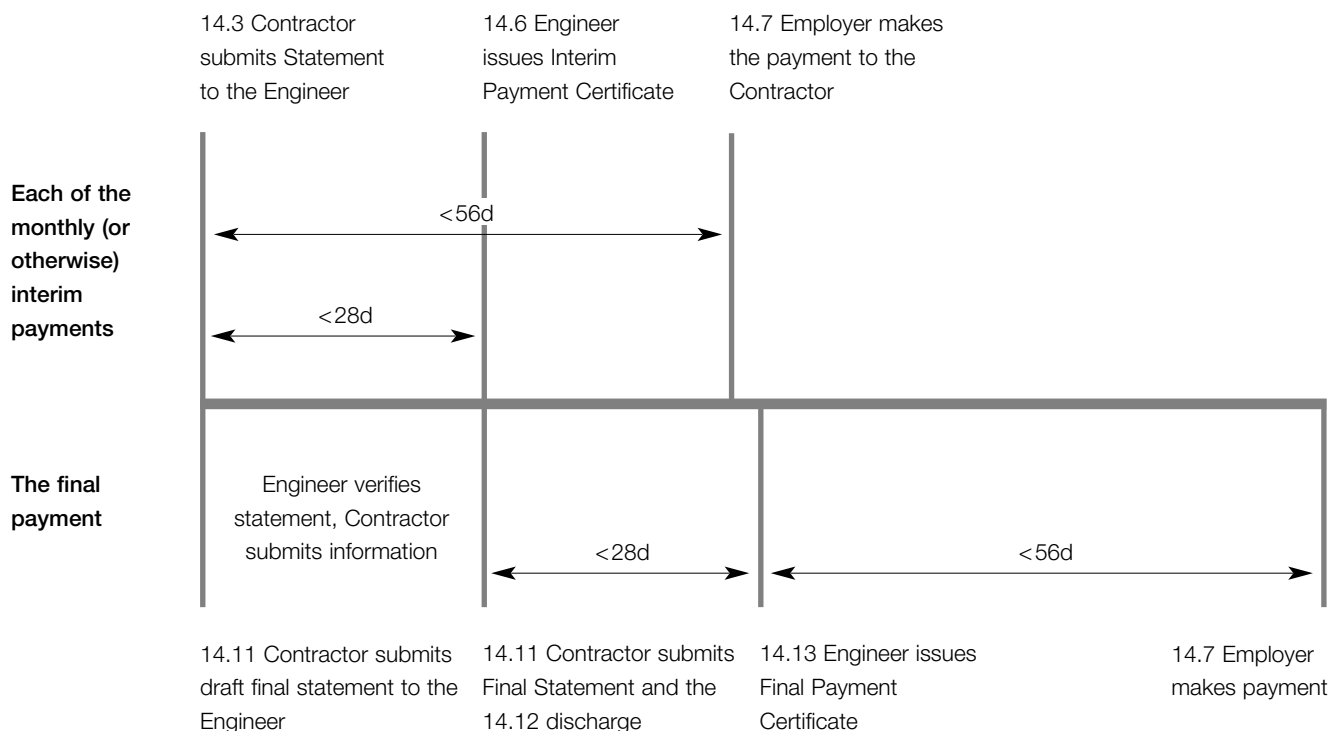
In order to clarify the sequence of Contract activities, reference may be made to the charts on the next two pages and to the Sub-Clauses listed below (some Sub-Clause numbers are also stated in the charts). The charts are illustrative and must not be taken into consideration in the interpretation of the Conditions of Contract.

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1.1.3.2	&	8.1	Commencement Date
1.1.6.6	&	4.2	Performance Security
1.1.4.7	&	14.3	Interim Payment Certificate
1.1.3.3	&	8.2	Time for Completion (as extended under 8.4)
1.1.3.4	&	9.1	Tests on Completion
1.1.3.5	&	10.1	Taking-Over Certificate
1.1.3.7	&	11.1	Defects Notification Period (as extended under 11.3)
1.1.3.8	&	11.9	Performance Certificate
1.1.4.4	&	14.13	Final Payment Certificate

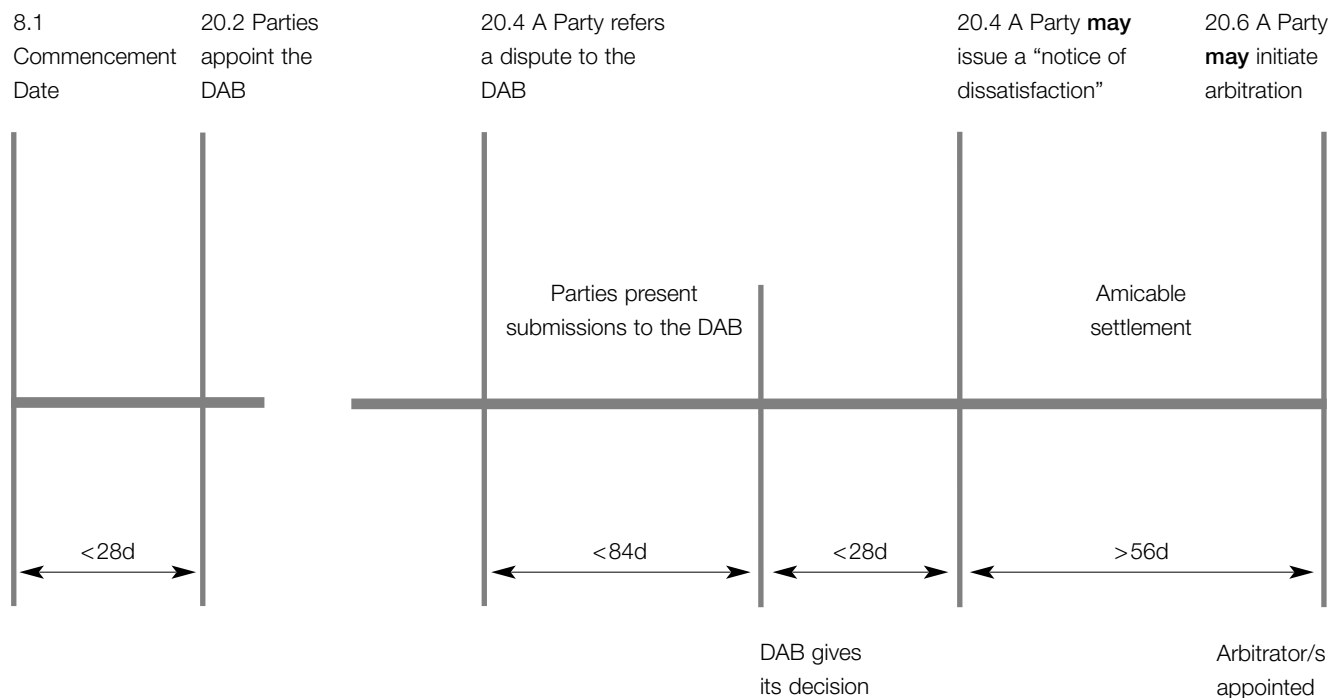


Typical sequence of Principal Events during Contracts for Construction

1. The Time for Completion is to be stated (in the Appendix to Tender) as a number of days, to which is added any extensions of time under Sub-Clause 8.4.
2. In order to indicate the sequence of events, the above diagram is based upon the example of the Contractor failing to comply with Sub-Clause 8.2.
3. The Defects Notification Period is to be stated (in the Appendix to Tender) as a number of days, to which is added any extensions under Sub-Clause 11.3



Typical sequence of Payment Events envisaged in Clause 14



Typical sequence of Dispute Events envisaged in Clause 20

GENERAL CONDITIONS

GUIDANCE FOR THE
PREPARATION OF
PARTICULAR CONDITIONS

Conditions of Contract
for **CONSTRUCTION**

FOR BUILDING AND ENGINEERING WORKS
DESIGNED BY THE EMPLOYER

FORMS OF LETTER OF
TENDER, CONTRACT
AGREEMENT AND
DISPUTE ADJUDICATION
AGREEMENT

General Conditions



ERRATA to the First Edition 1999 inside back cover

General Conditions

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General Conditions

1 General Provisions

1.1

Definitions

In the Conditions of Contract (“these Conditions”), which include Particular Conditions and these General Conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

1.1.1

The Contract

1.1.1.1 “**Contract**” means the Contract Agreement, the Letter of Acceptance, the Letter of Tender, these Conditions, the Specification, the Drawings, the Schedules, and the further documents (if any) which are listed in the Contract Agreement or in the Letter of Acceptance.

1.1.1.2 “**Contract Agreement**” means the contract agreement (if any) referred to in Sub-Clause 1.6 [*Contract Agreement*].

1.1.1.3 “**Letter of Acceptance**” means the letter of formal acceptance, signed by the Employer, of the Letter of Tender, including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such letter of acceptance, the expression “Letter of Acceptance” means the Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement.

1.1.1.4 “**Letter of Tender**” means the document entitled letter of tender, which was completed by the Contractor and includes the signed offer to the Employer for the Works.

1.1.1.5 “**Specification**” means the document entitled specification, as included in the Contract, and any additions and modifications to the specification in accordance with the Contract. Such document specifies the Works.

1.1.1.6 “**Drawings**” means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract.

1.1.1.7 “**Schedules**” means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of Tender, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.

1.1.1.8 “**Tender**” means the Letter of Tender and all other documents which the Contractor submitted with the Letter of Tender, as included in the Contract.

1.1.1.9 “**Appendix to Tender**” means the completed pages entitled appendix to tender which are appended to and form part of the Letter of Tender.

1.1.1.10 “**Bill of Quantities**” and “**Daywork Schedule**” mean the documents so named (if any) which are comprised in the Schedules.

**1.1.2
Parties and Persons**

- 1.1.2.1 **“Party”** means the Employer or the Contractor, as the context requires.
- 1.1.2.2 **“Employer”** means the person named as employer in the Appendix to Tender and the legal successors in title to this person.
- 1.1.2.3 **“Contractor”** means the person(s) named as contractor in the Letter of Tender accepted by the Employer and the legal successors in title to this person(s).
- 1.1.2.4 **“Engineer”** means the person appointed by the Employer to act as the Engineer for the purposes of the Contract and named in the Appendix to Tender, or other person appointed from time to time by the Employer and notified to the Contractor under Sub-Clause 3.4 [*Replacement of the Engineer*].
- 1.1.2.5 **“Contractor’s Representative”** means the person named by the Contractor in the Contract or appointed from time to time by the Contractor under Sub-Clause 4.3 [*Contractor’s Representative*], who acts on behalf of the Contractor.
- 1.1.2.6 **“Employer’s Personnel”** means the Engineer, the assistants referred to in Sub-Clause 3.2 [*Delegation by the Engineer*] and all other staff, labour and other employees of the Engineer and of the Employer; and any other personnel notified to the Contractor, by the Employer or the Engineer, as Employer’s Personnel.
- 1.1.2.7 **“Contractor’s Personnel”** means the Contractor’s Representative and all personnel whom the Contractor utilises on Site, who may include the staff, labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.
- 1.1.2.8 **“Subcontractor”** means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works; and the legal successors in title to each of these persons.
- 1.1.2.9 **“DAB”** means the person or three persons so named in the Contract, or other person(s) appointed under Sub-Clause 20.2 [*Appointment of the Dispute Adjudication Board*] or Sub-Clause 20.3 [*Failure to Agree Dispute Adjudication Board*]
- 1.1.2.10 **“FIDIC”** means the Fédération Internationale des Ingénieurs-Conseils, the international federation of consulting engineers.

**1.1.3
Dates, Tests, Periods
and Completion**

- 1.1.3.1 **“Base Date”** means the date 28 days prior to the latest date for submission of the Tender.
- 1.1.3.2 **“Commencement Date”** means the date notified under Sub-Clause 8.1 [*Commencement of Works*].
- 1.1.3.3 **“Time for Completion”** means the time for completing the Works or a Section (as the case may be) under Sub-Clause 8.2 [*Time for Completion*], as stated in the Appendix to Tender (with any extension under Sub-Clause 8.4 [*Extension of Time for Completion*]), calculated from the Commencement Date.
- 1.1.3.4 **“Tests on Completion”** means the tests which are specified in the Contract or agreed by both Parties or instructed as a Variation, and which are carried

out under Clause 9 [*Tests on Completion*] before the Works or a Section (as the case may be) are taken over by the Employer.

- 1.1.3.5 **"Taking-Over Certificate"** means a certificate issued under Clause 10 [*Employer's Taking Over*].
- 1.1.3.6 **"Tests after Completion"** means the tests (if any) which are specified in the Contract and which are carried out in accordance with the provisions of the Particular Conditions after the Works or a Section (as the case may be) are taken over by the Employer.
- 1.1.3.7 **"Defects Notification Period"** means the period for notifying defects in the Works or a Section (as the case may be) under Sub-Clause 11.1 [*Completion of Outstanding Work and Remedying Defects*], as stated in the Appendix to Tender (with any extension under Sub-Clause 11.3 [*Extension of Defects Notification Period*]), calculated from the date on which the Works or Section is completed as certified under Sub-Clause 10.1 [*Taking Over of the Works and Sections*].
- 1.1.3.8 **"Performance Certificate"** means the certificate issued under Sub-Clause 11.9 [*Performance Certificate*].
- 1.1.3.9 **"day"** means a calendar day and **"year"** means 365 days.

1.1.4

Money and Payments

- 1.1.4.1 **"Accepted Contract Amount"** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
- 1.1.4.2 **"Contract Price"** means the price defined in Sub-Clause 14.1 [*The Contract Price*], and includes adjustments in accordance with the Contract.
- 1.1.4.3 **"Cost"** means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.
- 1.1.4.4 **"Final Payment Certificate"** means the payment certificate issued under Sub-Clause 14.13 [*Issue of Final Payment Certificate*].
- 1.1.4.5 **"Final Statement"** means the statement defined in Sub-Clause 14.11 [*Application for Final Payment Certificate*].
- 1.1.4.6 **"Foreign Currency"** means a currency in which part (or all) of the Contract Price is payable, but not the Local Currency.
- 1.1.4.7 **"Interim Payment Certificate"** means a payment certificate issued under Clause 14 [*Contract Price and Payment*], other than the Final Payment Certificate.
- 1.1.4.8 **"Local Currency"** means the currency of the Country.
- 1.1.4.9 **"Payment Certificate"** means a payment certificate issued under Clause 14 [*Contract Price and Payment*].
- 1.1.4.10 **"Provisional Sum"** means a sum (if any) which is specified in the Contract as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause 13.5 [*Provisional Sums*].

1.1.4.11 “**Retention Money**” means the accumulated retention moneys which the Employer retains under Sub-Clause 14.3 [*Application for Interim Payment Certificates*] and pays under Sub-Clause 14.9 [*Payment of Retention Money*].

1.1.4.12 “**Statement**” means a statement submitted by the Contractor as part of an application, under Clause 14 [*Contract Price and Payment*], for a payment certificate.

1.1.5

Works and Goods

1.1.5.1 “**Contractor’s Equipment**” means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor’s Equipment excludes Temporary Works, Employer’s Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.

1.1.5.2 “**Goods**” means Contractor’s Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

1.1.5.3 “**Materials**” means things of all kinds (other than Plant) intended to form or forming part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.

1.1.5.4 “**Permanent Works**” means the permanent works to be executed by the Contractor under the Contract.

1.1.5.5 “**Plant**” means the apparatus, machinery and vehicles intended to form or forming part of the Permanent Works.

1.1.5.6 “**Section**” means a part of the Works specified in the Appendix to Tender as a Section (if any).

1.1.5.7 “**Temporary Works**” means all temporary works of every kind (other than Contractor’s Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.

1.1.5.8 “**Works**” mean the Permanent Works and the Temporary Works, or either of them as appropriate.

1.1.6

Other Definitions

1.1.6.1 “**Contractor’s Documents**” means the calculations, computer programs and other software, drawings, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract.

1.1.6.2 “**Country**” means the country in which the Site (or most of it) is located, where the Permanent Works are to be executed.

1.1.6.3 “**Employer’s Equipment**” means the apparatus, machinery and vehicles (if any) made available by the Employer for the use of the Contractor in the execution of the Works, as stated in the Specification; but does not include Plant which has not been taken over by the Employer.

1.1.6.4 “**Force Majeure**” is defined in Clause 19 [*Force Majeure*].

1.1.6.5 “**Laws**” means all national (or state) legislation, statutes, ordinances and other laws, and regulations and by-laws of any legally constituted public authority.

- 1.1.6.6 “**Performance Security**” means the security (or securities, if any) under Sub-Clause 4.2 [*Performance Security*].
- 1.1.6.7 “**Site**” means the places where the Permanent Works are to be executed and to which Plant and Materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.
- 1.1.6.8 “**Unforeseeable**” means not reasonably foreseeable by an experienced contractor by the date for submission of the Tender.
- 1.1.6.9 “**Variation**” means any change to the Works, which is instructed or approved as a variation under Clause 13 [*Variations and Adjustments*].

1.2

Interpretation

In the Contract, except where the context requires otherwise:

- (a) words indicating one gender include all genders;
- (b) words indicating the singular also include the plural and words indicating the plural also include the singular;
- (c) provisions including the word “agree”, “agreed” or “agreement” require the agreement to be recorded in writing, and
- (d) “written” or “in writing” means hand-written, type-written, printed or electronically made, and resulting in a permanent record.

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

1.3

Communications

Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices and requests, these communications shall be:

- (a) in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Appendix to Tender; and
- (b) delivered, sent or transmitted to the address for the recipient’s communications as stated in the Appendix to Tender. However:
 - (i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and
 - (ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.

Approvals, certificates, consents and determinations shall not be unreasonably withheld or delayed. When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Engineer, a copy shall be sent to the Engineer or the other Party, as the case may be.

1.4

Law and Language

The Contract shall be governed by the law of the country (or other jurisdiction) stated in the Appendix to Tender.

If there are versions of any part of the Contract which are written in more than one language, the version which is in the ruling language stated in the Appendix to Tender shall prevail.

The language for communications shall be that stated in the Appendix to Tender. If no language is stated there, the language for communications shall be the language in which the Contract (or most of it) is written.

1.5

Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- (a) the Contract Agreement (if any),
- (b) the Letter of Acceptance,
- (c) the Letter of Tender,
- (d) the Particular Conditions,
- (e) these General Conditions,
- (f) the Specification,
- (g) the Drawings, and
- (h) the Schedules and any other documents forming part of the Contract.

If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction.

1.6

Contract Agreement

The Parties shall enter into a Contract Agreement within 28 days after the Contractor receives the Letter of Acceptance, unless they agree otherwise. The Contract Agreement shall be based upon the form annexed to the Particular Conditions. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Employer.

1.7

Assignment

Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, either Party:

- (a) may assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party, and
- (b) may, as security in favour of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.

1.8

Care and Supply of Documents

The Specification and Drawings shall be in the custody and care of the Employer. Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawing shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.

Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Engineer six copies of each of the Contractor's Documents.

The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Employer's Personnel shall have the right of access to all these documents at all reasonable times.

If a Party becomes aware of an error or defect of a technical nature in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.

1.9 Delayed Drawings or Instructions

The Contractor shall give notice to the Engineer whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and details of the nature and amount of the delay or disruption likely to be suffered if it is late.

If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Engineer to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

However, if and to the extent that the Engineer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

1.10 Employer's Use of Contractor's Documents

As between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.

The Contractor shall be deemed (by signing the Contract) to give to the Employer a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:

- (a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
- (b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
- (c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Employer for purposes other than those permitted under this Sub-Clause.

1.11 Contractor's Use of Employer's Documents

As between the Parties, the Employer shall retain the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) the Employer. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not,

without the Employer's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.

1.12

Confidential Details

The Contractor shall disclose all such confidential and other information as the Engineer may reasonably require in order to verify the Contractor's compliance with the Contract.

1.13

Compliance with Laws

The Contractor shall, in performing the Contract, comply with applicable Laws. Unless otherwise stated in the Particular Conditions:

- (a) the Employer shall have obtained (or shall obtain) the planning, zoning or similar permission for the Permanent Works, and any other permissions described in the Specification as having been (or being) obtained by the Employer; and the Employer shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and
- (b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so.

1.14

Joint and Several Liability

If the Contractor constitutes (under applicable Laws) a joint venture, consortium or other unincorporated grouping of two or more persons:

- (a) these persons shall be deemed to be jointly and severally liable to the Employer for the performance of the Contract;
 - (b) these persons shall notify the Employer of their leader who shall have authority to bind the Contractor and each of these persons; and
 - (c) the Contractor shall not alter its composition or legal status without the prior consent of the Employer.
-

2 The Employer

2.1

Right of Access to the Site

The Employer shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the Appendix to Tender. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Specification. However, the Employer may withhold any such right or possession until the Performance Security has been received.

If no such time is stated in the Appendix to Tender, the Employer shall give the Contractor right of access to, and possession of, the Site within such times as may be required to enable the Contractor to proceed in accordance with the programme submitted under Sub-Clause 8.3 [*Programme*].

If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession within such time, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

However, if and to the extent that the Employer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

2.2

Permits, Licences or Approvals

The Employer shall (where he is in a position to do so) provide reasonable assistance to the Contractor at the request of the Contractor:

- (a) by obtaining copies of the Laws of the Country which are relevant to the Contract but are not readily available, and
- (b) for the Contractor's applications for any permits, licences or approvals required by the Laws of the Country:
 - (i) which the Contractor is required to obtain under Sub-Clause 1.13 [*Compliance with Laws*],
 - (ii) for the delivery of Goods, including clearance through customs, and
 - (iii) for the export of Contractor's Equipment when it is removed from the Site.

2.3

Employer's Personnel

The Employer shall be responsible for ensuring that the Employer's Personnel and the Employer's other contractors on the Site:

- (a) co-operate with the Contractor's efforts under Sub-Clause 4.6 [*Co-operation*], and
- (b) take actions similar to those which the Contractor is required to take under subparagraphs (a), (b) and (c) of Sub-Clause 4.8 [*Safety Procedures*] and under Sub-Clause 4.18 [*Protection of the Environment*].

2.4

Employer's Financial Arrangements

The Employer shall submit, within 28 days after receiving any request from the Contractor, reasonable evidence that financial arrangements have been made and are being maintained which will enable the Employer to pay the Contract Price (as estimated at that time) in accordance with Clause 14 [*Contract Price and Payment*]. If the Employer intends to make any material change to his financial arrangements, the Employer shall give notice to the Contractor with detailed particulars.

2.5

Employer's Claims

If the Employer considers himself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Employer or the Engineer shall give notice and particulars to the Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [*Electricity, Water and Gas*], under Sub-Clause 4.20 [*Employer's Equipment and Free-Issue Material*], or for other services requested by the Contractor.

The notice shall be given as soon as practicable after the Employer became aware of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.

The particulars shall specify the Clause or other basis of the claim, and shall include substantiation of the amount and/or extension to which the Employer considers himself to be entitled in connection with the Contract. The Engineer shall then proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine (i) the amount (if any) which the Employer is entitled to be paid by the Contractor, and/or (ii) the extension (if any) of the Defects Notification Period in accordance with Sub-Clause 11.3 [*Extension of Defects Notification Period*].

This amount may be included as a deduction in the Contract Price and Payment Certificates. The Employer shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

3 The Engineer

3.1

Engineer's Duties and Authority

The Employer shall appoint the Engineer who shall carry out the duties assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.

The Engineer shall have no authority to amend the Contract.

The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the approval of the Employer before exercising a specified authority, the requirements shall be as stated in the Particular Conditions. The Employer undertakes not to impose further constraints on the Engineer's authority, except as agreed with the Contractor.

However, whenever the Engineer exercises a specified authority for which the Employer's approval is required, then (for the purposes of the Contract) the Employer shall be deemed to have given approval.

Except as otherwise stated in these Conditions:

- (a) whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Engineer shall be deemed to act for the Employer;
- (b) the Engineer has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract; and
- (c) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Engineer (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances.

3.2

Delegation by the Engineer

The Engineer may from time to time assign duties and delegate authority to assistants, and may also revoke such assignment or delegation. These assistants may include a resident engineer, and/or independent inspectors appointed to inspect and/or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Engineer shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.5 [*Determinations*].

Assistants shall be suitably qualified persons, who are competent to carry out these

duties and exercise this authority, and who are fluent in the language for communications defined in Sub-Clause 1.4 [*Law and Language*].

Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorised to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer. However:

- (a) any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Engineer to reject the work, Plant or Materials;
- (b) if the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.

3.3

Instructions of the Engineer

The Engineer may issue to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under this Clause. If an instruction constitutes a Variation, Clause 13 [*Variations and Adjustments*] shall apply.

The Contractor shall comply with the instructions given by the Engineer or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Engineer or a delegated assistant:

- (a) gives an oral instruction,
- (b) receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and
- (c) does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation,

then the confirmation shall constitute the written instruction of the Engineer or delegated assistant (as the case may be).

3.4

Replacement of the Engineer

If the Employer intends to replace the Engineer, the Employer shall, not less than 42 days before the intended date of replacement, give notice to the Contractor of the name, address and relevant experience of the intended replacement Engineer. The Employer shall not replace the Engineer with a person against whom the Contractor raises reasonable objection by notice to the Employer, with supporting particulars.

3.5

Determinations

Whenever these Conditions provide that the Engineer shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Engineer shall consult with each Party in an endeavour to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.

The Engineer shall give notice to both Parties of each agreement or determination, with supporting particulars. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [*Claims, Disputes and Arbitration*].

4

The Contractor

4.1

Contractor's General Obligations

The Contractor shall design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Engineer's instructions, and shall remedy any defects in the Works.

The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.

The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the design or specification of the Permanent Works.

The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.

If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Particular Conditions:

- (a) the Contractor shall submit to the Engineer the Contractor's Documents for this part in accordance with the procedures specified in the Contract;
- (b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.4 [*Law and Language*], and shall include additional information required by the Engineer to add to the Drawings for co-ordination of each Party's designs;
- (c) the Contractor shall be responsible for this part and it shall, when the Works are completed, be fit for such purposes for which the part is intended as are specified in the Contract; and
- (d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Engineer the "as-built" documents and operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [*Taking Over of the Works and Sections*] until these documents and manuals have been submitted to the Engineer.

4.2

Performance Security

The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the amount and currencies stated in the Appendix to Tender. If an amount is not stated in the Appendix to Tender, this Sub-Clause shall not apply.

The Contractor shall deliver the Performance Security to the Employer within 28 days after receiving the Letter of Acceptance, and shall send a copy to the Engineer. The Performance Security shall be issued by an entity and from within a country (or other

jurisdiction) approved by the Employer, and shall be in the form annexed to the Particular Conditions or in another form approved by the Employer.

The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.

The Employer shall not make a claim under the Performance Security, except for amounts to which the Employer is entitled under the Contract in the event of:

- (a) failure by the Contractor to extend the validity of the Performance Security as described in the preceding paragraph, in which event the Employer may claim the full amount of the Performance Security,
- (b) failure by the Contractor to pay the Employer an amount due, as either agreed by the Contractor or determined under Sub-Clause 2.5 [*Employer's Claims*] or Clause 20 [*Claims, Disputes and Arbitration*], within 42 days after this agreement or determination,
- (c) failure by the Contractor to remedy a default within 42 days after receiving the Employer's notice requiring the default to be remedied, or
- (d) circumstances which entitle the Employer to termination under Sub-Clause 15.2 [*Termination by Employer*], irrespective of whether notice of termination has been given.

The Employer shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Employer was not entitled to make the claim.

The Employer shall return the Performance Security to the Contractor within 21 days after receiving a copy of the Performance Certificate.

4.3

Contractor's Representative

The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract.

Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked, or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.

The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.

The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement person shall be appointed, subject to the Engineer's prior consent, and the Engineer shall be notified accordingly.

The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 [*Instructions of the Engineer*].

The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Engineer has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked.

The Contractor's Representative and all these persons shall be fluent in the language for communications defined in Sub-Clause 1.4 [*Law and Language*].

4.4

Subcontractors

The Contractor shall not subcontract the whole of the Works.

The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the Particular Conditions:

- (a) the Contractor shall not be required to obtain consent to suppliers of Materials, or to a subcontract for which the Subcontractor is named in the Contract;
- (b) the prior consent of the Engineer shall be obtained to other proposed Subcontractors;
- (c) the Contractor shall give the Engineer not less than 28 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site; and
- (d) each subcontract shall include provisions which would entitle the Employer to require the subcontract to be assigned to the Employer under Sub-Clause 4.5 [*Assignment of Benefit of Subcontract*] (if or when applicable) or in the event of termination under Sub-Clause 15.2 [*Termination by Employer*].

4.5

Assignment of Benefit of Subcontract

If a Subcontractor's obligations extend beyond the expiry date of the relevant Defects Notification Period and the Engineer, prior to this date, instructs the Contractor to assign the benefit of such obligations to the Employer, then the Contractor shall do so. Unless otherwise stated in the assignment, the Contractor shall have no liability to the Employer for the work carried out by the Subcontractor after the assignment takes effect.

4.6

Co-operation

The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:

- (a) the Employer's Personnel,
- (b) any other contractors employed by the Employer, and
- (c) the personnel of any legally constituted public authorities,

who may be employed in the execution on or near the Site of any work not included in the Contract.

Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.

If, under the Contract, the Employer is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Engineer in the time and manner stated in the Specification.

4.7 Setting Out

The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract or notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.

The Employer shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.

If the Contractor suffers delay and/or incurs Cost from executing work which was necessitated by an error in these items of reference, and an experienced contractor could not reasonably have discovered such error and avoided this delay and/or Cost, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine (i) whether and (if so) to what extent the error could not reasonably have been discovered, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

4.8 Safety Procedures

The Contractor shall:

- (a) comply with all applicable safety regulations,
- (b) take care for the safety of all persons entitled to be on the Site,
- (c) use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons,
- (d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 [*Employer's Taking Over*], and
- (e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.

4.9 Quality Assurance

The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Engineer shall be entitled to audit any aspect of the system.

Details of all procedures and compliance documents shall be submitted to the Engineer for information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor himself shall be apparent on the document itself.

Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.

4.10 Site Data

The Employer shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Employer's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Employer

shall similarly make available to the Contractor all such data which come into the Employer's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.

To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

- (a) the form and nature of the Site, including sub-surface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,
- (d) the Laws, procedures and labour practices of the Country, and
- (e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

4.11

Sufficiency of the Accepted Contract Amount

The Contractor shall be deemed to:

- (a) have satisfied himself as to the correctness and sufficiency of the Accepted Contract Amount, and
- (b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in Sub-Clause 4.10 [*Site Data*].

Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.

4.12

Unforeseeable Physical Conditions

In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.

If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Engineer as soon as practicable.

This notice shall describe the physical conditions, so that they can be inspected by the Engineer, and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Engineer may give. If an instruction constitutes a Variation, Clause 13 [*Variations and Adjustments*] shall apply.

If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

However, before additional Cost is finally agreed or determined under sub-paragraph (ii), the Engineer may also review whether other physical conditions in similar parts of the Works (if any) were more favourable than could reasonably have been foreseen when the Contractor submitted the Tender. If and to the extent that these more favourable conditions were encountered, the Engineer may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under sub-paragraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price.

The Engineer may take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Tender, which may be made available by the Contractor, but shall not be bound by any such evidence.

4.13

Rights of Way and Facilities

The Contractor shall bear all costs and charges for special and/or temporary rights-of-way which he may require, including those for access to the Site. The Contractor shall also obtain, at his risk and cost, any additional facilities outside the Site which he may require for the purposes of the Works.

4.14

Avoidance of Interference

The Contractor shall not interfere unnecessarily or improperly with:

- (a) the convenience of the public, or
- (b) the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Employer or of others.

The Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

4.15

Access Route

The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.

Except as otherwise stated in these Conditions:

- (a) the Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes;
- (b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;
- (c) the Employer shall not be responsible for any claims which may arise from the use or otherwise of any access route,

- (d) the Employer does not guarantee the suitability or availability of particular access routes, and
- (e) Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

4.16

Transport of Goods

Unless otherwise stated in the Particular Conditions:

- (a) the Contractor shall give the Engineer not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;
- (b) the Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works; and
- (c) the Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of Goods, and shall negotiate and pay all claims arising from their transport.

4.17

Contractor's Equipment

The Contractor shall be responsible for all Contractor's Equipment. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment without the consent of the Engineer. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.

4.18

Protection of the Environment

The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values indicated in the Specification, and shall not exceed the values prescribed by applicable Laws.

4.19

Electricity, Water and Gas

The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require.

The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Specification. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.

The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Engineer in accordance with Sub-Clause 2.5 [*Employer's Claims*] and Sub-Clause 3.5 [*Determinations*]. The Contractor shall pay these amounts to the Employer.

4.20

Employer's Equipment and Free-Issue Material

The Employer shall make the Employer's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:

- (a) the Employer shall be responsible for the Employer's Equipment, except that

- (b) the Contractor shall be responsible for each item of Employer's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.

The appropriate quantities and the amounts due (at such stated prices) for the use of Employer's Equipment shall be agreed or determined by the Engineer in accordance with Sub-Clause 2.5 [*Employer's Claims*] and Sub-Clause 3.5 [*Determinations*]. The Contractor shall pay these amounts to the Employer.

The Employer shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Specification. The Employer shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them, and shall promptly give notice to the Engineer of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Employer shall immediately rectify the notified shortage, defect or default.

After this visual inspection, the free-issue materials shall come under the care, custody and control of the Contractor. The Contractor's obligations of inspection, care, custody and control shall not relieve the Employer of liability for any shortage, defect or default not apparent from a visual inspection.

4.21

Progress Reports

Unless otherwise stated in the Particular Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.

Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

Each report shall include:

- (a) charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in Clause 5 [*Nominated Subcontractors*]),
- (b) photographs showing the status of manufacture and of progress on the Site;
- (c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
 - (i) commencement of manufacture,
 - (ii) Contractor's inspections,
 - (iii) tests, and
 - (iv) shipment and arrival at the Site;
- (d) the details described in Sub-Clause 6.10 [*Records of Contractor's Personnel and Equipment*];
- (e) copies of quality assurance documents, test results and certificates of Materials;
- (f) list of notices given under Sub-Clause 2.5 [*Employer's Claims*] and notices given under Sub-Clause 20.1 [*Contractor's Claims*];
- (g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and

- (h) comparisons of actual and planned progress, with details of any events or circumstances which may jeopardise the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

4.22

Security of the Site

Unless otherwise stated in the Particular Conditions:

- (a) the Contractor shall be responsible for keeping unauthorised persons off the Site, and
- (b) authorised persons shall be limited to the Contractor's Personnel and the Employer's Personnel; and to any other personnel notified to the Contractor, by the Employer or the Engineer, as authorised personnel of the Employer's other contractors on the Site.

4.23

Contractor's Operations on Site

The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Engineer as working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.

During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.

Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfil obligations under the Contract.

4.24

Fossils

All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.

The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

5

Nominated Subcontractors

5.1

Definition of “nominated Subcontractor”

In the Contract, “nominated Subcontractor” means a Subcontractor:

- (a) who is stated in the Contract as being a nominated Subcontractor, or
- (b) whom the Engineer, under Clause 13 [*Variations and Adjustments*], instructs the Contractor to employ as a Subcontractor.

5.2

Objection to Nomination

The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Engineer as soon as practicable, with supporting particulars. An objection shall be deemed reasonable if it arises from (among other things) any of the following matters, unless the Employer agrees to indemnify the Contractor against and from the consequences of the matter:

- (a) there are reasons to believe that the Subcontractor does not have sufficient competence, resources or financial strength;
- (b) the subcontract does not specify that the nominated Subcontractor shall indemnify the Contractor against and from any negligence or misuse of Goods by the nominated Subcontractor, his agents and employees; or
- (c) the subcontract does not specify that, for the subcontracted work (including design, if any), the nominated Subcontractor shall:
 - (i) undertake to the Contractor such obligations and liabilities as will enable the Contractor to discharge his obligations and liabilities under the Contract, and
 - (ii) indemnify the Contractor against and from all obligations and liabilities arising under or in connection with the Contract and from the consequences of any failure by the Subcontractor to perform these obligations or to fulfil these liabilities.

5.3

Payments to nominated Subcontractors

The Contractor shall pay to the nominated Subcontractor the amounts which the Engineer certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with subparagraph (b) of Sub-Clause 13.5 [*Provisional Sums*], except as stated in Sub-Clause 5.4 [*Evidence of Payments*].

5.4

Evidence of Payments

Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Engineer may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:

- (a) submits this reasonable evidence to the Engineer, or
- (b)
 - (i) satisfies the Engineer in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and
 - (ii) submits to the Engineer reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement,

then the Employer may (at his sole discretion) pay, direct to the nominated Subcontractor, part or all of such amounts previously certified (less applicable

deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or (b) above. The Contractor shall then repay, to the Employer, the amount which the nominated Subcontractor was directly paid by the Employer.

6 Staff and Labour

- 6.1 Engagement of Staff and Labour** Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, housing, feeding and transport.
- 6.2 Rates of Wages and Conditions of Labour** The Contractor shall pay rates of wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.
- 6.3 Persons in the Service of Employer** The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Employer's Personnel.
- 6.4 Labour Laws** The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.
- The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.
- 6.5 Working Hours** No work shall be carried out on the Site on locally recognised days of rest, or outside the normal working hours stated in the Appendix to Tender, unless:
- (a) otherwise stated in the Contract,
 - (b) the Engineer gives consent, or
 - (c) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer.
- 6.6 Facilities for Staff and Labour** Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specification.
- The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.
- 6.7 Health and Safety** The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities,

the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.

6.8

Contractor's Superintendence

Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect and test the work.

Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language for communications (defined in Sub-Clause 1.4 [*Law and Language*]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.

6.9

Contractor's Personnel

The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if applicable, who:

- (a) persists in any misconduct or lack of care,
- (b) carries out duties incompetently or negligently,
- (c) fails to conform with any provisions of the Contract, or
- (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment.

If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

6.10

Records of Contractor's Personnel and Equipment

The Contractor shall submit, to the Engineer, details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site. Details shall be submitted each calendar month, in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

6.11

Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.

7

Plant, Materials and Workmanship

7.1 Manner of Execution

The Contractor shall carry out the manufacture of Plant, the production and manufacture of Materials, and all other execution of the Works:

- (a) in the manner (if any) specified in the Contract,
- (b) in a proper workmanlike and careful manner, in accordance with recognised good practice, and
- (c) with properly equipped facilities and non-hazardous Materials, except as otherwise specified in the Contract.

7.2

Samples

The Contractor shall submit the following samples of Materials, and relevant information, to the Engineer for consent prior to using the Materials in or for the Works:

- (a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost, and
- (b) additional samples instructed by the Engineer as a Variation.

Each sample shall be labelled as to origin and intended use in the Works.

7.3

Inspection

The Employer's Personnel shall at all reasonable times:

- (a) have full access to all parts of the Site and to all places from which natural Materials are being obtained, and
- (b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.

The Contractor shall give the Employer's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.

The Contractor shall give notice to the Engineer whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Engineer shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Engineer does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and thereafter reinstate and make good, all at the Contractor's cost.

7.4

Testing

This Sub-Clause shall apply to all tests specified in the Contract, other than the Tests after Completion (if any).

The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.

The Engineer may, under Clause 13 [*Variations and Adjustments*], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.

The Engineer shall give the Contractor not less than 24 hours' notice of the Engineer's intention to attend the tests. If the Engineer does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Engineer's presence.

If the Contractor suffers delay and/or incurs Cost from complying with these instructions or as a result of a delay for which the Employer is responsible, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.

7.5

Rejection

If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Engineer may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.

If the Engineer requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [*Employer's Claims*] pay these costs to the Employer.

7.6

Remedial Work

Notwithstanding any previous test or certification, the Engineer may instruct the Contractor to:

- (a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,
- (b) remove and re-execute any other work which is not in accordance with the Contract, and
- (c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.

The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c).

If the Contractor fails to comply with the instruction, the Employer shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to Sub-Clause 2.5 [*Employer's Claims*] pay to the Employer all costs arising from this failure.

7.7

Ownership of Plant and Materials

Each item of Plant and Materials shall, to the extent consistent with the Laws of the Country, become the property of the Employer at whichever is the earlier of the following times, free from liens and other encumbrances:

- (a) when it is delivered to the Site;
- (b) when the Contractor is entitled to payment of the value of the Plant and Materials under Sub-Clause 8.10 [*Payment for Plant and Materials in Event of Suspension*].

7.8

Royalties

Unless otherwise stated in the Specification, the Contractor shall pay all royalties, rents and other payments for:

- (a) natural Materials obtained from outside the Site, and
- (b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal areas within the Site are specified in the Contract.

8

Commencement, Delays and Suspension

8.1

Commencement of Works

The Engineer shall give the Contractor not less than 7 days' notice of the Commencement Date. Unless otherwise stated in the Particular Conditions, the Commencement Date shall be within 42 days after the Contractor receives the Letter of Acceptance.

The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date, and shall then proceed with the Works with due expedition and without delay.

8.2

Time for Completion

The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including:

- (a) achieving the passing of the Tests on Completion, and
- (b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [*Taking Over of the Works and Sections*].

8.3

Programme

The Contractor shall submit a detailed time programme to the Engineer within 28 days after receiving the notice under Sub-Clause 8.1 [*Commencement of Works*]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:

- (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing,
- (b) each of these stages for work by each nominated Subcontractor (as defined in Clause 5 [*Nominated Subcontractors*]),
- (c) the sequence and timing of inspections and tests specified in the Contract, and
- (d) a supporting report which includes:
 - (i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and
 - (ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Employer's Personnel shall be entitled to rely upon the programme when planning their activities.

The Contractor shall promptly give notice to the Engineer of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works. The Engineer may require the Contractor to submit an estimate of the anticipated effect of the future event or circumstances, and/or a proposal under Sub-Clause 13.3 [*Variation Procedure*].

If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer in accordance with this Sub-Clause.

8.4

Extension of Time for Completion

The Contractor shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [*Taking Over of the Works and Sections*] is or will be delayed by any of the following causes:

- (a) a Variation (unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [*Variation Procedure*]) or other substantial change in the quantity of an item of work included in the Contract,
- (b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions,
- (c) exceptionally adverse climatic conditions,
- (d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or
- (e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site.

If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Engineer in accordance with Sub-Clause 20.1 [*Contractor's Claims*]. When determining each extension of time under Sub-Clause 20.1, the Engineer shall review previous determinations and may increase, but shall not decrease, the total extension of time.

8.5 Delays Caused by Authorities

If the following conditions apply, namely:

- (a) the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in the Country,
- (b) these authorities delay or disrupt the Contractor's work, and
- (c) the delay or disruption was Unforeseeable,

then this delay or disruption will be considered as a cause of delay under subparagraph (b) of Sub-Clause 8.4 [*Extension of Time for Completion*].

8.6 Rate of Progress

If, at any time:

- (a) actual progress is too slow to complete within the Time for Completion, and/or
- (b) progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [*Programme*],

other than as a result of a cause listed in Sub-Clause 8.4 [*Extension of Time for Completion*], then the Engineer may instruct the Contractor to submit, under Sub-Clause 8.3 [*Programme*], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

Unless the Engineer notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [*Employer's Claims*] pay these costs to the Employer, in addition to delay damages (if any) under Sub-Clause 8.7 below.

8.7 Delay Damages

If the Contractor fails to comply with Sub-Clause 8.2 [*Time for Completion*], the Contractor shall subject to Sub-Clause 2.5 [*Employer's Claims*] pay delay damages to the Employer for this default. These delay damages shall be the sum stated in the Appendix to Tender, which shall be paid for every day which shall elapse between the relevant Time for Completion and the date stated in the Taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of delay damages (if any) stated in the Appendix to Tender.

These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under Sub-Clause 15.2 [*Termination by Employer*] prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.

8.8 Suspension of Work

The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.

The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.

8.9 Consequences of Suspension

If the Contractor suffers delay and/or incurs Cost from complying with the Engineer's instructions under Sub-Clause 8.8 [*Suspension of Work*] and/or from resuming the work, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Sub-Clause 8.8 [*Suspension of Work*].

8.10

Payment for Plant and Materials in Event of Suspension

The Contractor shall be entitled to payment of the value (as at the date of suspension) of Plant and/or Materials which have not been delivered to Site, if:

- (a) the work on Plant or delivery of Plant and/or Materials has been suspended for more than 28 days, and
- (b) the Contractor has marked the Plant and/or Materials as the Employer's property in accordance with the Engineer's instructions.

8.11

Prolonged Suspension

If the suspension under Sub-Clause 8.8 [*Suspension of Work*] has continued for more than 84 days, the Contractor may request the Engineer's permission to proceed. If the Engineer does not give permission within 28 days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under Clause 13 [*Variations and Adjustments*] of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under Sub-Clause 16.2 [*Termination by Contractor*].

8.12

Resumption of Work

After the permission or instruction to proceed is given, the Contractor and the Engineer shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension.

9 Tests on Completion

9.1 Contractor's Obligations

The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.4 [*Testing*], after providing the documents in accordance with sub-paragraph (d) of Sub-Clause 4.1 [*Contractor's General Obligations*].

The Contractor shall give to the Engineer not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Engineer shall instruct.

In considering the results of the Tests on Completion, the Engineer shall make

allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

9.2

Delayed Tests

If the Tests on Completion are being unduly delayed by the Employer, Sub-Clause 7.4 [Testing] (fifth paragraph) and/or Sub-Clause 10.3 [Interference with Tests on Completion] shall be applicable.

If the Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.

If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Employer's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

9.3

Retesting

If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.5 [Rejection] shall apply, and the Engineer or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.

9.4

Failure to Pass Tests on Completion

If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [Retesting], the Engineer shall be entitled to:

- (a) order further repetition of Tests on Completion under Sub-Clause 9.3;
- (b) if the failure deprives the Employer of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Employer shall have the same remedies as are provided in sub-paragraph (c) of Sub-Clause 11.4 [Failure to Remedy Defects]; or
- (c) issue a Taking-Over Certificate, if the Employer so requests.

In the event of sub-paragraph (c), the Contractor shall proceed in accordance with all other obligations under the Contract, and the Contract Price shall be reduced by such amount as shall be appropriate to cover the reduced value to the Employer as a result of this failure. Unless the relevant reduction for this failure is stated (or its method of calculation is defined) in the Contract, the Employer may require the reduction to be (i) agreed by both Parties (in full satisfaction of this failure only) and paid before this Taking-Over Certificate is issued, or (ii) determined and paid under Sub-Clause 2.5 [Employer's Claims] and Sub-Clause 3.5 [Determinations].

10

Employer's Taking Over

10.1

Taking Over of the Works and Sections

Except as stated in Sub-Clause 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Employer when (i) the Works have been completed in accordance with the Contract, including the matters described in Sub-Clause 8.2 [Time for Completion] and except as allowed in sub-paragraph (a) below, and (ii) a

Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.

The Contractor may apply by notice to the Engineer for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor may similarly apply for a Taking-Over Certificate for each Section.

The Engineer shall, within 28 days after receiving the Contractor's application:

- (a) issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or
- (b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub-Clause.

If the Engineer fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

10.2

Taking Over of Parts of the Works

The Engineer may, at the sole discretion of the Employer, issue a Taking-Over Certificate for any part of the Permanent Works.

The Employer shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Engineer has issued a Taking-Over Certificate for this part. However, if the Employer does use any part of the Works before the Taking-Over Certificate is issued:

- (a) the part which is used shall be deemed to have been taken over as from the date on which it is used,
- (b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Employer, and
- (c) if requested by the Contractor, the Engineer shall issue a Taking-Over Certificate for this part.

After the Engineer has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.

If the Contractor incurs Cost as a result of the Employer taking over and/or using a part of the Works, other than such use as is specified in the Contract or agreed by the Contractor, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to payment of any such Cost plus reasonable profit, which shall be included in the Contract Price. After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine this Cost and profit.

If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages thereafter for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under Sub-Clause 8.7 [*Delay Damages*], and shall not affect the maximum amount of these damages.

10.3

Interference with Tests on Completion

If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Employer is responsible, the Employer shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.

The Engineer shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Engineer shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.

If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

10.4

Surfaces Requiring Reinstatement

Except as otherwise stated in a Taking-Over Certificate, a certificate for a Section or part of the Works shall not be deemed to certify completion of any ground or other surfaces requiring reinstatement.

11 Defects Liability

11.1

Completion of Outstanding Work and Remedying Defects

In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable thereafter, the Contractor shall:

- (a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and
- (b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Employer on or before the expiry date of the Defects Notification Period for the Works or Section (as the case may be).

If a defect appears or damage occurs, the Contractor shall be notified accordingly, by (or on behalf of) the Employer.

11.2

Cost of Remedying Defects

All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [*Completion of Outstanding Work and Remedying Defects*] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:

- (a) any design for which the Contractor is responsible,
- (b) Plant, Materials or workmanship not being in accordance with the Contract, or
- (c) failure by the Contractor to comply with any other obligation.

If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Employer, and Sub-Clause 13.3 [*Variation Procedure*] shall apply.

11.3

Extension of Defects Notification Period

The Employer shall be entitled subject to Sub-Clause 2.5 [*Employer's Claims*] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or damage. However, a Defects Notification Period shall not be extended by more than two years.

If delivery and/or erection of Plant and/or Materials was suspended under Sub-Clause 8.8 [*Suspension of Work*] or Sub-Clause 16.1 [*Contractor's Entitlement to Suspend Work*], the Contractor's obligations under this Clause shall not apply to any defects or damage occurring more than two years after the Defects Notification Period for the Plant and/or Materials would otherwise have expired.

11.4

Failure to Remedy Defects

If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by (or on behalf of) the Employer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.

If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2 [*Cost of Remedying Defects*], the Employer may (at his option):

- (a) carry out the work himself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.5 [*Employer's Claims*] pay to the Employer the costs reasonably incurred by the Employer in remedying the defect or damage;
- (b) require the Engineer to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.5 [*Determinations*]; or
- (c) if the defect or damage deprives the Employer of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract or otherwise, the Employer shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

11.5 Removal of Defective Work	If the defect or damage cannot be remedied expeditiously on the Site and the Employer gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.
11.6 Further Tests	<p>If the work of remedying of any defect or damage may affect the performance of the Works, the Engineer may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 28 days after the defect or damage is remedied.</p> <p>These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [<i>Cost of Remedying Defects</i>], for the cost of the remedial work.</p>
11.7 Right of Access	Until the Performance Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this Clause, except as may be inconsistent with the Employer's reasonable security restrictions.
11.8 Contractor to Search	The Contractor shall, if required by the Engineer, search for the cause of any defect, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under Sub-Clause 11.2 [<i>Cost of Remedying Defects</i>], the Cost of the search plus reasonable profit shall be agreed or determined by the Engineer in accordance with Sub-Clause 3.5 [<i>Determinations</i>] and shall be included in the Contract Price.
11.9 Performance Certificate	<p>Performance of the Contractor's obligations shall not be considered to have been completed until the Engineer has issued the Performance Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.</p> <p>The Engineer shall issue the Performance Certificate within 28 days after the latest of the expiry dates of the Defects Notification Periods, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Performance Certificate shall be issued to the Employer.</p> <p>Only the Performance Certificate shall be deemed to constitute acceptance of the Works.</p>
11.10 Unfulfilled Obligations	After the Performance Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.
11.11 Clearance of Site	<p>Upon receiving the Performance Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.</p> <p>If all these items have not been removed within 28 days after the Employer receives a copy of the Performance Certificate, the Employer may sell or</p>

otherwise dispose of any remaining items. The Employer shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.

Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Employer's costs, the Contractor shall pay the outstanding balance to the Employer.

12

Measurement and Evaluation

12.1

Works to be Measured

The Works shall be measured, and valued for payment, in accordance with this Clause.

Whenever the Engineer requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:

- (a) promptly either attend or send another qualified representative to assist the Engineer in making the measurement, and
- (b) supply any particulars requested by the Engineer.

If the Contractor fails to attend or send a representative, the measurement made by (or on behalf of) the Engineer shall be accepted as accurate.

Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agree the records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.

If the Contractor examines and disagrees the records, and/or does not sign them as agreed, then the Contractor shall give notice to the Engineer of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Engineer shall review the records and either confirm or vary them. If the Contractor does not so give notice to the Engineer within 14 days after being requested to examine the records, they shall be accepted as accurate.

12.2

Method of Measurement

Except as otherwise stated in the Contract and notwithstanding local practice:

- (a) measurement shall be made of the net actual quantity of each item of the Permanent Works, and
- (b) the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules.

12.3

Evaluation

Except as otherwise stated in the Contract, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine the Contract Price by evaluating each item of work, applying the measurement agreed or determined in accordance with the above Sub-Clauses 12.1 and 12.2 and the appropriate rate or price for the item.

For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contract or, if there is no such item, specified for similar work. However, a new rate or price shall be appropriate for an item of work if:

- (a) (i) the measured quantity of the item is changed by more than 10% from the quantity of this item in the Bill of Quantities or other Schedule,
 - (ii) this change in quantity multiplied by such specified rate for this item exceeds 0.01% of the Accepted Contract Amount,
 - (iii) this change in quantity directly changes the Cost per unit quantity of this item by more than 1%, and
 - (iv) this item is not specified in the Contract as a “fixed rate item”;
- or
- (b) (i) the work is instructed under Clause 13 [*Variations and Adjustments*],
 - (ii) no rate or price is specified in the Contract for this item, and
 - (iii) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.

Each new rate or price shall be derived from any relevant rates or prices in the Contract, with reasonable adjustments to take account of the matters described in sub-paragraph (a) and/or (b), as applicable. If no rates or prices are relevant for the derivation of a new rate or price, it shall be derived from the reasonable Cost of executing the work, together with reasonable profit, taking account of any other relevant matters.

Until such time as an appropriate rate or price is agreed or determined, the Engineer shall determine a provisional rate or price for the purposes of Interim Payment Certificates.

12.4

Omissions

Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:

- (a) the Contractor will incur (or has incurred) cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount;
- (b) the omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and
- (c) this cost is not deemed to be included in the evaluation of any substituted work;

then the Contractor shall give notice to the Engineer accordingly, with supporting particulars. Upon receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine this cost, which shall be included in the Contract Price.

13

Variations and Adjustments

13.1

Right to Vary

Variations may be initiated by the Engineer at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal.

The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that the Contractor cannot readily obtain the Goods required for the Variation. Upon receiving this notice, the Engineer shall cancel, confirm or vary the instruction.

Each Variation may include:

- (a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),
- (b) changes to the quality and other characteristics of any item of work,
- (c) changes to the levels, positions and/or dimensions of any part of the Works,
- (d) omission of any work unless it is to be carried out by others,
- (e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or
- (f) changes to the sequence or timing of the execution of the Works.

The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Engineer instructs or approves a Variation.

13.2

Value Engineering

The Contractor may, at any time, submit to the Engineer a written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Employer of the completed Works, or (iv) otherwise be of benefit to the Employer.

The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [*Variation Procedure*].

If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:

- (a) the Contractor shall design this part,
- (b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [*Contractor's General Obligations*] shall apply, and
- (c) if this change results in a reduction in the contract value of this part, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine a fee, which shall be included in the Contract Price. This fee shall be half (50%) of the difference between the following amounts:
 - (i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.7 [*Adjustments for Changes in Legislation*] and Sub-Clause 13.8 [*Adjustments for Changes in Cost*], and
 - (ii) the reduction (if any) in the value to the Employer of the varied works, taking account of any reductions in quality, anticipated life or operational efficiencies.

However, if amount (i) is less than amount (ii), there shall not be a fee.

13.3

Variation Procedure

If the Engineer requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:

- (a) a description of the proposed work to be performed and a programme for its execution,
- (b) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 [*Programme*] and to the Time for Completion, and
- (c) the Contractor's proposal for evaluation of the Variation.

The Engineer shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [*Value Engineering*] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst awaiting a response.

Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Engineer to the Contractor, who shall acknowledge receipt.

Each Variation shall be evaluated in accordance with Clause 12 [*Measurement and Evaluation*], unless the Engineer instructs or approves otherwise in accordance with this Clause.

13.4

Payment in Applicable Currencies

If the Contract provides for payment of the Contract Price in more than one currency, then whenever an adjustment is agreed, approved or determined as stated above, the amount payable in each of the applicable currencies shall be specified. For this purpose, reference shall be made to the actual or expected currency proportions of the Cost of the varied work, and to the proportions of various currencies specified for payment of the Contract Price.

13.5

Provisional Sums

Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer's instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Engineer shall have instructed. For each Provisional Sum, the Engineer may instruct:

- (a) work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [*Variation Procedure*]; and/or
- (b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in Clause 5 [*Nominated Subcontractors*]) or otherwise; and for which there shall be included in the Contract Price:
 - (i) the actual amounts paid (or due to be paid) by the Contractor, and
 - (ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in the Appendix to Tender shall be applied.

The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

13.6

Daywork

For work of a minor or incidental nature, the Engineer may instruct that a Variation shall be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this Sub-Clause shall not apply.

Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall deliver each day to the Engineer accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:

- (a) the names, occupations and time of Contractor's Personnel,
- (b) the identification, type and time of Contractor's Equipment and Temporary Works, and
- (c) the quantities and types of Plant and Materials used.

One copy of each statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 [*Application for Interim Payment Certificates*].

13.7

Adjustments for Changes in Legislation

The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.

If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

13.8

Adjustments for Changes in Cost

In this Sub-Clause, "table of adjustment data" means the completed table of adjustment data included in the Appendix to Tender. If there is no such table of adjustment data, this Sub-Clause shall not apply.

If this Sub-Clause applies, the amounts payable to the Contractor shall be adjusted for rises or falls in the cost of labour, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this Sub-Clause. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other Clauses, the Accepted Contract Amount shall be deemed to have included amounts to cover the contingency of other rises and falls in costs.

The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from formulae for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae shall be of the following general type:

$$P_n = a + b \frac{L_n}{L_o} + c \frac{E_n}{E_o} + d \frac{M_n}{M_o} + \dots$$

where:

"P_n" is the adjustment multiplier to be applied to the estimated contract value in the relevant currency of the work carried out in period "n", this period being a month unless otherwise stated in the Appendix to Tender;

"a" is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;

"b", "c", "d", ... are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the relevant

table of adjustment data; such tabulated cost elements may be indicative of resources such as labour, equipment and materials;

“Ln”, “En”, “Mn”, ... are the current cost indices or reference prices for period “n”, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period (to which the particular Payment Certificate relates); and

“Lo”, “Eo”, “Mo”, ... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.

The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Engineer. For this purpose, reference shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.

In cases where the “currency of index” (stated in the table) is not the relevant currency of payment, each index shall be converted into the relevant currency of payment at the selling rate, established by the central bank of the Country, of this relevant currency on the above date for which the index is required to be applicable.

Until such time as each current cost index is available, the Engineer shall determine a provisional index for the issue of Interim Payment Certificates. When a current cost index is available, the adjustment shall be recalculated accordingly.

If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices thereafter shall be made using either (i) each index or price applicable on the date 49 days prior to the expiry of the Time for Completion of the Works, or (ii) the current index or price: whichever is more favourable to the Employer.

The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations.

14 Contract Price and Payment

14.1

The Contract Price

Unless otherwise stated in the Particular Conditions:

- (a) the Contract Price shall be agreed or determined under Sub-Clause 12.3 [*Evaluation*] and be subject to adjustments in accordance with the Contract;
- (b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in Sub-Clause 13.7 [*Adjustments for Changes in Legislation*];
- (c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities:
 - (i) of the Works which the Contractor is required to execute, or
 - (ii) for the purposes of Clause 12 [*Measurement and Evaluation*]; and

- (d) the Contractor shall submit to the Engineer, within 28 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Engineer may take account of the breakdown when preparing Payment Certificates, but shall not be bound by it.

14.2

Advance Payment

The Employer shall make an advance payment, as an interest-free loan for mobilisation, when the Contractor submits a guarantee in accordance with this Sub-Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies and proportions, shall be as stated in the Appendix to Tender.

Unless and until the Employer receives this guarantee, or if the total advance payment is not stated in the Appendix to Tender, this Sub-Clause shall not apply.

The Engineer shall issue an Interim Payment Certificate for the first instalment after receiving a Statement (under Sub-Clause 14.3 [*Application for Interim Payment Certificates*]) and after the Employer receives (i) the Performance Security in accordance with Sub-Clause 4.2 [*Performance Security*] and (ii) a guarantee in amounts and currencies equal to the advance payment. This guarantee shall be issued by an entity and from within a country (or other jurisdiction) approved by the Employer, and shall be in the form annexed to the Particular Conditions or in another form approved by the Employer.

The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount may be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

The advance payment shall be repaid through percentage deductions in Payment Certificates. Unless other percentages are stated in the Appendix to Tender:

- (a) deductions shall commence in the Payment Certificate in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds ten per cent (10%) of the Accepted Contract Amount less Provisional Sums; and
- (b) deductions shall be made at the amortisation rate of one quarter (25%) of the amount of each Payment Certificate (excluding the advance payment and deductions and repayments of retention) in the currencies and proportions of the advance payment, until such time as the advance payment has been repaid.

If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 [*Termination by Employer*], Clause 16 [*Suspension and Termination by Contractor*] or Clause 19 [*Force Majeure*] (as the case may be), the whole of the balance then outstanding shall immediately become due and payable by the Contractor to the Employer.

14.3

Application for Interim Payment Certificates

The Contractor shall submit a Statement in six copies to the Engineer after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents which shall include the report on the progress during this month in accordance with Sub-Clause 4.21 [*Progress Reports*].

The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:

- (a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in sub-paragraphs (b) to (g) below);
- (b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.7 [*Adjustments for Changes in Legislation*] and Sub-Clause 13.8 [*Adjustments for Changes in Cost*];
- (c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in the Appendix to Tender to the total of the above amounts, until the amount so retained by the Employer reaches the limit of Retention Money (if any) stated in the Appendix to Tender;
- (d) any amounts to be added and deducted for the advance payment and repayments in accordance with Sub-Clause 14.2 [*Advance Payment*];
- (e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [*Plant and Materials intended for the Works*];
- (f) any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 20 [*Claims, Disputes and Arbitration*]; and
- (g) the deduction of amounts certified in all previous Payment Certificates.

14.4

Schedule of Payments

If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:

- (a) the instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of sub-paragraph (a) of Sub-Clause 14.3 [*Application for Interim Payment Certificates*];
- (b) Sub-Clause 14.5 [*Plant and Materials intended for the Works*] shall not apply; and
- (c) if these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less than that on which this schedule of payments was based, then the Engineer may proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine revised instalments, which shall take account of the extent to which progress is less than that on which the instalments were previously based.

If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.

14.5

Plant and Materials intended for the Works

If this Sub-Clause applies, Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3, (i) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and (ii) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under sub-paragraph (a) of Sub-Clause 14.3 [*Application for Interim Payment Certificates*].

If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the Appendix to Tender, this Sub-Clause shall not apply.

The Engineer shall determine and certify each addition if the following conditions are satisfied:

- (a) the Contractor has:
 - (i) kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and
 - (ii) submitted a statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence;

and either:

- (b) the relevant Plant and Materials:
 - (i) are those listed in the Appendix to Tender for payment when shipped,
 - (ii) have been shipped to the Country, en route to the Site, in accordance with the Contract; and
 - (iii) are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Engineer together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by the Employer in amounts and currencies equal to the amount due under this Sub-Clause: this guarantee may be in a similar form to the form referred to in Sub-Clause 14.2 [*Advance Payment*] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration;

or

- (c) the relevant Plant and Materials:
 - (i) are those listed in the Appendix to Tender for payment when delivered to the Site, and
 - (ii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration, and appear to be in accordance with the Contract.

The additional amount to be certified shall be the equivalent of eighty percent of the Engineer's determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this Sub-Clause and of the contract value of the Plant and Materials.

The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under sub-paragraph (a) of Sub-Clause 14.3 [*Application for Interim Payment Certificates*]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials.

14.6

Issue of Interim Payment Certificates

No amount will be certified or paid until the Employer has received and approved the Performance Security. Thereafter, the Engineer shall, within 28 days after receiving a Statement and supporting documents, issue to the Employer an Interim Payment Certificate which shall state the amount which the Engineer fairly determines to be due, with supporting particulars.

However, prior to issuing the Taking-Over Certificate for the Works, the Engineer shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated in the Appendix to Tender. In this event, the Engineer shall give notice to the Contractor accordingly.

An Interim Payment Certificate shall not be withheld for any other reason, although:

- (a) if any thing supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
- (b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.

The Engineer may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Engineer's acceptance, approval, consent or satisfaction.

14.7

Payment

The Employer shall pay to the Contractor:

- (a) the first instalment of the advance payment within 42 days after issuing the Letter of Acceptance or within 21 days after receiving the documents in accordance with Sub-Clause 4.2 [*Performance Security*] and Sub-Clause 14.2 [*Advance Payment*], whichever is later;
- (b) the amount certified in each Interim Payment Certificate within 56 days after the Engineer receives the Statement and supporting documents; and
- (c) the amount certified in the Final Payment Certificate within 56 days after the Employer receives this Payment Certificate.

Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (for this currency) specified in the Contract.

14.8

Delayed Payment

If the Contractor does not receive payment in accordance with Sub-Clause 14.7 [*Payment*], the Contractor shall be entitled to receive financing charges compounded monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in Sub-Clause 14.7 [*Payment*], irrespective (in the case of its sub-paragraph (b)) of the date on which any Interim Payment Certificate is issued.

Unless otherwise stated in the Particular Conditions, these financing charges shall be calculated at the annual rate of three percentage points above the discount rate of the central bank in the country of the currency of payment, and shall be paid in such currency.

The Contractor shall be entitled to this payment without formal notice or certification, and without prejudice to any other right or remedy.

14.9

Payment of Retention Money

When the Taking-Over Certificate has been issued for the Works, the first half of the Retention Money shall be certified by the Engineer for payment to the Contractor. If a Taking-Over Certificate is issued for a Section or part of the Works, a proportion of the Retention Money shall be certified and paid. This proportion shall be two-fifths (40%) of the proportion calculated by dividing the estimated contract value of the Section or part, by the estimated final Contract Price.

Promptly after the latest of the expiry dates of the Defects Notification Periods, the outstanding balance of the Retention Money shall be certified by the Engineer for payment to the Contractor. If a Taking-Over Certificate was issued for a Section, a

proportion of the second half of the Retention Money shall be certified and paid promptly after the expiry date of the Defects Notification Period for the Section. This proportion shall be two-fifths (40%) of the proportion calculated by dividing the estimated contract value of the Section by the estimated final Contract Price.

However, if any work remains to be executed under Clause 11 [*Defects Liability*], the Engineer shall be entitled to withhold certification of the estimated cost of this work until it has been executed.

When calculating these proportions, no account shall be taken of any adjustments under Sub-Clause 13.7 [*Adjustments for Changes in Legislation*] and Sub-Clause 13.8 [*Adjustments for Changes in Cost*].

14.10

Statement at Completion Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Engineer six copies of a Statement at completion with supporting documents, in accordance with Sub-Clause 14.3 [*Application for Interim Payment Certificates*], showing:

- (a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,
- (b) any further sums which the Contractor considers to be due, and
- (c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.

The Engineer shall then certify in accordance with Sub-Clause 14.6 [*Issue of Interim Payment Certificates*].

14.11

Application for Final Payment Certificate

Within 56 days after receiving the Performance Certificate, the Contractor shall submit, to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:

- (a) the value of all work done in accordance with the Contract, and
- (b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".

However if, following discussions between the Engineer and the Contractor and any changes to the draft final statement which are agreed, it becomes evident that a dispute exists, the Engineer shall deliver to the Employer (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under Sub-Clause 20.4 [*Obtaining Dispute Adjudication Board's Decision*] or Sub-Clause 20.5 [*Amicable Settlement*], the Contractor shall then prepare and submit to the Employer (with a copy to the Engineer) a Final Statement.

14.12

Discharge

When submitting the Final Statement, the Contractor shall submit a written discharge which confirms that the total of the Final Statement represents full and final settlement

of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.

14.13

Issue of Final Payment Certificate

Within 28 days after receiving the Final Statement and written discharge in accordance with Sub-Clause 14.11 [*Application for Final Payment Certificate*] and Sub-Clause 14.12 [*Discharge*], the Engineer shall issue, to the Employer, the Final Payment Certificate which shall state:

- (a) the amount which is finally due, and
- (b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance (if any) due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.

If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [*Application for Final Payment Certificate*] and Sub-Clause 14.12 [*Discharge*], the Engineer shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days, the Engineer shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

14.14

Cessation of Employer's Liability

The Employer shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:

- (a) in the Final Statement and also
- (b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.10 [*Statement at Completion*].

However, this Sub-Clause shall not limit the Employer's liability under his indemnification obligations, or the Employer's liability in any case of fraud, deliberate default or reckless misconduct by the Employer.

14.15

Currencies of Payment

The Contract Price shall be paid in the currency or currencies named in the Appendix to Tender. Unless otherwise stated in the Particular Conditions, if more than one currency is so named, payments shall be made as follows:

- (a) if the Accepted Contract Amount was expressed in Local Currency only:
 - (i) the proportions or amounts of the Local and Foreign Currencies, and the fixed rates of exchange to be used for calculating the payments, shall be as stated in the Appendix to Tender, except as otherwise agreed by both Parties;
 - (ii) payments and deductions under Sub-Clause 13.5 [*Provisional Sums*] and Sub-Clause 13.7 [*Adjustments for Changes in Legislation*] shall be made in the applicable currencies and proportions; and
 - (iii) other payments and deductions under sub-paragraphs (a) to (d) of Sub-Clause 14.3 [*Application for Interim Payment Certificates*] shall be made in the currencies and proportions specified in sub-paragraph (a)(i) above;
- (b) payment of the damages specified in the Appendix to Tender shall be made in the currencies and proportions specified in the Appendix to Tender;

- (c) other payments to the Employer by the Contractor shall be made in the currency in which the sum was expended by the Employer, or in such currency as may be agreed by both Parties;
- (d) if any amount payable by the Contractor to the Employer in a particular currency exceeds the sum payable by the Employer to the Contractor in that currency, the Employer may recover the balance of this amount from the sums otherwise payable to the Contractor in other currencies; and
- (e) if no rates of exchange are stated in the Appendix to Tender, they shall be those prevailing on the Base Date and determined by the central bank of the Country.

15 Termination by Employer

15.1

Notice to Correct

If the Contractor fails to carry out any obligation under the Contract, the Engineer may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.

15.2

Termination by Employer

The Employer shall be entitled to terminate the Contract if the Contractor:

- (a) fails to comply with Sub-Clause 4.2 [*Performance Security*] or with a notice under Sub-Clause 15.1 [*Notice to Correct*],
- (b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract,
- (c) without reasonable excuse fails:
 - (i) to proceed with the Works in accordance with Clause 8 [*Commencement, Delays and Suspension*], or
 - (ii) to comply with a notice issued under Sub-Clause 7.5 [*Rejection*] or Sub-Clause 7.6 [*Remedial Work*], within 28 days after receiving it,
- (d) subcontracts the whole of the Works or assigns the Contract without the required agreement,
- (e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events, or
- (f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward:
 - (i) for doing or forbearing to do any action in relation to the Contract, or
 - (ii) for showing or forbearing to show favour or disfavour to any person in relation to the Contract,

or if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination.

In any of these events or circumstances, the Employer may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f), the Employer may by notice terminate the Contract immediately.

The Employer's election to terminate the Contract shall not prejudice any other rights of the Employer, under the Contract or otherwise.

The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract, and (ii) for the protection of life or property or for the safety of the Works.

After termination, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.

The Employer shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Employer, these items may be sold by the Employer in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

15.3

Valuation at Date of Termination

As soon as practicable after a notice of termination under Sub-Clause 15.2 [*Termination by Employer*] has taken effect, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

15.4

Payment after Termination

After a notice of termination under Sub-Clause 15.2 [*Termination by Employer*] has taken effect, the Employer may:

- (a) proceed in accordance with Sub-Clause 2.5 [*Employer's Claims*],
- (b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established, and/or
- (c) recover from the Contractor any losses and damages incurred by the Employer and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 15.3 [*Valuation at Date of Termination*]. After recovering any such losses, damages and extra costs, the Employer shall pay any balance to the Contractor.

15.5

Employer's Entitlement to Termination

The Employer shall be entitled to terminate the Contract, at any time for the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 28 days after the later of the dates on which the Contractor receives this notice or the Employer returns the Performance Security. The Employer shall not terminate the Contract under this Sub-Clause in order to execute the Works himself or to arrange for the Works to be executed by another contractor.

After this termination, the Contractor shall proceed in accordance with Sub-Clause 16.3 [*Cessation of Work and Removal of Contractor's Equipment*] and shall be paid in accordance with Sub-Clause 19.6 [*Optional Termination, Payment and Release*].

16

Suspension and Termination by Contractor

16.1

Contractor's Entitlement to Suspend Work

If the Engineer fails to certify in accordance with Sub-Clause 14.6 [*Issue of Interim Payment Certificates*] or the Employer fails to comply with Sub-Clause 2.4 [*Employer's Financial Arrangements*] or Sub-Clause 14.7 [*Payment*], the Contractor may, after giving not less than 21 days' notice to the Employer, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.

The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.8 [*Delayed Payment*] and to termination under Sub-Clause 16.2 [*Termination by Contractor*].

If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

16.2

Termination by Contractor

The Contractor shall be entitled to terminate the Contract if:

- (a) the Contractor does not receive the reasonable evidence within 42 days after giving notice under Sub-Clause 16.1 [*Contractor's Entitlement to Suspend Work*] in respect of a failure to comply with Sub-Clause 2.4 [*Employer's Financial Arrangements*],
- (b) the Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
- (c) the Contractor does not receive the amount due under an Interim Payment Certificate within 42 days after the expiry of the time stated in Sub-Clause 14.7 [*Payment*] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [*Employer's Claims*]),
- (d) the Employer substantially fails to perform his obligations under the Contract,
- (e) the Employer fails to comply with Sub-Clause 1.6 [*Contract Agreement*] or Sub-Clause 1.7 [*Assignment*],
- (f) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [*Prolonged Suspension*], or
- (g) the Employer becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the

benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.

In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Employer, terminate the Contract. However, in the case of sub-paragraph (f) or (g), the Contractor may by notice terminate the Contract immediately.

The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract or otherwise.

16.3

Cessation of Work and Removal of Contractor's Equipment

After a notice of termination under Sub-Clause 15.5 [*Employer's Entitlement to Termination*], Sub-Clause 16.2 [*Termination by Contractor*] or Sub-Clause 19.6 [*Optional Termination, Payment and Release*] has taken effect, the Contractor shall promptly:

- (a) cease all further work, except for such work as may have been instructed by the Engineer for the protection of life or property or for the safety of the Works,
- (b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and
- (c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

16.4

Payment on Termination

After a notice of termination under Sub-Clause 16.2 [*Termination by Contractor*] has taken effect, the Employer shall promptly:

- (a) return the Performance Security to the Contractor,
 - (b) pay the Contractor in accordance with Sub-Clause 19.6 [*Optional Termination, Payment and Release*], and
 - (c) pay to the Contractor the amount of any loss of profit or other loss or damage sustained by the Contractor as a result of this termination.
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17

Risk and Responsibility

17.1

Indemnities

The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- (a) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and
- (b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss:
 - (i) arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, and
 - (ii) is attributable to any negligence, wilful act or breach of the Contract by the Contractor, the Contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

The Employer shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in sub-paragraphs (d)(i), (ii) and (iii) of Sub-Clause 18.3 [*Insurance Against Injury to Persons and Damage to Property*].

17.2

Contractor's Care of the Works

The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under Sub-Clause 10.1 [*Taking Over of the Works and Sections*]) for the Works, when responsibility for the care of the Works shall pass to the Employer. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Employer.

After responsibility has accordingly passed to the Employer, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.

If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in Sub-Clause 17.3 [*Employer's Risks*], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.

The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

17.3

Employer's Risks

The risks referred to in Sub-Clause 17.4 below are:

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (b) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war, within the Country,
- (c) riot, commotion or disorder within the Country by persons other than the Contractor's Personnel and other employees of the Contractor and Subcontractors,
- (d) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, within the Country, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity,
- (e) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,
- (f) use or occupation by the Employer of any part of the Permanent Works, except as may be specified in the Contract,
- (g) design of any part of the Works by the Employer's Personnel or by others for whom the Employer is responsible, and
- (h) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventative precautions.

17.4
Consequences of
Employer's Risks

If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Engineer and shall rectify this loss or damage to the extent required by the Engineer.

If the Contractor suffers delay and/or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost, which shall be included in the Contract Price. In the case of sub-paragraphs (f) and (g) of Sub-Clause 17.3 [*Employer's Risks*], reasonable profit on the Cost shall also be included.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

17.5

Intellectual and Industrial
Property Rights

In this Sub-Clause, "infringement" means an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" means a claim (or proceedings pursuing a claim) alleging an infringement.

Whenever a Party does not give notice to the other Party of any claim within 28 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.

The Employer shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:

- (a) an unavoidable result of the Contractor's compliance with the Contract, or
- (b) a result of any Works being used by the Employer:
 - (i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or
 - (ii) in conjunction with any thing not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.

The Contractor shall indemnify and hold the Employer harmless against and from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible.

If a Party is entitled to be indemnified under this Sub-Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.

17.6

Limitation of Liability

Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than under

Sub-Clause 16.4 [*Payment on Termination*] and Sub-Clause 17.1 [*Indemnities*].

The total liability of the Contractor to the Employer, under or in connection with the Contract other than under Sub-Clause 4.19 [*Electricity, Water and Gas*], Sub-Clause 4.20 [*Employer's Equipment and Free-Issue Material*], Sub-Clause 17.1 [*Indemnities*] and Sub-Clause 17.5 [*Intellectual and Industrial Property Rights*], shall not exceed the sum stated in the Particular Conditions or (if a sum is not so stated) the Accepted Contract Amount.

This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

18 Insurance

18.1

General Requirements for Insurances

In this Clause, “insuring Party” means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.

Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Employer. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

Wherever the Employer is the insuring Party, each insurance shall be effected with insurers and in terms consistent with the details annexed to the Particular Conditions.

If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Employer shall act for Employer's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.

Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.

The relevant insuring Party shall, within the respective periods stated in the Appendix to Tender (calculated from the Commencement Date), submit to the other Party:

- (a) evidence that the insurances described in this Clause have been effected, and
- (b) copies of the policies for the insurances described in Sub-Clause 18.2 [*Insurance for Works and Contractor's Equipment*] and Sub-Clause 18.3 [*Insurance against Injury to Persons and Damage to Property*].

When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.

Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes

to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.

Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or attempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.

If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contract, or fails to provide satisfactory evidence and copies of policies in accordance with this Sub-Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.

Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Employer, under the other terms of the Contract or otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Employer in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.

Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [*Employer's Claims*] or Sub-Clause 20.1 [*Contractor's Claims*], as applicable.

18.2

Insurance for Works and Contractor's Equipment

The insuring Party shall insure the Works, Plant, Materials and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [*General Requirements for Insurances*], until the date of issue of the Taking-Over Certificate for the Works.

The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [*Defects Liability*]).

The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.

Unless otherwise stated in the Particular Conditions, insurances under this Sub-Clause:

- (a) shall be effected and maintained by the Contractor as insuring Party,
- (b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated between the Parties for the sole purpose of rectifying the loss or damage,
- (c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [*Employer's Risks*],

- (d) shall also cover loss or damage to a part of the Works which is attributable to the use or occupation by the Employer of another part of the Works, and loss or damage from the risks listed in sub-paragraphs (c), (g) and (h) of Sub-Clause 17.3 [*Employer's Risks*], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated in the Appendix to Tender (if an amount is not so stated, this sub-paragraph (d) shall not apply), and
- (e) may however exclude loss of, damage to, and reinstatement of:
 - (i) a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),
 - (ii) a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship,
 - (iii) a part of the Works which has been taken over by the Employer, except to the extent that the Contractor is liable for the loss or damage, and
 - (iv) Goods while they are not in the Country, subject to Sub-Clause 14.5 [*Plant and Materials intended for the Works*].

If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Employer, with supporting particulars. The Employer shall then (i) be entitled subject to Sub-Clause 2.5 [*Employer's Claims*] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [*General Requirements for Insurances*].

18.3

Insurance against Injury to Persons and Damage to Property

The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.2 [*Insurance for Works and Contractor's Equipment*]) or to any person (except persons insured under Sub-Clause 18.4 [*Insurance for Contractor's Personnel*]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

This insurance shall be for a limit per occurrence of not less than the amount stated in the Appendix to Tender, with no limit on the number of occurrences. If an amount is not stated in the Appendix to Tender, this Sub-Clause shall not apply.

Unless otherwise stated in the Particular Conditions, the insurances specified in this Sub-Clause:

- (a) shall be effected and maintained by the Contractor as insuring Party,
- (b) shall be in the joint names of the Parties,
- (c) shall be extended to cover liability for all loss and damage to the Employer's property (except things insured under Sub-Clause 18.2) arising out of the Contractor's performance of the Contract, and
- (d) may however exclude liability to the extent that it arises from:
 - (i) the Employer's right to have the Permanent Works executed on, over, under, in or through any land, and to occupy this land for the Permanent Works,
 - (ii) damage which is an unavoidable result of the Contractor's obligations to execute the Works and remedy any defects, and

- (iii) a cause listed in Sub-Clause 17.3 [*Employer's Risks*], except to the extent that cover is available at commercially reasonable terms.

18.4

Insurance for Contractor's Personnel

The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

The Employer and the Engineer shall also be indemnified under the policy of insurance, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.

The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

19

Force Majeure

19.1 Definition of Force Majeure

In this Clause, "Force Majeure" means an exceptional event or circumstance:

- (a) which is beyond a Party's control,
- (b) which such Party could not reasonably have provided against before entering into the Contract,
- (c) which, having arisen, such Party could not reasonably have avoided or overcome, and
- (d) which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war,
- (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel and other employees of the Contractor and Sub-contractors,
- (iv) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
- (v) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

19.2

Notice of Force Majeure

If a Party is or will be prevented from performing any of its obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

The Party shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents it from performing them.

Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

19.3

Duty to Minimise Delay

Each Party shall at all times use all reasonable endeavours to minimise any delay in the performance of the Contract as a result of Force Majeure.

A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

19.4

Consequences of Force Majeure

If the Contractor is prevented from performing any of his obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 19.2 [*Notice of Force Majeure*], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 19.1 [*Definition of Force Majeure*] and, in the case of sub-paragraphs (ii) to (iv), occurs in the Country, payment of any such Cost.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

19.5

Force Majeure Affecting Subcontractor

If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.

19.6

Optional Termination, Payment and Release

If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [*Notice of Force Majeure*], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 [*Cessation of Work and Removal of Contractor's Equipment*].

Upon such termination, the Engineer shall determine the value of the work done and issue a Payment Certificate which shall include:

- (a) the amounts payable for any work carried out for which a price is stated in the Contract;
- (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal;
- (c) any other Cost or liability which in the circumstances was reasonably incurred by the Contractor in the expectation of completing the Works;

- (d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
- (e) the Cost of repatriation of the Contractor's staff and labour employed wholly in connection with the Works at the date of termination.

19.7

Release from Performance under the Law

Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:

- (a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and
 - (b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under Sub-Clause 19.6 [*Optional Termination, Payment and Release*] if the Contract had been terminated under Sub-Clause 19.6.
-

20

Claim, Disputes and Arbitration

20.1

Contractor's Claims

If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.

If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply.

The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Employer's liability, the Engineer may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.

Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

- (a) this fully detailed claim shall be considered as interim;

- (b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Engineer may reasonably require; and
- (c) the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.

Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time.

Each Payment Certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

The Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [*Extension of Time for Completion*], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.

20.2

Appointment of the Dispute Adjudication Board

Disputes shall be adjudicated by a DAB in accordance with Sub-Clause 20.4 [*Obtaining Dispute Adjudication Board's Decision*]. The Parties shall jointly appoint a DAB by the date stated in the Appendix to Tender.

The DAB shall comprise, as stated in the Appendix to Tender, either one or three suitably qualified persons ("the members"). If the number is not so stated and the Parties do not agree otherwise, the DAB shall comprise three persons.

If the DAB is to comprise three persons, each Party shall nominate one member for the approval of the other Party. The Parties shall consult both these members and shall agree upon the third member, who shall be appointed to act as chairman.

However, if a list of potential members is included in the Contract, the members shall be selected from those on the list, other than anyone who is unable or unwilling to accept appointment to the DAB.

The agreement between the Parties and either the sole member ("adjudicator") or each of the three members shall incorporate by reference the General Conditions of Dispute Adjudication Agreement contained in the Appendix to these General Conditions, with such amendments as are agreed between them.

The terms of the remuneration of either the sole member or each of the three members, including the remuneration of any expert whom the DAB consults, shall be

mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

If at any time the Parties so agree, they may jointly refer a matter to the DAB for it to give its opinion. Neither Party shall consult the DAB on any matter without the agreement of the other Party.

If at any time the Parties so agree, they may appoint a suitably qualified person or persons to replace (or to be available to replace) any one or more members of the DAB. Unless the Parties agree otherwise, the appointment will come into effect if a member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment.

If any of these circumstances occurs and no such replacement is available, a replacement shall be appointed in the same manner as the replaced person was required to have been nominated or agreed upon, as described in this Sub-Clause.

The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Employer or the Contractor acting alone. Unless otherwise agreed by both Parties, the appointment of the DAB (including each member) shall expire when the discharge referred to in Sub-Clause 14.12 [*Discharge*] shall have become effective.

20.3

Failure to Agree Dispute Adjudication Board

If any of the following conditions apply, namely:

- (a) the Parties fail to agree upon the appointment of the sole member of the DAB by the date stated in the first paragraph of Sub-Clause 20.2, [*Appointment of the Dispute Adjudication Board*]
- (b) either Party fails to nominate a member (for approval by the other Party) of a DAB of three persons by such date,
- (c) the Parties fail to agree upon the appointment of the third member (to act as chairman) of the DAB by such date, or
- (d) the Parties fail to agree upon the appointment of a replacement person within 42 days after the date on which the sole member or one of the three members declines to act or is unable to act as a result of death, disability, resignation or termination of appointment,

then the appointing entity or official named in the Appendix to Tender shall, upon the request of either or both of the Parties and after due consultation with both Parties, appoint this member of the DAB. This appointment shall be final and conclusive. Each Party shall be responsible for paying one-half of the remuneration of the appointing entity or official.

20.4

Obtaining Dispute Adjudication Board's Decision

If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Engineer, either Party may refer the dispute in writing to the DAB for its decision, with copies to the other Party and the Engineer. Such reference shall state that it is given under this Sub-Clause.

For a DAB of three persons, the DAB shall be deemed to have received such reference on the date when it is received by the chairman of the DAB.

Both Parties shall promptly make available to the DAB all such additional information,

further access to the Site, and appropriate facilities, as the DAB may require for the purposes of making a decision on such dispute. The DAB shall be deemed to be not acting as arbitrator(s).

Within 84 days after receiving such reference, or within such other period as may be proposed by the DAB and approved by both Parties, the DAB shall give its decision, which shall be reasoned and shall state that it is given under this Sub-Clause. The decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award as described below. Unless the Contract has already been abandoned, repudiated or terminated, the Contractor shall continue to proceed with the Works in accordance with the Contract.

If either Party is dissatisfied with the DAB's decision, then either Party may, within 28 days after receiving the decision, give notice to the other Party of its dissatisfaction. If the DAB fails to give its decision within the period of 84 days (or as otherwise approved) after receiving such reference, then either Party may, within 28 days after this period has expired, give notice to the other Party of its dissatisfaction.

In either event, this notice of dissatisfaction shall state that it is given under this Sub-Clause, and shall set out the matter in dispute and the reason(s) for dissatisfaction. Except as stated in Sub-Clause 20.7 [*Failure to Comply with Dispute Adjudication Board's Decision*] and Sub-Clause 20.8 [*Expiry of Dispute Adjudication Board's Appointment*], neither Party shall be entitled to commence arbitration of a dispute unless a notice of dissatisfaction has been given in accordance with this Sub-Clause.

If the DAB has given its decision as to a matter in dispute to both Parties, and no notice of dissatisfaction has been given by either Party within 28 days after it received the DAB's decision, then the decision shall become final and binding upon both Parties.

20.5

Amicable Settlement

Where notice of dissatisfaction has been given under Sub-Clause 20.4 above, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, arbitration may be commenced on or after the fifty-sixth day after the day on which notice of dissatisfaction was given, even if no attempt at amicable settlement has been made.

20.6

Arbitration

Unless settled amicably, any dispute in respect of which the DAB's decision (if any) has not become final and binding shall be finally settled by international arbitration. Unless otherwise agreed by both Parties:

- (a) the dispute shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce,
- (b) the dispute shall be settled by three arbitrators appointed in accordance with these Rules, and
- (c) the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [*Law and Language*].

The arbitrator(s) shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, and any decision of the DAB, relevant to the dispute. Nothing shall disqualify the Engineer from being called as a witness and giving evidence before the arbitrator(s) on any matter whatsoever relevant to the dispute.

Neither Party shall be limited in the proceedings before the arbitrator(s) to the evidence or arguments previously put before the DAB to obtain its decision, or to the reasons

for dissatisfaction given in its notice of dissatisfaction. Any decision of the DAB shall be admissible in evidence in the arbitration.

Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, the Engineer and the DAB shall not be altered by reason of any arbitration being conducted during the progress of the Works.

20.7

Failure to Comply with Dispute Adjudication Board's Decision

In the event that:

- (a) neither Party has given notice of dissatisfaction within the period stated in Sub-Clause 20.4 [*Obtaining Dispute Adjudication Board's Decision*],
- (b) the DAB's related decision (if any) has become final and binding, and
- (c) a Party fails to comply with this decision,

then the other Party may, without prejudice to any other rights it may have, refer the failure itself to arbitration under Sub-Clause 20.6 [*Arbitration*]. Sub-Clause 20.4 [*Obtaining Dispute Adjudication Board's Decision*] and Sub-Clause 20.5 [*Amicable Settlement*] shall not apply to this reference.

20.8

Expiry of Dispute Adjudication Board's Appointment

If a dispute arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works and there is no DAB in place, whether by reason of the expiry of the DAB's appointment or otherwise:

- (a) Sub-Clause 20.4 [*Obtaining Dispute Adjudication Board's Decision*] and Sub-Clause 20.5 [*Amicable Settlement*] shall not apply, and
 - (b) the dispute may be referred directly to arbitration under Sub-Clause 20.6 [*Arbitration*].
-

APPENDIX

General Conditions of Dispute Adjudication Agreement

1

Definitions

Each "Dispute Adjudication Agreement" is a tripartite agreement by and between:

- (a) the "Employer";
- (b) the "Contractor"; and
- (c) the "Member" who is defined in the Dispute Adjudication Agreement as being:
 - (i) the sole member of the "DAB" (or "adjudicator") and, where this is the case, all references to the "Other Members" do not apply, or
 - (ii) one of the three persons who are jointly called the "DAB" (or "dispute adjudication board") and, where this is the case, the other two persons are called the "Other Members".

The Employer and the Contractor have entered (or intend to enter) into a contract, which is called the "Contract" and is defined in the Dispute Adjudication Agreement, which incorporates this Appendix. In the Dispute Adjudication Agreement, words and expressions which are not otherwise defined shall have the meanings assigned to them in the Contract.

2

General Provisions

Unless otherwise stated in the Dispute Adjudication Agreement, it shall take effect on the latest of the following dates:

- (a) the Commencement Date defined in the Contract,
- (b) when the Employer, the Contractor and the Member have each signed the Dispute Adjudication Agreement, or
- (c) when the Employer, the Contractor and each of the Other Members (if any) have respectively each signed a dispute adjudication agreement.

When the Dispute Adjudication Agreement has taken effect, the Employer and the Contractor shall each give notice to the Member accordingly. If the Member does not receive either notice within six months after entering into the Dispute Adjudication Agreement, it shall be void and ineffective.

This employment of the Member is a personal appointment. At any time, the Member may give not less than 70 days' notice of resignation to the Employer and to the Contractor, and the Dispute Adjudication Agreement shall terminate upon the expiry of this period.

No assignment or subcontracting of the Dispute Adjudication Agreement is permitted without the prior written agreement of all the parties to it and of the Other Members (if any).

3

Warranties

The Member warrants and agrees that he/she is and shall be impartial and independent of the Employer, the Contractor and the Engineer. The Member shall promptly disclose, to each of them and to the Other Members (if any), any fact or circumstance which might appear inconsistent with his/her warranty and agreement of impartiality and independence.

When appointing the Member, the Employer and the Contractor relied upon the Member's representations that he/she is:

- (a) experienced in the work which the Contractor is to carry out under the Contract,
- (b) experienced in the interpretation of contract documentation, and
- (c) fluent in the language for communications defined in the Contract.

<p>4</p> <p>General Obligations of the Member</p>	<p>The Member shall:</p> <ul style="list-style-type: none"> (a) have no interest financial or otherwise in the Employer, the Contractor or the Engineer, nor any financial interest in the Contract except for payment under the Dispute Adjudication Agreement; (b) not previously have been employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except in such circumstances as were disclosed in writing to the Employer and the Contractor before they signed the Dispute Adjudication Agreement; (c) have disclosed in writing to the Employer, the Contractor and the Other Members (if any), before entering into the Dispute Adjudication Agreement and to his/her best knowledge and recollection, any professional or personal relationships with any director, officer or employee of the Employer, the Contractor or the Engineer, and any previous involvement in the overall project of which the Contract forms part; (d) not, for the duration of the Dispute Adjudication Agreement, be employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except as may be agreed in writing by the Employer, the Contractor and the Other Members (if any); (e) comply with the annexed procedural rules and with Sub-Clause 20.4 of the Conditions of Contract; (f) not give advice to the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel concerning the conduct of the Contract, other than in accordance with the annexed procedural rules; (g) not while a Member enter into discussions or make any agreement with the Employer, the Contractor or the Engineer regarding employment by any of them, whether as a consultant or otherwise, after ceasing to act under the Dispute Adjudication Agreement; (h) ensure his/her availability for all site visits and hearings as are necessary; (i) become conversant with the Contract and with the progress of the Works (and of any other parts of the project of which the Contract forms part) by studying all documents received which shall be maintained in a current working file; (j) treat the details of the Contract and all the DAB's activities and hearings as private and confidential, and not publish or disclose them without the prior written consent of the Employer, the Contractor and the Other Members (if any); and (k) be available to give advice and opinions, on any matter relevant to the Contract when requested by both the Employer and the Contractor, subject to the agreement of the Other Members (if any).
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<p>5</p> <p>General Obligations of the Employer and the Contractor</p>	<p>The Employer, the Contractor, the Employer's Personnel and the Contractor's Personnel shall not request advice from or consultation with the Member regarding the Contract, otherwise than in the normal course of the DAB's activities under the Contract and the Dispute Adjudication Agreement, and except to the extent that prior agreement is given by the Employer, the Contractor and the Other Members (if any). The Employer and the Contractor shall be responsible for compliance with this provision, by the Employer's Personnel and the Contractor's Personnel respectively.</p> <p>The Employer and the Contractor undertake to each other and to the Member that the Member shall not, except as otherwise agreed in writing by the Employer, the Contractor, the Member and the Other Members (if any):</p> <ul style="list-style-type: none"> (a) be appointed as an arbitrator in any arbitration under the Contract; (b) be called as a witness to give evidence concerning any dispute before arbitrator(s) appointed for any arbitration under the Contract; or (c) be liable for any claims for anything done or omitted in the discharge or purported discharge of the Member's functions, unless the act or omission is shown to have been in bad faith.
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The Employer and the Contractor hereby jointly and severally indemnify and hold the Member harmless against and from claims from which he is relieved from liability under the preceding paragraph.

Whenever the Employer or the Contractor refers a dispute to the DAB under Sub-Clause 20.4 of the Conditions of Contract, which will require the Member to make a site visit and attend a hearing, the Employer or the Contractor shall provide appropriate security for a sum equivalent to the reasonable expenses to be incurred by the Member. No account shall be taken of any other payments due or paid to the Member.

6

Payment

The Member shall be paid as follows, in the currency named in the Dispute Adjudication Agreement:

- (a) a retainer fee per calendar month, which shall be considered as payment in full for:
 - (i) being available on 28 days' notice for all site visits and hearings;
 - (ii) becoming and remaining conversant with all project developments and maintaining relevant files;
 - (iii) all office and overhead expenses including secretarial services, photocopying and office supplies incurred in connection with his duties; and
 - (iv) all services performed hereunder except those referred to in sub-paragraphs (b) and (c) of this Clause.

The retainer fee shall be paid with effect from the last day of the calendar month in which the Dispute Adjudication Agreement becomes effective; until the last day of the calendar month in which the Taking-Over Certificate is issued for the whole of the Works.

With effect from the first day of the calendar month following the month in which Taking-Over Certificate is issued for the whole of the Works, the retainer fee shall be reduced by 50%. This reduced fee shall be paid until the first day of the calendar month in which the Member resigns or the Dispute Adjudication Agreement is otherwise terminated.

- (b) a daily fee which shall be considered as payment in full for:
 - (i) each day or part of a day up to a maximum of two days' travel time in each direction for the journey between the Member's home and the site, or another location of a meeting with the Other Members (if any);
 - (ii) each working day on site visits, hearings or preparing decisions; and
 - (iii) each day spent reading submissions in preparation for a hearing.
- (c) all reasonable expenses incurred in connection with the Member's duties, including the cost of telephone calls, courier charges, faxes and telexes, travel expenses, hotel and subsistence costs: a receipt shall be required for each item in excess of five percent of the daily fee referred to in sub-paragraph (b) of this Clause;
- (d) any taxes properly levied in the Country on payments made to the Member (unless a national or permanent resident of the Country) under this Clause 6.

The retainer and daily fees shall be as specified in the Dispute Adjudication Agreement. Unless it specifies otherwise, these fees shall remain fixed for the first 24 calendar months, and shall thereafter be adjusted by agreement between the Employer, the Contractor and the Member, at each anniversary of the date on which the Dispute Adjudication Agreement became effective.

The Member shall submit invoices for payment of the monthly retainer and air fares quarterly in advance. Invoices for other expenses and for daily fees shall be submitted following the conclusion of a site visit or hearing. All invoices shall be accompanied by a brief description of activities performed during the relevant period and shall be addressed to the Contractor.

The Contractor shall pay each of the Member's invoices in full within 56 calendar days after receiving each invoice and shall apply to the Employer (in the Statements under the Contract) for reimbursement of one-half of the amounts of these invoices. The Employer shall then pay the Contractor in accordance with the Contract.

If the Contractor fails to pay to the Member the amount to which he/she is entitled under the Dispute Adjudication Agreement, the Employer shall pay the amount due to the Member and any other amount which may be required to maintain the operation of the DAB; and without prejudice to the Employer's rights or remedies. In addition to all other rights arising from this default, the Employer shall be entitled to reimbursement of all sums paid in excess of one-half of these payments, plus all costs of recovering these sums and financing charges calculated at the rate specified in Sub-Clause 14.8 of the Conditions of Contract.

If the Member does not receive payment of the amount due within 70 days after submitting a valid invoice, the Member may (i) suspend his/her services (without notice) until the payment is received, and/or (ii) resign his/her appointment by giving notice under Clause 7.

7

Termination

At any time: (i) the Employer and the Contractor may jointly terminate the Dispute Adjudication Agreement by giving 42 days' notice to the Member; or (ii) the Member may resign as provided for in Clause 2.

If the Member fails to comply with the Dispute Adjudication Agreement, the Employer and the Contractor may, without prejudice to their other rights, terminate it by notice to the Member. The notice shall take effect when received by the Member.

If the Employer or the Contractor fails to comply with the Dispute Adjudication Agreement, the Member may, without prejudice to his other rights, terminate it by notice to the Employer and the Contractor. The notice shall take effect when received by them both.

Any such notice, resignation and termination shall be final and binding on the Employer, the Contractor and the Member. However, a notice by the Employer or the Contractor, but not by both, shall be of no effect.

8

Default of the Member

If the Member fails to comply with any obligation under Clause 4, he/she shall not be entitled to any fees or expenses hereunder and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses received by the Member and the Other Members (if any), for proceedings or decisions (if any) of the DAB which are rendered void or ineffective.

9

Disputes

Any dispute or claim arising out of or in connection with this Dispute Adjudication Agreement, or the breach, termination or invalidity thereof, shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one arbitrator appointed in accordance with these Rules of Arbitration.

Annex PROCEDURAL RULES

- 1 Unless otherwise agreed by the Employer and the Contractor, the DAB shall visit the site at intervals of not more than 140 days, including times of critical construction events, at the request of either the Employer or the Contractor. Unless otherwise agreed by the Employer, the Contractor and the DAB, the period between consecutive visits shall not be less than 70 days, except as required to convene a hearing as described below.
- 2 The timing of and agenda for each site visit shall be as agreed jointly by the DAB, the Employer and the Contractor, or in the absence of agreement, shall be decided by the DAB. The purpose of site visits is to enable the DAB to become and remain acquainted with the progress of the Works and of any actual or potential problems or claims.
- 3 Site visits shall be attended by the Employer, the Contractor and the Engineer and shall be co-ordinated by the Employer in co-operation with the Contractor. The Employer shall ensure the provision of appropriate conference facilities and secretarial and copying services. At the conclusion of each site visit and before leaving the site, the DAB shall prepare a report on its activities during the visit and shall send copies to the Employer and the Contractor.
- 4 The Employer and the Contractor shall furnish to the DAB one copy of all documents which the DAB may request, including Contract documents, progress reports, variation instructions, certificates and other documents pertinent to the performance of the Contract. All communications between the DAB and the Employer or the Contractor shall be copied to the other Party. If the DAB comprises three persons, the Employer and the Contractor shall send copies of these requested documents and these communications to each of these persons.
- 5 If any dispute is referred to the DAB in accordance with Sub-Clause 20.4 of the Conditions of Contract, the DAB shall proceed in accordance with Sub-Clause 20.4 and these Rules. Subject to the time allowed to give notice of a decision and other relevant factors, the DAB shall:
 - (a) act fairly and impartially as between the Employer and the Contractor, giving each of them a reasonable opportunity of putting his case and responding to the other's case, and
 - (b) adopt procedures suitable to the dispute, avoiding unnecessary delay or expense.
- 6 The DAB may conduct a hearing on the dispute, in which event it will decide on the date and place for the hearing and may request that written documentation and arguments from the Employer and the Contractor be presented to it prior to or at the hearing.
- 7 Except as otherwise agreed in writing by the Employer and the Contractor, the DAB shall have power to adopt an inquisitorial procedure, to refuse admission to hearings or audience at hearings to any persons other than representatives of the Employer, the Contractor and the Engineer, and to proceed in the absence of any party who the DAB is satisfied received notice of the hearing; but shall have discretion to decide whether and to what extent this power may be exercised.

8 The Employer and the Contractor empower the DAB, among other things, to:

- (a) establish the procedure to be applied in deciding a dispute,
- (b) decide upon the DAB's own jurisdiction, and as to the scope of any dispute referred to it,
- (c) conduct any hearing as it thinks fit, not being bound by any rules or procedures other than those contained in the Contract and these Rules,
- (d) take the initiative in ascertaining the facts and matters required for a decision,
- (e) make use of its own specialist knowledge, if any,
- (f) decide upon the payment of financing charges in accordance with the Contract,
- (g) decide upon any provisional relief such as interim or conservatory measures, and
- (h) open up, review and revise any certificate, decision, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute.

9 The DAB shall not express any opinions during any hearing concerning the merits of any arguments advanced by the Parties. Thereafter, the DAB shall make and give its decision in accordance with Sub-Clause 20.4, or as otherwise agreed by the Employer and the Contractor in writing. If the DAB comprises three persons:

- (a) it shall convene in private after a hearing, in order to have discussions and prepare its decision;
 - (b) it shall endeavour to reach a unanimous decision: if this proves impossible the applicable decision shall be made by a majority of the Members, who may require the minority Member to prepare a written report for submission to the Employer and the Contractor; and
 - (c) if a Member fails to attend a meeting or hearing, or to fulfil any required function, the other two Members may nevertheless proceed to make a decision, unless:
 - (i) either the Employer or the Contractor does not agree that they do so, or
 - (ii) the absent Member is the chairman and he/she instructs the other Members to not make a decision.
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GENERAL CONDITIONS

GUIDANCE FOR THE
PREPARATION OF
PARTICULAR CONDITIONS

Conditions of Contract
for **CONSTRUCTION**

FOR BUILDING AND ENGINEERING WORKS
DESIGNED BY THE EMPLOYER

FORMS OF LETTER OF
TENDER, CONTRACT
AGREEMENT AND
DISPUTE ADJUDICATION
AGREEMENT

Guidance for the Preparation of Particular
Conditions



Guidance for the Preparation of Particular Conditions

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Guidance for the Preparation of Particular Conditions

INTRODUCTION

The terms of the Conditions of Contract for Construction have been prepared by the Fédération Internationale des Ingénieurs-Conseils (FIDIC) and are recommended for general use for the purpose of the construction (excluding most design) of building or engineering works where tenders are invited on an international basis. Modifications to the Conditions may be required in some legal jurisdictions, particularly if they are to be used on domestic contracts.

Under the usual arrangements for this type of contract, the Contractor constructs the works in accordance with design details provided by the Employer or his representative, the Engineer. Although these Conditions allow for the possibility that the Contractor may be required to design parts of the permanent works, they are not intended for use where most of the works are designed by the Contractor. For these Works, it would be more appropriate to utilise FIDIC's Conditions of Contract for Plant and Design-Build or Conditions of Contract for EPC/Turnkey Projects.

The guidance hereafter is intended to assist writers of the Particular Conditions by giving options for various sub-clauses where appropriate. As far as possible, example wording is included, between lines. In some cases, however, only an aide-memoire is given.

Before incorporating any example wording, it must be checked to ensure that it is wholly suitable for the particular circumstances. Unless it is considered suitable, example wording should be amended before use.

Where example wording is amended, and in all cases where other amendments or additions are made, care must be taken to ensure that no ambiguity is created, either with the General Conditions or between the clauses in the Particular Conditions.

In the preparation of the Conditions of Contract to be included in the tender documents for a contract, the following text can be used:

The Conditions of Contract comprise the "General Conditions", which form part of the "Conditions of Contract for Construction" First Edition 1999 published by the Fédération Internationale des Ingénieurs-Conseils (FIDIC), and the following "Particular Conditions", which include amendments and additions to such General Conditions.

There are no Sub-Clauses in the General Conditions which require data to be included in the Particular Conditions. As noted in sub-paragraph (ii) of the Foreword, the General Conditions refer to any necessary data being contained in the Appendix to Tender or (for technical matters) in the Specification.

FIDIC has published a document entitled "Tendering Procedure" which presents a systematic approach to the selection of tenderers and the obtaining and evaluation of tenders; the second edition was published in 1994. The document is intended to assist the Employer to receive sound competitive tenders with a minimum of qualifications. FIDIC intends to update Tendering Procedure and to publish a guide to the use of these Conditions of Contract for Construction.

Notes on the Preparation of Tender Documents

The tender documents should be prepared by suitably-qualified engineers who are familiar with the technical aspects of the required works, and a review by suitably-qualified lawyers may be advisable. The tender documents issued to tenderers will consist of the Conditions of Contract, the Specification, the Drawings, and the Letter of Tender and Schedules for completion by the Tenderer. For this type of contract, where the Works are valued by measurement, the Bill of Quantities will usually be the most important Schedule. A Daywork Schedule may also be necessary, to cover minor works to be evaluated at cost. In addition, each of the Tenderers should receive the data referred to in Sub-Clause 4.10, and the Instructions to Tenderers to advise them of any special matters which the Employer wishes them to take into account when pricing the Bill of Quantities but which are not to form part of the Contract. When the Employer accepts the Letter of Tender, the Contract (which then comes into full force and effect) includes these completed Schedules.

The Specification may include the matters referred to in some or all of the following Sub-Clauses:

- 1.8 Requirements for Contractor's Documents
- 1.13 Permissions being obtained by the Employer
- 2.1 Phased possession of foundations, structures, plant or means of access
- 4.1 Contractor's designs
- 4.6 Other contractors (and others) on the Site
- 4.7 Setting-out points, lines and levels of reference
- 4.14 Third parties
- 4.18 Environmental constraints
- 4.19 Electricity, water, gas and other services available on the Site
- 4.20 Employer's Equipment and free-issue material
- 5.1 Nominated Subcontractors
- 6.6 Facilities for Personnel
- 7.2 Samples
- 7.4 Testing during manufacture and/or construction
- 9.1 Tests on Completion
- 13.5 Provisional Sums

Many Sub-Clauses in the General Conditions make reference to data being contained in the Appendix to Tender, providing a convenient location for the data which is usually required. The example form in this publication thus provides a check-list of the data required; but there is no indication, either in the General Conditions or in the example Appendix to Tender, that this data is either prescribed by the Employer or inserted by the Tenderer. The Employer should prepare the Appendix to Tender, based on this example form, with the elements completed to the extent of his requirements.

The Employer may also require other data from Tenderers, and include a questionnaire in the Schedules.

The Instructions to Tenderers may need to specify any constraints on the completion of the Appendix to Tender and/or Schedules, and/or specify the extent of other information which each Tenderer is to include with his Tender. If each Tenderer is to produce a parent company guarantee and/or a tender security, these requirements (which apply prior to the Contract becoming effective) should be included in the Instructions to Tenderers: example forms are annexed to this document as Annexes A and B. The Instructions may include matters referred to in some or all of the following Sub-Clauses:

- 4.3 Contractor's Representative (name and curriculum vitae)
- 4.9 Quality Assurance system
- 9.1 Tests on Completion
- 18 Insurances
- 20 Resolution of disputes

Clause 1 General Provisions

Sub-Clause 1.1 Definitions

It may be necessary to amend some of the definitions. For example:

- 1.1.3.1 the Base Date could be defined as a particular calendar date
- 1.1.4.6 one particular Foreign Currency may be required by the financing institution
- 1.1.4.8 a different currency may be required to be the contract Local Currency
- 1.1.6.2 the references to "Country" may be inappropriate for a cross-border Site

Sub-Clause 1.2 Interpretation

If the references to "profit" are to be more precisely specified, this Sub-Clause may be varied:

EXAMPLE	At the end of Sub-Clause 1.2, insert: In these Conditions, provisions including the expression "Cost plus reasonable profit" require this profit to be one-twentieth (5%) of this Cost.
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Sub-Clause 1.5 Priority of Documents

An order of precedence is usually necessary, in case a conflict is subsequently found among the contract documents. If no order of precedence is to be prescribed, this Sub-Clause may be varied:

EXAMPLE	Delete Sub-Clause 1.5 and substitute: The documents forming the Contract are to be taken as mutually explanatory of one another. If an ambiguity or discrepancy is found, the priority shall be such as may be accorded by the governing law. The Engineer has authority to issue any instruction which he considers necessary to resolve an ambiguity or discrepancy.
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Sub-Clause 1.6 Contract Agreement

The form of Agreement should be included in the tender documents as an annex to the Particular Conditions: an example form is included at the end of this publication. If lengthy tender negotiations were necessary, it may be considered advisable for the Contract Agreement to record the Accepted Contract Amount, Base Date and/or Commencement Date. Entry into an Agreement may be necessary under applicable law.

Sub-Clause 1.14 Joint and Several Liability

For a major contract, detailed requirements for the joint venture may need to be specified. For example, it may be desirable for each member to produce a parent company guarantee: an example form is annexed to this document as Annex A.

These requirements, which apply prior to the Contract becoming effective, should be included in the Instructions to Tenderers. The Employer will wish the leader of the joint venture to be appointed at an early stage, providing a single point of contact thereafter, and will not wish to be involved in a dispute between the members of a joint venture. The Employer should scrutinise the

joint venture agreement carefully, and it may have to be approved by the project's financing institutions.

Additional Sub-Clause Details to be Confidential

If confidentiality is required, an additional sub-clause may be added:

EXAMPLE SUB-CLAUSE

The Contractor shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out obligations under it or to comply with applicable Laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the Works in any trade or technical paper or elsewhere without the previous agreement of the Employer.

Clause 2 The Employer

Sub-Clause 2.1 Right of Access to the Site

If right of access cannot be granted, both early and thereafter exclusively, details should be given in the Specification.

Sub-Clause 2.3 Employer's Personnel

These provisions should be reflected in the Employer's contracts with any other contractors on the Site.

Clause 3 The Engineer

Sub-Clause 3.1 Engineer's Duties and Authority

Any requirements for Employer's approval should be set out in the Particular Conditions:

EXAMPLE

The Engineer shall obtain the specific approval of the Employer before taking action under the following Sub-Clauses of these Conditions:

(a) Sub-Clause _____ **

(b) Sub-Clause _____ **

** (insert number; describe action, unless all require approval)

This list should be extended or reduced as necessary. If the obligation to obtain the approval of the Employer only applies beyond certain limits, financial or otherwise, the example wording should be varied.

Additional Sub-Clause Management Meetings

EXAMPLE SUB-CLAUSE

The Engineer or the Contractor's Representative may require the other to attend a management meeting in order to review the arrangements for future work. The Engineer shall record the business of management meetings and supply copies of the record to those attending the meeting

and to the Employer. In the record, responsibilities for any actions to be taken shall be in accordance with the Contract.

Clause 4

The Contractor

Sub-Clause 4.1

Contractor's General Obligations

Occasionally, there may be an item of Temporary Works for which the Contractor will not be fully responsible. For example, the Contract may specify temporary arrangements for river diversion which have been designed by the Engineer. In these cases, the Sub-Clause may require amendment, taking account of the type of this item of Temporary Works, and of the extent of the Employer's responsibility.

Sub-Clause 4.2

Performance Security

The acceptable form(s) of Performance Security should be included in the tender documents, annexed to the Particular Conditions. Example forms are annexed to this document as Annex C and Annex D. They incorporate two sets of Uniform Rules published by the International Chamber of Commerce (the "ICC", which is based at 38 Cours Albert 1er, 75008 Paris, France), which also publishes guides to these Uniform Rules. These example forms and the wording of the Sub-Clause may have to be amended to comply with applicable law.

EXAMPLE

At the end of the second paragraph of Sub-Clause 4.2, insert:

If the Performance Security is in the form of a bank guarantee, it shall be issued either (a) by a bank located in the Country, or (b) directly by a foreign bank acceptable to the Employer. If the Performance Security is not in the form of a bank guarantee, it shall be furnished by a financial entity registered, or licensed to do business, in the Country.

Sub-Clause 4.3

Contractor's Representative

If the Representative is known at the time of submission of the Tender, the Tenderer may propose the Representative. The Tenderer may wish to propose alternatives, especially if the contract award seems likely to be delayed. If the ruling language is not the same as the language for day to day communications (under Sub-Clause 1.4), or if for any other reason it is necessary to stipulate that the Contractor's Representative shall be fluent in a particular language, one of the following sentences may be added.

EXAMPLE

At the end of Sub-Clause 4.3, add:

The Contractor's Representative and all these persons shall also be fluent in _____ (insert name of language)

EXAMPLE

At the end of Sub-Clause 4.3, add:

If the Contractor's Representative, or these persons, is not fluent in _____ (insert name of language), the Contractor shall make a competent interpreter available during all working hours.

Sub-Clause 4.4

Subcontractors

The wording in the General Conditions includes the conditions which will usually be applicable. If less (or no) consent is required, some (or all) of sub-paragraphs (a) to (d) may be deleted, or qualified in the Particular Conditions:

Prior consent shall not be required if the value of the subcontract is less than 0.01% of the Accepted Contract Amount.

EXAMPLE

The prior consent of the Engineer shall be obtained to the suppliers of the following Materials:

(insert details: for example, specific manufactured or prefabricated items)

EXAMPLE

Where practicable, the Contractor shall give a fair and reasonable opportunity for contractors from the Country to be appointed as Sub-contractors.

If the Contractor is sharing occupation of the Site with others, it may not be appropriate for him to provide some of the listed items. In these circumstances, the Employer's obligations should be specified.

The wording in the General Conditions imposes the requirement of a quality assurance system in accordance with details specified in the Contract. If inappropriate, this Sub-Clause may be deleted.

In the case of major sub-surface works, the allocation of the risk of sub-surface conditions is an aspect which should be considered when tender documents are being prepared. If this risk is to be shared between the parties, the Sub-Clause may be amended:

Delete sub-paragraph (b) of Sub-Clause 4.12 and substitute:

(b) payment for any such Cost, _____ per cent (_____ %) of which shall be included in the Contract Price (the balance _____ percent of the Cost shall be borne by the Contractor)

If the Contractor is not to provide all the Contractor's Equipment necessary to complete the Works, the Employer's obligations should be specified: see Sub-Clause 4.20. If vesting of Contractor's Equipment is required, further paragraphs may be added, subject to their being consistent with applicable laws:

At the end of Sub-Clause 4.17, add the following paragraphs:

Contractor's Equipment which is owned by the Contractor (either directly or indirectly) shall be deemed to be the property of the Employer with effect from its arrival on the Site. This vesting of property shall not:

- (a) affect the responsibility or liability of the Employer,
- (b) prejudice the right of the Contractor to the sole use of the vested Contractor's Equipment for the purpose of the Works, or
- (c) affect the Contractor's responsibility to operate and maintain Contractor's Equipment.

The property in each item shall be deemed to revert in the Contractor when he is entitled either to remove it from the Site or to receive the Taking-Over Certificate for the Works, whichever occurs first.

Sub-Clause 4.19 Electricity, Water and Gas

If services are to be available for the Contractor to use, the Specification should give details, including locations and prices.

Sub-Clause 4.20 Employer's Equipment and Free-Issue Material

For this Sub-Clause to apply, the Specification should describe each item which the Employer will provide and/or operate and should specify all necessary details. With some types of facilities, further provisions may be necessary, in order to clarify aspects such as liability and insurance.

Sub-Clause 4.22 Security of the Site

If the Contractor is sharing occupation of the Site with others, it may not be appropriate for him to be responsible for its security. In these circumstances, the Employer's obligations should be specified.

Clause 5 Nominated Subcontractors

In most cases under Sub-Clause 4.4, the Contractor selects Subcontractors, subject to any constraints specified in the Contract. Clause 5 provides for the particular situation whereby the Employer may select a Subcontractor, although the second sentence of Sub-Clause 4.4 should still apply.

The sub-paragraphs of Sub-Clause 5.2 indicate some of the problems which may have to be overcome.

If a nominated Subcontractor is to be required, full details should be included in the tender documents. If the Employer anticipates that a Subcontractor is to be instructed under Clause 13 but is not to be a nominated Subcontractor, Clause 5 should be amended, describing the particular circumstances.

Clause 6 Staff and Labour

Sub-Clause 6.5 Working Hours

If the Employer does not wish to specify working hours in the Appendix to Tender, or to restrict them to the times specified by the Tenderer (in order to plan the Engineer's supervision, for example), this Sub-Clause may be deleted.

Sub-Clause 6.6 Facilities for Staff and Labour

If the Employer will make some accommodation available, his obligations to do so should be specified.

Sub-Clause 6.8

Contractor's Superintendence

If the ruling language is not the same as the language for day to day communications (under Sub-Clause 1.4), or if for any other reason it is necessary to stipulate that the Contractor's superintending staff shall be fluent in a particular language, the following sentence may be added.

EXAMPLE

Insert at the end of Sub-Clause 6.8:

A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of

(insert name of language),

or the Contractor shall have a sufficient number of competent interpreters available on Site during all working hours.

Additional Sub-Clauses

It may be necessary to add a few sub-clauses to take account of the circumstances and locality of the Site:

EXAMPLE SUB-CLAUSE

Foreign Staff and Labour

The Contractor may import any personnel who are necessary for the execution of the Works. The Contractor must ensure that these personnel are provided with the required residence visas and work permits. The Contractor shall be responsible for the return to the place where they were recruited or to their domicile of imported Contractor's Personnel. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.

EXAMPLE SUB-CLAUSE

Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect all staff and labour employed on the Site from insect and pest nuisance, and to reduce their danger to health. The Contractor shall provide suitable prophylactics for the Contractor's Personnel and shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

EXAMPLE SUB-CLAUSE

Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal by Contractor's Personnel.

EXAMPLE SUB-CLAUSE

Arms and Ammunition

The Contractor shall not give, barter or otherwise dispose of to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

EXAMPLE SUB-CLAUSE

Festivals and Religious Customs

The Contractor shall respect the Country's recognised festivals, days of rest and religious or other customs.

Clause 7

Plant, Materials and Workmanship

Additional Sub-Clause

If the Contract is being financed by an institution whose rules or policies require a restriction on the use of its funds, a further sub-clause may be added:

EXAMPLE SUB-CLAUSE

All Goods shall have their origin in eligible source countries as defined in

(insert name of published guidelines for procurement).

Goods shall be transported by carriers from these eligible source countries, unless exempted by the Employer in writing on the basis of potential excessive costs or delays. Surety, insurance and banking services shall be provided by insurers and bankers from the eligible source countries.

Clause 8

Commencement, Delays and Suspension

Sub-Clause 8.2

Time for Completion

If the Works are to be taken-over in stages, these stages should be defined as Sections, in the Appendix to Tender.

Sub-Clause 8.7

Delay Damages

Under many legal systems, the amount of these pre-defined damages must represent a reasonable pre-estimate of the Employer's probable loss in the event of delay. If the Accepted Contract Amount is to be quoted as the sum of figures in more than one currency, it may be preferable to define these damages (per day) as the percentage reduction which would be applied to each of these figures. If the Accepted Contract Amount is expressed in the Local Currency, the damages per day may either be defined as a percentage or be defined as a figure in Local Currency: see Sub-Clause 14.15(b).

Additional Sub-Clause

Incentives for early completion may be included in the tender documents (although Sub-Clause 13.2 refers to accelerated completion):

EXAMPLE SUB-CLAUSE

Sections are required to be completed by the dates given in the Appendix to Tender in order that these Sections may be occupied and used by the Employer in advance of the completion of the whole of the Works. Details of the work required to be executed to entitle the Contractor to bonus payments and the amount of the bonuses are stated in the Specification.

For the purposes of calculating bonus payments, the dates given in the Appendix to Tender for completion of Sections are fixed. No adjustments of the dates by reason of granting an extension of the Time for Completion will be allowed.

Clause 9 Tests on Completion

Sub-Clause 9.1 Contractor's Obligations

The Specification should describe the tests which the Contractor is to carry out before being entitled to a Taking-Over Certificate. If the Works are to be tested and taken-over in stages, the tests requirements may have to take account of the effect of some parts of the Works being incomplete.

Clause 10 Employer's Taking Over

Sub-Clause 10.1 Taking-Over Certificate

If the Works are to be taken-over in stages, these stages should to be defined as Sections, in the Appendix to Tender. Precise geographical definitions are advisable, and the Appendix should include a table, so as to define the Time for Completion and delay damages: the table is shown in the example Appendix.

Clause 11 Defects Liability

Sub-Clause 11.10 Unfulfilled Obligations

It may be necessary to review this Sub-Clause for the period of liability imposed by the applicable law.

Clause 12 Measurement and Evaluation

Sub-Clause 12.1 Works to be Measured

If any part of the Permanent Works is to be measured according to records of its construction, details should be specified in the tender documents, including any records for which the Contractor is to be responsible.

Clause 13 Variations and Adjustments

Variations can be initiated by any of three ways:

- (a) the Engineer may instruct the variation under Sub-Clause 13.1, without prior agreement as to feasibility or price;

- (b) the Contractor may initiate his own proposals under Sub-Clause 13.2, which are intended to benefit both Parties; or
- (c) the Engineer may request a proposal under Sub-Clause 13.3, seeking prior agreement so as to minimise dispute.

Sub-Clause 13.8 Adjustments for Changes in Cost

These provisions for adjustments may be required if it would be unreasonable for the Contractor to bear the risk of escalating costs due to inflation. Unless this Sub-Clause is not to apply, the Appendix to Tender should include a table for each of the currencies of payment: the appropriate table is shown in the example Appendix. Particular care should be taken in the calculation of the weightings/coefficients ("a", "b", "c", ..., the total of which must not exceed unity) and in the selection and verification of cost indices. Expert advice may be appropriate.

Clause 14 Contract Price and Payment

Sub-Clause 14.1 The Contract Price

When writing the Particular Conditions, consideration should be given to the amount and timing of payment(s) to the Contractor. A positive cash flow is clearly of benefit to the Contractor, and tenderers will take account of the interim payment procedures when preparing their tenders.

Additional Sub-Clauses may be required to cover any exceptions to the options set out in Sub-Clause 14.1, and any other matters relating to payment.

Cost-plus contracts, under which the actual Costs are determined and paid, are unusual and only used when (for reasons of urgency or otherwise) the Employer is willing to accept the risks involved. If the Contractor is to be paid actual Costs, Clause 12 should be replaced by provisions describing the method of determining the Costs and Contract Price. As a result, the provisions in the General Conditions which entitle the Contractor to payment of additional Costs will generally be of no effect.

Sub-Clause 14.1(a) would not apply if payment is to be made on a lump sum basis.

Lump sum contracts may be suitable if the tender documents include details which are sufficiently complete for construction and for Variations to be unlikely. From the information supplied in the tender documents, the Contractor can prepare any other details necessary, and construct the Works, without having to refer back to the Engineer for clarification or further information.

Further design by the Contractor (under sub-paragraphs (a) to (d) of Sub-Clause 4.1) is not precluded. However, these Conditions would be inappropriate if significant design input by the Contractor is required. In those cases, FIDIC's other forms may be more appropriate: see FIDIC's Conditions of Contract for Plant and Design-Build or Conditions of Contract for EPC/Turnkey Projects.

For a lump sum contract, the tender documents should include a schedule of payments (see Sub-Clause 14.4), and any drawings required for construction may be specified as being Contractor's Documents. The Specification should describe the procedures under which the Contractor submits these Documents for the Engineer to approve.

EXAMPLE PROVISIONS FOR A LUMP SUM CONTRACT

Delete Clause 12.

Delete the last sentence of Sub-Clause 13.3 and substitute:

Upon instructing or approving a Variation, the Engineer shall proceed in accordance with Sub-Clause 3.5 to agree or determine adjustments to the Contract Price and to the schedule of payments under Sub-Clause 14.4. These adjustments shall include reasonable profit, and shall take account of the Contractor's submissions under Sub-Clause 13.2 if applicable.

Delete sub-paragraph (a) of Sub-Clause 14.1 and substitute:

- (a) the Contract Price shall be the lump sum Accepted Contract Amount and be subject to adjustments in accordance with the Contract;

If Sub-Clause 14.1(b) is not to apply, additional Sub-Clause(s) should be added.

EXAMPLE SUB-CLAUSE ON EXEMPTION FROM DUTIES

All Goods imported by the Contractor into the Country shall be exempt from customs and other import duties, if the Employer's prior written approval is obtained for import. The Employer shall endorse the necessary exemption documents prepared by the Contractor for presentation in order to clear the Goods through Customs, and shall also provide the following exemption documents:

(describe the necessary documents, which the Contractor will be unable to prepare)

If exemption is not then granted, the customs duties payable and paid shall be reimbursed by the Employer.

All imported Goods, which are not incorporated in or expended in connection with the Works, shall be exported on completion of the Contract. If not exported, the Goods will be assessed for duties as applicable to the Goods involved in accordance with the Laws of the Country.

However, exemption may not available for:

- (a) Goods which are similar to those locally produced, unless they are not available in sufficient quantities or are of a different standard to that which is necessary for the Works; and
- (b) any element of duty or tax inherent in the price of goods or services procured in the Country, which shall be deemed to be included in the Accepted Contract Amount.

Port dues, quay dues and, except as set out above, any element of tax or duty inherent in the price of goods or services shall be deemed to be included in the Accepted Contract Amount.

EXAMPLE SUB-CLAUSE ON EXEMPTION FROM TAXES

Expatriate (foreign) personnel shall not be liable for income tax levied in the Country on earnings paid in any foreign currency, or for income tax levied on subsistence, rentals and similar services directly furnished by the Contractor to Contractor's Personnel, or for allowances in lieu. If any

Contractor's Personnel have part of their earnings paid in the Country in a foreign currency, they may export (after the conclusion of their term of service on the Works) any balance remaining of their earnings paid in foreign currencies.

The Employer shall seek exemption for the purposes of this Sub-Clause. If it is not granted, the relevant taxes paid shall be reimbursed by the Employer.

Sub-Clause 14.2 Advance Payment

When writing the Particular Conditions, consideration should be given to the benefits of advance payment(s). Unless this Sub-Clause is not to apply, the total advance payment (and the number of instalments if more than one) must be specified in the Appendix to Tender. The rate of deduction for the repayments should be checked to ensure that repayment is achieved before completion. The typical figures in sub-paragraphs (a) and (b) of the General Conditions Sub-Clause are based on the assumption that the total advance payment is less than 22% of the Accepted Contract Amount.

The acceptable form(s) of guarantee should be included in the tender documents, annexed to the Particular Conditions: an example form is annexed to this document, as Annex E.

Sub-Clause 14.7 Payment

If a different period for payment is to apply, the Sub-Clause may be amended:

EXAMPLE

In sub-paragraph (b) of Sub-Clause 14.7, delete "56" and substitute "42"

If the country/countries of payment need to be specified, details may be included in a Schedule.

Sub-Clause 14.8 Delayed Payment

If the discount rate of the central bank in the country of the currency of payment is not a reasonable basis for assessing the Contractor's financing costs, a new rate may have to be defined. Alternatively, the actual financing Costs could be paid, taking account of local financing arrangements.

Sub-Clause 14.9 Payment of Retention Money

If part of the Retention Money is to be released and substituted by an appropriate guarantee, an additional Sub-Clause may be added. The acceptable form(s) of guarantee should be included in the tender documents, annexed to the Particular Conditions: an example form is annexed to this document, as Annex F.

EXAMPLE SUB-CLAUSE FOR RELEASE OF RETENTION

When the Retention Money has reached three-fifths (60%) of the limit of Retention Money stated in the Appendix to Tender, the Engineer shall certify and the Employer shall make payment of half (50%) of the limit of Retention Money to the Contractor if he obtains a guarantee, in a form and provided by an entity approved by the Employer, in amounts and currencies equal to the payment.

The Contractor shall ensure that the guarantee is valid and

enforceable until the Contractor has executed and completed the Works and remedied any defects, as specified for the Performance Security in Sub-Clause 4.2, and shall be returned to the Contractor accordingly. This release of retention shall be in lieu of the release of the second half of the Retention Money under the second paragraph of Sub-Clause 14.9.

Sub-Clause 14.15 Currencies of Payment

If all payments are to be made in Local Currency, it must be named in the Letter of Tender, and only the first sentence of this Sub-Clause will apply. Alternatively, the Sub-Clause may then be replaced:

EXAMPLE SUB-CLAUSE FOR A SINGLE CURRENCY CONTRACT

The currency of account shall be the Local Currency and all payments made in accordance with the Contract shall be in Local Currency. The Local Currency payments shall be fully convertible, except those for local costs. The percentage attributed to local costs shall be as stated in the Appendix to Tender.

Financing Arrangements

For major contracts in some markets, there may be a need to secure finance from entities such as aid agencies, development banks, export credit agencies, or other international financing institutions. If financing is to be procured from any of these sources, the Particular Conditions may need to incorporate its special requirements. The exact wording will depend on the relevant institution, so reference will need to be made to them to ascertain their requirements, and to seek approval of the draft tender documents.

These requirements may include tendering procedures which need to be adopted in order to render the eventual contract eligible for financing, and/or special Sub-Clauses which may need to be incorporated into the Particular Conditions. The following examples indicate some of the topics which the institution's requirements may cover:

- (a) prohibition from discrimination against the shipping companies of any one country;
- (b) ensuring that the Contract is subject to a widely-accepted neutral law;
- (c) provision for arbitration under recognised international rules and at a neutral location;
- (d) giving the Contractor the right to suspend/terminate in the event of default under the financing arrangements;
- (e) restricting the right to reject Plant;
- (f) specifying the payments due in the event of termination;
- (g) specifying that the Contract does not become effective until certain conditions precedent have been satisfied, including pre-disbursement conditions for the financing arrangements; and
- (h) obliging the Employer to make payments from his own resources if, for any reason, the funds under the financing arrangements are insufficient to meet the payments due to the Contractor, whether due to a default under the financing arrangements or otherwise.

In addition, the financing institution or bank may wish the Contract to include references to the financing arrangements, especially if funding from more than one source is to be arranged to

finance different elements of supply. It is not unusual for the Particular Conditions to include special provisions identifying different categories of Plant and specifying the documents to be presented to the relevant financing institution to obtain payment. If the financing institution's requirements are not met, it may be difficult (or even impossible) to secure suitable financing for the project, and/or the institution may decline to provide finance for part or all of the Contract.

However, where the financing is not tied to the export of goods and services from any particular country but is simply provided by commercial banks lending to the Employer, those banks may be concerned to ensure that the Contractor's rights are very restricted. These banks may wish the Contract to exclude any reference to the financing arrangements, and/or to restrict the Contractor's rights under Clause 16.

FORM OF SUB-CLAUSE WHICH A FINANCING INSTITUTION MAY REQUIRE

The Accepted Contract Amount is made up as follows:

(breakdown into items and/or into supply/delivery/etc)

and shall be payable by the Employer to the Contractor as set out below.

(a) _____ % of the Accepted Contract Amount shall be payable by a direct payment from the Employer to the Contractor within 28 days of receipt by the Employer of the following documents:

- (i) commercial invoice addressed to the Employer specifying the amount of the payment now due,
- (ii) advance payment security guarantee issued by _____ Bank in the form annexed,
- (iii) performance security guarantee issued by _____ Bank in the form annexed, and
- (iv) Interim Payment Certificate confirming the payment due and specifying the amount.

(b) _____ % of the contract price for the supply of Plant shall be payable as follows:

- (i) _____ % of the estimated contract value of the Plant supplied, by direct payment from the Employer to the Contractor on shipment of each item, against the following documents:
 - (original) commercial invoice,
 - (original) shipping documents,
 - (original) certificate of origin,
 - (original) insurance certificate, and
 - (original) Interim Payment Certificate confirming the payment due and specifying the amount.
- (ii) _____ % of the estimated contract value of the Plant supplied, by disbursement from the Loan Agreement to the Contractor on shipment of each item, on presentation of a Qualifying Certificate in the form annexed and copies of the documents listed in sub-paragraph (b)(i) above.

(c) the balance of the Contract Price shall be payable as follows:

- (i) _____ % of the estimated contract value of the services

rendered, by direct payment from the Employer to the Contractor on execution of the relevant service, against the following documents:

(original) commercial invoice, and

(original) Interim Payment Certificate confirming the payment due and specifying the amount.

(ii) _____ % of the estimated contract value of the services rendered, by disbursement from the Loan Agreement to the Contractor, on presentation of a Qualifying Certificate in the form annexed and copies of the documents listed in sub-paragraph (c)(i) above.

(d) The direct payments by the Employer specified in sub-paragraph (b) shall be made by an irrevocable letter of credit established by the Employer in favour of the Contractor and confirmed by a bank acceptable to the Contractor.

The above arrangements (involving financing institution(s), Employer and Contractor) may be initiated by the Employer; or by the Contractor, before submitting the Tender. Alternatively, the Contractor may be prepared to initiate financing arrangements and retain responsibility for them, although he would probably be unable or unwilling to provide finance from his own resources. His financing bank's requirements would then affect his attitude in contract negotiations. They might well require the Employer to make interim payments, although a large proportion of the Contract Price might be withheld until the Works are complete.

This payment arrangement can be achieved either by a high Percentage of Retention; or by a suitably completed schedule of payments (see Sub-Clause 14.4), with the Instructions to Tenderers specifying the criteria with which the Tenderer should comply. Since the Contractor would then have to arrange his own financing to cover the shortfall between the payments and his outgoings, he (and his financing bank) would probably require some form of security, guaranteeing payment when due.

It may be appropriate for the Employer, when preparing the tender documents, to anticipate the latter requirement by undertaking to provide a guarantee for the element of payment which the Contractor is to receive when the Works are complete. The acceptable form(s) of guarantee should be included in the tender documents, annexed to the Particular Conditions: an example form is annexed to this document, as Annex G. The following Sub-Clause may be added.

EXAMPLE PROVISIONS FOR CONTRACTOR FINANCE

The Employer shall obtain (at his cost) a payment guarantee in the amount and currencies, and provided by an entity, as stated in the Appendix to Tender. The Employer shall deliver the guarantee to the Contractor within 28 days after both Parties have entered into the Contract Agreement. The guarantee shall be in the form annexed to these Particular Conditions, or in another form acceptable to the Contractor. Unless and until the Contractor receives the guarantee, the Engineer shall not give the notice under Sub-Clause 8.1.

The guarantee shall be returned to the Employer at the earliest of the following dates:

- (a) when the Contractor has been paid the Accepted Contract Amount;
- (b) when obligations under the guarantee expire or have been discharged; or

(c) when the Employer has performed all obligations under the Contract.

Clause 15 Termination by Employer

Sub-Clause 15.2 Termination by Employer

Before inviting tenders, the Employer should verify that the wording of this Sub-Clause, and each anticipated ground for termination, is consistent with the law governing the Contract.

Sub-Clause 15.5 Employer's Entitlement to Termination

Unless inconsistent with the requirements of the Employer and/or financing institutions, a further sentence may be added.

EXAMPLE

Insert at the end of Sub-Clause 15.5:

The Employer shall also pay to the Contractor the amount of any other loss or damage resulting from this termination.

Clause 16 Suspension and Termination by Contractor

Sub-Clause 16.2 Termination by Contractor

Before inviting tenders, the Employer should verify that the wording of this Sub-Clause is consistent with the law governing the Contract. The Contractor should verify that each anticipated ground for termination is consistent with such law.

Clause 17 Risk and Responsibility

Sub-Clause 17.6 Limitation of Liability

EXAMPLE

In Sub-Clause 17.6, the sum referred to in the penultimate sentence shall be _____

Additional Sub-Clause Use of Employer's Accommodation/Facilities

If the Contractor is to occupy the Employer's facilities temporarily, an additional sub-clause may be added:

EXAMPLE SUB-CLAUSE

The Contractor shall take full responsibility for the care of the items detailed below, from the respective dates of use or occupation by the Contractor, up to the respective dates of hand-over or cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works):

(insert details)

If any loss or damage happens to any of the above items while the Contractor is responsible for their care, arising from any cause whatsoever other than those for which the Employer is liable, the Contractor shall, at his own cost, rectify the loss or damage to the

Clause 18 Insurance

The wording in the General Conditions describes the insurances which are to be arranged by the "insuring Party", who is to be the Contractor unless otherwise stated in the Particular Conditions. Insurances so provided by the Contractor are to be consistent with the general terms agreed with the Employer. The Instructions to Tenderers may therefore require tenderers to provide details of the proposed terms.

If the Employer is to arrange any of the insurances under this Clause, the tender documents should include details as an annex to the Particular Conditions (so that tenderers can estimate what other insurances they wish to have for their own protection), including the conditions, limits, exceptions and deductibles; preferably in the form of a copy of each policy. The Employer may find it difficult to effect the insurances described in the third paragraph of Sub-Clause 18.2 (for Contractor's Equipment, which includes Subcontractor's equipment), because the Employer may not know the amount or value of these items of equipment. The following sentence may be included in the Particular Conditions:

EXAMPLE	Delete the final paragraph of Sub-Clause 18.2 and substitute: However, the insurances described in the first two paragraphs of Sub-Clause 18.2 shall be effected and maintained by the Employer as insuring Party, and not by the Contractor.
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Clause 19 Force Majeure

Before inviting tenders, the Employer should verify that the wording of this Clause is compatible with the law governing the Contract.

Clause 20 Claims, Disputes and Arbitration

Sub-Clause 20.2 Appointment of the Dispute Adjudication Board

Unless the Engineer (although appointed by the Employer) is to make the pre-arbitral decisions under this Clause 20, in accordance with the alternative option described below, the Contract should include the provisions under Clause 20 which, whilst not discouraging the Parties from reaching agreement on disputes as the works proceed, allow them to refer contentious matters to an impartial dispute adjudication board ("DAB").

The adjudication procedure depends for its success on, amongst other things, the Parties' confidence in the agreed individual(s) who will serve on the DAB. Therefore, it is essential that candidates for this position are not imposed by either Party on the other Party; and that, if the individual is selected under Sub-Clause 20.3, the selection is made by a wholly impartial entity. FIDIC is prepared to perform this role, if this authority has been delegated in accordance with the example wording in the Appendix to Tender.

It is preferable, but not essential, for the individual(s) to be agreed before the Letter of Acceptance is issued, and for the DAB to visit the Site on a regular basis. Under the example text in the Appendix to Tender, the Parties may either so agree before the Letter of Acceptance is issued or agree the appointment within the specified period thereafter. Alternatively, the Parties may prefer to defer the appointment until a dispute has arisen, in which case Sub-Clause 20.2 plus the Appendix - General Conditions of Dispute Adjudication Agreement with its Annex (Procedural Rules) and the Dispute Adjudication Agreement should be amended to comply with the wording

contained in the corresponding sections of FIDIC's Conditions of Contract for Plant and Design - Build.

Sub-Clause 20.2 provides for two alternative arrangements for the DAB:

- (a) one person, who acts as the sole member of the DAB, having entered into a tripartite agreement with both Parties; or
- (b) a DAB of three persons, each of whom has entered into a tripartite agreement with both Parties.

The form of this tripartite agreement could be one of the two alternatives shown at the end of this publication, as appropriate to the arrangement adopted. Both of these forms incorporate (by reference) the General Conditions of Dispute Adjudication Agreement, which are included as the Appendix to the General Conditions because they are also referred to in Sub-Clause 20.2. Under either of these alternative forms of Dispute Adjudication Agreement, each individual person is referred to as a Member.

At an early stage, consideration should be given as to whether a one-person or three-person DAB is preferable for a particular project, taking account of its size, duration and the fields of expertise which will be involved. For some projects, it may be considered appropriate to appoint a one-person DAB for each major field of expertise relevant to the Works; however, this may give rise to problems if, when a dispute arises, the Parties cannot agree which field is applicable and, therefore, to whom the dispute should be referred.

For a one-person DAB to be mutually agreed, the Employer (or the tenderer) could propose the names and curriculum vitae of suitable persons, for the tenderer (or the Employer) to accept. It may be advisable to propose alternates in case some subsequently decline the appointment, assuming that they have not previously indicated their willingness to accept. Each Party may be reluctant to choose names from a list of people who have already been contacted by the other Party.

For a three-person DAB, the Employer and the tenderer may each propose one member, similar to the above procedure, for the tenderer and the Employer respectively to accept. For the chairman, the Employer (or the tenderer) could similarly propose suitable persons for the tenderer (or the Employer) to accept. It may be appropriate for the chairman's retainer fee to be more than that of the other two members, reflecting the additional administrative tasks which a chairman will have to perform.

The appointment of the DAB may be facilitated, especially if the members are not to be appointed at the commencement of the Contract, by including an agreed list of potential members in the Contract: in a Schedule.

Alternatively, the Engineer may make these pre-arbitral decisions. This alternative, which has been the Engineer's traditional role in common law countries, may be appropriate if the Engineer is an independent professional consulting engineer with the experience and resources required for the administration of all aspects of the contract. The Employer should recognise that, although the Engineer generally acts for the Employer as specified in Sub-Clause 3.1(a), the Engineer will make these pre-arbitral decisions impartially and the Employer must not prejudice this impartiality. If this alternative is considered appropriate, the Sub-Clause may be varied:

EXAMPLE SUB-CLAUSE FOR PRE-ARBITRAL DECISIONS BY THE ENGINEER

Delete Sub-Clauses 20.2 and 20.3.

Delete the second paragraph of Sub-Clause 20.4 and substitute:

The Engineer shall act as the DAB in accordance with this Sub-Clause 20.4, acting fairly, impartially and at the cost of the Employer. In the event that the Employer intends to replace the Engineer, the Employer's notice under Sub-Clause 3.4 shall include detailed proposals for the

Sub-Clause 20.5 Amicable Settlement

The provisions of this Sub-Clause are intended to encourage the parties to settle a dispute amicably, without the need for arbitration: for example, by direct negotiation, conciliation, mediation, or other forms of alternative dispute resolution. Amicable settlement procedures often depend, for their success, on confidentiality and on both Parties' acceptance of the procedure. Therefore, neither Party should seek to impose the procedure on the other Party.

Sub-Clause 20.6 Arbitration

The Contract should include provisions for the resolution by international arbitration of any disputes which are not resolved amicably. In international contracts, international commercial arbitration has numerous advantages over litigation in national courts, and may be more acceptable to the Parties.

Careful consideration should be given to ensuring that the international arbitration rules chosen are compatible with the provisions of Clause 20 and with the other elements to be set out in the Appendix to Tender. The Rules of Arbitration of the International Chamber of Commerce (the "ICC", which is based at 38 Cours Albert 1er, 75008 Paris, France) are frequently included in international contracts. In the absence of specific stipulations as to the number of arbitrators and the place of arbitration, the International Court of Arbitration of the ICC will decide on the number of arbitrators (typically three in any substantial construction dispute) and on the place of arbitration.

If the UNCITRAL (or other non-ICC) arbitration rules are preferred, it may be necessary to designate, in the Appendix to Tender, an institution to appoint the arbitrators or to administer the arbitration, unless the institution is named (and their role specified) in the arbitration rules. It may also be necessary to ensure, before so designating an institution in the Appendix to Tender, that it is prepared to appoint or administer.

For major projects tendered internationally, it is desirable that the place of arbitration be situated in a country other than that of the Employer or Contractor. This country should have a modern and liberal arbitration law and should have ratified a bilateral or multilateral convention (such as the 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards), or both, that would facilitate the enforcement of an arbitral award in the states of the Parties.

It may be considered desirable in some cases for other Parties to be joined into any arbitration between the Parties, thereby creating a multi-party arbitration. While this may be feasible, multi-party arbitration clauses require skilful drafting, and usually need to be prepared on a case-by-case basis. No satisfactory standard form of multi-party arbitration clause for international use has yet been developed.

Annexes FORMS OF SECURITIES

Acceptable form(s) of security should be included in the tender documents: for Annex A and/or B, in the Instructions to Tenderers; and for Annexes C to G, annexed to the Particular Conditions. The following example forms, which (except for Annex A) incorporate Uniform Rules published by the International Chamber of Commerce (the "ICC", which is based at 38 Cours Albert 1er, 75008 Paris, France), may have to be amended to comply with the applicable law. Although the ICC publishes guides to these Uniform Rules, legal advice should be taken before the securities are written. Note that the guaranteed amounts should be quoted in all the currencies, as specified in the Contract, in which the guarantor pays the beneficiary.

Annex A **EXAMPLE FORM OF PARENT COMPANY GUARANTEE**

[See page 3, and the comments on Sub-Clause 1.14]

Brief description of Contract _____

Name and address of Employer _____

_____ (together with successors and assigns).

We have been informed that _____ (hereinafter called the "Contractor") is submitting an offer for such Contract in response to your invitation, and that the conditions of your invitation require his offer to be supported by a parent company guarantee.

In consideration of you, the Employer, awarding the Contract to the Contractor, we (*name of parent company*) _____ irrevocably and unconditionally guarantee to you, as a primary obligation, the due performance of all the Contractor's obligations and liabilities under the Contract, including the Contractor's compliance with all its terms and conditions according to their true intent and meaning.

If the Contractor fails to so perform his obligations and liabilities and comply with the Contract, we will indemnify the Employer against and from all damages, losses and expenses (including legal fees and expenses) which arise from any such failure for which the Contractor is liable to the Employer under the Contract.

This guarantee shall come into full force and effect when the Contract comes into full force and effect. If the Contract does not come into full force and effect within a year of the date of this guarantee, or if you demonstrate that you do not intend to enter into the Contract with the Contractor, this guarantee shall be void and ineffective. This guarantee shall continue in full force and effect until all the Contractor's obligations and liabilities under the Contract have been discharged, when this guarantee shall expire and shall be returned to us, and our liability hereunder shall be discharged absolutely.

This guarantee shall apply and be supplemental to the Contract as amended or varied by the Employer and the Contractor from time to time. We hereby authorise them to agree any such amendment or variation, the due performance of which and compliance with which by the Contractor are likewise guaranteed hereunder. Our obligations and liabilities under this guarantee shall not be discharged by any allowance of time or other indulgence whatsoever by the Employer to the Contractor, or by any variation or suspension of the works to be executed under the Contract, or by any amendments to the Contract or to the constitution of the Contractor or the Employer, or by any other matters, whether with or without our knowledge or consent.

This guarantee shall be governed by the law of the same country (or other jurisdiction) as that which governs the Contract and any dispute under this guarantee shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with such Rules. We confirm that the benefit of this guarantee may be assigned subject only to the provisions for assignment of the Contract.

Date _____ Signature(s) _____

Annex B EXAMPLE FORM OF TENDER SECURITY

[See page 4]

Brief description of Contract _____

Name and address of Beneficiary _____

_____ (whom the tender documents define as the Employer).

We have been informed that _____ (hereinafter called the "Principal") is submitting an offer for such Contract in response to your invitation, and that the conditions of your invitation (the "conditions of invitation", which are set out in a document entitled Instructions to Tenderers) require his offer to be supported by a tender security.

At the request of the Principal, we (*name of bank*) _____ hereby irrevocably undertake to pay you, the Beneficiary/Employer, any sum or sums not exceeding in total the amount of _____ (say: _____) upon receipt by us of your demand in writing and your written statement (in the demand) stating that:

- (a) the Principal has, without your agreement, withdrawn his offer after the latest time specified for its submission and before the expiry of its period of validity, or
- (b) the Principal has refused to accept the correction of errors in his offer in accordance with such conditions of invitation, or
- (c) you awarded the Contract to the Principal and he has failed to comply with sub-clause 1.6 of the conditions of the Contract, or
- (d) you awarded the Contract to the Principal and he has failed to comply with sub-clause 4.2 of the conditions of the Contract.

Any demand for payment must contain your signature(s) which must be authenticated by your bankers or by a notary public. The authenticated demand and statement must be received by us at this office on or before (*the date 35 days after the expiry of the validity of the Letter of Tender*) _____, when this guarantee shall expire and shall be returned to us.

This guarantee is subject to the Uniform Rules for Demand Guarantees, published as number 458 by the International Chamber of Commerce, except as stated above.

Date _____ Signature(s) _____

Annex C: EXAMPLE FORM OF PERFORMANCE SECURITY - DEMAND GUARANTEE

[See comments on Sub-Clause 4.2]

Brief description of Contract _____

Name and address of Beneficiary _____

_____ (whom the Contract defines as the Employer).

We have been informed that _____ (hereinafter called the "Principal") is your contractor under such Contract, which requires him to obtain a performance security.

At the request of the Principal, we (*name of bank*) _____ hereby irrevocably undertake to pay you, the Beneficiary/Employer, any sum or sums not exceeding in total the amount of _____ (the "guaranteed amount", say: _____) upon receipt by us of your demand in writing and your written statement stating:

- (a) that the Principal is in breach of his obligation(s) under the Contract, and
- (b) the respect in which the Principal is in breach.

[Following the receipt by us of an authenticated copy of the taking-over certificate for the whole of the works under clause 10 of the conditions of the Contract, such guaranteed amount shall be reduced by _____ % and we shall promptly notify you that we have received such certificate and have reduced the guaranteed amount accordingly.] ⁽¹⁾

Any demand for payment must contain your [minister's/directors'] ⁽¹⁾ signature(s) which must be authenticated by your bankers or by a notary public. The authenticated demand and statement must be received by us at this office on or before (*the date 70 days after the expected expiry of the Defects Notification Period for the Works*) _____ (the "expiry date"), when this guarantee shall expire and shall be returned to us.

We have been informed that the Beneficiary may require the Principal to extend this guarantee if the performance certificate under the Contract has not been issued by the date 28 days prior to such expiry date. We undertake to pay you such guaranteed amount upon receipt by us, within such period of 28 days, of your demand in writing and your written statement that the performance certificate has not been issued, for reasons attributable to the Principal, and that this guarantee has not been extended.

This guarantee shall be governed by the laws of _____ and shall be subject to the Uniform Rules for Demand Guarantees, published as number 458 by the International Chamber of Commerce, except as stated above.

Date _____ Signature(s) _____

⁽¹⁾ When writing the tender documents, the writer should ascertain whether to include the optional text, shown in parentheses []

Annex D EXAMPLE FORM OF PERFORMANCE SECURITY - SURETY BOND

[See comments on Sub-Clause 4.2]

Brief description of Contract _____

Name and address of Beneficiary _____

_____ (together with successors and assigns, all as defined in the Contract as the Employer).

By this Bond, (*name and address of contractor*) _____
(who is the contractor under such Contract) as Principal and (*name and address of guarantor*) _____
as Guarantor are irrevocably held and firmly bound
to the Beneficiary in the total amount of _____ (the "Bond Amount", say:
_____) for the due performance of all such Principal's obligations and liabilities
under the Contract. [Such Bond Amount shall be reduced by _____ % upon the issue of the taking-
over certificate for the whole of the works under clause 10 of the conditions of the Contract.](¹)

This Bond shall become effective on the Commencement Date defined in the Contract.

Upon Default by the Principal to perform any Contractual Obligation, or upon the occurrence of any of the events and circumstances listed in sub-clause 15.2 of the conditions of the Contract, the Guarantor shall satisfy and discharge the damages sustained by the Beneficiary due to such Default, event or circumstances.⁽²⁾ However, the total liability of the Guarantor shall not exceed the Bond Amount.

The obligations and liabilities of the Guarantor shall not be discharged by any allowance of time or other indulgence whatsoever by the Beneficiary to the Principal, or by any variation or suspension of the works to be executed under the Contract, or by any amendments to the Contract or to the constitution of the Principal or the Beneficiary, or by any other matters, whether with or without the knowledge or consent of the Guarantor.

Any claim under this Bond must be received by the Guarantor on or before (*the date six months after the expected expiry of the Defects Notification Period for the Works*) _____ (the "Expiry Date"), when this Bond shall expire and shall be returned to the Guarantor.

The benefit of this Bond may be assigned subject to the provisions for assignment of the Contract, and subject to the receipt by the Guarantor of evidence of full compliance with such provisions.

This Bond shall be governed by the law of the same country (or other jurisdiction) as that which governs the Contract. This Bond incorporates and shall be subject to the Uniform Rules for Contract Bonds, published as number 524 by the International Chamber of Commerce, and words used in this Bond shall bear the meanings set out in such Rules.

Wherefore this Bond has been issued by the Principal and the Guarantor on (*date*) _____

Signature(s) for and on behalf of the Principal _____

Signature(s) for and on behalf of the Guarantor _____

⁽¹⁾ *When writing the tender documents, the writer should ascertain whether to include the optional text, shown in parentheses []*

⁽²⁾ *Insert:* [and shall not be entitled to perform the Principal's obligations under the Contract.]
Or: [or at the option of the Guarantor (to be exercised in writing within 42 days of receiving the claim specifying such Default) perform the Principal's obligations under the Contract.]

Annex E EXAMPLE FORM OF ADVANCE PAYMENT GUARANTEE

[See comments on Sub-Clause 14.2]

Brief description of Contract _____

Name and address of Beneficiary _____

_____ (whom the Contract defines as the Employer).

We have been informed that _____ (hereinafter called the "Principal") is your contractor under such Contract and wishes to receive an advance payment, for which the Contract requires him to obtain a guarantee.

At the request of the Principal, we (*name of bank*) _____ hereby irrevocably undertake to pay you, the Beneficiary/Employer, any sum or sums not exceeding in total the amount of _____ (the "guaranteed amount", say: _____) upon receipt by us of your demand in writing and your written statement stating:

- (a) that the Principal has failed to repay the advance payment in accordance with the conditions of the Contract, and
- (b) the amount which the Principal has failed to repay.

This guarantee shall become effective upon receipt [of the first instalment] of the advance payment by the Principal. Such guaranteed amount shall be reduced by the amounts of the advance payment repaid to you, as evidenced by your notices issued under sub-clause 14.6 of the conditions of the Contract. Following receipt (from the Principal) of a copy of each purported notice, we shall promptly notify you of the revised guaranteed amount accordingly.

Any demand for payment must contain your signature(s) which must be authenticated by your bankers or by a notary public. The authenticated demand and statement must be received by us at this office on or before (*the date 70 days after the expected expiry of the Time for Completion*) _____ (the "expiry date"), when this guarantee shall expire and shall be returned to us.

We have been informed that the Beneficiary may require the Principal to extend this guarantee if the advance payment has not been repaid by the date 28 days prior to such expiry date. We undertake to pay you such guaranteed amount upon receipt by us, within such period of 28 days, of your demand in writing and your written statement that the advance payment has not been repaid and that this guarantee has not been extended.

This guarantee shall be governed by the laws of _____ and shall be subject to the Uniform Rules for Demand Guarantees, published as number 458 by the International Chamber of Commerce, except as stated above.

Date _____ Signature(s) _____

Annex F EXAMPLE FORM OF RETENTION MONEY GUARANTEE

[See comments on Sub-Clause 14.9]

Brief description of Contract _____

Name and address of Beneficiary _____

_____ (whom the Contract defines as the Employer).

We have been informed that _____ (hereinafter called the "Principal") is your contractor under such Contract and wishes to receive early payment of [part of] the retention money, for which the Contract requires him to obtain a guarantee.

At the request of the Principal, we (*name of bank*) _____ hereby irrevocably undertake to pay you, the Beneficiary/Employer, any sum or sums not exceeding in total the amount of _____ (the "guaranteed amount", say: _____) upon receipt by us of your demand in writing and your written statement stating:

- (a) that the Principal has failed to carry out his obligation(s) to rectify certain defect(s) for which he is responsible under the Contract, and
- (b) the nature of such defect(s).

At any time, our liability under this guarantee shall not exceed the total amount of retention money released to the Principal by you, as evidenced by your notices issued under sub-clause 14.6 of the conditions of the Contract with a copy being passed to us.

Any demand for payment must contain your signature(s) which must be authenticated by your bankers or by a notary public. The authenticated demand and statement must be received by us at this office on or before (*the date 70 days after the expected expiry of the Defects Notification Period for the Works*) _____ (the "expiry date"), when this guarantee shall expire and shall be returned to us.

We have been informed that the Beneficiary may require the Principal to extend this guarantee if the performance certificate under the Contract has not been issued by the date 28 days prior to such expiry date. We undertake to pay you such guaranteed amount upon receipt by us, within such period of 28 days, of your demand in writing and your written statement that the performance certificate has not been issued, for reasons attributable to the Principal, and that this guarantee has not been extended.

This guarantee shall be governed by the laws of _____ and shall be subject to the Uniform Rules for Demand Guarantees, published as number 458 by the International Chamber of Commerce, except as stated above.

Date _____ Signature(s) _____

Annex G EXAMPLE FORM OF PAYMENT GUARANTEE BY EMPLOYER

[See page 18: Contractor Finance]

Brief description of Contract _____

Name and address of Beneficiary _____

_____ (whom the Contract defines as the Contractor).

We have been informed that _____ (whom the Contract defines as the Employer and who is hereinafter called the "Principal") is required to obtain a bank guarantee.

At the request of the Principal, we (*name of bank*) _____ hereby irrevocably undertake to pay you, the Beneficiary/Contractor, any sum or sums not exceeding in total the amount of _____ (say: _____) upon receipt by us of your demand in writing and your written statement stating:

(a) that, in respect of a payment due under the Contract, the Principal has failed to make payment in full by the date fourteen days after the expiry of the period specified in the Contract as that within which such payment should have been made, and

(b) the amount(s) which the Principal has failed to pay.

Any demand for payment must be accompanied by a copy of [*list of documents evidencing entitlement to payment*] _____, in respect of which the Principal has failed to make payment in full.

Any demand for payment must contain your signature(s) which must be authenticated by your bankers or by a notary public. The authenticated demand and statement must be received by us at this office on or before (*the date six months after the expected expiry of the Defects Notification Period for the Works*) _____ when this guarantee shall expire and shall be returned to us.

This guarantee shall be governed by the laws of _____ and shall be subject to the Uniform Rules for Demand Guarantees, published as number 458 by the International Chamber of Commerce, except as stated above.

Date _____ Signature(s) _____

GENERAL CONDITIONS

GUIDANCE FOR THE
PREPARATION OF
PARTICULAR CONDITIONS

Conditions of Contract
for **CONSTRUCTION**

FOR BUILDING AND ENGINEERING WORKS
DESIGNED BY THE EMPLOYER

FORMS OF LETTER OF
TENDER, CONTRACT
AGREEMENT AND
DISPUTE ADJUDICATION
AGREEMENT

Forms of Letter of Tender, Contract Agreement
and Dispute Adjudication Agreement

FEDERATION INTERNATIONALE DES INGENIEURS-CONSEILS
INTERNATIONAL FEDERATION OF CONSULTING ENGINEERS
INTERNATIONALE VEREINIGUNG BERATENDER INGENIEURE
FEDERACION INTERNACIONAL DE INGENIEROS CONSULTORES



LETTER OF TENDER

NAME OF CONTRACT:

TO:

We have examined the Conditions of Contract, Specification, Drawings, Bill of Quantities, the other Schedules, the attached Appendix and Addenda Nos _____ for the execution of the above-named Works. We offer to execute and complete the Works and remedy any defects therein in conformity with this Tender which includes all these documents, for the sum of (in currencies of payment) _____

or such other sum as may be determined in accordance with the Conditions of Contract.

We accept your suggestions for the appointment of the DAB, as set out in Schedule _____

*[We have completed the Schedule by adding our suggestions for the other Member of the DAB, but these suggestions are not conditions of this offer].**

We agree to abide by this Tender until _____ and it shall remain binding upon us and may be accepted at any time before that date. We acknowledge that the Appendix forms part of this Letter of Tender.

If this offer is accepted, we will provide the specified Performance Security, commence the Works as soon as is reasonably practicable after the Commencement Date, and complete the Works in accordance with the above-named documents within the Time for Completion.

Unless and until a formal Agreement is prepared and executed this Letter of Tender, together with your written acceptance thereof, shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any tender you may receive.

Signature _____ in the capacity of _____

duly authorised to sign tenders for and on behalf of _____

Address: _____

Date: _____

* If the Tenderer does not accept, this paragraph may be deleted and replaced by:

We do not accept your suggestions for the appointment of the DAB. We have included our suggestions in the Schedule, but these suggestions are not conditions of this offer. If these suggestions are not acceptable to you, we propose that the DAB be jointly appointed in accordance with Sub-Clause 20.2 of the Conditions of Contract.

APPENDIX TO TENDER

[Note: with the exception of the items for which the Employer's requirements have been inserted, the following information must be completed before the Tender is submitted]

Item	Sub-Clause	Data
Employer's name and address	1.1.2.2 & 1.3	_____ _____ _____
Contractor's name and address	1.1.2.3 & 1.3	_____ _____ _____
Engineer's name and address	1.1.2.4 & 1.3	_____ _____ _____
Time for Completion of the Works	1.1.3.3	____ days
Defects Notification Period	1.1.3.7	365 days
Electronic transmission systems	1.3	_____
Governing Law	1.4	_____
Ruling language	1.4	_____
Language for communications	1.4	_____
Time for access to the Site	2.1	____ days after Commencement Date
Amount of Performance Security	4.2	_____% of the Accepted Contract Amount, in the currencies and proportions in which the Contract Price is payable
Normal working hours	6.5	_____
Delay damages for the Works	8.7 & 14.15(b)	____ % of the final Contract Price per day, in the currencies and proportions in which the Contract Price is payable
Maximum amount of delay damages	8.7	_____% of the final Contract Price
<i>If there are Provisional Sums:</i>		
Percentage for adjustment of Provisional Sums	13.5(b)	_____%

Initials of signatory of Tender _____

If Sub-Clause 13.8 applies:

Adjustments for Changes in Cost;

Table(s) of adjustment data 13.8

Coefficient; scope of index	Country of origin; currency of index	Source of index; Title/definition	Value on stated date(s)* Value Date
a= 0.10 Fixed			
b= Labour			
c= _____			
d= _____			
e= _____			

* These values and dates confirm the definition of each index, but do not define Base Date indices

Total advance payment 14.2

Number and timing of instalments 14.2

Currencies and proportions 14.2 for payments each
month/[YEAR] in _____ (currency)

Start repayment of advance payment 14.2(a) _____
_____ % of the Accepted Contract Amount

Repayment amortisation of advance
payment 14.2(b) _____ % in _____
_____ % in _____

Percentage of retention 14.3 when payments are _____ %

Limit of Retention Money 14.3 of the Accepted Contract Amount
less Provisional Sums

If Sub-Clause 14.5 applies: _____ %

Plant and Materials for payment
when shipped en route to the Site 14.5(b) _____ %

_____ % of the Accepted Contract Amount

Plant and Materials for payment
when delivered to the Site 14.5(c)

Minimum amount of Interim Payment _____ [list]
Certificates 14.6 _____ [list]

If payments are only to be made in a currency/currencies named on the first page of the Letter of Tender:

Currency/currencies of payment 14.15 [list]

Initials of signatory of Tender _____

If some payments are to be made in a currency/currencies not named on the first page of the Letter of Tender:

Currencies of payment 14.15 _____ [list]

Currency Unit	Percentage payable in the Currency	Rate of exchange: number of Local per unit of Foreign
Local: _____ [name]	_____	1.000
Foreign: _____ [name]	_____	_____
_____ [name]	_____	_____

Periods for submission of insurance:

(a) evidence of insurance 18.1 ____ % of the Accepted Contract Amount
 (b) relevant policies 18.1 _____ as named in the Letters of Tender

Maximum amount of deductibles for
 insurance of the Employer's risks 18.2(d)

Minimum amount of third party _____ days
 insurance 18.3 _____ days

Date by which the DAB shall be appointed 20.2

The DAB shall be 20.2

28 days after the Commencement
 Date

Appointment (if not agreed) to be
 made by 20.3 *Either:*
 _____ One sole Member/adjudicator
Or:

If there are Sections:
 Definition of Sections:

Description (Sub-Clause 1.1.5.6)	Time for Completion (Sub-Clause 1.1.3.3)	Delay Damages (Sub-Clause 8.7)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

[In the above Appendix, the text shown in italics is intended to assist the drafter of a particular contract by providing guidance on which provisions are relevant to the particular contract. This italicised text should not be included in the tender documents, as it will generally appear inappropriate to tenderers.]

Initials of signatory of Tender _____

CONTRACT AGREEMENT

This Agreement made the _____ day of _____ 19 _____

Between _____ of _____ (hereinafter called "the Employer") of the one
part a _____ r _____ t _____ ,
and _____ of _____ (hereinafter called "the Contractor") of the
other part

Whereas the Employer desires that the Works known as _____ should be executed
by the Contractor, and has accepted a Tender by the Contractor for the execution and
completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are
respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of
this Agreement:
 - (a) The Letter of Acceptance dated _____
 - (b) The Letter of Tender dated _____
 - (c) The Addenda nos _____
 - (d) The Conditions of Contract
 - (e) The Specification
 - (f) The Drawings, and
 - (g) The completed Schedules.
3. In consideration of the payments to be made by the Employer to the Contractor as
hereinafter mentioned, the Contractor hereby covenants with the Employer to execute
and complete the Works and remedy any defects therein, in conformity with the
provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor, in consideration of the execution
and completion of the Works and the remedying of defects therein, the Contract Price at
the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and

SIGNED by: _____ SIGNED by: _____

for and on behalf of the Employer in the presence of _____ for and on behalf of the Contractor in the presence of _____

Witness: _____
Name: _____
Address: _____
Date: _____

Witness: _____
Name: _____
Address: _____
Date: _____

DISPUTE ADJUDICATION AGREEMENT

[for a one-person DAB]

Name and details of Contract _____
Name and address of Employer _____
Name and address of Contractor _____
Name and address of Member _____

Whereas the Employer and the Contractor have entered into the Contract and desire jointly to appoint the Member to act as sole adjudicator who is also called the "DAB".

The Employer, Contractor and Member jointly agree as follows:

1. The conditions of this Dispute Adjudication Agreement comprise the "General Conditions of Dispute Adjudication Agreement", which is appended to the General Conditions of the "Conditions of Contract for Construction" First Edition 1999 published by the Fédération Internationale des Ingénieurs-Conseils (FIDIC), and the following provisions. In these provisions, which include amendments and additions to the General Conditions of Dispute Adjudication Agreement, words and expressions shall have the same meanings as are assigned to them in the General Conditions of Dispute Adjudication Agreement.
2. [*Details of amendments to the General Conditions of Dispute Adjudication Agreement, if any. For example:*

In the procedural rules annexed to the General Conditions of Dispute Adjudication Agreement, Rule _ is deleted and replaced by: " ... "]
3. In accordance with Clause 6 of the General Conditions of Dispute Adjudication Agreement, the Member shall be paid as follows:

A retainer fee of _____ per calendar month,
plus a daily fee of _____ per day.
4. In consideration of these fees and other payments to be made by the Employer and the Contractor in accordance with Clause 6 of the General Conditions of Dispute Adjudication Agreement, the Member undertakes to act as the DAB (as adjudicator) in accordance with this Dispute Adjudication Agreement.
5. The Employer and the Contractor jointly and severally undertake to pay the Member, in consideration of the carrying out of these services, in accordance with Clause 6 of the General Conditions of Dispute Adjudication Agreement.
6. This Dispute Adjudication Agreement shall be governed by the law of _____

SIGNED by: _____ SIGNED by: _____ SIGNED by: _____

for and on behalf of the Employer for and on behalf of the Contractor The Member in the presence of
in the presence of in the presence of

Witness: _____ Witness: _____ Witness _____
Name: _____ Name: _____ Name: _____
Address: _____ Address: _____ Address: _____
Date: _____ Date: _____ Date: _____

DISPUTE ADJUDICATION AGREEMENT

[for each member of a three-person DAB]

Name and details of Contract _____
Name and address of Employer _____
Name and address of Contractor _____
Name and address of Member _____

Whereas the Employer and the Contractor have entered into the Contract and desire jointly to appoint the Member to act as one of the three persons who are jointly called the "DAB" [*and desire the Member to act as chairman of the DAB*].

The Employer, Contractor and Member jointly agree as follows:

1. The conditions of this Dispute Adjudication Agreement comprise the "General Conditions of Dispute Adjudication Agreement", which is appended to the General Conditions of the "Conditions of Contract for Construction" First Edition 1999 published by the Fédération Internationale des Ingénieurs-Conseils (FIDIC), and the following provisions. In these provisions, which include amendments and additions to the General Conditions of Dispute Adjudication Agreement, words and expressions shall have the same meanings as are assigned to them in the General Conditions of Dispute Adjudication Agreement.

2. [*Details of amendments to the General Conditions of Dispute Adjudication Agreement, if any. For example:*

In the procedural rules annexed to the General Conditions of Dispute Adjudication Agreement, Rule _ is deleted and replaced by: " ... "]

3. In accordance with Clause 6 of the General Conditions of Dispute Adjudication Agreement, the Member shall be paid as follows:

A retainer fee of _____ per calendar month,
plus a daily fee of _____ per day.

4. In consideration of these fees and other payments to be made by the Employer and the Contractor in accordance with Clause 6 of the General Conditions of Dispute Adjudication Agreement, the Member undertakes to serve, as described in this Dispute Adjudication Agreement, as one of the three persons who are jointly to act as the DAB.
5. The Employer and the Contractor jointly and severally undertake to pay the Member, in consideration of the carrying out of these services, in accordance with Clause 6 of the General Conditions of Dispute Adjudication Agreement.
6. This Dispute Adjudication Agreement shall be governed by the law of _____

SIGNED by: _____ SIGNED by: _____ SIGNED by: _____

for and on behalf of the Employer for and on behalf of the Contractor for and on behalf of the Employer
in the presence of in the presence of in the presence of

Witness: _____ Witness: _____ Witness: _____
Name: _____ Name: _____ Name: _____
Address: _____ Address: _____ Address: _____
Date: _____ Date: _____ Date: _____

SPECIFICATION

Note:

1. Unless otherwise shown on drawings or described in bills, the materials and workmanship shall be in accordance with the Standard Specification for Building and Construction Works prepared by the Public Works Department.
2. The Standard Specification prepared by the Public Works Department may not supply to the tenderer, but can be inspected at the office of the Quantity Surveyors and will be included in the contract.
3. Unless otherwise shown on drawings or described in bills, all Mechanical and Electrical materials and workmanship shall be as described in the latest standard specification prepared by the Consulting Engineers / issued by the Department of Electrical Services.
4. The contractor shall be responsible to liase with the Department of Electrical Services Brunei Darussalam for the connection of electrical supply to the building and to arrange the inspection and testing of the installation if applicable.
5. Standard of Electrical Installation shall comply with the latest issue of B.S. Standard and I.E.E. wiring regulations unless otherwise stated.

INDEX TO SPECIFICATION

INDEX

1. GENERAL CLAUSES
2. PILING
3. EXCAVATION AND EARTHWORKS
4. CONCRETE WORK
5. BRICKWORK AND BLOCKWORK
6. ROOFING
7. CARPENTRY AND JOINERY
8. IRONMONGERY
9. STRUCTURAL STEELWORK
10. METALWORK
11. WALL, FLOOR AND CEILING FINISHES
12. PLUMBING
13. GLAZING
14. PAINTING AND DECORATING
15. ROADWORKS AND CARPARKS
16. SEWERAGE AND DRAINAGE WORKS
17. FENCING AND GATES
18. LANDSCAPING AND TURFING
19. EXTERNAL WATER SUPPLY

SPECIFICATION

- A Descriptions in the Specification shall apply to the whole of the works regardless of the trade or work headings under which they occur and shall be read in conjunction with all other parts of the Contract Documents.
- B The Specification is a Standard Specification and where items of materials and workmanship are not specified herein, the Contractor shall also refer to the Drawings for details and for locations of finishes, and to the Schedule of Works. Specification clauses that are not applicable to this Contract should be disregarded.
- C Where there are no details of a particular finishing material or other material or standard of workmanship, this shall be taken as being in accordance with the manufacturer's recommendations and accepted practice for good quality workmanship.
- D Materials for Finishes, methods of constructions and details of workmanship, where shown on the drawings, superseded details contained in the Standard Specification.
- E In the Specification the letters B.S. refer to the British Standard as published by the British Standards Institution, London. The letters C.P. refer to the British Standard Code of Practice issued by the Council for Codes of Practice. The latest amendment is implied in each case.
- F All materials incorporated in the permanent work and all workmanship employed in its construction shall be consistent with good practice and, where applicable and unless otherwise stated in the Contract, shall comply with any relevant British Standard and British Standard Code of Practice current at the date of tender.
- G Where works are ordered to be performed by the Contractor but such works are not specified in the Specification, the Contractor must nevertheless carry them out with full diligence and expedience.
- H Manufacturers' and catalogue references quoted in the Specification are indicative of type and quality only. Other manufacturers' products may be accepted provided they are equivalent to those specified and approved by the Superintending Officer.
- I The Specification sets out the standards of the workmanship and materials required generally in building projects in Negara Brunei Darussalam. It may be accompanied by a Particular Specification defining requirements of any specific items or works in which case the details of the Particular Specification shall take priority over the General Specification, as shall any detailed specification included in the drawings and/or Bills which form part of the Contract.

PRICE PREAMBLES

GENERAL PRINCIPLES

- A The following preambles shall be read in conjunction with their respective trades and the tenderer shall make allowance in his unit rates for complying with the following preambles where applicable.
- B All rates submitted in the Bills hereafter shall be deemed to include for executing the Works in batches or in small quantities, narrow widths and confined areas, joining new to existing works including all labour in connection therewith and any sundry items of a like nature.
- C All rates shall include for all freight charges, landing charges, custom duties, sales taxes, etc.
- D All items are measured nett and rates shall include for laps, cutting and waste.
- E The Bills are to be read in conjunction with the Conditions of Contract, the Specifications and the Drawings.
- F The general directions and descriptions of works and materials given in the Specifications and Drawings are not necessarily repeated in the Bills and reference shall be made to the Specifications and the Drawings for this information.
- G The rates and prices entered in the Bills shall provide for compliance with all provisions of the Conditions of Contract, Drawings and the Specifications.
- H Unless specifically stated otherwise in the bill the following is deemed to be included in the description of the item:-
 - (i) Labour and all costs in connection therewith including the labour in setting, fitting and fixing of materials and goods in position.
 - (ii) Materials and goods including materials required for lapping, jointing and the like and all costs in connection therewith such as conveyance, delivery, unloading, storing, returning packings, handling, hoisting and lowering.
 - (iii) Waste of materials.
 - (iv) All cutting and waste.
 - (v) Use of plant and all costs in connection therewith.
 - (vi) Establishment charges, overhead charges and profit.

GENERAL PRINCIPLES

- A The rates and prices entered in the Bills are to be the full inclusive value of the finished work described under the respective items including all general risks, liabilities and obligations set forth or implied in the Contract Documents and shall include for the cost of all plant, labour, supervision, materials, wastes, fuel, temporary works, insurance, maintenance, overhead charges, profit and every incidental and contingent cost and charge whatsoever except those in respect of which specific provision is made by way of separate items in the Bills.
- B Each item in the Bills shall have a separate rate or price and extension set against it and items where the prices of which are the same shall not be bracketed.
- C Item against which no price is entered will be considered as covered by other rates and prices in the Bills.
- D The Contractor will be deemed to have ascertained for himself before tendering details of the nature and extent of the work which will have to be carried out under tidal, monsoon, marine and other conditions and restrictions and his rates and prices shall include for all costs and charges whatsoever arising out of such working.
- E All items that are required for the proper execution and completion of the whole of the Works although not specifically mentioned in the Bills are deemed to be included in the rates for other items in the Bills.
- F The rates and prices are firm and not subject to any price fluctuation. Quantities are measured net and firm unless otherwise stated. Provisional quantities (if any) are subject to final measurement, provisional sums are subject to actual expenditure, and no claim arising from remeasurement (except for variation / instruction), fluctuation in cost of material, labour, plant, etc.
- G All rates shall include for supply, delivery to site and installing in positions as directed by the Superintending Officer, complete with all necessary fixing, devices, hacking, chasing, morticing, bolting down, grouting, touching up works and the like.
- H The Bills of Quantities has been prepared in accordance with the “Standard Method of Measurement of Building Works (Second Edition)” as prepared by the Singapore Institute of Surveyors and Valuers (as modified to suit the particular circumstances of this Contract).
- I Before the signing of the Contract any errors or omissions in the Contractor’s rates and calculations in the Bills of Quantities shall be rectified and adjusted such that the total amount shall be the same amount as that tendered by the Contractor. Rates inserted in the Tender must correctly reflect the cost of the works. If during evaluation of Tender, rates are found, which, in the Superintending Officer’s opinion, do not correctly reflect the cost of the particular item, the Tender may rejected or considered for acceptance subject to adjustment of rates to provide a more equitable distribution cost.

GENERAL PRINCIPLES (cont'd)

- A All works necessary for completion of the Contract as per the Drawings, Specifications, Standard and Special Conditions of Contract shall be deemed to have been included in and covered by the various items in the Bills of Quantities whether or not specially mentioned in the Bills of Quantities.

PAYMENT OF LUMP SUM ITEMS/AMOUNTS

- B Notwithstanding the application of Clauses in the Conditions of Contract to the lump sum amounts entered in the Bills for mobilization of plant and equipment, etc., not more than sixty (60) percent of such amount shall become due to the Contractor when all the necessary plant and equipment are brought to the site as approved by the Engineer. The remaining of such amounts shall not become due to the Contractor until the works, for which the plant and equipment are intended, have been completed and such plant and equipment are removed from the site. Such sums due shall be subjected to the normal retention as specified in the Conditions of Contract.
- C Where lump sum amounts are given for items specifically provided for temporary works in the Bills, not more than sixty (60) percent of such amount become due to the Contractor when such temporary works are erected to the satisfaction of the Engineer. The remaining of such amount shall not become due to the Contractor until the permanent works, for which the temporary works are necessary, have been completed and such temporary works are demolished/dismantled and removed from the site. All such sums due shall be subjected to the normal retention as specified in the Conditions of Contract.

PAYMENT FOR PILES

- D The payment for the supply of piles shall be based on the actual paylength supplied and accepted. The paylength of a pile shall be the length between the point of maximum penetration of the toe of the pile shoe and the designed cut-off level.
- E The payment for the driving of piles under building shall be taken on the penetration into the ground measured from ground level before commencement of driving down to the toe of the pile, whereas for pile driving in wharf works, payment shall be the penetration into sea bed measured from sea bed before commencement down to the toe of the pile.

PAYMENT FOR EARTHWORK

- F The measurement of filling are those after compaction and the Contractor shall allow in his prices accordingly.

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)					
	<u>GENERAL</u>					
A	The Preliminary Particulars of Parties for the works, Possession of Site, Location of Site, Condition and Divisions of Works are described as follows:- <u>Parties for the Works</u>					
B	The term "Employer" shall mean the Ministry of External Affairs, The Republic of Government of India					
C	The term "Superintending Officer" where used in the Contract shall mean Arkitek RekaJaya.					
D	The term "Architect" shall mean Arkitek RekaJaya					
E	The term "C & S Engineer" shall mean Othman & Associates					
F	The term "M & E Engineer" shall mean LKA Konsult Sdn. Bhd.					
G	The term "Quantity Surveyor" shall mean MRBC Partnership					
H	The term "Contractor" shall mean the Contractor awarded the Contract for the whole works.					
J	The term "Nominated Subcontractor" shall mean any Contractor awarded the Contract for specialist works and who shall become a Nominated Subcontractor under the terms of the Contract. <u>Location of Site</u>					
K	The site is situated on Lot 64081 at Kampong Jalan Kebangsaan, Mukim Kianggeh <u>Site Conditions</u>					
L	The Contractor's working space and the areas for workyards, storage of materials, etc. will be restricted to the area within the site					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) GENERAL</u>					
	<u>Description of Works</u>					
A	The works which shall be carried out under this Contract comprise the supply of all materials, labour, plant, tools and equipment required for the execution and completion of the following, summarised briefly as belows:-					
B	1) High Commissioner's Residence					
C	2) All Mechanical and Electrical Works					
D	3) All associated External Works					
	<u>SITE VISIT</u>					
E	The Contractor is deemed to have visited the site while preparing the tender to ascertain for himself the extent of the work involved and the nature of the working conditions and make himself thoroughly acquainted with any site restrictions, obstruction and all other details liable to affect his tender, allow the same, as no claim for extra payment in respect of the above will be entertained.					
	<u>CONDITIONS OF CONTRACT</u>					
F	The Articles of Agreement and Conditions of Contract will be those contained in the Government of Brunei Darussalam Standard Form of Building Contract for use where Quantities form part of the Contract.					
G	The price in the Bills of Quantities shall be deemed to cover the cost of complying with the clauses.					
H	Banker's Guarantee Clause					
J	(i) Provide a Banker's Guarantee obtained from a Local Bank approved by the Employer to be jointly and severally bound to the Employer in a sum equal to 5% (ten percent) of the Contract Sum, valid for Contract Period plus Nine (9) months thereafter					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) CONDITIONS OF CONTRACT</u>					
A	(ii) The Banker's Guarantee is to be provided in consideration of the Employer not insisting on the Contractor paying ten percent of the value of the Contract as a Security Deposit. The term of the Bond shall be approved by the Employer and the cost of obtaining such and 'all-respect' guarantee shall be at the expense of the Contractor.					
B	(iii) The Banker's Guarantee shall be extended where necessary to the expected completion date two weeks before the expiry of the Banker's Guarantee.					
C	Progress Payments Clause					
D	The value of the Contractor's materials (excluding Nominated Sub-Contractors materials) to be included in the Certificate is 80% of the full value of the materials at the current market rates of 80% of the element included for materials in the relevant Contract Rate whichever is the lower.					
E	The term, 'Current market rates' means the prices usually paid by the Contractor for materials plus cartage at the date of his tender or such price plus cartage paid by the Contractor at the time the materials are supplied to the site, whichever is the lower. Prices are to be substantiated by invoices from the supplier.					
	<u>INSURANCES</u>					
F	All insurances shall be effected with internationally recognised insurance companies approved by the Superintending Officer in writing. The Workmen's Compensation Policy and Public Liability Policy shall remain in force until expiry date of Defects Liability Period.					
G	Provide the following insurance policies and such other insurances as may be necessary to protect the Contractor's and the Government interests:-					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) INSURANCES</u>					
A	(a) Workmen's Compensation Policy in the joint names of the Government and the Contractor including period of Defect Liability Period.					
B	(b) Public Liability Policy in the joint names of the Government and the Contractor including period of Defect Liability Period.					
C	(c) Fire Policy in the joint names of the Government and the Contractor including demolition and clearing of fire damaged structures, debris, etc.					
D	The limit of indemnity for the Public Liability Policy is to be B\$1,000,000.00 per accident with the number of accidents unlimited. The policy is to be endorsed as follows:-					
E	(a) 'Property of the Employer's employees and consultants of the Government and Property belonging to the employees and consultants of the Government shall for the purpose of this policy be treated and covered as Third Party Liabilities'.					
F	(b) Each of the parties comprising the insured shall for the purpose of this policy be considered as a separate and distinct unit and the words 'the insured' shall be considered as applying to each party in the same manner as if a separate policy had been issued to each of the said parties and insurers hereby agree to waive all rights of subrogation or action which they may have or acquire against any or the aforesaid parties arising out of any accident in respect of which any claims is made hereunder provided nevertheless that nothing in this clause shall be deemed to increase the limit of indemnity in respect of any one occurrence or series of occurrence.					
G	The third party liability insurances generally will cover:-					
H	(a) Accidental bodily injury or death to third parties.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description		Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)						
<u>(Cont) INSURANCES</u>						
A	(b) Injury or damage to property belonging to third parties.					
B	(c) Vibration, removal or weakening of support.					
C	Excess clause and all 'minimums' if not deleted by the Insurer shall be borne by the Contractor.					
D	Policies of insurances shall be deposited with the Superintending Officer. Evidence of payment of Insurances premiums must be presented to the Superintending Officer who on receipt of such evidence will include the premium in the first interim certificate and the balance (should the sum allowed herein exceeded the actual premium) shall be paid progressively.					
E	The Contractor is to comply with the Current Government Enactment in force on Workmen's Compensation insurances, Public Liability insurances and any other requirements imposed by the Contract.					
<u>SETTING OUT AND SITE LEVELS</u>						
F	Prior to the commencement of any excavation, the Contractor is to make a survey of the site showing relevant site dimensions and existing ground levels. The Contractor shall agree the survey and the levels obtained with the Superintending Officer in writing and the said levels, after agreement, will be used as the basis for measurement.					
G	The Contractor is to engage the services of a Licensed Surveyor to carry out a site survey as required by the Superintending Officer before work commences and to establish boundaries, redefinition including boundary stone establishment on completion of the works.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) SETTING OUT AND SITE LEVELS</u>					
A	Responsibility for the accuracy of setting out will be entirely the Contractor's, whether or not the setting out is performed and directed by the Superintending Officer. It is the Contractor's responsibility to ensure that the setting out is accurate.					
	<u>COMPLETION JOINT-SURVEY AND AS-BUILT DRAWING</u>					
B	On completion of this Contract, the Contractor shall employ a Licensed Surveyor to carry out an "as-constructed" survey for checking and determining the accuracy of the works executed. The Contractor shall rectify any works found inaccurately done to the approval of the Superintending Officer and all expenses arising out of such rectification shall be borne by the Contractor.					
C	The aforesaid survey shall include checking of the actual finished levels on site and the Contractor shall record the surveys on approved drawings which shall show the levels on plan with gridlines at intervals not exceeding 15 metres both ways and on which all levels shall be referred to Brunei Datum. The Contractor shall produce all necessary sectional drawings of the surveyed land and supply four sets plus the original of all the approved survey drawings to the Superintending Officer.					
D	The Contractor shall produce as-constructed drawings showing the positions of works executed all to the approval of the Superintending Officer, and shall supply the drawings to the Superintending Officer .					
	<u>PLANT, TOOLS AND VEHICLES</u>					
E	Provide and maintain all necessary plant, equipment, tools and vehicles for the proper execution and completion of the works and clear away same on completion.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>GENERAL SCAFFOLDING</u>					
A	Provide, maintain and remove when directed by the Superintending Officer and make good all temporary scaffolding with staging, planked footways, guardrails and the like and to whatever height as may be required for the use of workmen in accordance with the requirements of the Superintending Officer and the Authorities.					
	<u>SITE ADMINISTRATION</u>					
B	Provide for all on and off site management and supervisory costs and charges including the cost of foremen-in-charge.					
C	The foremen-in-charge must be suitably qualified and competent and shall not be changed without one month's written notice of the Superintending Officer.					
D	A project organisation chart should be submitted stating the persons who will be involved in the project.					
	<u>SITE SECURITY</u>					
E	Provide all necessary fencing, watching and lighting for the Security of the Works, material and plants against damage and theft.					
	<u>PROTECTING THE WORKS FROM INCLEMENT WEATHER</u>					
F	The Contractor shall be deemed to have taken all possible weather and tidal conditions into account when preparing his tender and shall not be entitled to extra payment by reason of the occurrence or effect of excessive rainfall, temperatures or humidity, high winds, waves, tides or any other meteorological or tidal phenomena.					
G	The Contractor shall make suitable arrangements to protect the works, temporary works and constructional plant against the effect of weather and tidal conditions.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description		Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)						
<u>WATER FOR WORKS</u>						
A	Provide all fresh clean pure water required including storage facilities for use in the works.					
B	Comply with the Public Works Department's guideline for the temporary supplier.					
C	Pay all costs and charges in connection with water for the Works. Alter, shift and adapt from time to time as necessary. Clean away and make good on completion.					
<u>TEMPORARY LIGHTING AND POWER</u>						
D	Provide temporary artificial lighting and electric power for the works including that of nominated subcontractor's. Where supply is not available, the Contractor shall provide and maintain adequate generator sets to meet the temporary consumption.					
E	Comply with the Electrical Department's guide-line for the temporary supplies.					
F	Pay all costs and charges in connection with temporary lighting and power for the works including that for testing equipment and services for nominated subcontractors. Alter, shift and adapt from time to time as necessary. Disconnect, clear away and make good on completion.					
<u>TEMPORARY ROADS, HARDSTANDING, CULVERTS, VEHICLES CROSSING, ETC.</u>						
G	Provide, maintain and alter as necessary all temporary access roads, tracks, paths, hardstanding, pavement crossing, culverts, other temporary works and the like and remove and make good on completion.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>TEMPORARY OFFICE AND FACILITIES FOR CONSULTANTS AND CONTRACTORS</u>					
A	Provide and maintain at a position on or off site to be agreed with the Superintending Officer air-conditioning office with meeting facilities for the use of the Consultants', Contractor's and all nominated subcontractors' staff. Repaint, alter, shift and adapt from time to time as required, as directed and removed on completion of the works.					
B	The Contractor shall not be permitted to construct temporary building to accommodate his workmen on site without the approval of the Superintending Officer.					
C	Provide and maintain at position to be agreed with the Superintending Officer watertight temporary sheds for the storage of materials, tools and equipment for the use of his own workpeople. Provide and maintain covered working areas if required. Repaint, alter, shift and adapt from time to time as required or as directed and remove on completion of the works.					
	<u>COMMUNICATION</u>					
D	Provide and maintain telephone services or other means of communication to the Contractor's site office as may be necessary for the full period of the works and pay all charges and expenses in connection therewith and remove on completion.					
	<u>TRAFFIC REGULATIONS</u>					
E	The Contractor shall comply with all Bye-Laws issued by Land Transport Department and other relevant Authorities throughout his work and shall meet the requirements regarding the traffic regulations issued from time to time.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
<p><u>SAFETY, HEALTH AND WELFARE OF PEOPLE</u></p> <p>Pay all costs and charges incurred by and comply with all standard and construction site health, safety and welfare regulations appertaining to all persons employed on the site.</p> <p>The Contractor shall comply with Guidance Document - Guidelines for Safety Organisation and Guidelines for Safety on Construction Site 1994 throughout his work and shall meet the requirements regarding the Safety Guidelines issued by Ministry of Development</p> <p>The Contractor shall provide twenty (20) No. safety helmets and twenty (20) pairs of safety boots for relevant authorities personnels and guests.</p> <p><u>CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</u></p> <p><u>Legal Requirements and Regulations</u></p> <p>Allow for all costs and charges incurred by complying with all safety regulations of Government appertaining to all persons employed on or visitors to the site including those employed by all Sub-Contractor's and Superintending Officer's representatives.</p> <p>Contractor shall comply with all applicable safety laws (whether international, national regional, local/PWD or otherwise) regulations and safe operating standards and shall take all necessary safety precautions related to or arising out of the performance of the contract in order to protect the work, the personnel and property of the Employer, contractor and all third parties.</p>					
PTE159			To Collection \$		

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
<p>(Cont) CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</p> <p>(Cont) Legal Requirements and Regulations</p> <p>The Contractor is responsible for the support services in areas of safety, fire protection and prevention, industrial hygiene and is obliged to comply with by virtue of statutory requirements as well as being part of the contractual requirements. It is the responsibility of the Contractor that he, his employees and their sub-contracts are aware of and familiar with the safety rules and practices as authorised by the Superintending Officer.</p> <p>A qualified and competent Safety officer must be assigned full time in the project. The Contractor to provide safety programme in accordance to safety regulations of Government.</p> <p>The Contractor is also responsible for performing work under the contract in a healthy and safe manner including protecting the safety and welfare of other sub-contractors.</p> <p><u>Termination and Suspension</u></p> <p>Any infringements by the contractor identified by the Superintending Officer of the above laws, regulations and safe operating standards shall be promptly remedied at contractor's expense.</p> <p>The Superintending Officer reserves the right to stop the work at Contractor's expense until such unsafe acts and situations have been rectified and in the event of serious or repeated infringements, may terminate the contract without compensation.</p>					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description		Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)						
<u>(Cont) CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</u>						
<u>Safety Equipment</u>						
A	Contractor shall at its own expense provide adequate first aid equipment, fire extinguishers and other safety equipment of an approved type and amount, as may be specified (or expected in accordance with good working practices) in connection with this contract and shall maintain this equipment in a professional manner as instructed by the Superintending Officer.					
B	Ensure at all times that the equipment shall be periodically inspected by a competent internationally recognised authority and certified by such authority to be in a safe working condition.					
<u>Protective Personal Equipment</u>						
C	Contractor shall, at his own expense, supply his personnel and sub-contractor's personnel, required in connection with the safe performance of the work, with adequate protective personal clothing and other protective equipment which shall be maintained in good condition or replaced and shall be worn on relevant occasions as indicated by notices, instructions and good practice. These shall include safety shoes, safety helmets, eye goggles, hand gloves, safety belts and harness etc.					
<u>Hygiene</u>						
D	Contractor shall ensure that his personnel and sub-contractor's personnel maintain the highest standard of hygiene in connection with the performance of this contract.					
<u>Housekeeping</u>						
E	Contractor shall ensure that good housekeeping is maintained continuously throughout the duration of the work with due regards being paid to tidiness, access ways and disposal of scrap materials and rubbish.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</u>					
	<u>Safety Warning Signs and Colours</u>					
A	Safety sign shall comply with BS.5378 : Part 1 & Part 2 : 1980 and Part 3 : 1982. All safety sign should be identified in one or more of the four basic categories such as prohibition, warning, mandatory or safe condition.					
	<u>Design Symbols</u>					
B	The design symbols shall be as simple as possible and details not essential for the understanding of the message shall be omitted.					
C	Caution signs shall show the nature of the danger.					
D	Mandatory sign shall show only what is being mandated and prohibition signs shall show only what, or who is prohibited.					
	<u>Colour, Shape and Layout</u>					
E	The Colour, Shape and Layout of the signs shall comply with BS.5378 : Part 1 and the colorimetric and photometric properties shall comply with BS.5378 : Part 2.					
	<u>General Safety Provisions</u>					
F	Suitable overhead protection (in the form of safety nets, catch platforms and hoardings, etc.) are to be provided where persons are required to work or pass by places that are normally exposed to falling materials or objects.					
	<u>Accident/ Incident Reporting</u>					
G	Report to the Superintending Officer, any accident or incident irrespective of whether injury to personnel, damage to property, plant or equipment, fire and a "near-miss" situation which might have led to one of the above mentioned consequences.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</u>					
	<u>Safety Meetings</u>					
A	Contractor shall be responsible for maintaining and enhancing the safety awareness of its personnel and sub-contractor's personnel, including arranging safety meetings.					
	<u>First-Aid</u>					
B	Make arrangements for first-aid treatment to be available on site at all times. Adequate and suitable first-aid equipment shall be provided. All work-people and others on site shall be informed of the location of such equipment and treatment positions.					
	<u>Anti-malarial Measures</u>					
C	Take all necessary measures to prevent the breeding and presence of mosquitoes on the site and pay any charges levied by the relevant authorities for anti-malarial measures.					
	<u>CONSTRUCTION SITE SAFETY - BASIC SAFETY</u>					
	<u>Site Tidiness</u>					
D	Materials, tools and equipments shall be properly stacked and stored at designated places. Electrical switchboards, emergency switches, alarms, fire fighting equipments, first aid equipments and exits shall be indicated and remain unobstructed.					
	<u>Excavation</u>					
E	Excavation must have adequate and proper shoring and side supports with access complete with barriers and conspicuous warning sign. The edge must be stable and barricaded at a safe clearance from vehicles, equipments and workers.					
PTE159					To Collection \$	
BQ/14						

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) CONSTRUCTION SITE SAFETY - BASIC SAFETY					
	<u>Machinery and Plant</u>					
A	Machinery and plant must be clean and properly maintained with guards on moving parts. They must have stable, firm base and properly supported and operated by skilled operators.					
	<u>Temporary Electrical Works</u>					
B	All temporary electrical works must have appropriate connection to main lines with meters and fuses. All wires and cables must be properly fastened, supported and neatly installed with protection from being wet and from workers, vehicles and equipments when at ground/floor surface. The works must be installed and maintained by competent electrician.					
	<u>Roof Works</u>					
C	Roofers must be provided with adequate and safety gears, crawl boards and ladders. Materials must be stacked safely on roof with easy and safe access for workers.					
	<u>Gas/ Arc Welding and Cutting</u>					
D	Ensuring appropriate and safe handling, stacking and location of gas cylinders. All electrical arc welding equipments, hoses, cables must be protected. Warning signs and protective gears to be used and the works operated by competent and qualified welders and fabricators.					
	<u>Periodic Inspection</u>					
E	Ensure that all items of equipment shall be periodically inspected by a competent internationally recognised authority and certified by such authority to be in a safe working conditions.					
	<u>LABOUR ON COST</u>					
F	Provide for all costs, payment and charges in respect of all employees for:-					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description		Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)						
<u>(Cont) LABOUR ON COST</u>						
1) Annual and Public Holidays						
2) Travelling time, expenses, fares and transport						
3) Non-productive time and other expenses in connection with overtime						
4) Incentive and bonus payments						
5) Payment of Labour Deposits or cost of providing Banker's Guarantee in lieu of such deposit						
6) Any other payments and charges arising from the employment of workmen						
<u>MAINTENANCE OF PUBLIC AND PRIVATE ROADS</u>						
A	Keep the approaches to the site free from excavated materials, mud and debris.					
B	Maintain public and private road, footpaths, roadside drains, kerbs and like, and make good any damage caused including that caused by all Sub-Contractor and supplier to the satisfaction of Superintending Officer and pay all costs and charges in connection therewith.					
C	Where appropriate or where directed by the Superintending Officer or other competent authority the Contractors shall erect and maintain such temporary warning lights and flags as directed and required to emphasize danger from any works or construction plant.					
<u>REMOVAL OF RUBBISH</u>						
D	Keep the site tidy and free from rubbish, debris and the like.					
E	Provide all necessary containers like metal 'skip' and remove all rubbish, debris and the like from the site to approved dumping areas at regular intervals.					
PTE159					To Collection \$	
BQ/16						

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) REMOVAL OF RUBBISH</u>					
A	Burning of rubbish on site is strictly prohibited.					
	<u>CLEARING UPON COMPLETION</u>					
B	On completion of the works all plants, building appliances, apparatus or equipment are to be removed as quickly as possible and conveyed away from the site at the sole cost of the Contractor. All services and leads, temporary buildings, shed, barriers, scaffolding, etc. required in the work construction are to be disconnected, dismantled, taken down and removed.					
C	All holes, trenches, excavation in connection with plant, etc. are to be filled in a proper manner, levelled of and closely turfed and the site left in a clean and orderly conditions.					
D	In the event of the Contractor not clearing away the above mentioned materials, plant and other temporary works within a stipulated time, the Employer shall arrange for same to be executed by some other party and the cost of such clearing away shall be adjusted against the Contractor's Final Account. Employer will not be held responsible or liable for any material or plant left upon the site.					
E	Before handing over the Works to the Superintending Officer, the Contractor shall scrub all floors, pavings, staircase, etc. and cleaning out all gutters, gulleys, manholes, sumps and drains. The Contractor shall also clean all glass panes and leave every part of the completed works included in this Contract in clean, sound and tidy condition to the approval of the Superintending Officer.					
PTE159					To Collection \$	
BQ/17						

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description		Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)						
<u>NUISANCE</u>						
A	The amount of noise made on the works is to be kept to minimum. Generators, compressors and other noisy plants are to be muffled at all times by means of silencers, screens and the like.					
B	Make all precautions to prevent the starting and spread of fire and provide suitable fire fighting equipment.					
C	Take all reasonable measures to prevent nuisance by dust by regular watering or other appropriate means and as when the need arises or when instructed by the Superintending Officer.					
D	The Contractor shall not obstruct any public way or do any thing which may amount to a nuisance or annoyance, and shall not interfere with any right of way or light to adjoining property and may upon notice received by him or left upon the site requiring the discontinuance or suspension of any part of the works shall at once be forwarded by him to the Superintending Officer or if given verbally, shall at once be communicated by him to the Superintending Officer in writing and the Contractor shall keep the Employer indemnified against any claim or omission of the Contractor or his agents, servants or workmen in this respect.					
<u>SAMPLES</u>						
E	Samples of materials and fittings shall be submitted for approval prior to any order by the Contractor and as early in the Contract as possible. All samples which are approved shall indicate the standard to be maintained in the execution of the works.					
PTE159					To Collection \$	
BQ/18						

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>TEST</u>					
A	Arrange for test of any materials or workmanship to be carried out as and when the Superintending Officer may direct and either at on or off-site laboratories as instructed. Pay all costs and charges in connection therewith.					
	<u>SHOP DRAWINGS</u>					
B	Prepare and submit to the Superintending Officer for approval prior to ordering materials or commencing any works, fully detailed and dimensioned shop drawings as stated below. Obtain the Superintending Officer written approval to the drawings.					
	(a) Structural Steelworks					
	(b) Metalworks					
	(c) Doors and Windows					
	(d) Plumbing and Sanitary					
	(e) Mechanical and Electrical Works					
	(f) Other Proprietary or Prefabricated Items					
	<u>RECORD DRAWINGS</u>					
C	The Contractor shall make accurate records of those parts of the works which will become hidden by further progress as may be directed by Superintending Officer. Such records shall be checked and verified by the Superintending Officer while the work is open for inspection. Records shall be entered by the Contractor on prints of drawings which will be made available to him free of cost for this purpose, amplified by him with supplementary dimensioned sketches and handed to the Superintending Officer as soon as practicable.					
D	This record drawings will be used for the preparation of as built drawings.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>OPERATING AND MAINTENANCE INSTRUCTION</u>					
A	Obtain and hand over to the Superintending Officer upon completion any operating and maintenance instruction provided by manufacturers, suppliers or sub-contractors.					
	<u>PROGRESS PHOTOGRAPHS</u>					
B	Provide six sets of photographs to the Superintending Officer before commencement of the works and thereafter on the first day of each month adequately recording the progress on site. Each set of not exceeding 20 copies suitably dated and titled taken from various elevations as directed by the Superintending Officer. The Contractor shall also provide necessary album for safe keeping of the progress photographs.					
C	In addition to the progress photographs, the Contractor is required to submit together with each of his monthly progress payment application, all necessary photographic records (in 6 sets or more) showing his work done to date and materials delivered to site to facilitate the processing of progress payment.					
	<u>GENERAL ATTENDANCE</u>					
D	Provide the general attendance of one trade upon another.					
	<u>CONTRACTOR'S MECHANICAL AND ELECTRICAL CO-ORDINATOR</u>					
E	The Contractor shall submit for approval within 7 days from the day of acceptance of his tender the name and particulars of an English speaking, specially qualified and experienced supervisor for co-ordinating the specialist's work with the Main Contractor and other Nominated Subcontractors over the whole Contract period and he shall be in attendance full time on the works. He must have not less than 5 years experience in site management relating to Mechanical and Electrical co-ordination works.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>PROTECTING THE WORKS</u>					
A	Take all necessary protective measures as directed throughout the currency of the Contract to protect all finished work from damage or deterioration because of the activities of any workpeople (including those of the Employer's separate specialist Contractors) or of any other cause and leave the whole of the works perfect and to the Superintending Officer's satisfaction on completion.					
	<u>EXISTING SERVICES</u>					
B	The Contractor shall take all necessary steps to ascertain the exact positions of existing overhead cables, pipes, ducts, sewers, services main and shall uphold, protect and maintain all these and other services of the like nature during excavations for the purpose of this Contract and make good or pay for making good all damage thereto and any consequential damage or loss arising out of such damage.					
C	In the case where the services are to be temporarily terminated or diverted, the Contractor shall give the necessary notices to the appropriate Authorities and arrange for the work to be carried out and pay all charges in connection therewith.					
	<u>PROTECT PROPERTY</u>					
D	Take all adequate and reasonable measures to protect any private properties. Make good all damages due to any cause within the Contractor's control at his own expense or pay all costs and charges in connection therewith.					
	<u>ORDERING AND DELIVERY OF MATERIALS</u>					
E	The Bills of Quantities is not a schedule of material and the Contractor should not order any materials from the quantities and sizes stated in these Bills of Quantities but must take all quantities and sizes from the drawings.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>MATERIALS FROM GOVERNMENT STORE</u>					
A	When materials are required to be obtained from Government stores the Contractor is to load and transport these to site and is to return any returnable crates, drums or other containers, which will otherwise be charged to his account.					
	<u>COVERING UP</u>					
B	No work shall be covered until it has been examined and approved by the Superintending Officer.					
C	Failure by the Contractor to inform the Superintending Officer on time before covering up the work may render his claim null and void.					
	<u>LOADING IN EXCESS OF DESIGN LOAD</u>					
D	No loading in excess of the design loading shall be placed on any portion of the structure without the written permission of the Superintending Officer.					
E	If such permission is granted all structural members subjected to loading other than design shall be strengthened and supported to the satisfaction of the Superintending Officer and the Contractor will bear all additional expenditure.					
F	Notwithstanding the written permission of the Superintending Officer the Contractor shall bear all costs arising out of the making good of any damage to the permanent structure caused by excess loading.					
PTE159				To Collection \$		

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>ROYALTIES AND PATENT RIGHT</u>					
A	All royalties or other sums payable in respect of the supply and use in carrying out the works as described in or referred to in Contract Bills of any patented articles, processes or inventions shall be deemed to have been included in the Contract Sum and the Contractor shall indemnify Employer from and against all claims, proceeding, damages, costs and expenses which may be brought or made against Employer or to which the Employer may be put by reason of the Contractor infringing or being held to have infringed any patent rights in relation to any articles, processes and inventions.					
B	A Provisional Sum (where applicable) has been included elsewhere in these Bills as payment according to circular imposed by the Brunei Government Lands Department in connection with filling material imported to the site.					
	<u>CUSTOMS RESTRICTIONS AND DUTIES</u>					
C	Provide for all cost incurred in connection with customs restrictions, quotas, duties and taxes.					
	<u>KEEPING SITE DRY</u>					
D	The Contractor shall be responsible for keeping the whole of the works well drained and free from all water.					
	<u>TEMPORARY DRAINAGE, SILT TRAPS AND OTHER ANTI EROSION MEASURES</u>					
E	The Contractor shall during the course of the works take such additional measures including construction of temporary drainage, silt traps and other anti-erosion measure etc. as necessary, to prevent the movement of eroded materials and debris from construction areas and/ or other erosion of any parts of the site.					
F	Construct stormwater drains along temporary roads, hardstanding, etc. to the satisfaction of the Superintending Officer.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description		Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)						
<u>TRESPASS</u>						
A	The Contractor shall prevent any trespass onto the adjacent properties by his own employees or those of 'Sub-Contractors' and shall indemnify Employer against any claims, costs of proceedings whatsoever arising out of any trespass.					
<u>METRICATION</u>						
B	The Contractor is to bear all procedural and administration costs in connection with ordering and usage of materials which is specified in either metric or imperial dimension.					
C	The Contractor will not be allowed reimbursement of additional costs should the nearest suitable and acceptable imperial sized material to the metric sized specified or vice-versa be more costly.					
<u>CO-OPERATION AND CO-ORDINATION</u>						
D	Co-operate with all other persons who are on the site with the authority of the Employer. Co-ordinate the Works such that they may be completed in the most efficient and acceptable manner.					
E	The Contractor shall permit other Contractors and the Employer to use any part of the Works.					
<u>RESPONSIBILITY</u>						
F	Where the Contractor does not price an item in the Preliminaries or inserts a dash against any item in the Bills of Quantities, the value therefore will be deemed to be included in the rates contained in the Bills of Quantities.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) RESPONSIBILITY</u>					
A	The Contractor is to exercise care in pricing items of similar description throughout the Bills of Quantities. In pricing variations arising from Superintending Officer's instructions, the Quantity Surveyor will apply the lowest rate for any individual item where unit rates vary from element to element or from section to section.					
B	Whether expressly stated or not in these Bills of Quantities all description, specification and quantities are implied to be directed at or towards the tenderer tendering for and later awarded the Contract. No allowance will be made for non compliance with any clause due to lack of understanding. The tenderer shall price every item for which he requires remuneration. If any item is not priced it shall be deemed that the tenderer required no remuneration or that no cost to the tenderer is involved in compliance with the particular clause.					
C	All the provisional quantities and/ or items stated in these Bills of Quantities shall be remeasured according to the latest drawings or as directed at site. No claim shall be entertained in respect of any item omitted entirely or in part or alternatively increased in quantity by any amount in respect to the Bills.					
	<u>PROTECTION OF AND DAMAGE TO ADJOINING EXISTING BUILDINGS, OCCUPANTS, ETC.</u>					
D	The Contractor is to allow for all test pits to locate existing foundations, underpinning, all requisite shoring, needling, strutting and other supports, screens, barricades, etc., for the protection of operatives, site staff, occupants, adjoining property and the public, and alter, adapt and maintain them as necessary.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) PROTECTION OF AND DAMAGE TO ADJOINING EXISTING BUILDINGS, OCCUPANTS, ETC.</u>					
A	The Contractor shall carry out the works in such manner and with such care that no damage shall be caused to adjoining and neighbouring buildings, structures, drains, etc.					
B	Should the Contractor damage any of the adjoining and neighbouring buildings, structures, drains, etc., he shall be liable for making good all works disturbed to adjoining and neighbouring buildings and shall indemnify the Employer in respect of claims or proceedings arising out of the neglect of this clause.					
C	It is the responsibility of the Contractor to protect the adjacent buildings against movement caused by settlement during and after construction of the new building.					
	<u>HOARDING</u>					
D	Provide, erect and maintain adequate, secure and safe metal / timber hoarding as approved by the S. O. including removal after completion					
E	The Contractor is to liase with the Superintending Officer on the exact location of the hoarding line based on site condition and the client's requirement, and to the approval and satisfaction of the Superintending Officer.					
	<u>PROJECT NAME BOARDS</u>					
F	The Contractor shall provide, erect and maintain standard size painted timber name boards with pitched roof showing the project name, Client, Consultants, Main Contractor and other sub-contractors as required and directed by the Superintending Officer					
G	The design wording, sitting and maintenance of the boards shall be approved by Superintending Officer prior to it being erected.					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) PROJECT NAME BOARDS</u>					
A	All boards are to be removed on completion of the works.					
	<u>GROUND BREAKING CEREMONY</u>					
B	Allow for ground breaking ceremony when required prior to laying of foundation and the date shall be confirmed by the S.O. The Contractor shall provide and remove on completion proper access, platform, wheel barrow, safety outfit, tent, electricity, water. etc.					
C	No claim or extension of time shall be entertained on the ground of ignorance of this clause.					
	<u>MOCK-UP</u>					
D	Allow here for all costs in connection with the construction and completion of a mock-up as shown and specified on drawings.					
E	The Contractor's attention is drawn to the fact that all the Architectural and Structural Works are measured and included in the Measured Works Bills of Quantities but the Contractor shall bear all costs and charges incurred for buying small quantities of material in advance and for the constructing the mock-up "out of sequence" with the overall master program					
F	Priority must be given in the Contractor's overall program for executing the mock-up well ahead of the rest of the works					
G	The Contractor shall liaise closely with Consultants especially with regards to the approval of sample to be used in the mock-up. The Contractor shall ensure that the progress of the works in the other areas is not adversely affected and should progress as per the master program. No claims will be entertained on the ground of disruption, inconvenience and/ or ignorance of this clause					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
<u>GENERAL CONDITIONS & OTHER PRELIMINARIES</u> Allow here for complying with the general conditions and other preliminary items, etc. and provide all things required necessary for the complete execution of the Works herein, all to the approval and satisfaction of the Architect (Tenderers must specify items involved therein) <u>OTHER WORKS NECESSARY</u> Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein) 1) _____ 2) _____ 3) _____					
		Item			
			To Collection \$		

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
Page No. BQ/6					
Page No. BQ/7					
Page No. BQ/8					
Page No. BQ/9					
Page No. BQ/10					
Page No. BQ/11					
Page No. BQ/12					
Page No. BQ/13					
Page No. BQ/14					
Page No. BQ/15					
Page No. BQ/16					
Page No. BQ/17					
Page No. BQ/18					
Page No. BQ/19					
Page No. BQ/20					
Page No. BQ/21					
Page No. BQ/22					
Page No. BQ/23					
PTE159					
BQ/29					

BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
COLLECTION					
Page No. BQ/24					
Page No. BQ/25					
Page No. BQ/26					
Page No. BQ/27					
Page No. BQ/28					
BILL 1A - GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE) Carried to Summary					
PTE159					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)					
	<u>GENERAL</u>					
A	The Preliminary Particulars of Parties for the works, Possession of Site, Location of Site, Condition and Divisions of Works are described as follows:- <u>Parties for the Works</u>					
B	The term "Employer" shall mean the Ministry of External Affairs, The Republic of Government of India					
C	The term "Superintending Officer" where used in the Contract shall mean Arkitek RekaJaya.					
D	The term "Architect" shall mean Arkitek RekaJaya					
E	The term "C & S Engineer" shall mean Othman & Associates					
F	The term "M & E Engineer" shall mean LKA Konsult Sdn. Bhd.					
G	The term "Quantity Surveyor" shall mean MRBC Partnership					
H	The term "Contractor" shall mean the Contractor awarded the Contract for the whole works.					
J	The term "Nominated Subcontractor" shall mean any Contractor awarded the Contract for specialist works and who shall become a Nominated Subcontractor under the terms of the Contract. <u>Location of Site</u>					
K	The site is situated on Lot 62514 at Kampong Jalan Kebangsaan, Mukim Kianggeh <u>Site Conditions</u>					
L	The Contractor's working space and the areas for workyards, storage of materials, etc. will be restricted to the area within the site					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) GENERAL</u>					
	<u>Description of Works</u>					
A	The works which shall be carried out under this Contract comprise the supply of all materials, labour, plant, tools and equipment required for the execution and completion of the following, summarised briefly as belows:-					
B	1) Chancery Building					
C	2) Staff Residences (RG & NRG)					
D	3) All Mechanical and Electrical Works					
E	4) All associated External Works					
	<u>SITE VISIT</u>					
F	The Contractor is deemed to have visited the site while preparing the tender to ascertain for himself the extent of the work involved and the nature of the working conditions and make himself thoroughly acquainted with any site restrictions, obstruction and all other details liable to affect his tender, allow the same, as no claim for extra payment in respect of the above will be entertained.					
	<u>CONDITIONS OF CONTRACT</u>					
G	The Articles of Agreement and Conditions of Contract will be those contained in the Government of Brunei Darussalam Standard Form of Building Contract for use where Quantities form part of the Contract.					
H	The price in the Bills of Quantities shall be deemed to cover the cost of complying with the clauses.					
J	Banker's Guarantee Clause					
K	(i) Provide a Banker's Guarantee obtained from a Local Bank approved by the Employer to be jointly and severally bound to the Employer in a sum equal to 5% (ten percent) of the Contract Sum, valid for Contract Period plus Nine (9) months thereafter					
PTE159					To Collection \$	
BQ/2						

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) CONDITIONS OF CONTRACT</u>					
A	(ii) The Banker's Guarantee is to be provided in consideration of the Employer not insisting on the Contractor paying ten percent of the value of the Contract as a Security Deposit. The term of the Bond shall be approved by the Employer and the cost of obtaining such and 'all-respect' guarantee shall be at the expense of the Contractor.					
B	(iii) The Banker's Guarantee shall be extended where necessary to the expected completion date two weeks before the expiry of the Banker's Guarantee.					
C	Progress Payments Clause					
D	The value of the Contractor's materials (excluding Nominated Sub-Contractors materials) to be included in the Certificate is 80% of the full value of the materials at the current market rates of 80% of the element included for materials in the relevant Contract Rate whichever is the lower.					
E	The term, 'Current market rates' means the prices usually paid by the Contractor for materials plus cartage at the date of his tender or such price plus cartage paid by the Contractor at the time the materials are supplied to the site, whichever is the lower. Prices are to be substantiated by invoices from the supplier.					
	<u>INSURANCES</u>					
F	All insurances shall be effected with internationally recognised insurance companies approved by the Superintending Officer in writing. The Workmen's Compensation Policy and Public Liability Policy shall remain in force until expiry date of Defects Liability Period.					
G	Provide the following insurance policies and such other insurances as may be necessary to protect the Contractor's and the Government interests:-					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) INSURANCES</u>					
A	(a) Workmen's Compensation Policy in the joint names of the Government and the Contractor including period of Defect Liability Period.					
B	(b) Public Liability Policy in the joint names of the Government and the Contractor including period of Defect Liability Period.					
C	(c) Fire Policy in the joint names of the Government and the Contractor including demolition and clearing of fire damaged structures, debris, etc.					
D	The limit of indemnity for the Public Liability Policy is to be B\$1,000,000.00 per accident with the number of accidents unlimited. The policy is to be endorsed as follows:-					
E	(a) 'Property of the Employer's employees and consultants of the Government and Property belonging to the employees and consultants of the Government shall for the purpose of this policy be treated and covered as Third Party Liabilities'.					
F	(b) Each of the parties comprising the insured shall for the purpose of this policy be considered as a separate and distinct unit and the words 'the insured' shall be considered as applying to each party in the same manner as if a separate policy had been issued to each of the said parties and insurers hereby agree to waive all rights of subrogation or action which they may have or acquire against any or the aforesaid parties arising out of any accident in respect of which any claims is made hereunder provided nevertheless that nothing in this clause shall be deemed to increase the limit of indemnity in respect of any one occurrence or series of occurrence.					
G	The third party liability insurances generally will cover:-					
H	(a) Accidental bodily injury or death to third parties.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>(Cont) INSURANCES</u>						
A	(b) Injury or damage to property belonging to third parties.					
B	(c) Vibration, removal or weakening of support.					
C	Excess clause and all 'minimums' if not deleted by the Insurer shall be borne by the Contractor.					
D	Policies of insurances shall be deposited with the Superintending Officer. Evidence of payment of Insurances premiums must be presented to the Superintending Officer who on receipt of such evidence will include the premium in the first interim certificate and the balance (should the sum allowed herein exceeded the actual premium) shall be paid progressively.					
E	The Contractor is to comply with the Current Government Enactment in force on Workmen's Compensation insurances, Public Liability insurances and any other requirements imposed by the Contract.					
<u>SETTING OUT AND SITE LEVELS</u>						
F	Prior to the commencement of any excavation, the Contractor is to make a survey of the site showing relevant site dimensions and existing ground levels. The Contractor shall agree the survey and the levels obtained with the Superintending Officer in writing and the said levels, after agreement, will be used as the basis for measurement.					
G	The Contractor is to engage the services of a Licensed Surveyor to carry out a site survey as required by the Superintending Officer before work commences and to establish boundaries, redefinition including boundary stone establishment on completion of the works.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>(Cont) SETTING OUT AND SITE LEVELS</u>						
A	Responsibility for the accuracy of setting out will be entirely the Contractor's, whether or not the setting out is performed and directed by the Superintending Officer. It is the Contractor's responsibility to ensure that the setting out is accurate.					
<u>COMPLETION JOINT-SURVEY AND AS-BUILT DRAWING</u>						
B	On completion of this Contract, the Contractor shall employ a Licensed Surveyor to carry out an "as-constructed" survey for checking and determining the accuracy of the works executed. The Contractor shall rectify any works found inaccurately done to the approval of the Superintending Officer and all expenses arising out of such rectification shall be borne by the Contractor.					
C	The aforesaid survey shall include checking of the actual finished levels on site and the Contractor shall record the surveys on approved drawings which shall show the levels on plan with gridlines at intervals not exceeding 15 metres both ways and on which all levels shall be referred to Brunei Datum. The Contractor shall produce all necessary sectional drawings of the surveyed land and supply four sets plus the original of all the approved survey drawings to the Superintending Officer.					
D	The Contractor shall produce as-constructed drawings showing the positions of works executed all to the approval of the Superintending Officer, and shall supply the drawings to the Superintending Officer .					
<u>PLANT, TOOLS AND VEHICLES</u>						
E	Provide and maintain all necessary plant, equipment, tools and vehicles for the proper execution and completion of the works and clear away same on completion.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>GENERAL SCAFFOLDING</u>					
A	Provide, maintain and remove when directed by the Superintending Officer and make good all temporary scaffolding with staging, planked footways, guardrails and the like and to whatever height as may be required for the use of workmen in accordance with the requirements of the Superintending Officer and the Authorities.					
	<u>SITE ADMINISTRATION</u>					
B	Provide for all on and off site management and supervisory costs and charges including the cost of foremen-in-charge.					
C	The foremen-in-charge must be suitably qualified and competent and shall not be changed without one month's written notice of the Superintending Officer.					
D	A project organisation chart should be submitted stating the persons who will be involved in the project.					
	<u>SITE SECURITY</u>					
E	Provide all necessary fencing, watching and lighting for the Security of the Works, material and plants against damage and theft.					
	<u>PROTECTING THE WORKS FROM INCLEMENT WEATHER</u>					
F	The Contractor shall be deemed to have taken all possible weather and tidal conditions into account when preparing his tender and shall not be entitled to extra payment by reason of the occurrence or effect of excessive rainfall, temperatures or humidity, high winds, waves, tides or any other meteorological or tidal phenomena.					
G	The Contractor shall make suitable arrangements to protect the works, temporary works and constructional plant against the effect of weather and tidal conditions.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>WATER FOR WORKS</u>						
A	Provide all fresh clean pure water required including storage facilities for use in the works.					
B	Comply with the Public Works Department's guideline for the temporary supplier.					
C	Pay all costs and charges in connection with water for the Works. Alter, shift and adapt from time to time as necessary. Clean away and make good on completion.					
<u>TEMPORARY LIGHTING AND POWER</u>						
D	Provide temporary artificial lighting and electric power for the works including that of nominated subcontractor's. Where supply is not available, the Contractor shall provide and maintain adequate generator sets to meet the temporary consumption.					
E	Comply with the Electrical Department's guide-line for the temporary supplies.					
F	Pay all costs and charges in connection with temporary lighting and power for the works including that for testing equipment and services for nominated subcontractors. Alter, shift and adapt from time to time as necessary. Disconnect, clear away and make good on completion.					
<u>TEMPORARY ROADS, HARDSTANDING, CULVERTS, VEHICLES CROSSING, ETC.</u>						
G	Provide, maintain and alter as necessary all temporary access roads, tracks, paths, hardstanding, pavement crossing, culverts, other temporary works and the like and remove and make good on completion.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>TEMPORARY OFFICE AND FACILITIES FOR CONSULTANTS AND CONTRACTORS</u>						
A	Provide and maintain at a position on or off site to be agreed with the Superintending Officer air-conditioning office with meeting facilities for the use of the Consultants', Contractor's and all nominated subcontractors' staff. Repaint, alter, shift and adapt from time to time as required, as directed and removed on completion of the works.					
B	The Contractor shall not be permitted to construct temporary building to accommodate his workmen on site without the approval of the Superintending Officer.					
C	Provide and maintain at position to be agreed with the Superintending Officer watertight temporary sheds for the storage of materials, tools and equipment for the use of his own workpeople. Provide and maintain covered working areas if required. Repaint, alter, shift and adapt from time to time as required or as directed and remove on completion of the works.					
<u>COMMUNICATION</u>						
D	Provide and maintain telephone services or other means of communication to the Contractor's site office as may be necessary for the full period of the works and pay all charges and expenses in connection therewith and remove on completion.					
<u>TRAFFIC REGULATIONS</u>						
E	The Contractor shall comply with all Bye-Laws issued by Land Transport Department and other relevant Authorities throughout his work and shall meet the requirements regarding the traffic regulations issued from time to time.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
<p><u>SAFETY, HEALTH AND WELFARE OF PEOPLE</u></p> <p>Pay all costs and charges incurred by and comply with all standard and construction site health, safety and welfare regulations appertaining to all persons employed on the site.</p> <p>The Contractor shall comply with Guidance Document - Guidelines for Safety Organisation and Guidelines for Safety on Construction Site 1994 throughout his work and shall meet the requirements regarding the Safety Guidelines issued by Ministry of Development</p> <p>The Contractor shall provide twenty (20) No. safety helmets and twenty (20) pairs of safety boots for relevant authorities personnels and guests.</p> <p><u>CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</u></p> <p><u>Legal Requirements and Regulations</u></p> <p>Allow for all costs and charges incurred by complying with all safety regulations of Government appertaining to all persons employed on or visitors to the site including those employed by all Sub-Contractor's and Superintending Officer's representatives.</p> <p>Contractor shall comply with all applicable safety laws (whether international, national regional, local/PWD or otherwise) regulations and safe operating standards and shall take all necessary safety precautions related to or arising out of the performance of the contract in order to protect the work, the personnel and property of the Employer, contractor and all third parties.</p>					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>(Cont) CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</u>						
<u>(Cont) Legal Requirements and Regulations</u>						
A	The Contractor is responsible for the support services in areas of safety, fire protection and prevention, industrial hygiene and is obliged to comply with by virtue of statutory requirements as well as being part of the contractual requirements. It is the responsibility of the Contractor that he, his employees and their sub-contracts are aware of and familiar with the safety rules and practices as authorised by the Superintending Officer.					
B	A qualified and competent Safety officer must be assigned full time in the project. The Contractor to provide safety programme in accordance to safety regulations of Government.					
C	The Contractor is also responsible for performing work under the contract in a healthy and safe manner including protecting the safety and welfare of other sub-contractors.					
<u>Termination and Suspension</u>						
D	Any infringements by the contractor identified by the Superintending Officer of the above laws, regulations and safe operating standards shall be promptly remedied at contractor's expense.					
E	The Superintending Officer reserves the right to stop the work at Contractor's expense until such unsafe acts and situations have been rectified and in the event of serious or repeated infringements, may terminate the contract without compensation.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>(Cont) CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</u>						
<u>Safety Equipment</u>						
A	Contractor shall at its own expense provide adequate first aid equipment, fire extinguishers and other safety equipment of an approved type and amount, as may be specified (or expected in accordance with good working practices) in connection with this contract and shall maintain this equipment in a professional manner as instructed by the Superintending Officer.					
B	Ensure at all times that the equipment shall be periodically inspected by a competent internationally recognised authority and certified by such authority to be in a safe working condition.					
<u>Protective Personal Equipment</u>						
C	Contractor shall, at his own expense, supply his personnel and sub-contractor's personnel, required in connection with the safe performance of the work, with adequate protective personal clothing and other protective equipment which shall be maintained in good condition or replaced and shall be worn on relevant occasions as indicated by notices, instructions and good practice. These shall include safety shoes, safety helmets, eye goggles, hand gloves, safety belts and harness etc.					
<u>Hygiene</u>						
D	Contractor shall ensure that his personnel and sub-contractor's personnel maintain the highest standard of hygiene in connection with the performance of this contract.					
<u>Housekeeping</u>						
E	Contractor shall ensure that good housekeeping is maintained continuously throughout the duration of the work with due regards being paid to tidiness, access ways and disposal of scrap materials and rubbish.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>(Cont) CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</u>						
<u>Safety Warning Signs and Colours</u>						
A	Safety sign shall comply with BS.5378 : Part 1 & Part 2 : 1980 and Part 3 : 1982. All safety sign should be identified in one or more of the four basic categories such as prohibition, warning, mandatory or safe condition.					
<u>Design Symbols</u>						
B	The design symbols shall be as simple as possible and details not essential for the understanding of the message shall be omitted.					
C	Caution signs shall show the nature of the danger.					
D	Mandatory sign shall show only what is being mandated and prohibition signs shall show only what, or who is prohibited.					
<u>Colour, Shape and Layout</u>						
E	The Colour, Shape and Layout of the signs shall comply with BS.5378 : Part 1 and the colorimetric and photometric properties shall comply with BS.5378 : Part 2.					
<u>General Safety Provisions</u>						
F	Suitable overhead protection (in the form of safety nets, catch platforms and hoardings, etc.) are to be provided where persons are required to work or pass by places that are normally exposed to falling materials or objects.					
<u>Accident/ Incident Reporting</u>						
G	Report to the Superintending Officer, any accident or incident irrespective of whether injury to personnel, damage to property, plant or equipment, fire and a "near-miss" situation which might have led to one of the above mentioned consequences.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>(Cont) CONSTRUCTION SITE SAFETY, HEALTH AND WELFARE</u>						
<u>Safety Meetings</u>						
A	Contractor shall be responsible for maintaining and enhancing the safety awareness of its personnel and sub-contractor's personnel, including arranging safety meetings.					
<u>First-Aid</u>						
B	Make arrangements for first-aid treatment to be available on site at all times. Adequate and suitable first-aid equipment shall be provided. All work-people and others on site shall be informed of the location of such equipment and treatment positions.					
<u>Anti-malarial Measures</u>						
C	Take all necessary measures to prevent the breeding and presence of mosquitoes on the site and pay any charges levied by the relevant authorities for anti-malarial measures.					
<u>CONSTRUCTION SITE SAFETY - BASIC SAFETY</u>						
<u>Site Tidiness</u>						
D	Materials, tools and equipments shall be properly stacked and stored at designated places. Electrical switchboards, emergency switches, alarms, fire fighting equipments, first aid equipments and exits shall be indicated and remain unobstructed.					
<u>Excavation</u>						
E	Excavation must have adequate and proper shoring and side supports with access complete with barriers and conspicuous warning sign. The edge must be stable and barricaded at a safe clearance from vehicles, equipments and workers.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) CONSTRUCTION SITE SAFETY - BASIC SAFETY					
	<u>Machinery and Plant</u>					
A	Machinery and plant must be clean and properly maintained with guards on moving parts. They must have stable, firm base and properly supported and operated by skilled operators.					
	<u>Temporary Electrical Works</u>					
B	All temporary electrical works must have appropriate connection to main lines with meters and fuses. All wires and cables must be properly fastened, supported and neatly installed with protection from being wet and from workers, vehicles and equipments when at ground/floor surface. The works must be installed and maintained by competent electrician.					
	<u>Roof Works</u>					
C	Roofers must be provided with adequate and safety gears, crawl boards and ladders. Materials must be stacked safely on roof with easy and safe access for workers.					
	<u>Gas/ Arc Welding and Cutting</u>					
D	Ensuring appropriate and safe handling, stacking and location of gas cylinders. All electrical arc welding equipments, hoses, cables must be protected. Warning signs and protective gears to be used and the works operated by competent and qualified welders and fabricators.					
	<u>Periodic Inspection</u>					
E	Ensure that all items of equipment shall be periodically inspected by a competent internationally recognised authority and certified by such authority to be in a safe working conditions.					
	<u>LABOUR ON COST</u>					
F	Provide for all costs, payment and charges in respect of all employees for:-					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>(Cont) LABOUR ON COST</u>						
1) Annual and Public Holidays						
2) Travelling time, expenses, fares and transport						
3) Non-productive time and other expenses in connection with overtime						
4) Incentive and bonus payments						
5) Payment of Labour Deposits or cost of providing Banker's Guarantee in lieu of such deposit						
6) Any other payments and charges arising from the employment of workmen						
<u>MAINTENANCE OF PUBLIC AND PRIVATE ROADS</u>						
A	Keep the approaches to the site free from excavated materials, mud and debris.					
B	Maintain public and private road, footpaths, roadside drains, kerbs and like, and make good any damage caused including that caused by all Sub-Contractor and supplier to the satisfaction of Superintending Officer and pay all costs and charges in connection therewith.					
C	Where appropriate or where directed by the Superintending Officer or other competent authority the Contractors shall erect and maintain such temporary warning lights and flags as directed and required to emphasize danger from any works or construction plant.					
<u>REMOVAL OF RUBBISH</u>						
D	Keep the site tidy and free from rubbish, debris and the like.					
E	Provide all necessary containers like metal 'skip' and remove all rubbish, debris and the like from the site to approved dumping areas at regular intervals.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>(Cont) REMOVAL OF RUBBISH</u>						
A	Burning of rubbish on site is strictly prohibited.					
<u>CLEARING UPON COMPLETION</u>						
B	On completion of the works all plants, building appliances, apparatus or equipment are to be removed as quickly as possible and conveyed away from the site at the sole cost of the Contractor. All services and leads, temporary buildings, shed, barriers, scaffolding, etc. required in the work construction are to be disconnected, dismantled, taken down and removed.					
C	All holes, trenches, excavation in connection with plant, etc. are to be filled in a proper manner, levelled of and closely turfed and the site left in a clean and orderly conditions.					
D	In the event of the Contractor not clearing away the above mentioned materials, plant and other temporary works within a stipulated time, the Employer shall arrange for same to be executed by some other party and the cost of such clearing away shall be adjusted against the Contractor's Final Account. Employer will not be held responsible or liable for any material or plant left upon the site.					
E	Before handing over the Works to the Superintending Officer, the Contractor shall scrub all floors, pavings, staircase, etc. and cleaning out all gutters, gulleys, manholes, sumps and drains. The Contractor shall also clean all glass panes and leave every part of the completed works included in this Contract in clean, sound and tidy condition to the approval of the Superintending Officer.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>NUISANCE</u>						
A	The amount of noise made on the works is to be kept to minimum. Generators, compressors and other noisy plants are to be muffled at all times by means of silencers, screens and the like.					
B	Make all precautions to prevent the starting and spread of fire and provide suitable fire fighting equipment.					
C	Take all reasonable measures to prevent nuisance by dust by regular watering or other appropriate means and as when the need arises or when instructed by the Superintending Officer.					
D	The Contractor shall not obstruct any public way or do any thing which may amount to a nuisance or annoyance, and shall not interfere with any right of way or light to adjoining property and may upon notice received by him or left upon the site requiring the discontinuance or suspension of any part of the works shall at once be forwarded by him to the Superintending Officer or if given verbally, shall at once be communicated by him to the Superintending Officer in writing and the Contractor shall keep the Employer indemnified against any claim or omission of the Contractor or his agents, servants or workmen in this respect.					
<u>SAMPLES</u>						
E	Samples of materials and fittings shall be submitted for approval prior to any order by the Contractor and as early in the Contract as possible. All samples which are approved shall indicate the standard to be maintained in the execution of the works.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>TEST</u>						
A	Arrange for test of any materials or workmanship to be carried out as and when the Superintending Officer may direct and either at on or off-site laboratories as instructed. Pay all costs and charges in connection therewith.					
<u>SHOP DRAWINGS</u>						
B	Prepare and submit to the Superintending Officer for approval prior to ordering materials or commencing any works, fully detailed and dimensioned shop drawings as stated below. Obtain the Superintending Officer written approval to the drawings.					
	(a) Structural Steelworks					
	(b) Metalworks					
	(c) Doors and Windows					
	(d) Plumbing and Sanitary					
	(e) Mechanical and Electrical Works					
	(f) Other Proprietary or Prefabricated Items					
<u>RECORD DRAWINGS</u>						
C	The Contractor shall make accurate records of those parts of the works which will become hidden by further progress as may be directed by Superintending Officer. Such records shall be checked and verified by the Superintending Officer while the work is open for inspection. Records shall be entered by the Contractor on prints of drawings which will be made available to him free of cost for this purpose, amplified by him with supplementary dimensioned sketches and handed to the Superintending Officer as soon as practicable.					
D	This record drawings will be used for the preparation of as built drawings.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>OPERATING AND MAINTENANCE INSTRUCTION</u>					
A	Obtain and hand over to the Superintending Officer upon completion any operating and maintenance instruction provided by manufacturers, suppliers or sub-contractors.					
	<u>PROGRESS PHOTOGRAPHS</u>					
B	Provide six sets of photographs to the Superintending Officer before commencement of the works and thereafter on the first day of each month adequately recording the progress on site. Each set of not exceeding 20 copies suitably dated and titled taken from various elevations as directed by the Superintending Officer. The Contractor shall also provide necessary album for safe keeping of the progress photographs.					
C	In addition to the progress photographs, the Contractor is required to submit together with each of his monthly progress payment application, all necessary photographic records (in 6 sets or more) showing his work done to date and materials delivered to site to facilitate the processing of progress payment.					
	<u>GENERAL ATTENDANCE</u>					
D	Provide the general attendance of one trade upon another.					
	<u>CONTRACTOR'S MECHANICAL AND ELECTRICAL CO-ORDINATOR</u>					
E	The Contractor shall submit for approval within 7 days from the day of acceptance of his tender the name and particulars of an English speaking, specially qualified and experienced supervisor for co-ordinating the specialist's work with the Main Contractor and other Nominated Subcontractors over the whole Contract period and he shall be in attendance full time on the works. He must have not less than 5 years experience in site management relating to Mechanical and Electrical co-ordination works.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>PROTECTING THE WORKS</u>					
A	Take all necessary protective measures as directed throughout the currency of the Contract to protect all finished work from damage or deterioration because of the activities of any workpeople (including those of the Employer's separate specialist Contractors) or of any other cause and leave the whole of the works perfect and to the Superintending Officer's satisfaction on completion.					
	<u>EXISTING SERVICES</u>					
B	The Contractor shall take all necessary steps to ascertain the exact positions of existing overhead cables, pipes, ducts, sewers, services main and shall uphold, protect and maintain all these and other services of the like nature during excavations for the purpose of this Contract and make good or pay for making good all damage thereto and any consequential damage or loss arising out of such damage.					
C	In the case where the services are to be temporarily terminated or diverted, the Contractor shall give the necessary notices to the appropriate Authorities and arrange for the work to be carried out and pay all charges in connection therewith.					
	<u>PROTECT PROPERTY</u>					
D	Take all adequate and reasonable measures to protect any private properties. Make good all damages due to any cause within the Contractor's control at his own expense or pay all costs and charges in connection therewith.					
	<u>ORDERING AND DELIVERY OF MATERIALS</u>					
E	The Bills of Quantities is not a schedule of material and the Contractor should not order any materials from the quantities and sizes stated in these Bills of Quantities but must take all quantities and sizes from the drawings.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>MATERIALS FROM GOVERNMENT STORE</u>						
A	When materials are required to be obtained from Government stores the Contractor is to load and transport these to site and is to return any returnable crates, drums or other containers, which will otherwise be charged to his account.					
<u>COVERING UP</u>						
B	No work shall be covered until it has been examined and approved by the Superintending Officer.					
C	Failure by the Contractor to inform the Superintending Officer on time before covering up the work may render his claim null and void.					
<u>LOADING IN EXCESS OF DESIGN LOAD</u>						
D	No loading in excess of the design loading shall be placed on any portion of the structure without the written permission of the Superintending Officer.					
E	If such permission is granted all structural members subjected to loading other than design shall be strengthened and supported to the satisfaction of the Superintending Officer and the Contractor will bear all additional expenditure.					
F	Notwithstanding the written permission of the Superintending Officer the Contractor shall bear all costs arising out of the making good of any damage to the permanent structure caused by excess loading.					
PTE159					To Collection \$	
BQ/22						

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>ROYALTIES AND PATENT RIGHT</u>					
A	All royalties or other sums payable in respect of the supply and use in carrying out the works as described in or referred to in Contract Bills of any patented articles, processes or inventions shall be deemed to have been included in the Contract Sum and the Contractor shall indemnify Employer from and against all claims, proceeding, damages, costs and expenses which may be brought or made against Employer or to which the Employer may be put by reason of the Contractor infringing or being held to have infringed any patent rights in relation to any articles, processes and inventions.					
B	A Provisional Sum (where applicable) has been included elsewhere in these Bills as payment according to circular imposed by the Brunei Government Lands Department in connection with filling material imported to the site.					
	<u>CUSTOMS RESTRICTIONS AND DUTIES</u>					
C	Provide for all cost incurred in connection with customs restrictions, quotas, duties and taxes.					
	<u>KEEPING SITE DRY</u>					
D	The Contractor shall be responsible for keeping the whole of the works well drained and free from all water.					
	<u>TEMPORARY DRAINAGE, SILT TRAPS AND OTHER ANTI EROSION MEASURES</u>					
E	The Contractor shall during the course of the works take such additional measures including construction of temporary drainage, silt traps and other anti-erosion measure etc. as necessary, to prevent the movement of eroded materials and debris from construction areas and/ or other erosion of any parts of the site.					
F	Construct stormwater drains along temporary roads, hardstanding, etc. to the satisfaction of the Superintending Officer.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>TRESPASS</u>					
A	The Contractor shall prevent any trespass onto the adjacent properties by his own employees or those of 'Sub-Contractors' and shall indemnify Employer against any claims, costs of proceedings whatsoever arising out of any trespass.					
	<u>METRICATION</u>					
B	The Contractor is to bear all procedural and administration costs in connection with ordering and usage of materials which is specified in either metric or imperial dimension.					
C	The Contractor will not be allowed reimbursement of additional costs should the nearest suitable and acceptable imperial sized material to the metric sized specified or vice-versa be more costly.					
	<u>CO-OPERATION AND CO-ORDINATION</u>					
D	Co-operate with all other persons who are on the site with the authority of the Employer. Co-ordinate the Works such that they may be completed in the most efficient and acceptable manner.					
E	The Contractor shall permit other Contractors and the Employer to use any part of the Works.					
	<u>RESPONSIBILITY</u>					
F	Where the Contractor does not price an item in the Preliminaries or inserts a dash against any item in the Bills of Quantities, the value therefore will be deemed to be included in the rates contained in the Bills of Quantities.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>(Cont) RESPONSIBILITY</u>						
A	The Contractor is to exercise care in pricing items of similar description throughout the Bills of Quantities. In pricing variations arising from Superintending Officer's instructions, the Quantity Surveyor will apply the lowest rate for any individual item where unit rates vary from element to element or from section to section.					
B	Whether expressly stated or not in these Bills of Quantities all description, specification and quantities are implied to be directed at or towards the tenderer tendering for and later awarded the Contract. No allowance will be made for non compliance with any clause due to lack of understanding. The tenderer shall price every item for which he requires remuneration. If any item is not priced it shall be deemed that the tenderer required no remuneration or that no cost to the tenderer is involved in compliance with the particular clause.					
C	All the provisional quantities and/ or items stated in these Bills of Quantities shall be remeasured according to the latest drawings or as directed at site. No claim shall be entertained in respect of any item omitted entirely or in part or alternatively increased in quantity by any amount in respect to the Bills.					
<u>PROTECTION OF AND DAMAGE TO ADJOINING EXISTING BUILDINGS, OCCUPANTS, ETC.</u>						
D	The Contractor is to allow for all test pits to locate existing foundations, underpinning, all requisite shoring, needling, strutting and other supports, screens, barricades, etc., for the protection of operatives, site staff, occupants, adjoining property and the public, and alter, adapt and maintain them as necessary.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) PROTECTION OF AND DAMAGE TO ADJOINING EXISTING BUILDINGS, OCCUPANTS, ETC.</u>					
A	The Contractor shall carry out the works in such manner and with such care that no damage shall be caused to adjoining and neighbouring buildings, structures, drains, etc.					
B	Should the Contractor damage any of the adjoining and neighbouring buildings, structures, drains, etc., he shall be liable for making good all works disturbed to adjoining and neighbouring buildings and shall indemnify the Employer in respect of claims or proceedings arising out of the neglect of this clause.					
C	It is the responsibility of the Contractor to protect the adjacent buildings against movement caused by settlement during and after construction of the new building.					
	<u>HOARDING</u>					
D	Provide, erect and maintain adequate, secure and safe metal / timber hoarding as approved by the S. O. including removal after completion					
E	The Contractor is to liase with the Superintending Officer on the exact location of the hoarding line based on site condition and the client's requirement, and to the approval and satisfaction of the Superintending Officer.					
	<u>PROJECT NAME BOARDS</u>					
F	The Contractor shall provide, erect and maintain standard size painted timber name boards with pitched roof showing the project name, Client, Consultants, Main Contractor and other sub-contractors as required and directed by the Superintending Officer					
G	The design wording, sitting and maintenance of the boards shall be approved by Superintending Officer prior to it being erected.					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) PROJECT NAME BOARDS</u>					
A	All boards are to be removed on completion of the works.					
	<u>GROUND BREAKING CEREMONY</u>					
B	Allow for ground breaking ceremony when required prior to laying of foundation and the date shall be confirmed by the S.O. The Contractor shall provide and remove on completion proper access, platform, wheel barrow, safety outfit, tent, electricity, water. etc.					
C	No claim or extension of time shall be entertained on the ground of ignorance of this clause.					
	<u>MOCK-UP</u>					
D	Allow here for all costs in connection with the construction and completion of a mock-up as shown and specified on drawings.					
E	The Contractor's attention is drawn to the fact that all the Architectural and Structural Works are measured and included in the Measured Works Bills of Quantities but the Contractor shall bear all costs and charges incurred for buying small quantities of material in advance and for the constructing the mock-up "out of sequence" with the overall master program					
F	Priority must be given in the Contractor's overall program for executing the mock-up well ahead of the rest of the works					
G	The Contractor shall liaise closely with Consultants especially with regards to the approval of sample to be used in the mock-up. The Contractor shall ensure that the progress of the works in the other areas is not adversely affected and should progress as per the master program. No claims will be entertained on the ground of disruption, inconvenience and/ or ignorance of this clause					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
<u>GENERAL CONDITIONS & OTHER PRELIMINARIES</u>						
A	Allow here for complying with the general conditions and other preliminary items, etc. and provide all things required necessary for the complete execution of the Works herein, all to the approval and satisfaction of the Architect (Tenderers must specify items involved therein)					
<u>OTHER WORKS NECESSARY</u>						
B	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
Page No. BQ/6					
Page No. BQ/7					
Page No. BQ/8					
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Page No. BQ/14					
Page No. BQ/15					
Page No. BQ/16					
Page No. BQ/17					
Page No. BQ/18					
Page No. BQ/19					
Page No. BQ/20					
Page No. BQ/21					
Page No. BQ/22					
Page No. BQ/23					
PTE159					
BQ/29					

BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
COLLECTION					
Page No. BQ/24					
Page No. BQ/25					
Page No. BQ/26					
Page No. BQ/27					
Page No. BQ/28					
BILL 1B - GENERALLY AND PRELIMINARIES (CHANCERY BUILDING & STAFF RESIDENCES) Carried to Summary					

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - GENERAL NOTE</u>					
<u>NOTES</u>					
The bills are to be read and priced in conjunction with the drawings, specification and include all works described / shown in bills and drawings		Note			
The Contractor is to comply with the conditions of contract, specification, all preliminaries, etc. necessary for the complete execution of the works		Note			
The Contractor shall be responsible for applying and obtaining all required permits from the relevant authorities for temporary accesses, etc. and for payment of fees thereof		Note			
The Contractor must visit the site so as to take into consideration existing conditions and to have satisfied himself as to the nature of the site, soil condition, facilities for access, mobilisation of plants, etc. required under this contract. No claims will be allowed on the grounds of ignorance of the conditions under which the works will be executed		Note			
Prior to the commencement of any work, the levels of the original surface of the site including all slopes shall be agreed by the Superintending Officer in accordance with Preliminaries under 'Setting Out and Site Levels' and on completion of this works, the Contractor must submit as built drawings as required in Preliminaries under 'Completion Joint-Survey and As Built Drawing' which shall form the basis of measurement		Note			
The Contractor shall take all measures to protect the existing cables and services that is not affected by his scope of work. Any such damage caused by the Contractor shall be made good at the expense of the Contractor and to the satisfaction of the Superintending Officer		Note			
PTE159	To Collection \$				
BQ/1					

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - GENERAL NOTE (Cont)</u> <u>(Cont) NOTES</u> All making good shall be executed with materials and workmanship to match in every respect of the surrounding work and shall be properly done thereto to the complete satisfaction of the S.O. Unless otherwise specified, all materials and debris resulting from the clearing shall be stacked and removed completely from the site. On no account shall cleared timber or other materials be deposited in areas to be filled. Burning on site shall be prohibited No tipping on the adjoining land shall be allowed in this contract. The Contractor is therefore to make his own arrangements for disposal of all surplus excavated materials where directed and is to pay all charges in connection therewith Tenderer shall make his own assessment from all drawings and specification issued at the time of tendering. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained		Note			
		Note			
		Note			
		Note			
To Collection \$					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - PILING</u>					
	<u>BORED PILE (ALL PROVISIONAL)</u>					
	Length of bored piles may vary up to 12 m		Note			
	The bored piles shall be installed into approximately 4 m of stiff clay layer and 5 m of hard strata below		Note			
	Temporary casing shall be used while drilling and be withdrawn during concreting		Note			
A	Top 6 m length of bored pile shall have reinforcement cage as specified in the bored pile schedule					
	Excentricity for each pile shall not exceed 50 mm in each direction from the specified location		Note			
	Piling Contractor shall submit soil samples in sealed containers, taken every 1 m during boring for bored piles to S.O.'s representative on site		Note			
	Minimum cement content for concrete shall be 400 kg/m3 when concreting is done under water		Note			
	All details specification and method statement for bored piling to refer to Engineer's drawing piling note		Note			
B	Allow for provision of sufficient number of bored piling machinery, equipments and temporary steel casing for bored pile including transporting to and assembling at site, moving about site as required and finally dismantling and removing from site on completion and clear all debris (allow for all standing time between boring of piles)		Item			
C	Blind boring for 450 mm diameter bored pile	1545	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - PILING (Cont)</u>					
	<u>(Cont) BORED PILE (ALL PROVISIONAL)</u>					
	<u>Boring pile hole and installing bored pile including filling bored pile hole with reinforced concrete (grade 40) and reinforcement bars as shown on Engineer's drawing including removing excavated material from site</u>					
A	450 mm diameter bored pile with 8 nos. 16 mm diameter high tensile bar, 10 mm diameter high tensile spiral links at 200 mm centre pitch	1545	m			
	<u>Cleaning bottom of bored hole to receive concrete</u>					
B	450 mm diameter pile	91	no			
	<u>Labour for cutting off head of bored pile to the required level and remove debris off-site</u>					
C	450 mm diameter pile	91	no			
	<u>Allow for carrying out load test to twice the designed working load on working test pile to Engineer's approval including all necessary platform, kentledges and clearing away on completion</u>					
D	On 450 mm diameter bored pile with working load of 85 tonnes	2	no			
	<u>Allow for carrying out load test to failure on non-working test pile to Engineer's approval including all necessary platform, kentledges and clearing away on completion</u>					
E	On 450 mm diameter bored pile with working load of 85 tonnes	2	no			
	<u>OTHER WORKS NECESSARY</u>					
F	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - SUBSTRUCTURE</u>					
	EXCAVATION					
A	Excavate pit for pile cap and lift pit, commencing from platform level, not exceeding 2.00 m deep, get out part return, fill in, ram and surplus cart away excavated material where directed	148	m3			
B	Excavate trench for ground beam, commencing from platform level, not exceeding 2.00 m deep, get out and cart away excavated material where directed	185	m3			
C	Excavate for ground slab and apron slab commencing from platform level, not exceeding 300 mm, average 200 mm deep, get out and cart away excavated material where directed	1813	m2			
	ANTI-TERMITE TREATMENT					
D	Prepare and apply one coat of organic chlorine or other equal and approved anti-termite chemical treatment to general surfaces as specified (measured flat over ground floor slab and apron slab area; rate to include for treating surfaces of ground beam, footing and the like and for appointing a registered pest control company to carry out the work and also for providing a ten (10) year warranty)	1813	m2			
	DAMP PROOF MEMBRANE					
E	"POLY-FILM 1000" or other equal and approved damp proof membrane laid on prepared bed, seal laps with approved pressure sensitive tape (measured flat over ground floor slab - rate to include for laps, cutting and waste)	1813	m2			
	CONCRETE WORKS					
	<u>50 mm thick lean concrete (grade 15) to underside of</u>					
F	Pile cap	51	m2			
G	Ground beam	231	m2			
H	Ground floor slab	1423	m2			
J	Apron slab	390	m2			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - SUBSTRUCTURE (Cont)</u>					
	(Cont) CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Pile cap	61	m3			
B	Stump	18	m3			
C	Ground beam	139	m3			
D	200 mm thick ground floor slab	118	m2			
E	150 mm thick ground floor slab	1305	m2			
F	150 mm thick apron slab	390	m2			
G	<u>Extra over</u> for non-slip groove line to ramp		Item			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
H	Pile cap	8418	kg			
J	Stump	2637	kg			
K	Ground beam	29468	kg			
L	Ground floor slab	18207	kg			
M	Apron slab	4856	kg			
	<u>Formwork to</u>					
N	Sides of pile cap	324	m2			
P	Sides of stump	197	m2			
Q	Sides of ground beam	1014	m2			
R	Drop in ground slab / apron slab and edge of ground slab / apron slab		Item			
S	Drop in ramp and edge of ramp		Item			

Description		Qty	Unit	Rate	\$	c
<u>BILL 2 - SUBSTRUCTURE (Cont)</u>						
(Cont) CONCRETE WORKS						
A	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
OTHER WORKS NECESSARY						
B	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159		To Collection \$				
BQ/3						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - FRAME</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Suspended beam	57	m3			
B	Column	124	m3			
	<u>10 mm to 32 mm diameter mild steel / high tensile reinforcement bar in</u>					
C	Suspended beam	10602	kg			
D	Column	18228	kg			
	<u>Formwork to</u>					
E	Sides and soffit of suspended beam	523	m2			
F	Sides of column	1337	m2			
	OTHER WORKS NECESSARY					
G	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159					To Collection \$	
BQ/1						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - UPPER FLOOR</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	150 mm thick suspended slab	630	m2			
	<u>10 mm and 12 mm diameter mild steel / high</u> <u>tensile reinforcement bar in</u>					
B	Suspended floor slab	7837	kg			
	<u>Formwork to</u>					
C	Sides and soffit of suspended slab	536	m2			
D	Drop in slab and edge of floor slab		Item			
E	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
	OTHER WORKS NECESSARY					
F	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - ROOF</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Roof beam	134	m3			
B	Gutter beam	4	m3			
C	150 mm thick roof slab	233	m2			
D	200 mm thick roof slab	131	m2			
E	230 mm thick roof slab	31	m2			
F	150 mm thick gutter slab	8	m2			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
G	Roof beam	22780	kg			
H	Roof slab	5647	kg			
J	Gutter beam	681	kg			
K	Gutter slab	100	kg			
	<u>Formwork to</u>					
L	Sides and soffit of roof beam	1112	m2			
M	Sides and soffit of gutter beam	32	m2			
N	Soffit of roof slab	340	m2			
P	Soffit of gutter slab	8	m2			
Q	Drop in slab and edge of slab		Item			
R	Edge of lift core top slab		Item			
S	Reinforced concrete ledge in various thickness including all necessary formwork, reinforcement, finished with all exposed concrete surfaces with approved paint in approved color, waterproofing membrane and etc., all as per Architectural and Engineer's details drawings	83	m2			
PTE159					To Collection \$	
BQ/1						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - ROOF (Cont)</u>					
	(Cont) CONCRETE WORKS					
A	Extra over for forming 500 mm wide x 50 mm depth scupper drain finished with screeding and approved high quality waterproofing to specification and Architect's approval, all as detailed on drawings		Item			
B	Decorative reinforced concrete capping to gutter wall including all necessary formwork, reinforcement and finished all expose surface with 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint in approved colour		Item			
	STRUCTURAL STEEL ROOF MEMBER					
	All steel works members shall be high tensile galvanised steel, welded and bolted together, including all shop and site welding, filling smooth junction, raking and cutting, hoisted and placed in position all as detailed on drawings		Note			
	Rate to include submission of shop drawings		Note			
	Rate to included for sand blast clean to BS4232, degrease and wash clean all steel area and repair all damaged including approved paint to Engineer's approval		Note			
	All steel works members, plates, cleats and bolts shall be high tensile galvanised steel including all necessary approved painting as specified		Note			
	<u>Supply, install and erect the following structural steelworks hoisted and fixed in position to level as accordance to drawing in bolted and welded connection with and including all cutting, drilling, welding and approved metal paint finished (to all expose surfaces), all as detailed on Engineer's drawings</u>					
C	RHS 100 x 200 x 5 mm thick	1787	kg			
D	RHS 120 x 80 x 6.3 mm thick	7163	kg			
E	RHS 70 x 70 x 5 mm thick	3063	kg			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - ROOF (Cont)</u>					
	(Cont) STRUCTURAL STEEL ROOF MEMBER					
A	C15016 lipped C purlin	1001	m			
B	Plates / splicing		Item			
C	Angle Cleat including fasteners		Item			
D	Bolts / anchor bolts including nuts and washers		Item			
E	Holding down bolts		Item			
F	Non shrink grout		Item			
	ROOF COVERING					
	<u>'Shinto' CERAM-FS or other equal and approved clay glazed roof tiles in approved colour to and including 50 x 25 mm treated hardwood battens at approximately 240 mm centre nailed to and including 50 x 75 mm treated hardwood counter battens at 450 mm centres complete with all necessary fixing accessories, all in strict accordance with the manufacturer's instruction (measured nett - no allowance made for laps)</u>					
G	Roofing tiles	1079	m2			
H	Gable left and right capping tiles	31	m			
J	Long gable left and right capping tiles	2	m			
K	Gable corner left or right tiles	6	no			
L	Ridge capping tiles	103	m			
M	Ridge down end tiles	7	no			
N	Ridge end tiles including packing with cement mortar reinforced with BRC wire mesh	5	no			
P	3-Forked ridge tiles	3	no			
Q	Bird stopper (black, 915 mm length)	220	no			
R	3.5 mm dia. x 51 mm GI screw	13000	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - ROOF (Cont)</u>					
	(Cont) ROOF COVERING (Cont) 'Shinto' CERAM-FS or other equal and approved clay glazed roof tiles in approved colour to and including 50 x 25 mm treated hardwood battens at approximately 240 mm centre nailed to and including 50 x 75 mm treated hardwood counter battens at 450 mm centres complete with all necessary fixing accessories, all in strict accordance with the manufacturer's instruction (measured nett - no allowance made for laps)					
A	3.8 mm dia. x 65 mm GI screw with packing	600	no			
B	High tensile colourstrong steel roof sheeting in approved colour, fixed to timber purlin with and including all fixing accessories all to the manufacturer's instruction (measured nett - no allowance made for laps)	1079	m2			
C	22 Gauge plain galvanised iron sub-roofing sheet, with bottom edge folded as shown, sides and end laps minimum 300 mm wide and edges filled with heat resistant silicone sealant (measured nett - no allowance made for laps)	1079	m2			
D	50 mm thick approved fibreglass insulation with and including 1 layer approved double sided aluminium foil and approved wire mesh (measured nett - no allowance for laps)	1079	m2			
E	Approved matching solid hardwood fascia board complete with galvanised angle framing and bracing including all cutting, drilling, welding, bolts and nuts, all as detailed on drawing and in specification	499	m			
F	Longitudinal end flashing, fixed with and including turning down at ends (measured nett - no allowance made for laps)		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - ROOF (Cont)</u>					
	ROOF WATERPROOFING SYSTEM					
	<u>30 mm thick cement and sand (1:3) screed laid to falls to receive waterproofing system to</u>					
A	Roof slab	763	m2			
B	Gutter slab	32	m2			
C	Sides of gutter wall	48	m2			
D	150 mm high upturn skirting	162	m			
E	300 mm high upturn skirting	123	m			
F	Down pipe and outlet		Item			
	<u>'FOSROC' Polyurea or other equal and approved (high quality, environmentally safe, energy saving and elastometric) waterproofing membrane on high-tech polymer chemistry formulation and acrylic polymers forming seamless joint, free water and weather light elastic membrane with heat insulation properties including cement and sand (1:3) screed, laid to fall and all necessary surface preparation with 'FOSROC' or other equal and approved primer 195 (Rate to include for providing a ten (10) years guarantee as specified hereinbefore) to</u>					
G	Roof slab	763	m2			
H	Gutter slab	32	m2			
J	Sides of gutter wall	48	m2			
K	150 mm high upturn skirting	162	m			
L	300 mm high upturn skirting	123	m			
M	Down pipe and outlet		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - ROOF (Cont)</u>					
	RAINWATER GOODS					
A	'TERRAIN' or other equal and approved 100 mm diameter rainwater downpipe with cement solvent joint fixed to concrete or brickwork with and including holderbats, brackets, straps, hangers, bends and the like, finish with approved finishes, to specification, engineer's, manufacturer's and specialist detail, recommendation and architect's approval, all as detailed on drawings	158	m			
B	'TERRAIN' or other equal and approved 100 mm diameter upvc rainwater downpipe with cement solvent joint laid under floor with and including brackets, straps, bends, excavation, backfill, 100 mm thick concrete (grade 20) surround reinforced with one layer BRC A6, formwork and 50 mm thick lean concrete (grade 15) under, all as detailed on drawings	219	m			
C	'TERRAIN' Geberit or other equal and approved 82 mm diameter domed roof outlet to suit 100 mm diameter upvc rainwater downpipe complete with all fixing accessories, all as detailed on drawings	26	no			
D	'TERRAIN' or other equal and approved 75 mm diameter upvc overflow pipe casted in reinforced concrete gutter wall, including all fixing accessories, finished with approved finishes to specification and architect's approval, all as detailed on drawings		Item			
	FINISHES					
	<u>20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to</u>					
E	Sides of gutter wall	83	m2			
F	Soffit of gutter slab	16	m2			
G	<u>Extra over</u> for drip mould		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - ROOF (Cont)</u>					
	(Cont) FINISHES					
	(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) to					
A	Sides of gutter wall	83	m2			
B	Soffit of gutter slab	16	m2			
C	<u>Extra over</u> for drip mould		Item			
	<u>OTHER WORKS NECESSARY</u>					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - ROOF (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
Page No. BQ/6					
Page No. BQ/7					
BILL 2 - ROOF Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - STAIRCASES</u>					
	Contractor to refer Schedule of Finishes for specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Staircase	7	m3			
B	200 mm thick landing slab	10	m2			
	<u>10 to 12 mm diameter high tensile steel reinforcement in</u>					
C	Staircase	1183	kg			
D	Landing slab	590	kg			
	<u>Formwork to</u>					
E	Soffit of staircase	26	m2			
F	Soffit of landing slab	7	m2			
G	Side of stair open stringer 370 mm (maximum) cut to suit profile treads and risers	18	m			
H	Side of undercut riser 150 mm high	80	m			
	HANDRAILING AND BALUSTRADING					
J	1000 mm overall high decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 5 nos of 20 mm diameter stainless steel rod to center welded to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	11	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - STAIRCASES (Cont)</u>					
	(Cont) HANDRAILING AND BALUSTRADING					
A	1000 mm overall high decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 10 mm thick tempered glass balustrade fixed to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	13	m			
	<u>FINISHES</u>					
	<u>20 mm thick cement and sand (1:3) plainface plaster trowelled smooth to</u>					
B	Sloping soffit of staircase	24	m2			
C	Soffit of landing slab	7	m2			
D	Sides of open stringer 370 mm (maximum) wide to suit profile of treads and risers	18	m			
	<u>30 mm thick cement and sand (1:3) screed to receive tiles to</u>					
E	Landing slab	10	m2			
F	300 mm wide tread	74	m			
G	150 mm high undercut riser	80	m			
H	150 mm high tiles skirting	35	m			
	<u>(1.3) 'Cicogress' or other equal and approved 300 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
J	Landing slab	10	m2			
K	300 mm wide tread	74	m			
L	170 mm high undercut riser	80	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - STAIRCASES (Cont)</u>					
	(Cont) FINISHES					
A	(2.2) 'Cicogress' or other equal and approved tiles skirting, 150 mm x 600 mm	35	m			
B	<u>Extra over</u> for forming non-slip nosing tiles	74	m			
	<u>(3.2) 'ICI Dulux' pentelite or other equal and approved paint to plainface plastered (plaster measured seperately) to</u>					
C	Sloping soffit of staircase	24	m2			
D	Soffit of landing slab	7	m2			
E	Sides of open stringer 370 mm (maximum) wide to suit profile of treads and risers	18	m			
	<u>STEPS</u>					
	<u>Construction and completion of external steps including all excavation, reinforcement, reinforced concrete and all necessary formworks complete with all tiles finished, all as shown and detail on Architectural's and Engineer's drawings</u>					
F	300 mm wide steps x 150 mm high risers x 5500 mm length x 3 steps	1	no			
G	300 mm wide steps x 150 mm high risers x 3700 mm length x 4 steps	2	no			
H	300 mm wide steps x 150 mm high risers x 7000 mm length x 4 steps	1	no			
J	300 mm wide steps x 150 mm high risers x 9750 mm length x 3 steps	1	no			
K	300 mm wide steps x 150 mm high risers x 9850 mm length x 3 steps	1	no			
L	300 mm wide steps x 150 mm high risers x 1575 mm length x 1 steps	1	no			
M	165 mm wide steps x 150 mm high risers x 1575 mm length x 2 steps	1	no			

Description	Qty	Unit	Rate	\$	c
<p><u>BILL 2 - STAIRCASES (Cont)</u></p> <p><u>(Cont) STEPS</u></p> <p>OTHER WORKS NECESSARY</p> <p>A Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)</p> <p>1) _____</p> <p>2) _____</p> <p>3) _____</p>		Item			
PTE159	BQ/4	To Collection \$			

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - STAIRCASES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
BILL 2 - STAIRCASES					
Carried to Summary					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - EXTERNAL WALLS</u>					
	BRICKWALL					
	<u>Common brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course</u>					
A	115 mm thick brickwall	437	m2			
B	150 mm thick brickwall	10	m2			
C	300 mm thick cavity brickwall	420	m2			
D	415 mm thick cavity brickwall	105	m2			
	TIMBER LOUVERS SCREEN					
E	Supply and install solid timber screen with various profile in selective water based coating finished to approved colour complete with all framing and fixing accesories, built into concrete all support frames, all as per details on Architectural drawings and in strict accordance with the manufacturer's instructions and specification	145	m2			
	DECORATIVE SCREEN					
F	Supply and install of decorative Archifacade Lightweight Architectural Screen with metal framing finished with spray coated paint SKK stone finish, complete with bracket, all fixing accessories etc, all as detail on Architectural's drawing and in strick accordance with the manufacturer's instructions and specifications	224	m2			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - EXTERNAL WALLS (Cont)</u>					
	GLASS BALUSTRADE					
	<u>Decorative stainless steel in hairline natural finish balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 10 mm thick tempered glass balustrade fixed to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification</u>					
A	1000 mm high, straight	2	m			
B	1100 mm high, straight	17	m			
C	115 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
D	150 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
E	300 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
F	415 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
G	6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			
H	Approved mild steel cavity wall ties, installed in a slight fall and both ends pressed down in fresh mortar and surrounded by mortar		Item			
PTE159				To Collection \$		

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - EXTERNAL WALLS (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
BILL 2 - EXTERNAL WALLS Carried to Summary					

Description	Qty	Unit	Rate	\$	c
<p><u>BILL 2 - WINDOWS</u></p> <p>The Contractor must verify exact size of windows, doors and curtain walling on site prior to fabrication</p> <p>The Contractor to submit shop drawings and full details of aluminium sections for various units, methods of fixings, details of ironmongeries, details of bolts, fixing etc for approval</p> <p>All aluminium profiles shall be "TECHNAL", "REYNAERS" OR SCHUCO" aluminium section or other equivalent and approved European system in powder coating finish in accordance to latest regulation; with (10) TEN years warranty.</p> <p>All aluminium profiles should be extruded from aluminium alloy and backed by a certificate from the extruder indicating its genuineness. All aluminium profiles and sections shall comply with the architect's drawings and details. All glazing shall be internally glazed using green Tinted and / or Processed glasses which samples are to be submitted and approved by the Project Architect.</p> <p>All aluminium curtain walling, windows and doors shall include with 25mm x 38mm aluminium sub framing and weatherseal sealant applied to perimeter of windows.</p> <p>All aluminium windows and doors hardware and locking mechanism shall be approved equivalent and hardware system from Europe.</p> <p>All shops drawings details and methods of fixing must be submitted by the Contractor and shall be approved in writing by the Project Architect prior to work proceed.</p> <p>All products / materials shall be supported by a Certificate of origin indicating its genuineness.</p> <p>A 10 years warranty as to the windows and doors performance is to be issued in joint names with the systems and hardware supplier.</p>		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
PTE159		To Collection \$			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - WINDOWS (Cont)</u>					
	The Contractor is to submit relevant test reports or certificate indicating the aluminium system's compliance with the following performance standards and values		Note			
	All shop drawings details shall be approved in writing by the Architect prior for work proceed. The number and sizes of all bolts, fixing etc shall be clearly indicated on the shop drawings		Note			
	ALUMINIUM GLAZED SYSTEM					
	<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated tempered glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>					
A	Overall size 10800 mm wide x 7600 mm high complete with fixed glass panels and sliding glass doors (W2)	1	no			
	<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated tempered glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>					
B	Overall size 10000 mm wide x 3900 mm high complete with fixed glass panels and double leaves swing glass door (W1)	1	no			
C	Overall size 9700 mm wide x 3000 mm high complete with fixed glass panels and double leaves swing glass door (W7)	1	no			
D	Overall size 750 mm wide x 3500 mm high fixed glass panel (W8)	2	no			
E	Overall size 2260 mm wide x 3500 mm high complete with fixed glass panel and double leaves swing glass door (W9)	5	no			
F	Overall size 2600 mm wide x 3500 mm high fixed glass panel (W10)	1	no			
PTE159					To Collection \$	
BQ/2						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	(Cont) Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated tempered glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
A	Overall size 3950 mm wide x 3500 mm high fixed glass panel (W11)	2	no			
B	Overall size 565 mm wide x 6650 mm high fixed glass panels (W12)	7	no			
C	Overall size 300 mm wide x 3900 mm high fixed glass panel (W13)	10	no			
D	Overall size 13140 mm wide x 3200 mm high fixed glass panels (W14)	1	no			
E	Overall size 6000 mm wide x 3200 mm high fixed glass panels (W15)	1	no			
F	Overall size 3950 mm wide x 3200 mm high fixed glass panels (W17)	1	no			
G	Overall size 3450 mm wide x 3200 mm high fixed glass panels (W19)	1	no			
H	Overall size 5200 mm wide x 3200 mm high fixed glass panels (W20)	1	no			
J	Overall size 2200 mm wide x 3000 mm high fixed glass panel (W21)	1	no			
K	Overall size 2250 mm wide x 3500 mm high fixed glass panel (W22)	1	no			
L	Overall size 5450 mm wide x 900 mm high fixed glass panel (W23)	1	no			
M	Overall size 3450 mm wide x 3900 mm high fixed glass panel (W24)	1	no			
N	Overall size 2260 mm wide x 4000 mm high fixed glass panels (W30)	8	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated tempered glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>					
A	Overall size 5200 mm wide x 3900 mm high complete with fixed glass panels and sliding glass door (W3)	1	no			
B	Overall size 3950 mm wide x 3500 mm high complete with fixed glass panels and sliding glass door (W4)	1	no			
C	Overall size 5200 mm wide x 3500 mm high complete with fixed glass panels and sliding glass door (W5)	1	no			
	<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated tempered glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>					
D	Overall size 5200 mm wide x 3200 mm high complete with fixed glass panel and sliding glass door (W16)	1	no			
E	Overall size 11000 mm wide x 3200 mm high complete with fixed glass panels and sliding glass door (W18)	1	no			
	<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 6 mm thick green tinted glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>					
F	Overall size 1025 mm wide x 2850 mm high complete with fixed glass panel and single leaf swing glass door (W6)	2	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	(Cont) Supply and install aluminium glazed system in standard approved powder coating finish complete with 6 mm thick green tinted glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
A	Overall size 1490 mm wide x 2150 mm high complete with fixed glass panel and single leaf swing glass door (W25)	1	no			
B	Overall size 2300 mm wide x 1800 mm high fixed glass panel (W26)	1	no			
	Supply and install aluminium glazed system in standard approved powder coating finish complete with 6 mm thick green tinted glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
C	Overall size 4700 mm wide x 1800 mm high complete with fixed glass panels and sliding windows (W28)	1	no			
D	Overall size 1850 mm wide x 2900 mm high complete with fixed glass panel and sliding windows (W29)	5	no			
	Supply and install aluminium glazed system in standard approved powder coating finish complete with 6 mm thick green tinted Frosted glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
E	Overall size 1600 mm wide x 800 mm high top hung windows (W27)	1	no			
PTE159					To Collection \$	
BQ/5						

Description		Qty	Unit	Rate	\$	c
<u>BILL 2 - WINDOWS (Cont)</u>						
(Cont) ALUMINIUM GLAZED SYSTEM						
A	Precast reinforced concrete (grade 20) lintol, in various sizes including reinforcement, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		Item			
<u>OTHER WORKS NECESSARY</u>						
B	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159		To Collection \$				
BQ/6						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - INTERNAL WALLS</u>					
	BRICKWALL					
	<u>Common brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course</u>					
A	115 mm thick brickwall	627	m2			
B	300 mm thick cavity brickwall	97	m2			
C	115 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
D	300 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
E	6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			
F	Approved mild steel cavity wall ties, installed in a slight fall and both ends pressed down in fresh mortar and surrounded by mortar		Item			
	OTHER WORKS NECESSARY					
G	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - DOORS</u>					
	The Contractor must verify the exact sizes of doors and opening on site prior to fabrication		Note			
	Shop drawings should be submitted by Contractor prior to fabrication and installation for Architect approval		Note			
	The Contractor must submit sample / mock-up for Architect approval		Note			
	All door frame and architrave shall finished with 'ICI' or other equal and approved spray gloss paint		Note			
	All finished doors, linings, door frames and architrave shall be well-seasoned treated hardwood, planed, smoothed and sanded		Note			
	All door shall include kontras, beading and moulding		Note			
	All door finishes details shall refer to Architectural drawings and as in specification		Note			
	SOLID TIMBER CORE FLUSH DOORS					
A	Double leaves door, overall size 1900 x 2100 mm high (D1)	2	no			
B	Single leaf door, overall size 950 x 2100 mm high (D2)	13	no			
C	Single leaf door, overall size 950 x 2100 mm high (D4)	9	no			
D	Single leaf door, overall size 750 x 1950 mm high at 150 mm above floor level (D5)	2	no			
E	Single leaf sliding door complete with all track and fixing accessories, overall size 2700 x 2100 mm high (D6)	1	no			
F	Single leaf sliding door complete with all track and fixing accessories, overall size 1200 x 2100 mm high (D7)	1	no			
G	Single leaf sliding door complete with all track and fixing accessories, overall size 2300 x 2100 mm high (D8)	1	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - DOORS (Cont)</u>					
	(Cont) SOLID TIMBER CORE FLUSH DOORS					
A	Single leaf sliding door complete with all track and fixing accessories, overall size 1500 x 2100 mm high (D9)	2	no			
B	Single leaf door with louvre opening, overall size 745 x 2100 mm high (D12)	1	no			
	FIRE RATED SOLID HARDWOOD TIMBER DOOR					
C	One hour fire rated single leaf door, overall size 950 x 2100 mm high (D3)	6	no			
D	Single leaf sliding door complete with all track and fixing accessories, overall size 1000 x 2100 mm high (D10)	1	no			
E	One hour fire rated double leaves door, overall size 1900 x 2100 mm high (D11)	1	no			
	ALUMINIUM LOUVERS DOOR					
F	Double leaves door complete with approved door frame, overall size 1850 x 2100 mm high (D13)	1	no			
G	Single leaf door complete with approved door frame, overall size 1050 x 2100 mm high (D14)	1	no			
	<u>Wrot treated hardwood door frame and accessories in approved paint finished</u>					
H	Door frame	182	m			
J	Architrave	363	m			
K	Timber subframe	182	m			
L	Fire rated door frame	43	m			
M	Fire rated architrave	85	m			
N	Fire rated timber subframe	43	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - DOORS (Cont)</u>					
	(Cont) ALUMINIUM LOUVERS DOOR					
A	Precast reinforced concrete (grade 20) lintol in various sizes including reinforcement, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		Item			
B	150 x 50 x 100 mm high heelstone cast to suit the profile of door jamb with one end built into door jamb and other end cast into heelstone and finish to match floor finishes		Item			
C	150 x 25 x 3 mm thick mild steel lugs with one end fishtailed built into joints of brickwork and the other end turned up, holed and screwed to back of timber door frame		Item			
D	6 mm wide approved silicone sealant pointing to gap between frame and tile		Item			
	<u>IRONMONGERY</u>					
	<u>Supply and fix the following or other equal and approved stainless steel ironmongery to doors and frames including all matching screws unless otherwise stated</u>					
E	'Kawajun' 503.12.101 or other equal and approved hinges	90	no			
F	"Hafele" 502.10.125 or other equal and approved Pull Handle SSSP 11200mm	7	no			
G	"Hafele" 502.11.120 or other equal and approved Mortise roller lock SS matte forend width 24mm	17	no			
H	"Kawajun" 503.11.110 or other equal and approved 65mm Key-Thumb Turn Profile Cylinder	18	no			
J	"Kawajun" 503.11.107 or other equal and approved Square Escutcheon *Shot black	31	no			
K	"Kawajun" 503.11.238 or other equal and approved C1 Lever Handle on Square Rose & Escutcheon Finish: Shot Black	31	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - DOORS (Cont)</u>					
	(Cont) IRONMONGERY					
	(Cont) Supply and fix the following or other equal and approved stainless steel ironmongery to doors and frames including all matching screws unless otherwise stated					
A	"Hafele" 502.11.103 or other equal and approved mortise lock for profile cylinders	13	no			
B	"Kawajun" 503.11.117 or other equal and approved Thumb Turn & Coin Turn profile *For Toilet	13	no			
C	"Hafele" 502.12.112 or other equal and approved Heavy Duty Butt Hinge	21	no			
D	"Hafele" 502.13.106 or other equal and approved Concealed door closer DCL 34 *suitable for Fire-Rated Doors	7	no			
E	"Hafele" or other equal and approved Flush Ring Pull Handle w spindle	1	no			
F	"Hafele" 502.10.100 or other equal and approved Mortise Latch	1	no			
G	"Hafele" 502.11.104 or other equal and approved Flush Bolt 8" SS	25	no			
H	"Hafele" 502.16.112 or other equal and approved Flush Bolt 18" SS	25	no			
J	"Hafele" 502.16.113 or other equal and approved Floor Socket 15mm dia	25	no			
K	"Hafele" 502.16.111 or other equal and approved Door Stopper	31	no			
L	"Hafele" 502.16.120 or other equal and approved Door Closer (without hold open-standard arm)	26	no			
M	"Hafele" 502.11.107 or other equal and approved Mortise Lock for Sliding Door	6	no			
N	"Hafele" 502.14.182 or other equal and approved Sliding door fitting for 250 kg door	2	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - DOORS (Cont)</u>					
	(Cont) IRONMONGERY (Cont) Supply and fix the following or other equal and approved stainless steel ironmongery to doors and frames including all matching screws unless otherwise stated					
A	"Hafele" 502.14.183 or other equal and approved Running track for sliding door fitting 250kg 6MTR	2	no			
B	"Hafele" 502.14.179 or other equal and approved Sliding door fitting for 160kg door	3	no			
C	"Hafele" 502.14.180 or other equal and approved Running track for sliding door fitting 160kg 3MTR	3	no			
D	"Hafele" 502.14.177 or other equal and approved Sliding door fitting for 100kg door	1	no			
E	"Hafele" 502.14.178 or other equal and approved Running track for sliding door fitting 100kg 2MTR	1	no			
F	"Hafele" 502.10.126 or other equal and approved Pull Handle SSSP L900mm	6	no			
	<u>MASTER KEY SYSTEM</u>					
G	Allow for all locks to be keyed in one master key to the approval of the Superintending Officer		Item			
	<u>OTHER WORKS NECESSARY</u>					
H	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - DOORS (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
BILL 2 - DOORS					
Carried to Summary					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - INTERNAL WALL FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
A	20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to wall and column	2067	m2			
B	20 mm thick cement and sand (1:3) backing screed to receive ceramic wall tiles to wall and column	828	m2			
C	Approved Skim coat on plastered wall surface to received finishes including all surface preparation	2067	m2			
D	(3.1) 'ICI Dulux' all-in-one or other equal and approved paint to plainface plastered (plaster measured separately) wall and column	1438	m2			
E	(3.2) 'ICI Dulux' pentallite or other equal and approved paint to plainface plastered (plaster measured separately) wall and column	508	m2			
F	(3.3) 'Cicogress' or other equal and approved 300 mm x 600 mm wall tiles, laid on cement and sand screed (screed measured separately) to wall and column	362	m2			
G	(3.4) 'Cicogress' or other equal and approved 400 mm x 1200 mm wall tiles, laid on cement and sand screed (screed measured separately) to wall and column	335	m2			
H	(3.5) 'Portino' Basic series or other equal and approved 300 mm x 600 mm wall tiles, laid on cement and sand screed (screed measured separately) to wall and column	35	m2			
J	(3.6) Red Sandstone wall tiles, laid on cement and sand screed (screed measured separately) to wall and column including primed A5631 or other equalvalent, bracket and all other fixing accessories	96	m2			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - INTERNAL WALL FINISHES (Cont)</u>					
A	(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) wall and column	121	m2			
B	'Fosroc' brushbond or other equal and approved cementious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction to wall and column (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	854	m2			
	OTHER WORKS NECESSARY					
C	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159					To Collection \$	
BQ/2						

BILL 2 - INTERNAL WALL FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - INTERNAL WALL FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 2 - INTERNAL WALL FINISHES Carried to Summary					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - INTERNAL FLOOR FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	<u>30 mm thick cement and sand (1:3) backing screed to floor to receive</u>					
A	Floor tiles	1221	m2			
B	150 mm high tiles skirting	473	m			
C	Drop in slab		Item			
	<u>(1.1) 'Cicogress' or other equal and approved 750 mm x 1500 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
D	Floor	632	m2			
E	Drop in slab		Item			
	<u>(1.2) 'Cicogress' or other equal and approved 400 mm x 1200 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
F	Floor	58	m2			
G	Drop in slab		Item			
	<u>(1.3) 'Cicogress' or other equal and approved 300 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
H	Floor	110	m2			
J	Drop in slab		Item			
	<u>(1.4) 'Cicogress' or other equal and approved 600 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
K	Floor	421	m2			
L	Drop in slab		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - INTERNAL FLOOR FINISHES (Cont)</u>					
	<u>The following skirting, laid on cement and sand screed (screed measured separately)</u>					
A	(2.1) 'Cicogress' or other equal and approved tiles skirting, 150 mm x 1500 mm	206	m			
B	(2.2) 'Cicogress' or other equal and approved tiles skirting, 150 mm x 600 mm	267	m			
C	Selective Aluminium U-Channel termination accessories with natural anodised finish to Architect's approval, install strictly in accordance with the manufacturer's instruction	473	m			
D	'Fosroc' brushbond or other equal and approved cementitious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	164	m2			
E	Approved aluminium edge strip and dividing strip, fixed strictly in accordance with manufacturer's instruction		Item			
F	Approved stainless steel divider strip, fixed strictly in accordance with manufacturer's instruction		Item			
	OTHER WORKS NECESSARY					
G	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 2 - INTERNAL FLOOR FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - INTERNAL FLOOR FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 2 - INTERNAL FLOOR FINISHES Carried to Summary					
PTE159					

BILL 2 - INTERNAL CEILING FINISHES

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - INTERNAL CEILING FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
A	(4.1) 'Gyproc' or other equal and approved gypsum board ceiling with square edge complete with standard fixing accessories all as per manufacturer's detail, recommendation and approval as detailed on drawings.	1101	m2			
B	(4.2) 'Gyproc' or other equal and approved gypsum moisture resistant board ceiling with square edge complete with standard fixing accessories all as per manufacturer's detail, recommendation and approval as detailed on drawings.	131	m2			
C	(4.6) 'SIAM' or other equal and approved gypsum weatherbloc ceiling with square edge complete with standard fixing accessories finished, all as per manufacturer's detail, recommendation and approval as detailed on drawings.	59	m2			
	<u>Prepare, prime and apply 'ICI DULUX' or other equal and approved paint finish to</u>					
D	Gypsum board	1232	m2			
	<u>Prepare, prime and apply 'Wattyl Solagard' or other equal and approved paint finish to</u>					
E	Gypsum weatherbloc board	59	m2			
F	Shadow gap including paint		Item			
G	Drop in ceiling including paint		Item			
H	<u>Extra for forming ceiling access opening including all frame and painting</u>		Item			
	OTHER WORKS NECESSARY					
J	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					

BILL 2 - INTERNAL CEILING FINISHES

Description	Qty	Unit	Rate	\$	c
BILL 2 - INTERNAL CEILING FINISHES (Cont)					
(Cont) OTHER WORKS NECESSARY					
2) _____					
3) _____					
PTE159			To Collection \$		

BILL 2 - INTERNAL CEILING FINISHES

Description	Qty	Unit	Rate	\$	c
BILL 2 - INTERNAL CEILING FINISHES (Cont)					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 2 - INTERNAL CEILING FINISHES Carried to Summary					
PTE159					
BQ/2					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - EXTERNAL WALL FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
A	20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to wall and column	2247	m2			
B	20 mm thick cement and sand (1:3) backing screed to receive wall tiles to wall and column	822	m2			
C	(3.6) Red Sandstone wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column including primed A5631 or other equalvalent, bracket and all other fixing accessories	822	m2			
D	(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) wall and column	2247	m2			
	OTHER WORKS NECESSARY					
E	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - EXTERNAL FLOOR FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	<u>30 mm thick cement and sand (1:3) backing screed to floor to receive</u>					
A	Floor tiles	38	m2			
B	Block	739	m2			
C	150 mm high tiles skirting	29	m			
D	Drop in slab		Item			
	<u>(1.5) 'Cicogress' wood series or other equal and approved 200 mm x 1200 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
E	Floor	38	m2			
F	Drop in slab		Item			
	<u>(1.8) 'CIFRE CERAMICA' Extend Series or other equal and approved 20 mm thick floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
G	Floor	739	m2			
H	Drop in slab		Item			
	<u>The following skirting, laid on cement and sand screed (screed measured separately)</u>					
J	(2.3) 'Cicogress' wood series or other equal and approved tiles skirting, 200 mm x 1200 mm	29	m			
K	Selective Aluminium U-Channel termination accessories with natural anodised finish to Architect's approval, install strictly in accordance with the manufacturer's instruction	29	m			

BILL 2 - EXTERNAL FLOOR FINISHES

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - EXTERNAL FLOOR FINISHES (Cont)</u>					
A	'Fosroc' brushbond or other equal and approved cementitious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	38	m2			
	OTHER WORKS NECESSARY					
B	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159				To Collection \$		

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - EXTERNAL CEILING FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
A	(4.4) 20 mm thick cement and sand (1:3) plainface plaster trowelled smooth to soffit of slab	178	m2			
B	(4.3) Solid timber ceiling (Kapor wood) curved on section with selective waterbase weatherproof coating finish complete with all fixing accessories all as per manufacturer's details, recommendation and approval as detailed on drawings (measured flat on plan)	489	m2			
C	(4.6) 'SIAM' or other equal and approved gypsum weatherbloc ceiling with square edge complete with standard fixing accessories finished, all as per manufacturer's detail, recommendation and approval as detailes on drawings.	42	m2			
	<u>Prepare, prime and apply 'ICI DULUX' or other equal and approved paint finish to</u>					
D	Soffit of slab	178	m2			
	<u>Prepare, prime and apply 'Wattyl Solagard' or other equal and approved paint finish to</u>					
E	Gypsum weatherbloc board	42	m2			
F	Shadow gap including paint		Item			
G	Drop in ceiling including paint		Item			
H	<u>Extra for forming ceiling access opening including all frame and painting</u>		Item			
	OTHER WORKS NECESSARY					
J	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					

BILL 2 - EXTERNAL CEILING FINISHES

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BILL 2 - EXTERNAL CEILING FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - EXTERNAL CEILING FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 2 - EXTERNAL CEILING FINISHES Carried to Summary					
PTE159					

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - FURNISHING FITTINGS</u>					
All sizes shall be checked on site prior to fabrication		Note			
All external surfaces shall be of selective Lamitak laminated finish or of equal equivalent unless otherwise stated, face pattern and colour as selected by the Architect		Note			
All internal surfaces shall be of selective Lamitak laminated finish or of equal equivalent unless otherwise stated, face pattern and colour as selected by the Architect		Note			
All hardwood edging and lipping shall be painted with 2 coats of approved transcolor preservative wood stain finishing or of equal equivalent, colour as selected by Architect		Note			
All cabinet doors, shelves and drawers shall be provided with and including approved ironmongeries (Lock set to drawer refer to Architectural drawings denoted as circular keyhole in elevation)		Note			
All counter top finished with 12.3 mm thick 'Samsung Staron' or other equal and approved solid surface material back with plywood and 'Non-drip' edge profile on front and sides of appoved colour as selected by the Architect		Note			
Unless otherwise stated, all finishes and details as shown/detailed on Architectural drawings		Note			
Tenderer shall make his own assessment from all drawings and specification issued at the time of tederer. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained		Note			
Mock up units shall be provided when require		Note			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - FURNISHING FITTINGS (Cont)</u>					
	WASH HAND BASIN COUNTER TOP					
	<u>Wash hand basin counter top and 150 mm high splashboard in approved colour finished with waterproofing, including forming opening to receive basin including mild steel bracket support and all necessary fixing accessories all as detailed on drawing and in specification</u>					
A	Overall size 1254 mm long x 600 mm deep x 400 mm high	1	no			
B	Overall size 1200 mm long x 600 mm deep x 400 mm high	3	no			
C	Overall size 1677 mm long x 600 mm deep x 400 mm high	2	no			
D	Overall size 1312 mm long x 600 mm deep x 400 mm high	1	no			
	MAIN KITCEHN CABINET					
E	Low Cabinet, overall size 6350 + 3495 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings	1	no			
F	Low Cabinet, overall size 5250 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings	1	no			
G	High Cabinet, overall size 2250+ 3910 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per detailed on Architectural drawings	1	no			
H	High Cabinet, overall size 6250 mm long x 600 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per detailed on Architectural drawings	1	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - FURNISHING FITTINGS (Cont)</u>					
	ISLAND COUNTER TOP AND CABINET					
A	Counter Top and Cabinet, overall size 3050 mm long x 1350 mm wide x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings	1	no			
	FAMILY KITCHEN / PANTRY					
B	Low Cabinet, overall size 4042 + 1877 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings	1	no			
C	High Cabinet, overall size 4043 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per detailed on Architectural drawings	1	no			
	KITCHENETTE					
D	Low Cabinet, overall size 1875 + 1315 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings	2	no			
	BAR COUNTER AND CABINETRY					
E	Overall size, detail designs, finishes specification for bar counter including all ironmongeries and etc, all as detailed on Architectural drawings	1	no			
	TV CABINETRY AT MASTER BEDROOM					
F	Overall size, detail designs, finishes specification for TV Cabinetry including all ironmongeries and etc, all as detailed on Architectural drawings	1	no			

Description	Qty	Unit	Rate	\$	c
BILL 2 - FURNISHING FITTINGS (Cont)					
SECURITY COUNTER TOP					
Overall size, detail designs, finishes specification for security counter top including all ironmongeries and etc, all as detailed on Architectural drawings	1	no			
WARDROBE					
Overall size 1890 mm long x 600 mm deep x 3000 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (maid's room)	1	no			
Overall size 2035 + 2300 + 1085 mm long x 600 mm deep x 3200 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (master's bedroom - walk in closet 1)	1	no			
Overall size 2300 + 1350 mm long x 600 mm deep x 3200 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (master's bedroom - walk in closet 2)	1	no			
Overall size 3950 mm long x 600 mm deep x 3200 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (master's bedroom - wardrobe 1)	1	no			
Overall size 1885 + 1878 mm long x 600 mm deep x 3200 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (bedroom 1 - walk in closet 1)	1	no			
PTE159	To Collection \$				

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - FURNISHING FITTINGS (Cont)</u>					
	(Cont) WARDROBE					
A	Overall size 1885 + 1493 mm long x 600 mm deep x 3200 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (bedroom 2 - walk in closet 1)	1	no			
B	Overall size 1460 mm long x 600 mm deep x 3200 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (bedroom 1&2 - wardrobe 1)	2	no			
C	Overall size 2135 mm long x 600 mm deep x 3200 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (bedroom 3 - wardrobe 1)	1	no			
	MIRROR					
	<u>8 mm thick bronze tinted mirror with 10 mm thick plywood backing complete with powder coated aluminium frame and all fixing equipment and accessories</u>					
D	Overall size 1255 mm long x 1000 mm high	1	no			
E	Overall size 1200 mm long x 1000 mm high	3	no			
F	Overall size 500 mm long x 800 mm high	3	no			
G	Overall size 1675 mm long x 1000 mm high	2	no			
H	Overall size 1310 mm long x 1000 mm high	1	no			
	OTHER WORKS NECESSARY					
J	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					

BILL 2 - FURNISHING FITTINGS

Description	Qty	Unit	Rate	\$	c
BILL 2 - FURNISHING FITTINGS (Cont)					
(Cont) OTHER WORKS NECESSARY					
2) _____					
3) _____					
PTE159	To Collection \$				

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - PLUMBING</u>					
	<u>PLUMBING</u>					
	Fire Hosereel and all associated tanks, pump sets and plumbing works measured in Bill 8A		Note			
	All bends, junctions, tees and the like shall be with access eye opening of pipe diameter		Note			
	All soil and waste pipes shall be connected to gully trap and first manhole		Note			
	SOIL, WASTE AND VENT PIPES					
A	Waste, soil and vent piping system, including all connection and fittings, all as detailed on drawings and in specification		Item			
B	Floor trap including all connection, fittings and gratings, all as detailed on drawings and in specification		Item			
	GULLY TRAP					
C	Gully trap and chamber size 300 x 300 mm in various depth internally with multiple inlets comprising 125 mm thick concrete (grade 20) wall and base, upvc gully trap to B.S.4660 with perforated grating, 300 x 300 mm stainless steel grating with hinge, etc. finished with cement and sand render internally, epoxy painting, inlet and outlet, jointing to waste pipes, including excavation, disposal, backfilling, formwork, etc, the whole as per detail shown on Engineer's drawing		Item			
	COLD AND HOT WATER SERVICES					
D	Cold water and piping including all fittings and connections, all as detailed on drawings and in specification		Item			
E	Hot water and piping including all fittings and connections, all as detailed on drawings and in specification		Item			

Description		Qty	Unit	Rate	\$	c
<u>BILL 2 - PLUMBING (Cont)</u>						
<u>(Cont) PLUMBING</u>						
TESTING						
A	Allow for testing the whole of the plumbing system to the approval of the relevant authorities and to the satisfaction of the Superintending Officer		Item			
<u>OTHER WORKS NECESSARY</u>						
B	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159		To Collection \$				
BQ/2						

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - PLUMBING (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 2 - PLUMBING Carried to Summary					
PTE159					
BQ/2					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - SANITARY FITTINGS</u>					
	<u>Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	DURAVIT 2133010005-C Starck 2 One piece 4.8L Single Flush Syphonic W.C., 0063390000-C Seat & Cover (Soft Close), 014180096 Mounting Set (S-Trap : 305MM), 1/2" Stop Valve (Include In Mounting Set), 1/2" Flexible Hose (Include In Mounting Set)	1	no			
B	DURAVIT 2157010083-C Durastyle One Piece Dual Flush 5/3.5L Syphonic Jet W.C., 0060590000-C Seat & Cover (Soft Close), 0014160000 Mounting Set (S-Trap : 305mm), 1/2" Stop Valve (Include In Mounting Set), 1/2" Flexible Hose (Include In Mounting Set)	6	no			
C	JOHNSON SUISSE WBAENW211WW Windsor 250 BO WC, WBALTN111WW Trend Cistern With Lid, WBFT400335XX Trend 6/3L Flush Fittings, SC402 Seat & Cover (Soft Close), WBFT400101Xx Fixing Bolt (X2), P450 Straight Connector (S-Trap : 250mm), AV300 1/2' Stop Valve With Flange, DA650N 1/2" Flexible Hose	4	no			
D	DURAVIT 0380800000 Luv Countertop Basin With 1 Tap Hole W/O Overflow Hole Size (800 X 400 X 140)mm, Ceramic Covered Slotted Waste, Premium Chrome Plated P-Trap, 1/2" Stop Valve (X2)	2	no			
E	DURAVIT 0452500000 Vero Countertop Basin With 1 Tap Hole W/Overflow Hole Size (500 X 470 X 175)mm, Premium Chrome Plated P-Trap, 1/2" Stop Valve (X2)	4	no			
F	DURAVIT 0454500000 Vero Wall-Hung Basin With 1 Tap Hole W/Overflow Hole Size (500 X 470 X 175)mm, WBFT400099XX Fixing Bolt (X2), Premium Chrome Plated P-Trap, 1/2" Stop Valve (X2)	1	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - SANITARY FITTINGS (Cont)</u>					
	<u>(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	JOHNSON SUISSE WBAABS201WW Boston 500 Wall-Hung basin With 1 Tap Hole W/Overflow Hole Size (500 X 430 X 210)m, WBFT400099XX Fixing Bolt (X2), WBABHP000WW Half Pedestal, WBFT400101XX Fixing Bolt (X2), 32mm - 1 1/4" UPVC Bottle Trap, AV300 1/2" Stop Valve With Flange (X2)	1	no			
B	JOHNSON SUISSE WBAABS291WW Boston 500 Wall-Hung Basin With 1 Tap Hole W/Overflow Hole Size (500 X 430 X 210)mm, WBFT400099XX Fixing Bolt (X2), WBABHP000WW Half Pedestal, WBFT400101XX Fixing Bolt (X2), 32mm - 1 1/4" UPVC Bottle Trap, A202 Chrome Plated Waste, Plug & Chain, AV300 1/2" Stop Valve With Flange, DA650-N1/2" Flexible Hose	3	no			
C	FIMA CARLO FRATTINI F3721MCR.WS Quad Deck Mounted Basin Mixer (Hot & Cold), Click Clack Pop-Up Waste, 1/2" Supply Hose (X2)	2	no			
D	FIMA CARLO FRATTINI F3761.2CR Serie 4 Deck Mounted Basin Mixer (Hot & Cold), Click Clack Pop-Up Waste, 1/2" Supply Hose (X2)	5	no			
E	JOHNSON SUISSE WBFA301434CP Turin Deck Mounted Basin Mixer (Hot & Cold), Chrome Plated Waste, Plug & Chain, 1/2" Supply Hose (X2)	3	no			
F	JOHNSON SUISSE WBFA300933CP Fermo Deck Mounted Sink Tap (Cold Only)	2	no			
G	JOHNSON SUISSE WBFA300760CP Deck Mounted Self Closing Tap (Cold Only)	1	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - SANITARY FITTINGS (Cont)</u>					
	<u>(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	FIMA CARLO FRATTINI F3729x2CR Quad Concealed Bath & Shower Mixer With Diverter (Hot & Cold), F3000 Fima Concealed Box, F2224/2CR Brass Round Overhead Shower (Dia : 300mm), F2584CR Ceiling Mounted Shower Arm (L-150mm), F2297CR Sliding Rail c/w Brass Flex Hose (L-1500mm) + Anti-Limesone Handshower, F2013CR 1/2" Water Outlet Connector	1	no			
B	FIMA CARLO FRATTINI F3165/RP251CR Serie 22 Shower Column Mixer With Diverter (Hot & Cold), ABS Overhead Shower (Dia : 200mm), Anti-Limestone Handshower (1 Spray Mode), 1500mm Brass Flex Hose	4	no			
C	JOHNSON SUISSE WBFA301439CP Turin Exposed Bath & Shower Mixer With Diverter (Hot & Cold), WBFA300694CP Wall-Mounted Sliding Bar (L-600mm), WBFA300723CP Caspian II Hand Shower (1 Spray Mode), WBFA300583CP Double Interlock Shower Hose (L-1.5m)	3	no			
D	DURAVIT 0099401000 Starck-T Paper Holder	1	no			
E	FIMA CARLO FRATTINI F6005/1CR Rotola Toilet Paper Holder	6	no			
F	JOHNSON SUISSE WBBA100264CP Trendy Paper Holder With Cover	4	no			
G	DURAVIT 0099301000 Starck-T Double Robe Hook	1	no			
H	FIMA CARLO FRATTINI F6004/2CR Rotola Double Robe Hook	6	no			
J	JOHNSON SUISSE WBBA100257CP Trendy Single Robe Hook	4	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 2 - SANITARY FITTINGS (Cont)</u>					
	(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction					
A	DURAVIT 0099421000 Starck-T Single Towel Rail (L-610mm)	1	no			
B	FIMA CARLO FRATTINI F6000/60CR Rotola Towel Rail (L-600mm)	4	no			
C	JOHNSON SUISSE WBBA100265CP Trendy Single Towel Rail (Length : 600mm)	3	no			
D	DURAVIT 0099471000 Starck-T Towel Ring	2	no			
E	FIMA CARLO FRATTINI F2454/7CR Collettivita Bidet Angle Valve (Cold Only), ABS hand Bidet Spray, 1200mm Flexible Chromalux Hose, Spray Holder	7	no			
F	FIMA CARLO FRATTINI F2840/7CR Collettivita Bidet Angle Valve (Cold Only), ABS Hand Bidet Spray, 1200mm Flexible Stainless Steel Hose, Spray Holder	4	no			
G	CAM AHI-1015BWC Single Bowl Single Drainer Insert Type Stainless Steel Kitchen Sink Size (1000 X 500 X 250)mm, Waste, 40MM 1.2" UPVC Bottle Trap, AV300 1/2" Stop Valve With Flange, DA650-N1/2" Flexible Hose	2	no			
H	NOVATEC FT201-6 Stainless Steel Decorative Tile Insert Floor Grating Size (153 X 153)mm, FLV Anti Insect & odor Flow Valve	24	no			
	OTHER WORKS NECESSARY					
J	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					

BILL 2 - SANITARY FITTINGS

Description	Qty	Unit	Rate	\$	c
BILL 2 - SANITARY FITTINGS (Cont)					
(Cont) OTHER WORKS NECESSARY					
2) _____					
3) _____					
PTE159			To Collection \$		

Description	Qty	Unit	Rate	\$	c
<u>BILL 2 - SANITARY FITTINGS (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
BILL 2 - SANITARY FITTINGS Carried to Summary					

Description	Qty	Unit	Rate	\$	c
BILL 3 - GENERAL NOTE					
NOTES					
The bills are to be read and priced in conjunction with the drawings, specification and include all works described / shown in bills and drawings		Note			
The Contractor is to comply with the conditions of contract, specification, all preliminaries, etc. necessary for the complete execution of the works		Note			
The Contractor shall be responsible for applying and obtaining all required permits from the relevant authorities for temporary accesses, etc. and for payment of fees thereof		Note			
The Contractor must visit the site so as to take into consideration existing conditions and to have satisfied himself as to the nature of the site, soil condition, facilities for access, mobilisation of plants, etc. required under this contract. No claims will be allowed on the grounds of ignorance of the conditions under which the works will be executed		Note			
Prior to the commencement of any work, the levels of the original surface of the site including all slopes shall be agreed by the Superintending Officer in accordance with Preliminaries under 'Setting Out and Site Levels' and on completion of this works, the Contractor must submit as built drawings as required in Preliminaries under 'Completion Joint-Survey and As Built Drawing' which shall form the basis of measurement		Note			
The Contractor shall take all measures to protect the existing cables and services that is not affected by his scope of work. Any such damage caused by the Contractor shall be made good at the expense of the Contractor and to the satisfaction of the Superintending Officer		Note			
PTE159			To Collection \$		

Description	Qty	Unit	Rate	\$	c
<p><u>BILL 3 - GENERAL NOTE (Cont)</u></p> <p><u>(Cont) NOTES</u></p> <p>All making good shall be executed with materials and workmanship to match in every respect of the surrounding work and shall be properly done thereto to the complete satisfaction of the S.O.</p> <p>Unless otherwise specified, all materials and debris resulting from the clearing shall be stacked and removed completely from the site. On no account shall cleared timber or other materials be deposited in areas to be filled. Burning on site shall be prohibited</p> <p>No tipping on the adjoining land shall be allowed in this contract. The Contractor is therefore to make his own arrangements for disposal of all surplus excavated materials where directed and is to pay all charges in connection therewith</p> <p>Tenderer shall make his own assessment from all drawings and specification issued at the time of tendering. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained</p>		Note			
		Note			
		Note			
		Note			
To Collection \$					

Description	Qty	Unit	Rate	\$	c
<p align="center"><u>BILL 3 - PILING</u></p> <p>PRECAST REINFORCED CONCRETE PILES (ALL PROVISIONAL)</p> <p>The system installation shall consist of 9.0 metre long precast concrete piles element forced into the ground using hydraulic jack method including cast in pile shoe</p> <p>The piles should conform to B.S. 8004 : 1986 and be approved by CPRU Min. of Development for use in Brunei Darussalam</p> <p>Steel reinforcement shall conform to B.S. 4449</p> <p>End plate should be manufactured to conform to B.S. 4360</p> <p>Concrete strength during transfer should correspond to a cube strength of minimum 25 Mpa</p> <p>The 28-day strength of concrete shall not be less than 50 Mpa</p> <p>Joint between the consecutive pile element shall be in full weld on each side of the end plates brought in contact</p> <p>The setting pressure of twice the working load shall be held for a minimum of ten seconds before release</p> <p>Each pile shall not deviate by more than 75 mm from the vertical or more than 74 mm from its designed position at the level of the piling chamber</p> <p>The paylengths for the supply and inject complete of each pile shall be measured from pile toe to cut-off level</p> <p>A Provide and erect on site all necessary plant and equipment for installation of precast concrete piles, and dismantle and clear away on completion</p>		<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Item</p>			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - PILING (Cont)</u>					
	(Cont) PRECAST REINFORCED CONCRETE PILES (ALL PROVISIONAL)					
A	Allow for moving and handling piling frame and equipment inclusive of assembling and dismantling about at site from position to position including use of Selangan timber matt and hiring of Kobelco for the full duration		Item			
	<u>Supply, transport, handle, pitch, inject, weld, extend, cut-off head, etc. precast reinforced (Grade 50) concrete piles, all in strict accordance with the pile specification.</u>					
B	200 mm square piles	7725	m			
	<u>Provide the necessary kentledge, jack and dial gauges for the application and release of the load test. The rates include all supervision and labour, watching and lighting and removal of kentledge and equipment</u>					
C	Load test twice the working load for 200 mm square piles	2	no			
	<u>OTHER WORKS NECESSARY</u>					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - SUBSTRUCTURE</u>					
	EXCAVATION					
A	Excavate pit for pile cap and lift pit, commencing from platform level, not exceeding 2.00 m deep, get out part return, fill in, ram and surplus cart away excavated material where directed	229	m3			
B	Excavate for basement, commencing from platform level, exceeding 2.00 m deep, get out part return, fill in, ram and surplus cart away excavated material where directed including all temporary protection and removal	463	m3			
C	Excavate trench for ground beam, commencing from platform level, not exceeding 2.00 m deep, get out and cart away excavated material where directed	229	m3			
D	Excavate for ground slab and apron slab commencing from platform level, not exceeding 300 mm, average 200 mm deep, get out and cart away excavated material where directed	2410	m2			
	ANTI-TERMITE TREATMENT					
E	Prepare and apply one coat of organic chlorine or other equal and approved anti-termite chemical treatment to general surfaces as specified (measured flat over ground floor slab and apron slab area; rate to include for treating surfaces of ground beam, footing and the like and for appointing a registered pest control company to carry out the work and also for providing a ten (10) year warranty)	2410	m2			
	DAMP PROOF MEMBRANE					
F	"POLY-FILM 1000" or other equal and approved damp proof membrane laid on prepared bed, seal laps with approved pressure sensitive tape (measured flat over ground floor slab - rate to include for laps, cutting and waste)	2410	m2			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - SUBSTRUCTURE (Cont)</u>					
	WATERPROOFING / TANKING SYSTEM					
A	'Bitumat' Polyflex or other equal and approved 4mm sandtop thick waterproofing / tanking system spot-bonding to lean concrete (measured separately) prior to succeeding slab construction complete with 'Fosroc' Nitoproof 600 polyurethane coating applied along the joints and pin holing all in strict accordance with manufacturer's instruction (measured flat over floor slab and wall area - rate to include for laps, cutting, waste and providing a ten (10) years warranty against workmanship and material) to basement slab / lift pit	115	m2			
B	'Bitumat' Polyflex or other equal and approved 3mm sandtop thick waterproofing / tanking system spot-bonding and fully-torched bonded on wall surfaces prior to succeeding wall construction and including 'Proofex' protection board fixed onto tanking complete with 'Fosroc' Nitoproof 600 polyurethane coating applied along the joints and pin holing all in strict accordance with manufacturer's instruction (measured flat over floor slab and wall area - rate to include for laps, cutting, waste and providing a ten (10) years warranty against workmanship and material) to basement wall / lift pit	194	m2			
C	Approved type PVC waterstop or equivalent complete with grout and treatment all to specialist specifications		Item			
D	Allow for de-watering including all pump etc to be approved by the S.O. / Engineer		Item			
E	Pump sump formed in ground slabs including grating, any necessary extra excavation, disposal, hardcore, blinding, formwork and concrete		Item			
F	Sump formed in ground slabs including grating, any necessary extra excavation, disposal, hardcore, blinding, formwork and concrete		Item			
G	Boxing to form 500 mm high vent opening in basement wall including any necessary finishing works		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - SUBSTRUCTURE (Cont)</u>					
	(Cont) WATERPROOFING / TANKING SYSTEM					
A	<u>Extra for</u> waterproofing / tanking to lift pit and sump		Item			
	CONCRETE WORKS					
	<u>50 mm thick lean concrete (grade 15) to underside of</u>					
B	Pile cap	146	m2			
C	Ground beam	373	m2			
D	Ground floor slab	2029	m2			
E	Lift pit	8	m2			
	<u>Reinforced concrete (grade 30) in</u>					
F	Pile cap	88	m3			
G	Stump	59	m3			
H	Basement beam	12	m3			
J	Ground beam	210	m3			
K	150 mm thick ground floor slab	2410	m2			
L	200 mm thick basement slab	105	m2			
M	230 mm thick lift pit wall	13	m2			
N	300 mm thick basement wall	153	m2			
P	<u>Extra over</u> lift pit wall for thickening including additional formwork and reinforcement	12	m			
Q	300 x 300 x 300 mm deep lift sump pit, 230 mm thick to wall and slab including formwork and reinforcement	1	no			
R	<u>Extra over</u> for non-slip groove line to ramp		Item			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
S	Pile cap	12144	kg			
T	Stump	9440	kg			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - SUBSTRUCTURE (Cont)</u>					
	(Cont) CONCRETE WORKS					
	<u>(Cont) 10 mm to 25 mm diameter mild steel</u>					
	<u>/ high tensile reinforcement bar in</u>					
A	Basement beam	1306	kg			
B	Ground beam	23520	kg			
C	Ground floor slab	30005	kg			
D	Basement slab	1743	kg			
E	Lift pit wall	302	kg			
F	Basement Wall	4336	kg			
	<u>Formwork to</u>					
G	Sides of pile cap	504	m2			
H	Sides of stump	618	m2			
J	Sides of basement beam	100	m2			
K	Sides of ground beam	2039	m2			
L	Sides of lift pit wall	25	m2			
M	Sides of basement wall	306	m2			
N	Drop in ground slab and edge of ground slab		Item			
P	Drop in ramp and edge of ramp		Item			
Q	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
	OTHER WORKS NECESSARY					
R	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
PTE159					To Collection \$	
BQ/4						

Description	Qty	Unit	Rate	\$	c
<p><u>BILL 3 - SUBSTRUCTURE (Cont)</u></p> <p>(Cont) OTHER WORKS NECESSARY</p> <p>1) _____</p> <p>2) _____</p> <p>3) _____</p>					
PTE159	BQ/5		To Collection \$		

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - SUBSTRUCTURE (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
BILL 3 - SUBSTRUCTURE Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - FRAME</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Suspended beam	95	m3			
B	Column	297	m3			
C	230 mm thick lift core wall	111	m2			
D	<u>Extra over</u> for lift core wall thickening including additional formwork and reinforcement	12	m			
	<u>10 mm to 32 mm diameter mild steel / high tensile reinforcement bar in</u>					
E	Suspended beam	9310	kg			
F	Column	47520	kg			
G	Lift core wall	2579	kg			
	<u>Formwork to</u>					
H	Sides and soffit of suspended beam	976	m2			
J	Sides of column	2921	m2			
K	Sides of lift core wall	222	m2			
L	<u>Extra over</u> for edge of lift core wall opening not exceeding 300 mm wide		Item			
	OTHER WORKS NECESSARY					
M	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159					To Collection \$	
BQ/1						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - UPPER FLOOR</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	150 mm thick suspended slab	589	m2			
B	200 mm thick suspended slab	5	m2			
	<u>10 mm and 12 mm diameter mild steel / high tensile reinforcement bar in</u>					
C	Suspended floor slab	7417	kg			
	<u>Formwork to</u>					
D	Sides and soffit of suspended slab	594	m2			
E	Drop in slab and edge of floor slab		Item			
F	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
	OTHER WORKS NECESSARY					
G	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - ROOF</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Roof beam	74	m3			
B	Gutter beam	125	m3			
C	150 mm thick roof slab	570	m2			
D	150 mm thick gutter slab	298	m2			
E	200 mm thick lift core top slab	8	m2			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
F	Roof beam	4884	kg			
G	Gutter beam	8250	kg			
H	Roof slab	7097	kg			
J	Gutter slab	3711	kg			
K	Lift core top slab	386	kg			
	<u>Formwork to</u>					
L	Sides and soffit of roof beam	822	m2			
M	Sides and soffit of gutter beam	1212	m2			
N	Soffit of roof slab	571	m2			
P	Soffit of gutter slab	298	m2			
Q	Soffit of lift core top slab	8	m2			
R	<u>Extra over</u> for forming opening to slab for roof hatch	3	no			
S	Drop in slab and edge of slab		Item			
T	Edge of lift core top slab		Item			
PTE159					To Collection \$	
BQ/1						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - ROOF (Cont)</u>					
	(Cont) CONCRETE WORKS					
A	Reinforced concrete ledge in various thickness including all necessary formwork, reinforcement, finished with all exposed concrete surfaces with approved paint in approved color, waterproofing membrane and etc., all as per Architectural and Engineer's details drawings	47	m2			
B	<u>Extra over</u> for forming 500 mm wide x 50 mm depth scupper drain finished with screeding and approved high quality waterproofing to specification and Architect's approval, all as detailed on drawings		Item			
C	Decorative reinforced concrete capping to gutter wall including all necessary formwork, reinforcement and finished all expose surface with 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint in approved colour		Item			
	STRUCTURAL STEEL ROOF MEMBER					
	All steel works members shall be high tensile galvanised steel, welded and bolted together, including all shop and site welding, filling smooth junction, raking and cutting, hoisted and placed in position all as detailed on drawings		Note			
	Rate to include submission of shop drawings		Note			
	Rate to included for sand blast clean to BS4232, degrease and wash clean all steel area and repair all damaged including approved paint to Engineer's approval		Note			
	All steel works members, plates, cleats and bolts shall be high tensile galvanised steel including all necessary approved painting as specified		Note			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - ROOF (Cont)</u>					
	(Cont) STRUCTURAL STEEL ROOF MEMBER					
	<u>Supply, install and erect the following structural steelworks hoisted and fixed in position to level as accordance to drawing in bolted and welded connection with and including all cutting, drilling, welding and approved metal paint finished (to all expose surfaces), all as detailed on Engineer's drawings</u>					
A	RHS 160 x 80 x 6.3 mm thick	5283	kg			
B	RHS 120 x 80 x 6.3 mm thick	9587	kg			
C	RHS 100 x 60 x 6.3 mm thick	187	kg			
D	SHS 70 x 70 x 5 mm thick	4509	kg			
E	C15016 lipped C purlin	1570	m			
F	Plates / splicing		Item			
G	Angle Cleat including fasteners		Item			
H	Bolts / anchor bolts including nuts and washers		Item			
J	Holding down bolts		Item			
K	Non shrink grout		Item			
	ROOF COVERING					
	Rate to include a ten (10) years warranty for materials		Note			
L	'Lysaght' or other equal and approved Kliplock Hi-Ten 406 0.47 mm thick TCT in clean colorbond XRW fixed to steel purlins (purlins measured separately), laid in full length to fall complete with damping felt and self-adhesive bitumen felt, all clips and including all others matching fixing devices and accessories, all in accordance to the manufacturer's instruction (measured nett- rate to include for laps, cutting and waste) to sloping roof covering	1445	m2			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - ROOF (Cont)</u>					
	(Cont) ROOF COVERING					
A	`Lysaght' or other equal and approved clean colorbond gable end including flashing, clip, channel, thermal barrier pad and all fixing accessorise and sealant all as detailed on Architectural drawings		Item			
B	`Lysaght' or other equal and approved clean colorbond eave including flashing, foam filler, drip angle, thermal barrier pad and all fixing accessorise and sealant all as detailed on Architectural drawings		Item			
C	`Lysaght' or other equal and approved clean colorbond flashing between wall and roof, one end chase into brickwall filled with approved non-setting silicone sealant including all fixing accessorise all as per detailed on drawings		Item			
	ROOF INSULATION					
D	50 mm thick 'Lysaght' ROXUL MPB100 or orther equal and approved rockwool insulation at 40kg/m3 including all other fixing accessories (measured nett - rate to include for laps, cutting and waste)	1445	m2			
E	BRC 3315 wire mesh including all other fixing accessories	1445	m2			
F	Meta aluminium double sided foil including all other fixing accessories	1445	m2			
	ROOF WATERPROOFING SYSTEM					
	<u>30 mm thick cement and sand (1:3) screed laid to falls to receive waterproofing system to</u>					
G	Roof slab	570	m2			
H	Gutter slab	298	m2			
J	Lift core top slab	8	m2			
K	Sides of gutter wall	893	m2			
L	300 mm high upturn skirting	704	m			
M	Down pipe and outlet		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - ROOF (Cont)</u>					
	(Cont) ROOF WATERPROOFING SYSTEM					
	'FOSROC' Polyurea or other eaqual and approved (high quality, environmentally safe, enery saving and elastrometric) waterproofing membrane on high-tech polymer chemistry formulation and acrylic polymers forming seamless joint, free water and weather light elastic membrane with heat insulation properties including cement and sand (1:3) screed, laid to fall and all necessary surface preparation with 'FOSROC' or other equal and approved primer 195 (Rate to include for providing a ten (10) years guarantee as specified hereinbefore) to					
A	Roof slab	570	m2			
B	Gutter slab	298	m2			
C	Lift core top slab	8	m2			
D	Sides of gutter wall	893	m2			
E	300 mm high upturn skirting	704	m			
F	Down pipe and outlet		Item			
	RAINWATER GOODS					
G	'TERRAIN' or other equal and approved 75 mm diameter rainwater downpipe with cement solvent joint fixed to concrete or brickwork with and including holderbats, brackets, straps, hangers, bends and the like, finish with approved finishes, to specification, engineer's, manufacturer's and specialist detail, recommendation and architect's approval, all as detailed on drawings	210	m			
H	'TERRAIN' or other equal and approved 100 mm diameter rainwater downpipe with cement solvent joint fixed to concrete or brickwork with and including holderbats, brackets, straps, hangers, bends and the like, finish with approved finishes, to specification, engineer's, manufacturer's and specialist detail, recommendation and architect's approval, all as detailed on drawings	657	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - ROOF (Cont)</u>					
	(Cont) RAINWATER GOODS					
A	'TERRAIN' or other equal and approved 75 mm diameter upvc rainwater downpipe with cement solvent joint laid under floor with and including brackets, straps, bends, excavation, backfill, 100 mm thick concrete (grade 20) surround reinforced with one layer BRC A6, formwork and 50 mm thick lean concrete (grade 15) under, all as detailed on drawings	123	m			
B	'TERRAIN' or other equal and approved 100 mm diameter upvc rainwater downpipe with cement solvent joint laid under floor with and including brackets, straps, bends, excavation, backfill, 100 mm thick concrete (grade 20) surround reinforced with one layer BRC A6, formwork and 50 mm thick lean concrete (grade 15) under, all as detailed on drawings	510	m			
C	'TERRAIN' or other equal and approved 150 mm diameter upvc rainwater downpipe with cement solvent joint laid under floor with and including brackets, straps, bends, excavation, backfill, 100 mm thick concrete (grade 20) surround reinforced with one layer BRC A6, formwork and 50 mm thick lean concrete (grade 15) under, all as detailed on drawings	16	m			
D	'TERRAIN' Geberit or other equal and approved 82 mm diameter domed roof outlet to suit 75 mm diameter upvc rainwater downpipe complete with all fixing accessories, all as detailed on drawings	35	no			
E	'TERRAIN' Geberit or other equal and approved 82 mm diameter domed roof outlet to suit 100 mm diameter upvc rainwater downpipe complete with all fixing accessories, all as detailed on drawings	85	no			
F	'TERRAIN' or other equal and approved 75 mm diameter upvc overflow pipe casted in reinforced concrete gutter wall, including all fixing accessories, finished with approved finishes to specification and architect's approval, all as detailed on drawings		Item			
PTE159					To Collection \$	
BQ/6						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - ROOF (Cont)</u>					
	(Cont) RAINWATER GOODS					
A	<u>Extra over</u> for 200 x 100 weep hole to gutter wall		Item			
	FINISHES					
	<u>20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to</u>					
B	Sides of gutter wall	1495	m2			
C	Soffit of gutter slab	298	m2			
D	<u>Extra over</u> for drip mould		Item			
	<u>(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) to</u>					
E	Sides of gutter wall	1495	m2			
F	Soffit of gutter slab	298	m2			
G	<u>Extra over</u> for drip mould		Item			
	GLAZED SKYLIGHT					
	<u>To supply, fabricate & install of REYNAERS CW50 in powder coated aluminium frame system complete with 12.76mm thick 'AGC' F-Green Tinted Laminated Heat Strengthened Glass; including weatherseal sealant, all structural steel framing and all necessary accessories for completion of works all in accordance with Manufacturer's Specification and Instructions.</u>					
H	Glazed skylight, overall size 4700 x 2665 mm high (SKY1)	1	no			
J	'Gorter' or other equal and approved roof hatch RHT 1010 complete with fixed vertical ladder in aluminium finished including all fixing accessories, installed in accordance with manufacturer's instruction	3	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - STAIRCASES</u>					
	Contractor to refer Schedule of Finishes for specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Staircase	12	m3			
B	200 mm thick landing slab	6	m2			
C	225 mm thick landing slab	5	m2			
	<u>10 to 12 mm diameter high tensile steel reinforcement in</u>					
D	Staircase	1846	kg			
E	Landing slab	534	kg			
	<u>Formwork to</u>					
F	Soffit of staircase	43	m2			
G	Soffit of landing slab	11	m2			
H	Side of stair open stringer 352 mm (maximum) cut to suit profile treads and risers	25	m			
J	Side of stair open stringer 377 mm (maximum) cut to suit profile treads and risers	24	m			
K	Side of undercut riser 176 mm high	113	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - STAIRCASES (Cont)</u>					
	HANDRAILING AND BALUSTRADING					
A	1000 mm overall high decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 5 nos of 20 mm diameter stainless steel rod to center welded to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	14	m			
B	1010 mm overall high decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 5 nos of 20 mm diameter stainless steel rod to center welded to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification (to ramp)	14	m			
C	1000 mm overall high decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 10 mm thick tempered glass balustrade fixed to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	38	m			
PTE159					To Collection \$	
BQ/2						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - STAIRCASES (Cont)</u>					
	FINISHES					
	<u>20 mm thick cement and sand (1:3)</u> <u>plainface plaster trowelled smooth to</u>					
A	Sloping soffit of staircase	43	m2			
B	Soffit of landing slab	11	m2			
C	Sides of open stringer 352 mm (maximum) wide to suit profile of treads and risers	25	m			
D	Sides of open stringer 377 mm (maximum) wide to suit profile of treads and risers	24	m			
E	Sides of landing slab	17	m			
	<u>30 mm thick cement and sand (1:3) screed</u> <u>to receive tiles to</u>					
F	Landing slab	11	m2			
G	325 mm wide tread	113	m			
H	175 mm high undercut riser	113	m			
J	150 mm high tiles skirting	55	m			
	<u>(1.4) 'Cicogress' or other equal and</u> <u>approved 600 mm x 600 mm floor tiles, laid</u> <u>in pattern on cement and sand screed</u> <u>(screed measured separately) to</u>					
K	Landing slab	5	m2			
L	325 mm wide tread	49	m			
M	175 mm high undercut riser	49	m			
N	<u>Extra over for forming non-slip nosing</u> <u>tiles</u>	49	m			
	<u>(1.7) Polished marble, laid in pattern on</u> <u>cement and sand screed (screed measured</u> <u>separately) to</u>					
P	Landing slab	6	m2			
Q	325 mm wide tread	65	m			
R	175 mm high undercut riser	65	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - STAIRCASES (Cont)</u>					
	(Cont) FINISHES					
	(Cont) (1.7) Polished marble, laid in pattern on cement and sand screed (screed measured separately) to					
A	Extra over for forming non-slip nosing tiles	65	m			
B	(2.2) 'Cicogress' or other equal and approved tiles skirting, 150 mm x 600 mm	17	m			
C	(2.5) Polished marble skirting	38	m			
	(3.1) 'ICI Dulux' all-in-one or other equal and approved paint to plainface plastered (plaster measured seperately) to					
D	Sloping soffit of staircase	27	m2			
E	Soffit of landing slab	6	m2			
F	Sides of open stringer 352 mm (maximum) wide to suit profile of treads and risers	25	m			
G	Sides of landing slab	11	m			
	(3.2) 'ICI Dulux' pentelite or other equal and approved paint to plainface plastered (plaster measured seperately) to					
H	Sloping soffit of staircase	17	m2			
J	Soffit of landing slab	5	m2			
K	Sides of open stringer 377 mm (maximum) wide to suit profile of treads and risers	24	m			
L	Sides of landing slab	6	m			
	<u>STEPS</u>					
	Construction and completion of external steps including all excavation, reinforcement, reinforced concrete and all necessary formworks complete with all tiles finished, all as shown and detail on Architectural's and Engineer's drawings					
M	300 mm wide steps x 150 mm high risers x 7100 mm length x 4 steps	1	no			

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - STAIRCASES (Cont)</u>					
<u>(Cont) STEPS</u>					
<u>(Cont) Construction and completion of external steps including all excavation, reinforcement, reinforced concrete and all necessary formworks complete with all tiles finished, all as shown and detail on Architectural's and Engineer's drawings</u>					
535 mm wide steps x 150 mm high risers x 7100 mm length x 1 step	1	no			
OTHER WORKS NECESSARY					
Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)					
1) _____		Item			
2) _____					
3) _____					

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - STAIRCASES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
BILL 3 - STAIRCASES Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - EXTERNAL WALLS</u>					
	BRICKWALL					
	<u>Common brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course</u>					
A	115 mm thick brickwall	1271	m2			
B	150 mm thick brickwall	288	m2			
C	230 mm thick brickwall	130	m2			
D	300 mm thick cavity brickwall	191	m2			
	DECORATIVE SCREEN					
E	Supply and install of decorative Archifacade Lightweight Architectural Screen with metal framing finished with spray coated paint SKK stone finish, complete with bracket, all fixing accessories etc, all as detail on Architectural's drawing and in strick accordance with the manufacturer's instructions and specifications	750	m2			
	FEATURE WALL					
F	Feature wall, overall size 5000 mm x 3000 mm x 380 mm thick comprised of brick cavity wall, RC capping, finished all exposed surface with red sandstone wall tiles on cement and sand plainface plaster, all as detailed on Architectural drawings	1	no			
G	Feature wall, overall size 3600 mm x 3000 mm x 380 mm thick comprised of brick cavity wall, RC capping, finished all exposed surface with red sandstone wall tiles on cement and sand plainface plaster, all as detailed on Architectural drawings	2	no			
H	115 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
PTE159					To Collection \$	
BQ/1						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - EXTERNAL WALLS (Cont)</u>					
	(Cont) FEATURE WALL					
A	150 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
B	230 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
C	300 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
D	6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			
	OTHER WORKS NECESSARY					
E	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

Description	Qty	Unit	Rate	\$	c
<p><u>BILL 3 - WINDOWS</u></p> <p>The Contractor must verify exact size of windows, doors and curtain walling on site prior to fabrication</p> <p>The Contractor to submit shop drawings and full details of aluminium sections for various units, methods of fixings, details of ironmongeries, details of bolts, fixing etc for approval</p> <p>All aluminium profiles shall be "TECHNAL", "REYNAERS" OR SCHUCO" aluminium section or other equivalent and approved European system in powder coating finish in accordance to latest regulation; with (10) TEN years warranty.</p> <p>All aluminium profiles should be extruded from aluminium alloy and backed by a certificate from the extruder indicating its genuineness. All aluminium profiles and sections shall comply with the architect's drawings and details. All glazing shall be internally glazed using green Tinted and / or Processed glasses which samples are to be submitted and approved by the Project Architect.</p> <p>All aluminium curtain walling, windows and doors shall include with 25mm x 38mm aluminium sub framing and weatherseal sealant applied to perimeter of windows.</p> <p>All aluminium windows and doors hardware and locking mechanism shall be approved equivalent and hardware system from Europe.</p> <p>All shops drawings details and methods of fixing must be submitted by the Contractor and shall be approved in writing by the Project Architect prior to work proceed.</p> <p>All products / materials shall be supported by a Certificate of origin indicating its genuineness.</p> <p>A 10 years warranty as to the windows and doors performance is to be issued in joint names with the systems and hardware supplier.</p>		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
PTE159	To Collection \$				

Description		Qty	Unit	Rate	\$	c
<u>BILL 3 - WINDOWS (Cont)</u>						
The Contractor is to submit relevant test reports or certificate indicating the aluminium system's compliance with the following performance standards and values			Note			
All shop drawings details shall be approved in writing by the Architect prior for work proceed. The number and sizes of all bolts, fixing etc shall be clearly indicated on the shop drawings			Note			
ALUMINIUM GLAZED SYSTEM						
<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>						
A	Overall size 2040 mm wide x 4800 mm high fixed glass panel (W1)	24	no			
B	Overall size 2040 mm wide x 4700 mm high fixed glass panel (W2)	9	no			
C	Overall size 8405 mm wide x 4800 mm high complete with fixed glass panels and double leaves swing glass door (W3)	1	no			
D	Overall size 4050 mm wide x 3500 mm high complete with fixed glass panels and single leaf swing glass door (W4)	1	no			
E	Overall size 8890 mm wide x 4800 mm high complete with fixed glass panels and double leaves swing glass door (W5)	1	no			
F	Overall size 2200 mm wide x 4800 mm high complete with fixed glass panels and single leaf swing glass door (W6)	1	no			
G	Overall size 2385 mm wide x 4800 mm high complete with fixed glass panels and single leaf swing glass door (W7)	1	no			
H	Overall size 1813 mm wide x 4800 mm high fixed glass panel (W8)	2	no			
PTE159		To Collection \$				
BQ/2						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	(Cont) Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
A	Overall size 4700 mm wide x 4800 mm high complete with fixed glass panels and single leaf swing glass door (W9)	1	no			
B	Overall size 1940 mm wide x 4800 mm high complete with fixed glass panels and double leaves swing glass door (W10)	1	no			
C	Overall size 4735 mm wide x 4800 mm high complete with fixed glass panels and single leaf swing glass door (W11)	1	no			
D	Overall size 1635 mm wide x 4800 mm high complete with fixed glass panels and single leaf swing glass door (W12)	1	no			
E	Overall size 4765 mm wide x 4800 mm high complete with fixed glass panels and single leaf swing glass door (W13)	1	no			
F	Overall size 2920 mm wide x 4800 mm high complete with fixed glass panels and double leaves swing glass door (W14)	1	no			
G	Overall size 2040 mm wide x 4800 mm high complete with fixed glass panels and double leaves swing glass door (W15)	3	no			
H	Overall size 2040 mm wide x 4700 mm high complete with fixed glass panels and double leaves swing glass door (W16)	6	no			
PTE159					To Collection \$	
BQ/3						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	<u>Supply and install aluminium glazed system</u> <u>in standard approved powder coating finish</u> <u>complete with 12.76 mm thick green tinted</u> <u>laminated glass including weatherseal</u> <u>sealant and all necessary fixing</u> <u>accessories, all in strict accordance with</u> <u>the manufacturer's instructions and</u> <u>specifications</u>					
A	Overall size 1250 mm wide x 3050 mm high complete with fixed glass panels and single leaf swing glass door (W19)	2	no			
B	Overall size 3790 mm wide x 3050 mm high complete with fixed glass panels and single leaf swing glass door (W20)	1	no			
C	Overall size 4790 mm wide x 3050 mm high fixed glass panel (W21)	1	no			
D	Overall size 4610 mm wide x 3050 mm high fixed glass panel (W22)	1	no			
E	Overall size 3790 mm wide x 3050 mm high fixed glass panel (W23)	1	no			
F	Overall size 3290 mm wide x 3050 mm high fixed glass panel (W24)	1	no			
G	Overall size 1500 mm wide x 3050 mm high complete with fixed glass panels and single leaf swing glass door (W25)	1	no			
H	Overall size 1800 mm wide x 3050 mm high complete with fixed glass panels and single leaf swing glass door (W26)	1	no			
J	Overall size 6450 mm wide x 3050 mm high complete with fixed glass panels and double leaves swing glass door (W27)	1	no			
K	Overall size 4790 mm wide x 3050 mm high fixed glass panel (W28)	1	no			
L	Overall size 5240 mm wide x 3150 mm high complete with fixed glass panels and double leaves swing glass door (W29)	1	no			
M	Overall size 2375 mm wide x 3600 mm high complete with fixed glass panels and single leaf swing glass door (W32)	2	no			
PTE159				To Collection \$		
	BQ/4					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	(Cont) Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
A	Overall size 3110 mm wide x 3050 mm high fixed glass panel (W33)	1	no			
B	Overall size 4670 mm wide x 3600 mm high fixed glass panel (W34)	1	no			
C	Overall size 2040 mm wide x 3200 mm high complete with fixed glass panels and double leaves swing glass door (W35)	3	no			
D	Overall size 2040 mm wide x 3610 mm high fixed glass panel (W36)	28	no			
E	Overall size 5275 mm wide x 3500 mm high fixed glass panel (W37)	1	no			
F	Overall size 7895 mm wide x 3500 mm high complete with fixed glass panels and single leaf swing glass door (W38)	1	no			
G	Overall size 10480 mm wide x 3500 mm high complete with fixed glass panels and single leaf swing glass door (W39)	1	no			
H	Overall size 4700 mm wide x 3500 mm high complete with fixed glass panels and single leaf swing glass door (W40)	1	no			
J	Overall size 1940 mm wide x 3500 mm high complete with fixed glass panels and single leaf swing glass door (W41)	1	no			
K	Overall size 3160 mm wide x 3500 mm high complete with fixed glass panels and double leaves swing glass door (W42)	2	no			
L	Overall size 8675 mm wide x 3500 mm high complete with fixed glass panels and double leaves swing glass door (W43)	1	no			
M	Overall size 2295 mm wide x 3500 mm high complete with fixed glass panels and double leaves swing glass door (W44)	2	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	(Cont) Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
A	Overall size 1000 mm wide x 2150 mm high single leaf swing glass door (W48)	2	no			
	Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
B	Overall size 1750 mm wide x 3000 mm high complete with fixed glass panels and sliding glass window (W46)	2	no			
C	Overall size 3050 mm wide x 3000 mm high complete with fixed glass panels and sliding glass windows (W47)	2	no			
	Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
D	Overall size 1150 mm wide x 4430 mm high complete with fixed glass panel and folding panels (W17)	2	no			
E	Overall size 2040 mm wide x 4430 mm high complete with fixed glass panels and folding panels (W18)	7	no			
PTE159					To Collection \$	
BQ/6						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 6 mm thick green tinted Frosted glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>					
A	Overall size 1600 mm wide x 600 mm high top hung windows (W30)	2	no			
B	Overall size 800 mm wide x 600 mm high top hung windows (W31)	3	no			
C	Overall size 600 mm wide x 600 mm high top hung windows (W45)	6	no			
D	Precast reinforced concrete (grade 20) lintol, in various sizes including reinforcement, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		Item			
	<u>OTHER WORKS NECESSARY</u>					
E	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - INTERNAL WALLS</u>					
	BRICKWALL					
	<u>Common brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course</u>					
A	115 mm thick brickwall	1732	m2			
B	230 mm thick brickwall	117	m2			
C	300 mm thick cavity brickwall	235	m2			
	<u>Decorative stainless steel in hairline natural finish balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 10 mm thick tempered glass balustrade fixed to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification</u>					
D	1100 mm high	8	m			
E	115 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
F	230 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
G	300 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
H	6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			
PTE159					To Collection \$	
BQ/1						

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - INTERNAL WALLS (Cont)</u>					
OTHER WORKS NECESSARY					
Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)					
1) _____		Item			
2) _____					
3) _____					
PTE159		To Collection \$			

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - INTERNAL WALLS (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 3 - INTERNAL WALLS Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - DOORS</u>					
	The Contractor must verify the exact sizes of doors and opening on site prior to fabrication		Note			
	Shop drawings should be submitted by Contractor prior to fabrication and installation for Architect approval		Note			
	The Contractor must submit sample / mock-up for Architect approval		Note			
	All door frame and architrave shall finished with 'ICI' or other equal and approved spray gloss paint		Note			
	All finished doors, linings, door frames and architrave shall be well-seasoned treated hardwood, planed, smoothed and sanded		Note			
	All door shall include kontras, beading and moulding		Note			
	All door finishes details shall refer to Architectural drawings and as in specification		Note			
	SOLID TIMBER CORE FLUSH DOORS					
A	Double leaves door, overall size 1900 x 2100 mm high (D2)	3	no			
B	Single leaf door, overall size 750 x 1950 mm high at 150 mm above floor level (D3)	12	no			
C	Single leaf door with louvre opening, overall size 800 x 2100 mm high (D4)	42	no			
D	Single leaf door with louvre opening, overall size 745 x 2100 mm high (D6)	2	no			
	FIRE RATED SOLID HARDWOOD TIMBER DOORS					
E	One hour fire rated single leaf door, overall size 950 x 2100 mm high (D1)	6	no			
F	One hour fire rated double leaves door, overall size 1900 x 2100 mm high (D2A)	5	no			
G	One hour fire rated double leaves door, overall size 1000 x 2100 mm high (D7)	4	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - DOORS (Cont)</u>					
	DECORATIVE ARCHIFACADE SCREEN DOOR					
A	Double leaves door complete with approved door frame, overall size 1600 x 2100 mm high (D5)	2	no			
	ALUMINIUM LOUVERS DOOR					
B	Double leaves door complete with approved door frame, overall size 1800 x 2100 mm high (D8)	1	no			
	<u>Wrot treated hardwood door frame and accessories in approved paint finished</u>					
C	Door frame	298	m			
D	Architrave	596	m			
E	Timber subframe	298	m			
F	Fire rated door frame	83	m			
G	Fire rated architrave	165	m			
H	Fire rated timber subframe	83	m			
J	Precast reinforced concrete (grade 20) lintol in various sizes including reinforcement, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		Item			
K	150 x 50 x 100 mm high heelstone cast to suit the profile of door jamb with one end built into door jamb and other end cast into heelstone and finish to match floor finishes		Item			
L	150 x 25 x 3 mm thick mild steel lugs with one end fishtailed built into joints of brickwork and the other end turned up, holed and screwed to back of timber door frame		Item			
M	6 mm wide approved silicone sealant pointing to gap between frame and tile		Item			
PTE159		To Collection \$				
BQ/2						

Description		Qty	Unit	Rate	\$	c
<u>BILL 3 - DOORS (Cont)</u>						
IRONMONGERY						
<u>Supply and fix the following or other equal and approved stainless steel ironmongery to doors and frames including all matching screws unless otherwise stated</u>						
A	"Kawajun" 503.12.101 or other equal and approved Hinge	249	no			
B	"Hafele" 502.10.125 or other equal and approved Pull Handle SSSP L1200mm	6	no			
C	"Hafele" 502.11.120 or other equal and approved Mortise roller lock SS matte forend width 24mm	16	no			
D	"Kawajun" 503.11.110 or other equal and approved 65mm Key-Thumb Turn Profile Cylinder	18	no			
E	"Kawajun" 503.11.107 or other equal and approved Square Escutcheon shot black	18	no			
F	"Kawajun" 503.10.238 or other equal and approved C1 Lever Handle on Square Rose & Escutcheon Finish : Shot Black	73	no			
G	"Hafele" 502.11.103 or other equal and approved mortise lock for profile cylinders	57	no			
H	"Kawajun" 503.11.117 or other equal and approved Thumb Turn & Coin Turn profile *For Toilet	55	no			
J	"Hafele" 502.12.112 or other equal and approved Heavy Duty Buttt Hinge	42	no			
K	"Hafele" 502.13.106 or other equal and approved Concealed diir closer DCL 34 *suitable for Fire-Rated Doors	14	no			
L	"Hafele" 502.10.100 or other equal and approved Flush Ring Pull Handle w spindle	5	no			
M	"Hafele" 502.11.104 or other equal and approved Mortise Latch	5	no			
N	"Hafele" 502.16.112 or other equal and approved Flush Bolt 8" SS	19	no			
PTE159		To Collection \$				
BQ/3						

Description		Qty	Unit	Rate	\$	c
<u>BILL 3 - DOORS (Cont)</u>						
(Cont) IRONMONGERY						
(Cont) Supply and fix the following or other equal and approved stainless steel ironmongery to doors and frames including all matching screws unless otherwise stated						
A	"Hafele" 502.16.113 or other equal and approved Flush Bolt 18" SS	19	no			
B	"Hafele" 502.16.111 or other equal and approved Floor Socket-15mm dia	14	no			
C	"Hafele" 502.16.120 or other equal and approved Door Stopper	88	no			
D	"Hafele" 502.13.105 or other equal and approved Door Closer (without hold open - standard arm)	60	no			
E	"Hafele" 502.11.127 or other equal and approved Single Deadbolt (Light Duty)	1	no			
MASTER KEY SYSTEM						
F	Allow for all locks to be keyed in one master key to the approval of the Superintending Officer		Item			
<u>OTHER WORKS NECESSARY</u>						
G	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - INTERNAL WALL FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
A	20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to wall and column	4683	m2			
B	20 mm thick cement and sand (1:3) backing screed to receive ceramic wall tiles to wall and column	1304	m2			
C	Approved Skim coat on plastered wall surface to received paint	4460	m2			
D	(3.1) 'ICI Dulux' all-in-one or other equal and approved paint to plainface plastered (plaster measured seperately) wall and column	3173	m2			
E	(3.2) 'ICI Dulux' pentelite or other equal and approved paint to plainface plastered (plaster measured seperately) wall and column	1510	m2			
F	(3.3) 'Cicogress' or other equal and approved 300 mm x 600 mm wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column	212	m2			
G	(3.4) 'Cicogress' or other equal and approved 400 mm x 1200 mm wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column	970	m2			
H	(3.5) 'Portino' Basic series or other equal and approved 300 mm x 600 mm wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column	122	m2			
J	'Fosroc' brushbond or other equal and approved cementitious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction to wall and column (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	1182	m2			

BILL 3 - INTERNAL WALL FINISHES

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BILL 3 - INTERNAL WALL FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - INTERNAL WALL FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 3 - INTERNAL WALL FINISHES Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - INTERNAL FLOOR FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
A	(1.9) 50 mm thick cement and sand (1:3) screed including trowelled smooth to floor	98	m2			
	<u>30 mm thick cement and sand (1:3) backing screed to floor to receive</u>					
B	Floor tiles	508	m2			
C	Carpet	657	m2			
D	Polished Marble	642	m2			
E	Block	36	m2			
F	150 mm high tiles skirting	304	m			
G	150 mm high timber skirting	278	m			
H	Polished marble	289	m			
J	Drop in slab		Item			
	<u>(1.1) 'Cicogress' or other equal and approved 750 mm x 1500 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
K	Floor	116	m2			
L	Drop in slab		Item			
	<u>(1.2) 'Cicogress' or other equal and approved 400 mm x 1200 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
M	Floor	121	m2			
N	Drop in slab		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - INTERNAL FLOOR FINISHES (Cont)</u>					
	<u>(1.3) 'Cicogress' or other equal and approved 300 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
A	Floor	163	m2			
B	Drop in slab		Item			
	<u>(1.4) 'Cicogress' or other equal and approved 600 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
C	Floor	108	m2			
D	Drop in slab		Item			
	<u>(1.6) 'Modulyss' DSGN CLOUD series or other equal and approved carpet tiles with approved pile weight and colour, complete with and including foam underlay laid to floor with matching adhesive, cutting, aluminium edge strip and dividing strip, etc. laid on cement and sand screed (screed measured separately) to</u>					
E	Floor	657	m2			
F	Drop in slab		Item			
	<u>(1.7) Polished marble, laid in pattern on cement and sand screed (screed measured separately) to</u>					
G	Floor	642	m2			
H	Drop in slab		Item			
	<u>(1.8) 'CIFRE CERAMICA' Extend Series or other equal and approved 20 mm thick floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
J	Floor	36	m2			
K	Drop in slab		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - INTERNAL FLOOR FINISHES (Cont)</u>					
	<u>The following skirting, laid on cement and sand screed (screed measured separately)</u>					
A	(2.1) 'Cicogress' or other equal and approved tiles skirting, 150 mm x 1500 mm	71	m			
B	(2.2) 'Cicogress' or other equal and approved tiles skirting, 150 mm x 600 mm	233	m			
C	(2.4) Solid timber skirting	278	m			
D	(2.5) Polished marble skirting	289	m			
E	Selective Aluminium U-Channel termination accessories with natural anodised finish to Architect's approval, install strictly in accordance with the manufacturer's instruction	871	m			
F	'Fosroc' brushbond or other equal and approved cementitious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	170	m2			
G	Approved aluminium edge strip and dividing strip, fixed strictly in accordance with manufacturer's instruction		Item			
H	Approved stainless steel divider strip, fixed strictly in accordance with manufacturer's instruction		Item			
	OTHER WORKS NECESSARY					
J	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 3 - INTERNAL FLOOR FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - INTERNAL FLOOR FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
BILL 3 - INTERNAL FLOOR FINISHES Carried to Summary					

BILL 3 - INTERNAL CEILING FINISHES

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - INTERNAL CEILING FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
A	(4.4) 20 mm thick cement and sand (1:3) plainface plaster trowelled smooth to soffit of slab	98	m2			
B	(4.1) 'Gyproc' or other equal and approved gypsum board ceiling with square edge complete with standard fixing accessories all as per manufacturer's detail, recommendation and approval as detailed on drawings.	1092	m2			
C	(4.2) 'Gyproc' or other equal and approved gypsum moisture resistant board ceiling with square edge complete with standard fixing accessories all as per manufacturer's detail, recommendation and approval as detailed on drawings.	123	m2			
D	(4.5) 'USG' or other equal and approved grid ceiling on suspension system complete with perimeter edge trimming T-grid, aluminium trimmer, moluding and capping with matching colour including approved paint, all fixing accessories all as to manufacturer's detail, recommendation and approval as detailed on drawings.	556	m2			
E	(4.7) 'Hunter Douglas' or other equal and approved Luxalon aluminium clip-in tiles ceiling, 600 mm x 600 mm on suspension system complete with perimeter edge trimming T-grid, aluminium trimmer, moluding and capping with matching colour including approved paint, all fixing accessories all as to manufacturer's detail, recommendation and approval as detailed on drawings.	70	m2			
F	Decorative coffer feature ceiling in 'Gyproc' or other equal and approved gypsum board complete with fixing accessories and finished with 'ICI DULUX' or other equal and approved paint, all as detailed on Architectural drawings and in specification	285	m2			

BILL 3 - INTERNAL CEILING FINISHES

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - INTERNAL CEILING FINISHES (Cont)</u>					
	<u>Prepare, prime and apply 'ICI DULUX' or other equal and approved paint finish to</u>					
A	Soffit of slab	98	m2			
B	Gypsum board	1215	m2			
C	Shadow gap including paint		Item			
D	Drop in ceiling including paint		Item			
E	<u>Extra for forming ceiling access opening including all frame and painting</u>		Item			
	OTHER WORKS NECESSARY					
F	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 3 - INTERNAL CEILING FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - INTERNAL CEILING FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 3 - INTERNAL CEILING FINISHES Carried to Summary					
PTE159					
BQ/2					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - EXTERNAL WALL FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
A	20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to wall and column	2870	m2			
B	20 mm thick cement and sand (1:3) backing screed to receive ceramic wall tiles to wall and column	1862	m2			
C	(3.6) Red Sandstone wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column including primed A5631 or other equalvalent, bracket and all other fixing accessories	1862	m2			
D	(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) wall and column	2870	m2			
	OTHER WORKS NECESSARY					
E	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 3 - EXTERNAL WALL FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - EXTERNAL WALL FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
BILL 3 - EXTERNAL WALL FINISHES Carried to Summary					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - EXTERNAL FLOOR FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	<u>30 mm thick cement and sand (1:3) backing screed to floor to receive</u>					
A	Block	959	m2			
B	Block tile skirting	62	m			
C	Red sandstone	273	m			
D	Drop in slab		Item			
	<u>(1.8) 'CIFRE CERAMICA' Extend Series or other equal and approved 20 mm thick floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
E	Floor	959	m2			
F	Drop in slab		Item			
	<u>The following skirting, laid on cement and sand screed (screed measured separately)</u>					
G	(2.6) 20 mm thick CIFRE CERAMICA Extend Series tiles skirting	62	m			
H	(2.7) Red sandstone tiles skirting	273	m			
J	Selective Aluminium U-Channel termination accessories with natural anodised finish to Architect's approval, install strictly in accordance with the manufacturer's instruction	335	m			
	OTHER WORKS NECESSARY					
K	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					

BILL 3 - EXTERNAL FLOOR FINISHES

Description	Qty	Unit	Rate	\$	c
BILL 3 - EXTERNAL FLOOR FINISHES (Cont)					
(Cont) OTHER WORKS NECESSARY					
2) _____					
3) _____					
PTE159		To Collection \$			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - EXTERNAL CEILING FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
A	(4.6) 'SIAM' or other equal and approved gypsum weatherbloc ceiling with square edge complete with standard fixing accessories finished, all as per manufacturer's detail, recommendation and approval as detailes on drawings.	392	m2			
	<u>Prepare, prime and apply 'Wattyl Solagard' or other equal and approved paint finish to</u>					
B	Gypsum weatherbloc board	392	m2			
C	Shadow gap including paint		Item			
D	Drop in ceiling including paint		Item			
E	<u>Extra for</u> forming ceiling access opening including all frame and painting		Item			
	OTHER WORKS NECESSARY					
F	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 3 - EXTERNAL CEILING FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - EXTERNAL CEILING FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
BILL 3 - EXTERNAL CEILING FINISHES Carried to Summary					
PTE159					

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - FURNISHING FITTINGS</u>					
All sizes shall be checked on site prior to fabrication		Note			
All external surfaces shall be of selective Lamitak laminated finish or of equal equivalent unless otherwise stated, face pattern and colour as selected by the Architect		Note			
All internal surfaces shall be of selective Lamitak laminated finish or of equal equivalent unless otherwise stated, face pattern and colour as selected by the Architect		Note			
All hardwood edging and lipping shall be painted with 2 coats of approved transcolor preservative wood stain finishing or of equal equivalent, colour as selected by Architect		Note			
All cabinet doors, shelves and drawers shall be provided with and including approved ironmongeries (Lock set to drawer refer to Architectural drawings denoted as circular keyhole in elevation)		Note			
All counter top finished with 12.3 mm thick 'Samsung Staron' or other equal and approved solid surface material back with plywood and 'Non-drip' edge profile on front and sides of appoved colour as selected by the Architect		Note			
Unless otherwise stated, all finishes and details as shown/detailed on Architectural drawings		Note			
Tenderer shall make his own assessment from all drawings and specification issued at the time of tederer. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained		Note			
Mock up units shall be provided when require		Note			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - FURNISHING FITTINGS (Cont)</u>					
	WASH HAND BASIN COUNTER TOP					
	<u>Wash hand basin counter top and 150 mm high splashboard in approved colour finished with waterproofing, including forming opening to receive basin including mild steel bracket support and all necessary fixing accessories all as detailed on drawing and in specification</u>					
A	Overall size 2750 mm long x 600 mm deep x 400 mm high	2	no			
B	Overall size 4000 mm long x 600 mm deep x 400 mm high	2	no			
C	Overall size 1300 mm long x 600 mm deep x 400 mm high	2	no			
D	Overall size 900 mm long x 600 mm deep x 400 mm high	2	no			
E	Overall size 1162 mm long x 600 mm deep x 400 mm high	2	no			
F	Overall size 700 mm long x 600 mm deep x 400 mm high	1	no			
	PANTRY CABINET					
G	Low Cabinet, overall size 3313 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per details on Architectural drawings	1	no			
H	High Cabinet, overall size 3313 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	1	no			
J	Low Cabinet, overall size 5897 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per details on Architectural drawings	2	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - FURNISHING FITTINGS (Cont)</u>					
	(Cont) PANTRY CABINET					
A	High Cabinet, overall size 5895 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	2	no			
	SECURITY COUNTER TOP (Guard House)					
B	Overall size, detail designs, finishes specification for security counter top including all ironmongeries and etc, all as detailed on Architectural drawings	2	no			
	SECURITY COUNTER TOP (Guard Office)					
C	Overall size, detail designs, finishes specification for security counter top including all ironmongeries and etc, all as detailed on Architectural drawings	2	no			
	INTERIOR DESIGN WALL PANELLING					
	All details design and finishes specification to refer to Architectural detail drawings		Note			
D	ID detail 01 - Reception foyer, feature wall and gallery wall cladding comprised of: a) Reception counter in selective 20 mm thick white volakas polished marble finish complete with all necessary plywood backing and cabinetry timber framing b) Lower Reception counter in selective Samsung Staron solid surface finish complete with necessary plywood backing and cabinetry timber framing c) Feature wall in selective walnut timber veneer complete with sprayed lacquer coating finish d) Drop ceiling feature in selective walnut timber veneer complete with sprayed lacquer coating finish	1	no			
E	ID detail 02 - Library cabinetry detail comprised of:	1	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - FURNISHING FITTINGS (Cont)</u>					
	(Cont) INTERIOR DESIGN WALL PANELLING					
	a) Selective red sandstone cladding finish in dry fixing system complete with stainless steel brackets, all to manufacturer's instruction and detail					
	b) Cabinetry works in selective finishes including all framing, fixing accessories and ironmongeries					
A	ID detail 03 - Lift Shaft and staircase wall cladding (ground and first floor) comprised of:	1	no			
	a) Feature wall in selective Walnut timber veneer complete with sprayed lacquer coating finish					
	b) Selective red sandstone cladding finish in dry fixing system complete with stainless steel brackets, all to manufacturer's instruction and detail					
	c) Selective coloured stainless steel cladding in natural hairline finish					
	d) 60mm diameter solid Walnut timber handrail complete with stainless steel wall fixing bracket					
	e) Archifoam Archifacade CPC panel in decorative pattern design complete with sprayed paint finish and sprayed lacquer coating to architect's approval. Feature to complete with 8mm thick grey tinted mirror finish as backdrop for CPC panel					
B	ID detail 04 - Gallery wall cladding comprised of:	1	no			
	a) Box-up column feature in selective red sandstone cladding finish in dry fixing system complete with brackets, all to manufacturer's instruction and detail					
C	ID detail 05 - Consular display counter comprised of:	1	no			
	a) Feature wall in selective Walnut timber veneer complete with sprayed lacquer coating finish					

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - FURNISHING FITTINGS (Cont)</u>					
(Cont) INTERIOR DESIGN WALL PANELLING					
b) Selective red sandstone cladding finish in dry fixing system complete with stainless steel brackets, all to manufacturer's instruction and detail					
c) Feature counter in selective 20mm thick White Volakas polished marble finish complete with Walnut timber veneer insert in sprayed lacquer coating					
ID detail 06 - Consular display counter comprised of:	1	no			
a) Box up column feature in selective red sandstone cladding finish in dry fixing system complete with stainless steel brackets all to manufacturer's instructiion and detail					
b) Consular counter in selective 20mm thick White Volakas polished marble complete with plywood backing					
ID detail 07 - Multipurpose hall entrance feature wall comprised of:	1	no			
a) Selective red sandstone cladding finish in dry fixing system complete with stainless steel brackets, all to manufacturer's instruction and detail					
b) Selective silk padded fabric paneling complete with all necessary box up timber framing and plywood backing					
c) Archifoam Archifacade CPC panel in decorative pattern design conmpete with sprayed paint finish and sprayed lacquer coating to architect's approval. Feature to complete with 8mm thick grey tinted mirror finish as backdrop for CPC panel					
d) Column box up feature in selective Walnut timber veneer finish complete with sprayed lacquer coating finish					
e) Drop ceiling feature in selective Walnut timber veneer finish complete with sprayed lacquer coating finish					
PTE159					
To Collection \$					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - FURNISHING FITTINGS (Cont)</u>					
	(Cont) INTERIOR DESIGN WALL PANELLING					
A	<p>ID detail 08 - Multipurpose hall stage feature wall comprised of:</p> <p>a) Selective silk padded fabric paneling complete with all necessary box up timber framing and plywood backing</p> <p>b) Drop ceiling feature in selective Walnut timber veneer finish complete with sprayed lacquer coating finish</p> <p>c) Archifoam Archifacade CPC panel in decorative pattern design complete with sprayed paint finish and sprayed lacquer coating to architect's approval. Feature to complete with 8mm thick grey tinted mirror finish as backdrop for CPC panel</p> <p>d) Column box up feature in selective Walnut timber veneer finish complete with sprayed lacquer coating finish</p> <p>e) Selective red sandstone cladding finish in dry fixing system complete with stainless steel brackets, all to manufacturer's instruction and detail</p>	1	no			
B	<p>ID detail 09 - Multipurpose hall and Refreshment Area ceiling & column feature comprised of:</p> <p>a) Box up ceiling feature in selective Walnut timber veneer finish complete with sprayed lacquer coating finish</p> <p>b) Column box up feature in selective Walnut timber veneer finish complete with sprayed lacquer coating finish</p> <p>c) Hunter douglas powder coated aluminium baffle ceiling complete with all necessary fixing accessories, all as per manufacturer's instruction and detail</p>	1	no			
C	ID detail 10 - High Commissioner's Office Cabinetry and feature wall comprised of:	1	no			

	Description	Qty	Unit	Rate	\$	c
	BILL 3 - FURNISHING FITTINGS (Cont)					
	(Cont) INTERIOR DESIGN WALL PANELLING					
	a) Cabinetry, overall size 6600 mm long x 600 mm deep x 3500 mm high comprised of solid timber door, cabinet doors, drawers, open shelves, mirrors, skirting, all ironmongeries and etc, all as per details on Architectural drawings (Elevation A)					
	b) Selective red sandstone cladding finish in dry fixing system complete with skirting and stainless steel brackets, all to manufacturer's instruction and detail (Elevation B)					
	c) Selective silk padded fabric paneling complete with all necessary box up timber framing and plywood backing, feature wall in selective Walnut timber veneer complete with sprayed lacquer coating finish, solid timber door, stone skirting and etc, all as per details on Architectural drawings (Elevation C)					
	d) Feature wall in selective Walnut timber veneer complete with sprayed lacquer coating finish complete with solid timber door and all ironmongeries (Elevation D)					
	MIRROR					
	<u>8 mm thick bronze tinted mirror with 10 mm thick plywood backing complete with powder coated aluminium frame and all fixing equipment and accessories</u>					
A	Overall size 2700 mm long x 1000 mm high	4	no			
B	Overall size 500 mm long x 800 mm high	6	no			
C	Overall size 1200 mm long x 1000 mm high	2	no			
	OTHER WORKS NECESSARY					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					

BILL 3 - FURNISHING FITTINGS

Description	Qty	Unit	Rate	\$	c
BILL 3 - FURNISHING FITTINGS (Cont)					
(Cont) OTHER WORKS NECESSARY					
3) _____					
PTE159			To Collection \$		

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - PLUMBING</u>					
	<u>PLUMBING</u>					
	Fire Hosereel and all associated tanks, pump sets and plumbing works measured in Bill 8B		Note			
	All bends, junctions, tees and the like shall be with access eye opening of pipe diameter		Note			
	All soil and waste pipes shall be connected to gully trap and first manhole		Note			
	SOIL, WASTE AND VENT PIPES					
A	Waste, soil and vent piping system, including all connection and fittings, all as detailed on drawings and in specification		Item			
B	Floor trap including all connection, fittings and gratings, all as detailed on drawings and in specification		Item			
	GULLY TRAP					
C	Gully trap and chamber size 300 x 300 mm in various depth internally with multiple inlets comprising 125 mm thick concrete (grade 20) wall and base, upvc gully trap to B.S.4660 with perforated grating, 300 x 300 mm stainless steel grating with hinge, etc. finished with cement and sand render internally, epoxy painting, inlet and outlet, jointing to waste pipes, including excavation, disposal, backfilling, formwork, etc, the whole as per detail shown on Engineer's drawing		Item			
	COLD AND HOT WATER SERVICES					
D	Cold water and piping including all fittings and connections, all as detailed on drawings and in specification		Item			
E	Hot water and piping including all fittings and connections, all as detailed on drawings and in specification		Item			

Description		Qty	Unit	Rate	\$	c
<u>BILL 3 - PLUMBING (Cont)</u>						
<u>(Cont) PLUMBING</u>						
TESTING						
A	Allow for testing the whole of the plumbing system to the approval of the relevant authorities and to the satisfaction of the Superintending Officer		Item			
<u>OTHER WORKS NECESSARY</u>						
B	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159		To Collection \$				
BQ/2						

Description	Qty	Unit	Rate	\$	c
<u>BILL 3 - PLUMBING (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 3 - PLUMBING Carried to Summary					
PTE159					
BQ/2					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - SANITARY FITTINGS</u>					
	<u>Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	DURAVIT 2133010005-C Starck 2 One Piesce 4.8L single flush syphonic W.C., 0063390000-C seat & cover (soft close), 014180096 mounting set (s-trap:305mm), 112" stop valve (include in mounting set), 1/2" flexible hose (include in mounting set)	1	no			
B	DURAVIT 21180900002-G D-Code closed coupled washdown W.C., 0927100004-G cistern with 6/3L dual flush fittings, U7070S+I107 seat & cover (soft close), bend connector (S-trap:170mm), 1/2" stop valve, 3/8" x 1/2" flexible hose	17	no			
C	JOHNSON SUISSE WBAENW211WW windsor 250 BO WC, WBALTN111WW trend cistern with lid, WBFT400335XX trend 6/3L flush fittings, SC402 seat & cover (soft close), WBFT400101XX fixing bolt (x2), P450 Straight Connector (S-Trap: 250mm) , AV300 1/2" Stop Valve with Flange, DA650-N 1/2" Flexible Hose	3	no			
D	DURAVIT 0828300000 D-Code Wall-Hung Urinal, Jet Nozzle, 32mm Bottle Trap, Fixings, UF-EX01 Exposed Urinal Flush Valve with 6" Semi Flex Pipe	2	no			
E	DURAVIT 8500000000 Starck 3 Wall-Hung Ceramic Urinal Partition Size (705 x 400)mm, Fixings	2	no			
F	DURAVIT 2323550000 Starck 2 Wall-Hung Basin with 1 Tap Hole Size (0 x 410 x 185) mm, WBFT400099XX Fixing Bolt (x2), 32mm - 1/4" UPVC Bottle Trap, 0858340000 Half Pedestal, 0055030000 Fixings, AV300 1/2" Stop Valve with Flange (x2)	1	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - SANITARY FITTINGS (Cont)</u>					
	<u>(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	DURAVIT 0337540000 D-Code Insert Basin with 1 Tap Hole W/Overflow Hole Size (545 x 435 x 180)mm, Chrome Plated P-Trap, A202 Chrome Plated Waste, Plug & Chain, AV300 1/2" Stop Valve with Flange, DA650-N 1/2" Flexible Hose	14	no			
B	DCODE 23105500002 D-Code Wall-Hung Basin with 1 Tap Hole W/Overflow Hole Size 550 x 430 x 175)mm, WBFT400099XX Fixing Bolt (x2), 32mm - 1/4" UPVC Bottle Trap, 08571800002 Half Pedestal with Fixings, A202 Chrome Plated Wasted, Plug & Chain, AV300 1/2" Stop Valve with Flange, DA650-N 1/2" Flexible Hose	2	no			
C	JOHNSON SUISSE WBAABS201WW Boston 500 Wall-Hung Basin with 1 Tap Hole W/Overflow Hole Size (500 x 430 x 210)MM, WBFT400099xx Fixing Bolt (x2), WBABHP000WW Half Pedestal, WBFT400101XX Fixing Bolt (x2), 32mm - 1 1/4" Upvc Bottle Trap, A202 Chrome Plated Waste Plug & Chain, AV300 1/2" Stop Valve withFlange, DA650-N 1/2" Flexible Hose	3	no			
D	FIMA CARLO FRATTINI F3721CR.WS.2 Quad Deck Mounted Basin Mixer (Hot & Cold), Ckick Clack Pop-Up Wasta, 1/2" Supply Hose (x2)	1	no			
E	JOHNSON SUISSE WBFA300760CP Deck Mounted Self Closing Tap (Cold Only)	19	no			
F	JOHNSON SUISSE WBFA300933CP Fermo Deck Mounted Sink Tap (Cold Only)	3	no			
G	JOHNSON SUISSE WBFA301482CP Fermo-N Two Way Bib Tap With Screw Collar & Flange (Cold Only)	1	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - SANITARY FITTINGS (Cont)</u>					
	(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction					
A	FIMA CARLO FRATTINI F3729X2CR Quad Concealed Bath & Shower Mixer With Diverter (Hot & Cold), F3000 Fima Concealed Box, F2224/2CR Brass Round Overhead Shower (Dia: 300mm), F2584CR Ceiling Mounted Shower Arm (L-150mm), F2297CR Sliding Rail c/w Brass Flex Hose (L-1500mm) + Anto-Limestone Handshower, F2013CR 1/2" Water Outlet Connector	1	no			
B	DURAVIT 0099401000 Starck-T Paper Holder	1	no			
C	METLAM ML841 Stainless Steel #304 Wall-Mounted Jumbo Toilet Roll Dispenser	20	no			
D	DURAVIT 0099301000 Starck-T Double Robe Hook	1	no			
E	FIMA CARLO FRATTINI F6004/1CR Rotola Robe Hook	20	no			
F	DURAVIT 0099421000 Starck-T Single Towel Rail (L-610mm)	1	no			
G	DURAVIT 0099471000 Starck-T Towel Ring	1	no			
H	METLAM ML710-SMMK2 Wall Mounted Stainless Steel #304 Lockable Paper Towel Dispenser & Waste Receptacle Size (720 x 365 x 115)mm	13	no			
J	DURAVIT 0099351000 Starck-T Wall Mounted Soap Dispenser	1	no			
K	METLAM ML 600AS Stainless Steel #304 Wall Mounted Horizontal Liquid Soap Dispenser Size (209 x 123 x 71) mm Capacity : 1.2L	15	no			
L	METLAM ML 1800 Auto Operation Hand Dryer in White High Grade Fire Retardent ABS Casing Size (268 x 220 x 170)mm A/C: 240V	13	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 3 - SANITARY FITTINGS (Cont)</u>					
	(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction					
A	FIMA CARLO FRATTINI F2454/7CR Collettivita Bidet Angle Valve (Cold Only), ABS Hand Bidet Spray, 1200 mm Flexible Chromalux Hose, Spray Holder	1	no			
B	FIMA CARLO FRATTINI F2840/7CR Collettivita Bidet Angle Valve (Cold Only), ABS Hand Bidet Spray, 1200 mm Flexible Stainless Steel Hose, Spray Holder	20	no			
C	CAM AHI-1015BWC Single Bowl Single Drainer Insert Type Stainless Steel Kitchen Sink Size (1000 x 500 x 250)mm, Waste, 40mm 1/2 UPVC Bottle Trap, AV300 1/2" Stop Valve with Flange, DA650-N 1/2" Flexible Hose	3	no			
D	SHOWY 2333 Single Bowl 45L Stainless Steel Lay On Sink with Up-Turn Size (557 x 453 x 282)mm, Waste, 40 mm - 1 1/2" UPVC Bottle Trap, L-Bracket (x2)	1	no			
E	NOVATEC FT201-6 Stainless Steel Decorative Tile Insert Floor Grating Size (153 x 153)mm, FLV Anti Insect & Odor Flow Valve	36	no			
	OTHER WORKS NECESSARY					
F	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

Description	Qty	Unit	Rate	\$	c
BILL 4 - GENERAL NOTE					
NOTES					
The bills are to be read and priced in conjunction with the drawings, specification and include all works described / shown in bills and drawings		Note			
The Contractor is to comply with the conditions of contract, specification, all preliminaries, etc. necessary for the complete execution of the works		Note			
The Contractor shall be responsible for applying and obtaining all required permits from the relevant authorities for temporary accesses, etc. and for payment of fees thereof		Note			
The Contractor must visit the site so as to take into consideration existing conditions and to have satisfied himself as to the nature of the site, soil condition, facilities for access, mobilisation of plants, etc. required under this contract. No claims will be allowed on the grounds of ignorance of the conditions under which the works will be executed		Note			
Prior to the commencement of any work, the levels of the original surface of the site including all slopes shall be agreed by the Superintending Officer in accordance with Preliminaries under 'Setting Out and Site Levels' and on completion of this works, the Contractor must submit as built drawings as required in Preliminaries under 'Completion Joint-Survey and As Built Drawing' which shall form the basis of measurement		Note			
The Contractor shall take all measures to protect the existing cables and services that is not affected by his scope of work. Any such damage caused by the Contractor shall be made good at the expense of the Contractor and to the satisfaction of the Superintending Officer		Note			
PTE159			To Collection \$		

Description	Qty	Unit	Rate	\$	c
<p><u>BILL 4 - GENERAL NOTE (Cont)</u></p> <p><u>(Cont) NOTES</u></p> <p>All making good shall be executed with materials and workmanship to match in every respect of the surrounding work and shall be properly done thereto to the complete satisfaction of the S.O.</p> <p>Unless otherwise specified, all materials and debris resulting from the clearing shall be stacked and removed completely from the site. On no account shall cleared timber or other materials be deposited in areas to be filled. Burning on site shall be prohibited</p> <p>No tipping on the adjoining land shall be allowed in this contract. The Contractor is therefore to make his own arrangements for disposal of all surplus excavated materials where directed and is to pay all charges in connection therewith</p> <p>Tenderer shall make his own assessment from all drawings and specification issued at the time of tendering. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained</p>		Note			
		Note			
		Note			
		Note			
		Note			
To Collection \$					

Description	Qty	Unit	Rate	\$	c
<p align="center"><u>BILL 4 - PILING</u></p> <p>PRECAST REINFORCED CONCRETE PILES (ALL PROVISIONAL)</p> <p>The system installation shall consist of 9.0 metre long precast concrete piles element forced into the ground using hydraulic jack method including cast in pile shoe</p> <p>The piles should conform to B.S. 8004 : 1986 and be approved by CPRU Min. of Development for use in Brunei Darussalam</p> <p>Steel reinforcement shall conform to B.S. 4449</p> <p>End plate should be manufactured to conform to B.S. 4360</p> <p>Concrete strength during transfer should correspond to a cube strength of minimum 25 Mpa</p> <p>The 28-day strength of concrete shall not be less than 50 Mpa</p> <p>Joint between the consecutive pile element shall be in full weld on each side of the end plates brought in contact</p> <p>The setting pressure of twice the working load shall be held for a minimum of ten seconds before release</p> <p>Each pile shall not deviate by more than 75 mm from the vertical or more than 74 mm from its designed position at the level of the piling chamber</p> <p>The paylengths for the supply and inject complete of each pile shall be measured from pile toe to cut-off level</p> <p>A Provide and erect on site all necessary plant and equipment for installation of precast concrete piles, and dismantle and clear away on completion</p>		<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Item</p>			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - PILING (Cont)</u>					
	(Cont) PRECAST REINFORCED CONCRETE PILES (ALL PROVISIONAL)					
A	Allow for moving and handling piling frame and equipment inclusive of assembling and dismantling about at site from position to position including use of Selangan timber matt and hiring of Kobelco for the full duration		Item			
	<u>Supply, transport, handle, pitch, inject, weld, extend, cut-off head, etc. precast reinforced (Grade 45) concrete piles, all in strict accordance with the pile specification.</u>					
B	250 mm square piles	680	m			
	<u>Provide the necessary kentledge, jack and dial gauges for the application and release of the load test. The rates include all supervision and labour, watching and lighting and removal of kentledge and equipment</u>					
C	Load test twice the working load for 250 mm square piles	2	no			
	<u>OTHER WORKS NECESSARY</u>					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - SUBSTRUCTURE</u>					
	EXCAVATION					
A	Excavate pit for pile cap, commencing from platform level, exceeding 2.00 m deep, get out part return, fill in, ram and surplus cart away excavated material where directed	67	m3			
B	Excavate trench for ground beam, commencing from platform level, not exceeding 2.00 m deep, get out and cart away excavated material where directed	25	m3			
C	Excavate for ground slab and apron slab commencing from platform level, not exceeding 300 mm, average 200 mm deep, get out and cart away excavated material where directed	354	m2			
	ANTI-TERMITE TREATMENT					
D	Prepare and apply one coat of organic chlorine or other equal and approved anti-termite chemical treatment to general surfaces as specified (measured flat over ground floor slab and apron slab area; rate to include for treating surfaces of ground beam, footing and the like and for appointing a registered pest control company to carry out the work and also for providing a ten (10) year warranty)	354	m2			
	DAMP PROOF MEMBRANE					
E	"POLY-FILM 1000" or other equal and approved damp proof membrane laid on prepared bed, seal laps with approved pressure sensitive tape (measured flat over ground floor slab - rate to include for laps, cutting and waste)	354	m2			
	CONCRETE WORKS					
	<u>50 mm thick lean concrete (grade 15) to underside of</u>					
F	Pile cap	30	m2			
G	Ground beam	44	m2			
H	Ground floor slab	354	m2			
J	Apron slab	36	m2			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - SUBSTRUCTURE (Cont)</u>					
	(Cont) CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Pile cap	22	m3			
B	Stump	11	m3			
C	Ground beam	33	m3			
D	150 mm thick ground floor slab	354	m2			
E	150 mm thick apron slab	36	m2			
F	<u>Extra over</u> for non-slip groove line to ramp		Item			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
G	Pile cap	2112	kg			
H	Stump	2662	kg			
J	Ground beam	4422	kg			
K	Ground floor slab	2762	kg			
L	Apron slab	281	kg			
	<u>Formwork to</u>					
M	Sides of pile cap	113	m2			
N	Sides of stump	88	m2			
P	Sides of ground beam	256	m2			
Q	Drop in ground slab and edge of ground slab		Item			
R	Drop in ramp and edge of ramp		Item			
S	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			

Description	Qty	Unit	Rate	\$	c
BILL 4 - SUBSTRUCTURE (Cont)					
OTHER WORKS NECESSARY					
Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)					
1) _____		Item			
2) _____					
3) _____					
PTE159					
To Collection \$					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - FRAME</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Suspended beam	63	m3			
B	Column	117	m3			
	<u>10 mm to 32 mm diameter mild steel / high tensile reinforcement bar in</u>					
C	Suspended beam	7429	kg			
D	Column	18980	kg			
	<u>Formwork to</u>					
E	Sides and soffit of suspended beam	487	m2			
F	Sides of column	1138	m2			
	OTHER WORKS NECESSARY					
G	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - UPPER FLOOR</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	125 mm thick suspended slab	347	m2			
B	150 mm thick suspended slab	233	m2			
C	275 mm thick suspended slab	7	m2			
	<u>10 mm and 12 mm diameter mild steel / high tensile reinforcement bar in</u>					
D	Suspended floor slab	4844	kg			
	<u>Formwork to</u>					
E	Sides and soffit of suspended slab	587	m2			
F	Drop in slab and edge of floor slab		Item			
G	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
	OTHER WORKS NECESSARY					
H	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - ROOF</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Roof beam	29	m3			
B	Gutter beam	18	m3			
C	125 mm thick gutter slab	27	m2			
D	150 mm thick gutter slab	2	m2			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
E	Roof beam	2639	kg			
F	Gutter beam	1638	kg			
G	Gutter slab	604	kg			
	<u>Formwork to</u>					
H	Sides and soffit of roof beam	291	m2			
J	Sides and soffit of gutter beam	228	m2			
K	Soffit of gutter slab	29	m2			
L	Drop in slab and edge of slab		Item			
M	<u>Extra over</u> to gutter wall to form decorative feature		Item			
N	Reinforced concrete ledge in various thickness including all necessary formwork, reinforcement, finished with all exposed concrete surfaces with approved paint in approved color, waterproofing membrane and etc., all as per Architectural and Engineer's details drawings	240	m2			

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - ROOF (Cont)</u>					
STRUCTURAL STEEL ROOF MEMBER					
All steel works members shall be high tensile galvanised steel, welded and bolted together, including all shop and site welding, filling smooth junction, raking and cutting, hoisted and placed in position all as detailed on drawings		Note			
Rate to include submission of shop drawings		Note			
Rate to included for sand blast clean to BS4232, degrease and wash clean all steel area and repair all damaged including approved paint to Engineer's approval		Note			
All steel works members, plates, cleats and bolts shall be high tensile galvanised steel including all necessary approved painting as specified		Note			
<u>Supply, install and erect the following structural steelworks hoisted and fixed in position to level as accordance to drawing in bolted and welded connection with and including all cutting, drilling, welding and approved metal paint finished (to all expose surfaces), all as detailed on Engineer's drawings</u>					
RHS 120 x 80 x 6.3 mm thick	3905	kg			
SHS 70 x 70 x 5 mm thick	1510	kg			
RHS 75 x 125 x 6 mm thick	838	kg			
C15016 lipped C purlin	441	m			
Plates / splicing		Item			
Angle Cleat including fasteners		Item			
Bolts / anchor bolts including nuts and washers		Item			
Holding down bolts		Item			
Non shrink grout		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - ROOF (Cont)</u>					
	ROOF COVERING					
	Rate to include a ten (10) years warranty for materials		Note			
A	'Lysaght' or other equal and approved Kliplock Hi-Ten 406 0.47 mm thick TCT in clean colorbond XRW fixed to steel purlins (purlins measured separately), laid in full length to fall complete with damping felt and self-adhesive bitumen felt, all clips and including all others matching fixing devices and accessories, all in accordance to the manufacturer's instruction (measured nett- rate to include for laps, cutting and waste) to sloping roof covering	353	m2			
B	'Lysaght' or other equal and approved clean colorbond gable end including flashing, clip, channel, thermal barrier pad and all fixing accessorise and sealant all as detailed on Architectural drawings		Item			
C	'Lysaght' or other equal and approved clean colorbond eave including flashing, foam filler, drip angle, thermal barrier pad and all fixing accessorise and sealant all as detailed on Architectural drawings		Item			
D	'Lysaght' or other equal and approved clean colorbond flashing between wall and roof, one end chase into brickwall filled with approved non-setting silicone sealant including all fixing accessorise all as per detailed on drawings		Item			
	ROOF INSULATION					
E	50 mm thick 'Lysaght' ROXUL MPB100 or orther equal and approved rockwool insulation at 40kg/m3 including all other fixing accessories (measured nett - rate to include for laps, cutting and waste)	353	m2			
F	BRC 3315 wire mesh including all other fixing accessories	353	m2			
G	Meta aluminium double sided foil including all other fixing accessories	353	m2			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - ROOF (Cont)</u>					
	ROOF WATERPROOFING SYSTEM					
	<u>30 mm thick cement and sand (1:3) screed laid to falls to receive waterproofing system to</u>					
A	Gutter slab	117	m2			
B	Sides of gutter wall	171	m2			
C	300 mm high upturn skirting	150	m			
D	Down pipe and outlet		Item			
	<u>'FOSROC' Polyurea or other eaqual and approved (high quality, environmentally safe, enery saving and elastrometric) waterproofing membrane on high-tech polymer chemistry formulation and acrylic polymers forming seamless joint, free water and weather light elastic membrane with heat insulation properties including cement and sand (1:3) screed, laid to fall and all necessary surface preparation with 'FOSROC' or other equal and approved primer 195 (Rate to include for providing a ten (10) years guarantee as specified hereinbefore) to</u>					
E	Gutter slab	117	m2			
F	Sides of gutter wall	171	m2			
G	300 mm high upturn skirting	150	m			
H	Down pipe and outlet		Item			
	RAINWATER GOODS					
J	<u>'TERRAIN' or other equal and approved 100 mm diameter rainwater downpipe with cement solvent joint fixed to concrete or brickwork with and including holderbats, brackets, straps, hangers, bends and the like, finish with approved finishes, to specification, engineer's, manufacturer's and specialist detail, recommendation and architect's approval, all as detailed on drawings</u>	130	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - ROOF (Cont)</u>					
	(Cont) RAINWATER GOODS					
A	'TERRAIN' or other equal and approved 100 mm diameter upvc rainwater downpipe with cement solvent joint laid under floor with and including brackets, straps, bends, excavation, backfill, 100 mm thick concrete (grade 20) surround reinforced with one layer BRC A6, formwork and 50 mm thick lean concrete (grade 15) under, all as detailed on drawings	78	m			
B	'TERRAIN' Geberit or other equal and approved 82 mm diameter domed roof outlet to suit 100 mm diameter upvc rainwater downpipe complete with all fixing accessories, all as detailed on drawings	12	no			
C	'TERRAIN' or other equal and approved 75 mm diameter upvc overflow pipe casted in reinforced concrete gutter wall, including all fixing accessories, finished with approved finishes to specification and architect's approval, all as detailed on drawings		Item			
	FINISHES					
	<u>20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to</u>					
D	Sides of gutter wall	171	m2			
E	Soffit of gutter slab	117	m2			
F	<u>Extra over</u> for drip mould		Item			
	<u>(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) to</u>					
G	Sides of gutter wall	171	m2			
H	Soffit of gutter slab	117	m2			
J	<u>Extra over</u> for drip mould		Item			

[illegible]

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - ROOF (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
Page No. BQ/6					
BILL 4 - ROOF					
Carried to Summary					

	Description	Qty	Unit	Rate	\$	c
	BILL 4 - STAIRCASES					
	Contractor to refer Schedule of Finishes for specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Staircase	11	m3			
B	200 mm thick landing slab	21	m2			
	<u>10 to 12 mm diameter high tensile steel reinforcement in</u>					
C	Staircase	1837	kg			
D	Landing slab	1239	kg			
	<u>Formwork to</u>					
E	Soffit of staircase	39	m2			
F	Soffit of landing slab	21	m2			
G	Side of stair open stringer 335 mm (maximum) cut to suit profile treads and risers	55	m			
H	Side of undercut riser 150 mm high	138	m			
	HANDRAILING AND BALUSTRADING					
J	900 mm overall high decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 5 nos of 20 mm diameter stainless steel rod to center welded to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	65	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - STAIRCASES (Cont)</u>					
	(Cont) HANDRAILING AND BALUSTRADING					
A	1000 mm overall high decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 5 nos of 20 mm diameter stainless steel rod to center welded to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	1	m			
	FINISHES					
	<u>20 mm thick cement and sand (1:3) plainface plaster trowelled smooth to</u>					
B	Sloping soffit of staircase	39	m2			
C	Soffit of landing slab	21	m2			
D	Sides of open stringer 335 mm (maximum) wide to suit profile of treads and risers	55	m			
	<u>30 mm thick cement and sand (1:3) screed to receive tiles to</u>					
E	Landing slab	21	m2			
F	325 mm wide tread	138	m			
G	150 mm high undercut riser	138	m			
H	150 mm high tiles skirting	39	m			
	<u>(1.4) 'Cicogress' or other equal and approved 600 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
J	Landing slab	21	m2			
K	325 mm wide tread	138	m			
L	150 mm high undercut riser	138	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - STAIRCASES (Cont)</u>					
	(Cont) FINISHES					
	(Cont) (1.4) 'Cicogress' or other equal and approved 600 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to					
A	Extra over for forming non-slip nosing tiles	138	m			
B	(2.2) 'Cicogres' or other equal and approved tile skirting, 150 mm x 600 mm	39	m			
	(3.1) 'ICI Dulux' all-in-one or other equal and approved paint to plainface (plaster measured separately) to					
C	Sloping soffit of staircase	39	m2			
D	Soffit of landing slab	21	m2			
E	Sides of open stringer 335 mm (maximum) wide to suit profile of treads and risers	55	m			
	OTHER WORKS NECESSARY					
F	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - STAIRCASES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
BILL 4 - STAIRCASES Carried to Summary					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - EXTERNAL WALLS</u>					
	BRICKWALL					
	<u>Common brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course</u>					
A	115 mm thick brickwall	525	m2			
B	230 mm thick brickwall	34	m2			
	DECORATIVE SCREEN					
C	Supply and install of decorative Archifacade Lightweight Architectural Screen with metal framing finished with spray coated paint SKK stone finish, complete with bracket, all fixing accessories etc, all as detail on Architectural's drawing and in strick accordance with the manufacturer's instructions and specifications	223	m2			
	GLASS BALUSTRADE					
D	1000 mm high decorative stainless steel in hairline natural finish balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 10 mm thick tempered glass balustrade fixed to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	16	m			
E	115 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
F	230 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			

Description		Qty	Unit	Rate	\$	c
<u>BILL 4 - EXTERNAL WALLS (Cont)</u>						
(Cont) GLASS BALUSTRADE						
A	6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			
OTHER WORKS NECESSARY						
B	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159		To Collection \$				
BQ/2						

Description	Qty	Unit	Rate	\$	c
<p><u>BILL 4 - WINDOWS</u></p> <p>The Contractor must verify exact size of windows, doors and curtain walling on site prior to fabrication</p> <p>The Contractor to submit shop drawings and full details of aluminium sections for various units, methods of fixings, details of ironmongeries, details of bolts, fixing etc for approval</p> <p>All aluminium profiles shall be "TECHNAL", "REYNAERS" OR SCHUCO" aluminium section or other equivalent and approved European system in powder coating finish in accordance to latest regulation; with (10) TEN years warranty.</p> <p>All aluminium profiles should be extruded from aluminium alloy and backed by a certificate from the extruder indicating its genuineness. All aluminium profiles and sections shall comply with the architect's drawings and details. All glazing shall be internally glazed using green Tinted and / or Processed glasses which samples are to be submitted and approved by the Project Architect.</p> <p>All aluminium curtain walling, windows and doors shall include with 25mm x 38mm aluminium sub framing and weatherseal sealant applied to perimeter of windows.</p> <p>All aluminium windows and doors hardware and locking mechanism shall be approved equivalent and hardware system from Europe.</p> <p>All shops drawings details and methods of fixing must be submitted by the Contractor and shall be approved in writing by the Project Architect prior to work proceed.</p> <p>All products / materials shall be supported by a Certificate of origin indicating its genuineness.</p> <p>A 10 years warranty as to the windows and doors performance is to be issued in joint names with the systems and hardware supplier.</p>		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
PTE159		To Collection \$			

Description		Qty	Unit	Rate	\$	c
<u>BILL 4 - WINDOWS (Cont)</u>						
The Contractor is to submit relevant test reports or certificate indicating the aluminium system's compliance with the following performance standards and values			Note			
All shop drawings details shall be approved in writing by the Architect prior for work proceed. The number and sizes of all bolts, fixing etc shall be clearly indicated on the shop drawings			Note			
ALUMINIUM GLAZED SYSTEM						
<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>						
A	Overall size 1285 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W2)	30	no			
B	Overall size 1800 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W3)	4	no			
C	Overall size 4430 mm wide x 2800 mm high complete with fixed glass panels and sliding door panels (W5)	2	no			
D	Overall size 3485 mm wide x 2800 mm high complete with fixed glass panels and sliding door panels (W6)	2	no			
E	Overall size 950 mm wide x 2800 mm high complete with fixed glass panel and sliding door panel (W7)	2	no			
PTE159		To Collection \$				
BQ/2						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>					
A	Overall size 1000 mm wide x 2800 mm high complete with fixed glass panel and single leaf swing glass door (W1)	2	no			
B	Overall size 450 mm wide x 2800 mm high complete with fixed glass panel and side hung windows (W4)	36	no			
C	Precast reinforced concrete (grade 20) lintol, in various sizes including reinforcement, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		Item			
	<u>OTHER WORKS NECESSARY</u>					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

Description	Qty	Unit	Rate	\$	c
BILL 4 - INTERNAL WALLS					
BRICKWALL					
<u>Common brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course</u>					
100 mm thick brickwall	20	m2			
115 mm thick brickwall	706	m2			
230 mm thick brickwall	233	m2			
<u>Decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 5 nos of 20 mm diameter stainless steel rod to center welded to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification</u>					
1100 mm high	31	m			
100 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
115 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
230 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - INTERNAL WALLS (Cont)</u>					
OTHER WORKS NECESSARY					
Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)					
1) _____		Item			
2) _____					
3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - DOORS</u>					
	The Contractor must verify the exact sizes of doors and opening on site prior to fabrication		Note			
	Shop drawings should be submitted by Contractor prior to fabrication and installation for Architect approval		Note			
	The Contractor must submit sample / mock-up for Architect approval		Note			
	All door frame and architrave shall finished with 'ICI' or other equal and approved spray gloss paint		Note			
	All finished doors, linings, door frames and architrave shall be well-seasoned treated hardwood, planed, smoothed and sanded		Note			
	All door shall include kontras, beading and moulding		Note			
	All door finishes details shall refer to Architectural drawings and as in specification		Note			
	<u>SOLID TIMBER CORE FLUSH DOORS</u>					
A	Single leaf door, overall size 950 x 2100 mm high (D1)	18	no			
B	Single leaf door, overall size 800 x 2100 mm high (D3)	24	no			
	<u>FIRE RATED SOLID HARDWOOD TIMBER DOOR</u>					
C	One hour fire rated single leaf door, overall size 950 x 2100 mm high (D4)	6	no			
	<u>Wrot treated hardwood door frame and accessories in approved paint finished</u>					
D	Door frame	213	m			
E	Architrave	426	m			
F	Timber subframe	213	m			
G	Fire rated door frame	31	m			
H	Fire rated architrave	62	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - DOORS (Cont)</u>					
	(Cont) FIRE RATED SOLID HARDWOOD TIMBER DOOR					
	<u>(Cont) Wrot treated hardwood door frame and accessories in approved paint finished</u>					
A	Fire rated timber subframe	31	m			
B	Precast reinforced concrete (grade 20) lintol in various sizes including reinforcement, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		Item			
C	150 x 50 x 100 mm high heelstone cast to suit the profile of door jamb with one end built into door jamb and other end cast into heelstone and finish to match floor finishes		Item			
D	150 x 25 x 3 mm thick mild steel lugs with one end fishtailed built into joints of brickwork and the other end turned up, holed and screwed to back of timber door frame		Item			
E	6 mm wide approved silicone sealant pointing to gap between frame and tile		Item			
	IRONMONGERY					
	<u>Supply and fix the following or other equal and approved stainless steel ironmongery to doors and frames including all matching screws unless otherwise stated</u>					
F	'Kawajun' 503.12.101 or other equal and approved Hinge	126	no			
G	'Hafele' 502.11.120 or other equal and approved Mortise roller lock SS matte forend width 24mm	6	no			
H	'Kawajun' 503.11.110 or other equal and approved 65mm Key-Thumb Turn Profile Cylinder	24	no			
J	'Kawajun' 503.11.107 or other equal and approved Square Escutcheon *Shot black	48	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - DOORS (Cont)</u>					
	(Cont) IRONMONGERY (Cont) Supply and fix the following or other equal and approved stainless steel ironmongery to doors and frames including all matching screws unless otherwise stated					
A	'Kawajun' 503.10.238 or other equal and approved C1 Lever Handle on Square Rose & Escutcheon Finish: Shot Black	48	no			
B	'Hafele' 502.11.103 or other equal and approved mortise lock for profile cylinders	42	no			
C	'Kawajun' 503.11.117 or other equal and approved Thumb Turn & Coin Turn profile *For Toilet	24	no			
D	'Hafele' 502.12.112 or other equal and approved HEAVY DUTY BUTT HINGE	90	no			
E	'Hafele' 502.13.106 or other equal and approved Concealed door closer DCL 34 *Suitable for Fire-Rated Doors	18	no			
F	'Hafele' 502.16.120 or other equal and approved Door Stopper	48	no			
G	'Hafele' 502.13.105 or other equal and approved Door Closer (without hold open - standard arm)	42	no			
	MASTER KEY SYSTEM					
H	Allow for all locks to be keyed in one master key to the approval of the Superintending Officer		Item			
	<u>OTHER WORKS NECESSARY</u>					
J	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - INTERNAL WALL FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
A	20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to wall and column	1221	m2			
B	20 mm thick cement and sand (1:3) backing screed to receive ceramic wall tiles to wall and column	505	m2			
C	Approved Skim coat on plastered wall surface to received finishes including all surface preparation	1221	m2			
D	(3.1) 'ICI Dulux' all-in-one or other equal and approved paint to plainface plastered (plaster measured seperately) wall and column	1094	m2			
E	(3.2) 'ICI Dulux' pentelite or other equal and approved paint to plainface plastered (plaster measured seperately) wall and column	127	m2			
F	(3.3) 'Cicogress' or other equal and approved 300 mm x 600 mm wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column	505	m2			
G	'Fosroc' brushbond or other equal and approved cementious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction to wall and column (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	505	m2			
	OTHER WORKS NECESSARY					
H	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					

BILL 4 - INTERNAL WALL FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - INTERNAL WALL FINISHES (Cont)</u> (Cont) OTHER WORKS NECESSARY 3) _____					
PTE159				To Collection \$	

BILL 4 - INTERNAL WALL FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - INTERNAL WALL FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 4 - INTERNAL WALL FINISHES Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - INTERNAL FLOOR FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	<u>30 mm thick cement and sand (1:3) backing screed to floor to receive</u>					
A	Floor tiles	591	m2			
B	150 mm high tiles skirting	487	m			
C	Drop in slab		Item			
	<u>(1.3) 'Cicogress' or other equal and approved 300 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
D	Floor	82	m2			
E	Drop in slab		Item			
	<u>(1.4) 'Cicogress' or other equal and approved 600 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
F	Floor	509	m2			
G	Drop in slab		Item			
	<u>The following skirting, laid on cement and sand screed (screed measured separately)</u>					
H	(2.2) 'Cicogress' or other equal and approved tiles skirting, 150 mm x 600 mm	487	m			
J	Selective Aluminium U-Channel termination accessories with natural anodised finish to Architect's approval, install strictly in accordance with the manufacturer's instruction	487	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - INTERNAL FLOOR FINISHES (Cont)</u>					
A	'Fosroc' brushbond or other equal and approved cementitious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	82	m2			
B	Approved aluminium edge strip and dividing strip, fixed strictly in accordance with manufacturer's instruction		Item			
C	Approved stainless steel divider strip, fixed strictly in accordance with manufacturer's instruction		Item			
	OTHER WORKS NECESSARY					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159					To Collection \$	
BQ/2						

BILL 4 - INTERNAL FLOOR FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - INTERNAL FLOOR FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 4 - INTERNAL FLOOR FINISHES Carried to Summary					
PTE159					

BILL 4 - INTERNAL CEILING FINISHES

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - INTERNAL CEILING FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
A	(4.1) 'Gyproc' or other equal and approved gypsum board ceiling with square edge complete with standard fixing accessories all as per manufacturer's detail, recommendation and approval as detailed on drawings.	482	m2			
B	(4.2) 'Gyproc' or other equal and approved gypsum moisture resistant board ceiling with square edge complete with standard fixing accessories all as per manufacturer's detail, recommendation and approval as detailed on drawings.	108	m2			
	<u>Prepare, prime and apply 'ICI DULUX' or other equal and approved paint finish to</u>					
C	Gypsum board	590	m2			
D	Shadow gap including paint		Item			
E	Drop in ceiling including paint		Item			
F	<u>Extra for forming ceiling access opening including all frame and painting</u>		Item			
	OTHER WORKS NECESSARY					
G	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 4 - INTERNAL CEILING FINISHES

Description	Qty	Unit	Rate	\$	c
BILL 4 - INTERNAL CEILING FINISHES (Cont)					
COLLECTION					
Page No. BQ/1					
BILL 4 - INTERNAL CEILING FINISHES Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - EXTERNAL WALL FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
A	20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to wall and column	1206	m2			
B	20 mm thick cement and sand (1:3) backing screed to receive ceramic wall tiles to wall and column	439	m2			
C	(3.6) Red Sandstone wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column including primed A5631 or other equalvalent, bracket and all other fixing accessories	439	m2			
D	(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) wall and column	1206	m2			
	OTHER WORKS NECESSARY					
E	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - EXTERNAL FLOOR FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	<u>30 mm thick cement and sand (1:3) backing screed to floor to receive</u>					
A	Floor tiles	68	m2			
B	Block	212	m2			
C	150 mm high tiles skirting	193	m			
D	Drop in slab		Item			
	<u>(1.5) 'Cicogress' wood series or other equal and approved 200 mm x 1200 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
E	Floor	68	m2			
F	Drop in slab		Item			
	<u>(1.8) 'CIFRE CERAMICA' Extend Series or other equal and approved 20 mm thick floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
G	Floor	212	m2			
H	Drop in slab		Item			
	<u>The following skirting, laid on cement and sand screed (screed measured separately)</u>					
J	(2.3) 'Cicogress' wood series or other equal and approved tiles skirting, 200 mm x 1200 mm	108	m			
K	(2.6) 20 mm thick CIFRE CERAMICA Extend Series tiles skirting	85	m			
L	Selective Aluminium U-Channel termination accessories with natural anodised finish to Architect's approval, install strictly in accordance with the manufacturer's instruction	193	m			

BILL 4 - EXTERNAL FLOOR FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - EXTERNAL FLOOR FINISHES (Cont)</u>					
'Fosroc' brushbond or other equal and approved cementitious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	68	m2			
OTHER WORKS NECESSARY					
Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
1) _____					
2) _____					
3) _____					
PTE159					
To Collection \$					
BQ/2					

BILL 4 - EXTERNAL FLOOR FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - EXTERNAL FLOOR FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 4 - EXTERNAL FLOOR FINISHES Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - EXTERNAL CEILING FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
A	(4.6) 'SIAM' or other equal and approved gypsum weatherbloc ceiling with square edge complete with standard fixing accessories finished, all as per manufacturer's detail, recommendation and approval as detailes on drawings.	279	m2			
	<u>Prepare, prime and apply 'Wattyl Solagard' or other equal and approved paint finish to</u>					
B	Gypsum weatherbloc board	279	m2			
C	<u>Extra for forming ceiling access opening including all frame and painting</u>		Item			
	OTHER WORKS NECESSARY					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

Description	Qty	Unit	Rate	\$	c
<div>BILL 4 - EXTERNAL CEILING FINISHES (Cont)</div> <div>COLLECTION</div> <div>Page No. BQ/1</div> <div>BILL 4 - EXTERNAL CEILING FINISHES Carried to Summary</div>					

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - FURNISHING FITTINGS</u>					
All sizes shall be checked on site prior to fabrication		Note			
All external surfaces shall be of selective Lamitak laminated finish or of equal equivalent unless otherwise stated, face pattern and colour as selected by the Architect		Note			
All internal surfaces shall be of selective Lamitak laminated finish or of equal equivalent unless otherwise stated, face pattern and colour as selected by the Architect		Note			
All hardwood edging and lipping shall be painted with 2 coats of approved transcolor preservative wood stain finishing or of equal equivalent, colour as selected by Architect		Note			
All cabinet doors, shelves and drawers shall be provided with and including approved ironmongeries (Lock set to drawer refer to Architectural drawings denoted as circular keyhole in elevation)		Note			
All counter top finished with 12.3 mm thick 'Samsung Staron' or other equal and approved solid surface material back with plywood and 'Non-drip' edge profile on front and sides of appoved colour as selected by the Architect		Note			
Unless otherwise stated, all finishes and details as shown/detailed on Architectural drawings		Note			
Tenderer shall make his own assessment from all drawings and specification issued at the time of tederer. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained		Note			
Mock up units shall be provided when require		Note			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - FURNISHING FITTINGS (Cont)</u>					
	KITCHEN LOW AND HIGH CABINETRY					
A	Low Cabinet, overall size 2520 + 1705 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per details on Architectural drawings	2	no			
B	High Cabinet, overall size 720 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	2	no			
C	High Cabinet, overall size 740 mm long x 300 mm deep x 1125 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	2	no			
D	High Cabinet, overall size 1680 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	2	no			
E	Low Cabinet, overall size 2535 + 4215 + 1577 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per details on Architectural drawings	2	no			
F	High Cabinet, overall size 4215 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	2	no			
G	High Cabinet, overall size 2177 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	2	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - FURNISHING FITTINGS (Cont)</u>					
	PANTRY LOW AND HIGH CABINETRY					
A	Low Cabinet, overall size 2085 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	2	no			
B	High Cabinet, overall size 2085 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	2	no			
	WARDROBE					
C	Overall size 1800 mm long x 600 mm deep x 2800 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (bedroom & master's bedroom - wardrobe 1)	10	no			
D	Overall size 1545 mm long x 600 mm deep x 2800 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (master's bedroom - wardrobe 2)	2	no			
	MIRROR					
	<u>8 mm thick bronze tinted mirror with 10 mm thick plywood backing complete with powder coated aluminium frame and all fixing equipment and accessories</u>					
E	Overall size 500 mm long x 800 mm high	14	no			
	OTHER WORKS NECESSARY					
F	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					

BILL 4 - FURNISHING FITTINGS

Description	Qty	Unit	Rate	\$	c
BILL 4 - FURNISHING FITTINGS (Cont)					
(Cont) OTHER WORKS NECESSARY					
3) _____					
PTE159	To Collection \$				

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - PLUMBING</u>					
	<u>PLUMBING</u>					
	Fire Hosereel and all associated tanks, pump sets and plumbing works measured in Bill 8B		Note			
	All bends, junctions, tees and the like shall be with access eye opening of pipe diameter		Note			
	All soil and waste pipes shall be connected to gully trap and first manhole		Note			
	SOIL, WASTE AND VENT PIPES					
A	Waste, soil and vent piping system, including all connection and fittings, all as detailed on drawings and in specification		Item			
B	Floor trap including all connection, fittings and gratings, all as detailed on drawings and in specification		Item			
	GULLY TRAP					
C	Gully trap and chamber size 300 x 300 mm in various depth internally with multiple inlets comprising 125 mm thick concrete (grade 20) wall and base, upvc gully trap to B.S.4660 with perforated grating, 300 x 300 mm stainless steel grating with hinge, etc. finished with cement and sand render internally, epoxy painting, inlet and outlet, jointing to waste pipes, including excavation, disposal, backfilling, formwork, etc, the whole as per detail shown on Engineer's drawing		Item			
	COLD AND HOT WATER SERVICES					
D	Cold water and piping including all fittings and connections, all as detailed on drawings and in specification		Item			
E	Hot water and piping including all fittings and connections, all as detailed on drawings and in specification		Item			

Description		Qty	Unit	Rate	\$	c
<u>BILL 4 - PLUMBING (Cont)</u>						
<u>(Cont) PLUMBING</u>						
TESTING						
A	Allow for testing the whole of the plumbing system to the approval of the relevant authorities and to the satisfaction of the Superintending Officer		Item			
<u>OTHER WORKS NECESSARY</u>						
B	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159		To Collection \$				
BQ/2						

Description	Qty	Unit	Rate	\$	c
<u>BILL 4 - PLUMBING (Cont)</u> COLLECTION Page No. BQ/1 Page No. BQ/2 BILL 4 - PLUMBING Carried to Summary					

PTE159

BQ/2

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - SANITARY FITTINGS</u>					
	<u>Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	DURAVIT 21180900002-G D-Code Closed-Coupled Washdown W.C., 0927100004-G Cistern With 6/3L Dual Flush Fittings, U7070S+P202+I107 Seat & Cover (Soft Close), Bend Connector (S-Trap : 170mm), 1/2" Stop Valve, 3/8" x 1/2" Flexible Hose	10	no			
B	JOHNSON SUISSE WBAENW211WW Windsor 250 BO WC, WBALTN111WW Trend Cistern With Lid, WBFT400335XX Trend 6/3L Flush Fittings, SC402 Seat & Cover (Soft Close), WBFT400101XX Fixing Bolt (X2), P450 Straight Connector (S-Trap : 250mm), AV300 1/2" Stop Valve With Flange, DA650-N 1/2" Flexible Hose	4	no			
C	DCODE 23105500002 D-Code Wall-Hung Basin With 1 Tap Hole W/Overflow Hole Size (550 X 430 X 175)mm, WBFT400099XX Fixing Bolt (X2), 32mm - 1/4" UPVC Bottle Trap, 08571800002 Half Pedestal With Fixings, AV300 1/2" Stop Valve With Flange (X2)	10	no			
D	JOHNSON SUISSE WBAABS201WW Boston 500 Wall-Hung Basin With 1 Tap Hole W/Overflow Hole Size (500 X 430 X 210)mm, WBFT400099XX Fixing Bolt (X2), WBABHP000WW Half Pedestal, WBFT400101XX Fixing Bolt (X2), 32mm - 1 1/4" Upvc Bottle Trap, AV300 1/2" Stop Valve With Flange (X2)	4	no			
E	FIMA CARLO FRATTINI F3831CR.2 Serie 22 Deck Mounted Basin Mixer (Hot & Cold), Click Clack Pop-Up Waste, 1/2" Supply Hose (X2)	10	no			
F	JOHNSON SUISSE WBFA301434CP Turin Deck Mounted Basin Mixer (Hot & Cold), Chrome Plated Waste, Plug & Chain, 1/2" Supply Hose (X2)	4	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - SANITARY FITTINGS (Cont)</u>					
	<u>(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	JOHNSON SUISSE WBFA300933CP Fermo Deck Mounted Sink Tap (Cold Only)	4	no			
B	JOHNSON SUISSE WBFA300526CP Ravenna Twashing Machine Tap With Screw Collar & Flange (Cold Only)	2	no			
C	FIMA CARLO FRATTINI F3165/RP251CR Serie 22 Shower Column Mixer With Diverter (Hot & Cold), ABS Overhead Shower (Dia : 200mm), Anti-Limestone Handshower (1 Spray Mode), 1500mm Brass Flex Hose	2	no			
D	FIMA CARLO FRATTINI F3834/1CR Serie 22 Wall Mounted Exposed Bath & Shower Mixer With Diverter (Hot & Cold), F2297CR 696mm ABS Sliding Rail With 1500mm Brass Flex Hose & Anti-Limestone Handshower (1 Spray Mode)	6	no			
E	JOHNSON SUISSE WBFA301439CP Turin Exposed Bath & Shower Mixer With Diverter (Hot & Cold), WBFA300694CP Wall-Mounted Sliding Bar (L-600mm), WBFA300723CP Caspian II Hand Shower (1 Spray Mode), WBFA300583CP Double Interlock Shower Hose (L-1.5m)	4	no			
F	FIMA CARLO FRATTINI F6005/1CR Rotola Toilet Paper Holder	10	no			
G	JOHNSON SUISSE WBBA100264CP Trendy Paper Holder With Cover	4	no			
H	FIMA CARLO FRATTINI F6004/2CR Rotola Double Robe Hook	10	no			
J	JOHNSON SUISSE WBBA100257CP Trendy Single Robe Hook	4	no			
K	FIMA CARLO FRATTINI F6000/60CR Rotola Towel Rail (L-600mm)	8	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 4 - SANITARY FITTINGS (Cont)</u>					
	<u>(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	JOHNSON SUISSE WBBA100265CP Trendy Single Towel Rail (Length : 600mm)	4	no			
B	FIMA CARLO FRATTINI F2840/7CR Collettivita Bidet Angle Valve (Cold Only), ABS Hand Bidet Spray, 1200mm Flexible Stainless Steel Hose, Spray Holder	14	no			
C	TORA TR-KS-NH-00146-PolishedDouble Bowl Double Drainer Insert Type Stainless Steel Kitchen Sink Size (1370 X 455 X 180)mm, Waste (X2), 40mm 1/2" UPVC Bottle Trap (X2), AV300 1/2" Stop Valve With Flange, DA650-N 1/2" Flexible Hose	4	no			
D	NOVATEC FT201-6 Stainless Steel Decorative Tile Insert Floor Grating Size (153 X 153)mm, FLV Anti Insect & Odor Flow Valve	32	no			
	OTHER WORKS NECESSARY					
E	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

Description	Qty	Unit	Rate	\$	c
BILL 5 - GENERAL NOTE					
NOTES					
The bills are to be read and priced in conjunction with the drawings, specification and include all works described / shown in bills and drawings		Note			
The Contractor is to comply with the conditions of contract, specification, all preliminaries, etc. necessary for the complete execution of the works		Note			
The Contractor shall be responsible for applying and obtaining all required permits from the relevant authorities for temporary accesses, etc. and for payment of fees thereof		Note			
The Contractor must visit the site so as to take into consideration existing conditions and to have satisfied himself as to the nature of the site, soil condition, facilities for access, mobilisation of plants, etc. required under this contract. No claims will be allowed on the grounds of ignorance of the conditions under which the works will be executed		Note			
Prior to the commencement of any work, the levels of the original surface of the site including all slopes shall be agreed by the Superintending Officer in accordance with Preliminaries under 'Setting Out and Site Levels' and on completion of this works, the Contractor must submit as built drawings as required in Preliminaries under 'Completion Joint-Survey and As Built Drawing' which shall form the basis of measurement		Note			
The Contractor shall take all measures to protect the existing cables and services that is not affected by his scope of work. Any such damage caused by the Contractor shall be made good at the expense of the Contractor and to the satisfaction of the Superintending Officer		Note			
PTE159			To Collection \$		

Description	Qty	Unit	Rate	\$	c
<u>BILL 5 - GENERAL NOTE (Cont)</u> <u>(Cont) NOTES</u> All making good shall be executed with materials and workmanship to match in every respect of the surrounding work and shall be properly done thereto to the complete satisfaction of the S.O. Unless otherwise specified, all materials and debris resulting from the clearing shall be stacked and removed completely from the site. On no account shall cleared timber or other materials be deposited in areas to be filled. Burning on site shall be prohibited No tipping on the adjoining land shall be allowed in this contract. The Contractor is therefore to make his own arrangements for disposal of all surplus excavated materials where directed and is to pay all charges in connection therewith Tenderer shall make his own assessment from all drawings and specification issued at the time of tendering. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained		Note			
		Note			
		Note			
		Note			
To Collection \$					

Description	Qty	Unit	Rate	\$	c
<p align="center"><u>BILL 5 - PILING</u></p> <p>PRECAST REINFORCED CONCRETE PILES (ALL PROVISIONAL)</p> <p>The system installation shall consist of 9.0 metre long precast concrete piles element forced into the ground using hydraulic jack method including cast in pile shoe</p> <p>The piles should conform to B.S. 8004 : 1986 and be approved by CPRU Min. of Development for use in Brunei Darussalam</p> <p>Steel reinforcement shall conform to B.S. 4449</p> <p>End plate should be manufactured to conform to B.S. 4360</p> <p>Concrete strength during transfer should correspond to a cube strength of minimum 25 Mpa</p> <p>The 28-day strength of concrete shall not be less than 50 Mpa</p> <p>Joint between the consecutive pile element shall be in full weld on each side of the end plates brought in contact</p> <p>The setting pressure of twice the working load shall be held for a minimum of ten seconds before release</p> <p>Each pile shall not deviate by more than 75 mm from the vertical or more than 74 mm from its designed position at the level of the piling chamber</p> <p>The paylengths for the supply and inject complete of each pile shall be measured from pile toe to cut-off level</p> <p>A Provide and erect on site all necessary plant and equipment for installation of precast concrete piles, and dismantle and clear away on completion</p>		<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Item</p>			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - PILING (Cont)</u>					
	(Cont) PRECAST REINFORCED CONCRETE PILES (ALL PROVISIONAL)					
A	Allow for moving and handling piling frame and equipment inclusive of assembling and dismantling about at site from position to position including use of Selangan timber matt and hiring of Kobelco for the full duration		Item			
	<u>Supply, transport, handle, pitch, inject, weld, extend, cut-off head, etc. precast reinforced (Grade 45) concrete piles, all in strict accordance with the pile specification.</u>					
B	250 mm square piles	1215	m			
	<u>Provide the necessary kentledge, jack and dial gauges for the application and release of the load test. The rates include all supervision and labour, watching and lighting and removal of kentledge and equipment</u>					
C	Load test twice the working load for 250 mm square piles	2	no			
	<u>OTHER WORKS NECESSARY</u>					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - SUBSTRUCTURE</u>					
	EXCAVATION					
A	Excavate pit for pile cap and lift pit, commencing from platform level, not exceeding 2.00 m deep, get out part return, fill in, ram and surplus cart away excavated material where directed	113	m3			
B	Excavate trench for ground beam, commencing from platform level, not exceeding 2.00 m deep, get out and cart away excavated material where directed	34	m3			
C	Excavate for ground slab and apron slab commencing from platform level, not exceeding 300 mm, average 200 mm deep, get out and cart away excavated material where directed	382	m2			
	ANTI-TERMITE TREATMENT					
D	Prepare and apply one coat of organic chlorine or other equal and approved anti-termite chemical treatment to general surfaces as specified (measured flat over ground floor slab and apron slab area; rate to include for treating surfaces of ground beam, footing and the like and for appointing a registered pest control company to carry out the work and also for providing a ten (10) year warranty)	382	m2			
	DAMP PROOF MEMBRANE					
E	"POLY-FILM 1000" or other equal and approved damp proof membrane laid on prepared bed, seal laps with approved pressure sensitive tape (measured flat over ground floor slab - rate to include for laps, cutting and waste)	382	m2			
	CONCRETE WORKS					
	<u>50 mm thick lean concrete (grade 15) to underside of</u>					
F	Pile cap	49	m2			
G	Ground beam	48	m2			
H	Ground floor slab	382	m2			
J	Lift pit	16	m2			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - SUBSTRUCTURE (Cont)</u>					
	(Cont) CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Pile cap	37	m3			
B	Stump	10	m3			
C	Ground beam	34	m3			
D	150 mm thick ground floor slab	382	m2			
E	230 mm thick lift pit wall	22	m2			
F	<u>Extra over</u> lift pit wall for thickening including additional formwork and reinforcement	12	m			
G	300 x 300 x 300 mm deep lift sump pit, 230 mm thick to wall and slab including formwork and reinforcement	1	no			
H	<u>Extra over</u> for non-slip groove line to ramp		Item			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
J	Pile cap	4619	kg			
K	Stump	1907	kg			
L	Ground beam	4079	kg			
M	Ground floor slab	2309	kg			
N	Lift pit wall	512	kg			
	<u>Formwork to</u>					
P	Sides of pile cap	94	m2			
Q	Sides of stump	75	m2			
R	Sides of ground beam	329	m2			
S	Sides of lift pit wall	41	m2			
T	Drop in ground slab and edge of ground slab		Item			
U	Drop in ramp and edge of ramp		Item			

Description		Qty	Unit	Rate	\$	c
<u>BILL 5 - SUBSTRUCTURE (Cont)</u>						
(Cont) CONCRETE WORKS						
A	<p>Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification</p> <p>OTHER WORKS NECESSARY</p> <p>Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)</p> <p>1) _____</p> <p>2) _____</p> <p>3) _____</p>		Item			
B			Item			
PTE159		To Collection \$				
BQ/3						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - FRAME</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Suspended beam	102	m3			
B	Column	159	m3			
C	230 mm thick lift core wall	170	m2			
D	<u>Extra over</u> for lift core wall thickening including additional formwork and reinforcement	36	m			
	<u>10 mm to 32 mm diameter mild steel / high tensile reinforcement bar in</u>					
E	Suspended beam	12293	kg			
F	Column	25224	kg			
G	Lift core wall	3950	kg			
	<u>Formwork to</u>					
H	Sides and soffit of suspended beam	966	m2			
J	Sides of column	1386	m2			
K	Sides of lift core wall	163	m2			
L	<u>Extra over</u> for edge of lift core wall opening not exceeding 300 mm wide		Item			
	OTHER WORKS NECESSARY					
M	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159					To Collection \$	
BQ/1						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - UPPER FLOOR</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	115 mm thick suspended slab	11	m2			
B	125 mm thick suspended slab	587	m2			
C	150 mm thick suspended slab	508	m2			
D	165 mm thick suspended slab	5	m2			
	<u>10 mm and 12 mm diameter mild steel / high tensile reinforcement bar in</u>					
E	Suspended floor slab	7228	kg			
	<u>Formwork to</u>					
F	Sides and soffit of suspended slab	858	m2			
G	Drop in slab and edge of floor slab		Item			
H	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
	OTHER WORKS NECESSARY					
J	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - ROOF</u>					
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Roof beam	31	m3			
B	Gutter beam	21	m3			
C	150 mm thick gutter slab	103	m2			
D	230 mm thick lift core top slab	10	m2			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
E	Roof beam	2945	kg			
F	Gutter beam	1961	kg			
G	Gutter slab	596	kg			
H	Lift core top slab	555	kg			
	<u>Formwork to</u>					
J	Sides and soffit of roof beam	369	m2			
K	Sides and soffit of gutter beam	236	m2			
L	Soffit of gutter slab	103	m2			
M	Soffit of lift core top slab	10	m2			
N	Drop in slab and edge of slab		Item			
P	Edge of lift core top slab		Item			
Q	<u>Extra over to gutter wall to form decorative feature</u>		Item			
R	Reinforced concrete ledge in various thickness including all necessary formwork, reinforcement, finished with all exposed concrete surfaces with approved paint in approved color, waterproofing membrane and etc., all as per Architectural and Engineer's details drawings	251	m2			
PTE159					To Collection \$	
BQ/1						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - ROOF (Cont)</u>					
	STRUCTURAL STEEL ROOF MEMBER					
	All steel works members shall be high tensile galvanised steel, welded and bolted together, including all shop and site welding, filling smooth junction, raking and cutting, hoisted and placed in position all as detailed on drawings		Note			
	Rate to include submission of shop drawings		Note			
	Rate to included for sand blast clean to BS4232, degrease and wash clean all steel area and repair all damaged including approved paint to Engineer's approval		Note			
	All steel works members, plates, cleats and bolts shall be high tensile galvanised steel including all necessary approved painting as specified		Note			
	<u>Supply, install and erect the following structural steelworks hoisted and fixed in position to level as accordance to drawing in bolted and welded connection with and including all cutting, drilling, welding and approved metal paint finished (to all expose surfaces), all as detailed on Engineer's drawings</u>					
A	75 x 125 x 6 mm thick x 17 kg/m RHS	874	kg			
B	120 x 80 x 6.3 mm thick x 18.4 kg/m RHS	1707	kg			
C	70 x 70 x 5 mm thick x 10.1 kg/m SHS	267	kg			
D	C15016 GI purlins	435	m			
E	Plates / splicing		Item			
F	Angle Cleat including fasteners		Item			
G	Bolts / anchor bolts including nuts and washers		Item			
H	Holding down bolts		Item			
J	Non shrink grout		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - ROOF (Cont)</u>					
	ROOF COVERING					
	Rate to include a ten (10) years warranty for materials		Note			
A	'Lysaght' or other equal and approved Kliplock Hi-Ten 406 0.47 mm thick TCT in clean colorbond XRW fixed to steel purlins (purlins measured separately), laid in full length to fall complete with damping felt and self-adhesive bitumen felt, all clips and including all others matching fixing devices and accessories, all in accordance to the manufacturer's instruction (measured nett- rate to include for laps, cutting and waste) to sloping roof covering	357	m2			
B	'Lysaght' or other equal and approved clean colorbond gable end including flashing, clip, channel, thermal barrier pad and all fixing accessorise and sealant all as detailed on Architectural drawings		Item			
C	'Lysaght' or other equal and approved clean colorbond eave including flashing, foam filler, drip angle, thermal barrier pad and all fixing accessorise and sealant all as detailed on Architectural drawings		Item			
D	'Lysaght' or other equal and approved clean colorbond flashing between wall and roof, one end chase into brickwall filled with approved non-setting silicone sealant including all fixing accessorise all as per detailed on drawings		Item			
	ROOF INSULATION					
E	50 mm thick 'Lysaght' ROXUL MPB100 or orther equal and approved rockwool insulation at 40kg/m3 including all other fixing accessories (measured nett - rate to include for laps, cutting and waste)	357	m2			
F	BRC 3315 wire mesh including all other fixing accessories	357	m2			
G	Meta aluminium double sided foil including all other fixing accessories	357	m2			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - ROOF (Cont)</u>					
	ROOF WATERPROOFING SYSTEM					
	<u>30 mm thick cement and sand (1:3) screed laid to falls to receive waterproofing system to</u>					
A	Gutter slab	64	m2			
B	Lift core top slab	10	m2			
C	Sides of gutter wall	105	m2			
D	300 mm high upturn skirting	78	m			
E	Down pipe and outlet		Item			
	<u>'FOSROC' Polyurea or other eaqual and approved (high quality, environmentally safe, enery saving and elastrometric) waterproofing membrane on high-tech polymer chemistry formulation and acrylic polymers forming seamless joint, free water and weather light elastic membrane with heat insulation properties including cement and sand (1:3) screed, laid to fall and all necessary surface preparation with 'FOSROC' or other equal and approved primer 195 (Rate to include for providing a ten (10) years guarantee as specified hereinbefore) to</u>					
F	Gutter slab	64	m2			
G	Lift core top slab	10	m2			
H	Sides of gutter wall	105	m2			
J	300 mm high upturn skirting	78	m			
K	Down pipe and outlet		Item			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - ROOF (Cont)</u>					
	RAINWATER GOODS					
A	'TERRAIN' or other equal and approved 100 mm diameter rainwater downpipe with cement solvent joint fixed to concrete or brickwork with and including holderbats, brackets, straps, hangers, bends and the like, finish with approved finishes, to specification, engineer's, manufacturer's and specialist detail, recommendation and architect's approval, all as detailed on drawings	310	m			
B	'TERRAIN' or other equal and approved 100 mm diameter upvc rainwater downpipe with cement solvent joint laid under floor with and including brackets, straps, bends, excavation, backfill, 100 mm thick concrete (grade 20) surround reinforced with one layer BRC A6, formwork and 50 mm thick lean concrete (grade 15) under, all as detailed on drawings	140	m			
C	'TERRAIN' Geberit or other equal and approved 82 mm diameter domed roof outlet to suit 100 mm diameter upvc rainwater downpipe complete with all fixing accessories, all as detailed on drawings	18	no			
D	'TERRAIN' or other equal and approved 75 mm diameter upvc overflow pipe casted in reinforced concrete gutter wall, including all fixing accessories, finished with approved finishes to specification and architect's approval, all as detailed on drawings		Item			
	FINISHES					
	<u>20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to</u>					
E	Sides of gutter wall and soffit of slab	259	m2			
F	<u>Extra over</u> for drip mould		Item			

Description		Qty	Unit	Rate	\$	c
<u>BILL 5 - ROOF (Cont)</u>						
(Cont) FINISHES						
(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) to						
A	Sides of gutter wall and soffit of slab	259	m2			
B	<u>Extra over</u> for drip mould		Item			
<u>OTHER WORKS NECESSARY</u>						
C	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159		To Collection \$				
BQ/6						

Description	Qty	Unit	Rate	\$	c
<u>BILL 5 - ROOF (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
Page No. BQ/6					
BILL 5 - ROOF Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - STAIRCASES</u>					
	Contractor to refer Schedule of Finishes for specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	CONCRETE WORKS					
	<u>Reinforced concrete (grade 30) in</u>					
A	Staircase	9	m3			
B	150 mm thick landing slab	13	m2			
	<u>10 to 12 mm diameter high tensile steel reinforcement in</u>					
C	Staircase	1521	kg			
D	Landing slab	576	kg			
	<u>Formwork to</u>					
E	Soffit of staircase	34	m2			
F	Soffit of landing slab	13	m2			
G	Side of stair open stringer 335 mm (maximum) cut to suit profile treads and risers	24	m			
H	Side of undercut riser 150 mm high	99	m			
	HANDRAILING AND BALUSTRADING					
J	900 mm overall high decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 5 nos of 20 mm diameter stainless steel rod to center welded to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	27	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - STAIRCASES (Cont)</u>					
	(Cont) HANDRAILING AND BALUSTRADING					
A	1000 mm overall high decorative stainless steel in hairline natural finish handrailing and balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 5 nos of 20 mm diameter stainless steel rod to center welded to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	2	m			
	FINISHES					
	<u>20 mm thick cement and sand (1:3) plainface plaster trowelled smooth to</u>					
B	Sloping soffit of staircase	34	m2			
C	Soffit of landing slab	13	m2			
D	Sides of open stringer 335 mm (maximum) wide to suit profile of treads and risers	24	m			
	<u>30 mm thick cement and sand (1:3) screed to receive tiles to</u>					
E	Landing slab	13	m2			
F	300 mm wide tread	92	m			
G	150 mm high undercut riser	99	m			
H	150 mm high tiles skirting	39	m			
	<u>(1.8) 'CIFRE CERAMICA' Extend Series or other equal and approved 20 mm thick floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
J	Landing slab	13	m2			
K	300 mm wide tread	92	m			
L	150 mm high undercut riser	99	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - STAIRCASES (Cont)</u>					
	(Cont) FINISHES					
	(Cont) (1.8) 'CIFRE CERAMICA' Extend Series or other equal and approved 20 mm thick floor tiles, laid in pattern on cement and sand screed (screed measured separately) to					
A	Extra over for forming non-slip nosing tiles	92	m			
B	(2.6) 20 mm thick CIFRE CERAMICA Extend Series tiles skirting	39	m			
	(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) wall and column					
C	Sloping soffit of staircase	34	m2			
D	Soffit of landing slab	13	m2			
E	Sides of open stringer 335 mm (maximum) wide to suit profile of treads and risers	24	m			
	OTHER WORKS NECESSARY					
F	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

Description	Qty	Unit	Rate	\$	c
<u>BILL 5 - STAIRCASES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
BILL 5 - STAIRCASES Carried to Summary					
PTE159					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - EXTERNAL WALLS</u>					
	BRICKWALL					
	<u>Common brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course</u>					
A	115 mm thick brickwall	415	m2			
B	230 mm thick brickwall	4	m2			
	DECORATIVE SCREEN					
C	Supply and install of decorative Archifacade Lightweight Architectural Screen with metal framing finished with spray coated paint SKK stone finish, complete with bracket, all fixing accessories etc, all as detail on Architectural's drawing and in strick accordance with the manufacturer's instructions and specifications	402	m2			
	GLASS BALUSTRADE					
D	1000 mm high decorative stainless steel in hairline natural finish balustrading (straight and curved-on-plan) in welded connection complete with 50 mm diameter stainless steel hollow section as described top rail with 50 mm diameter short connection to railing post, 10 mm thick tempered glass balustrade fixed to 35 mm x 50 mm stainless steel hollow section railing post with and including all base plates, anchor bolts, bends, ramps, wreath, end caps and all fixing accessories as detailed on drawing and in specification	33	m			
E	115 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
F	230 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			

Description	Qty	Unit	Rate	\$	c
<u>BILL 5 - EXTERNAL WALLS (Cont)</u>					
(Cont) GLASS BALUSTRADE					
6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			
OTHER WORKS NECESSARY					
Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
1) _____					
2) _____					
3) _____					
To Collection \$					

Description	Qty	Unit	Rate	\$	c
<u>BILL 5 - EXTERNAL WALLS (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 5 - EXTERNAL WALLS Carried to Summary					
PTE159					

Description	Qty	Unit	Rate	\$	c
<p><u>BILL 5 - WINDOWS</u></p> <p>The Contractor must verify exact size of windows, doors and curtain walling on site prior to fabrication</p> <p>The Contractor to submit shop drawings and full details of aluminium sections for various units, methods of fixings, details of ironmongeries, details of bolts, fixing etc for approval</p> <p>All aluminium profiles shall be "TECHNAL", "REYNAERS" OR SCHUCO" aluminium section or other equivalent and approved European system in powder coating finish in accordance to latest regulation; with (10) TEN years warranty.</p> <p>All aluminium profiles should be extruded from aluminium alloy and backed by a certificate from the extruder indicating its genuineness. All aluminium profiles and sections shall comply with the architect's drawings and details. All glazing shall be internally glazed using green Tinted and / or Processed glasses which samples are to be submitted and approved by the Project Architect.</p> <p>All aluminium curtain walling, windows and doors shall include with 25mm x 38mm aluminium sub framing and weatherseal sealant applied to perimeter of windows.</p> <p>All aluminium windows and doors hardware and locking mechanism shall be approved equivalent and hardware system from Europe.</p> <p>All shops drawings details and methods of fixing must be submitted by the Contractor and shall be approved in writing by the Project Architect prior to work proceed.</p> <p>All products / materials shall be supported by a Certificate of origin indicating its genuineness.</p> <p>A 10 years warranty as to the windows and doors performance is to be issued in joint names with the systems and hardware supplier.</p>		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
PTE159	To Collection \$				

Description		Qty	Unit	Rate	\$	c
<u>BILL 5 - WINDOWS (Cont)</u>						
The Contractor is to submit relevant test reports or certificate indicating the aluminium system's compliance with the following performance standards and values			Note			
All shop drawings details shall be approved in writing by the Architect prior for work proceed. The number and sizes of all bolts, fixing etc shall be clearly indicated on the shop drawings			Note			
ALUMINIUM GLAZED SYSTEM						
<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>						
A	Overall size 1410 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W1)	37	no			
B	Overall size 1800 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W3)	1	no			
C	Overall size 1660 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W4)	5	no			
D	Overall size 1160 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W5)	15	no			
E	Overall size 1455 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W7)	7	no			
F	Overall size 1315 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W9)	10	no			
G	Overall size 1660 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W10)	1	no			
H	Overall size 1410 mm wide x 2800 mm high complete with fixed glass panel and sliding windows (W11)	2	no			
PTE159		To Collection \$				
BQ/2						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	(Cont) Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications					
A	Overall size 3475 mm wide x 2800 mm high complete with fixed glass panel and sliding door panels (W13)	4	no			
B	Overall size 4940 mm wide x 2800 mm high complete with fixed glass panels and sliding door panels (W14)	1	no			
C	Overall size 4700 mm wide x 2800 mm high complete with fixed glass panels and sliding door panels (W15)	1	no			
	<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 12.76 mm thick green tinted laminated glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>					
D	Overall size 1140 mm wide x 2800 mm high complete with fixed glass panels window (W2)	1	no			
E	Overall size 1000 mm wide x 2800 mm high complete with fixed glass panel and single leaf swing glass door (W6)	1	no			
F	Overall size 450 mm wide x 2800 mm high complete with fixed glass panel and top hung windows (W8)	16	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - WINDOWS (Cont)</u>					
	(Cont) ALUMINIUM GLAZED SYSTEM					
	<u>Supply and install aluminium glazed system in standard approved powder coating finish complete with 6 mm thick green tinted Frosted glass including weatherseal sealant and all necessary fixing accessories, all in strict accordance with the manufacturer's instructions and specifications</u>					
A	Overall size 600 mm wide x 800 mm high top hung window (W12)	1	no			
B	Precast reinforced concrete (grade 20) lintol, in various sizes including reinforcement, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		Item			
	<u>OTHER WORKS NECESSARY</u>					
C	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - INTERNAL WALLS</u>					
	BRICKWALL					
	<u>Common brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course</u>					
A	70 mm thick brickwall	95	m2			
B	115 mm thick brickwall	924	m2			
C	230 mm thick brickwall	7	m2			
D	300 mm thick cavity brickwall	58	m2			
E	70 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
F	115 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
G	230 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
H	300 mm wide with 150 mm high upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
J	6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			
	OTHER WORKS NECESSARY					
K	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - DOORS</u>					
	The Contractor must verify the exact sizes of doors and opening on site prior to fabrication		Note			
	Shop drawings should be submitted by Contractor prior to fabrication and installation for Architect approval		Note			
	The Contractor must submit sample / mock-up for Architect approval		Note			
	All door frame and architrave shall finished with 'ICI' or other equal and approved spray gloss paint		Note			
	All finished doors, linings, door frames and architrave shall be well-seasoned treated hardwood, planed, smoothed and sanded		Note			
	All door shall include kontras, beading and moulding		Note			
	All door finishes details shall refer to Architectural drawings and as in specification		Note			
	<u>SOLID TIMBER CORE FLUSH DOORS</u>					
A	Single leaf door, overall size 900 x 2100 mm high (D1)	18	no			
B	Single leaf door, overall size 850 x 2100 mm high (D3)	38	no			
	<u>FIRE RATED SOLID HARDWOOD TIMBER DOOR</u>					
C	One hour fire rated double leaves door, overall size 1900 x 2100 mm high (D2A)	6	no			
D	One hour fire rated single leaf door, overall size 900 x 2100 mm high (D4)	11	no			
	<u>Wrot treated hardwood door frame and accessories in approved paint finished</u>					
E	Door frame	284	m			
F	Architrave	568	m			
G	Timber subframe	284	m			
H	Fire rated door frame	93	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - DOORS (Cont)</u>					
	(Cont) FIRE RATED SOLID HARDWOOD TIMBER DOOR					
	<u>(Cont) Wrot treated hardwood door frame and accessories in approved paint finished</u>					
A	Fire rated architrave	186	m			
B	Fire rated timber subframe	93	m			
C	Precast reinforced concrete (grade 20) lintol in various sizes including reinforcement, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		Item			
D	150 x 50 x 100 mm high heelstone cast to suit the profile of door jamb with one end built into door jamb and other end cast into heelstone and finish to match floor finishes		Item			
E	150 x 25 x 3 mm thick mild steel lugs with one end fishtailed built into joints of brickwork and the other end turned up, holed and screwed to back of timber door frame		Item			
F	6 mm wide approved silicone sealant pointing to gap between frame and tile		Item			
	IRONMONGERY					
	<u>Supply and fix the following or other equal and approved stainless steel ironmongery to doors and frames including all matching screws unless otherwise stated</u>					
G	'Kawajun' 503.12.101 or other equal and approved Hinge	222	no			
H	'Hafele' 502.11.120 or other equal and approved Mortise roller lock SS matte forend width 24mm	55	no			
J	'Kawajun' 503.11.110 or other equal and approved 65mm Key-Thumb Turn Profile Cylinder	55	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - DOORS (Cont)</u>					
	(Cont) IRONMONGERY					
	(Cont) Supply and fix the following or other equal and approved stainless steel ironmongery to doors and frames including all matching screws unless otherwise stated					
A	'Kawajun' 503.11.107 or other equal and approved Square Escutcheon *Shot black	73	no			
B	'Kawajun' 503.10.238 or other equal and approved C1 Lever Handle on Square Rose & Escutcheon Finish: Shot Black	73	no			
C	'Hafele' 502.11.103 or other equal and approved mortise lock for profile cylinders	18	no			
D	'Kawajun' 503.11.117 or other equal and approved Thumb Turn & Coin Turn profile *For Toilet	18	no			
E	'Hafele' 502.12.112 or other equal and approved HEAVY DUTY BUTT HINGE	69	no			
F	'Hafele' 502.13.106 or other equal and approved Concealed door closer DCL 34 *Suitable for Fire-Rated Doors	23	no			
G	'Hafele' 502.16.112 or other equal and approved FLUSH BOLT 8" SS	12	no			
H	'Hafele' 502.16.113 or other equal and approved FLUSH BOLT 18" SS	12	no			
J	'Hafele' 502.16.111 or other equal and approved Floor Socket - 15mm dia	12	no			
K	'Hafele' 502.16.120 or other equal and approved DOOR STOPPER	68	no			
L	'Hafele' 502.13.105 or other equal and approved Door Closer (without hold open - standard arm)	56	no			
	MASTER KEY SYSTEM					
M	Allow for all locks to be keyed in one master key to the approval of the Superintending Officer		Item			

Description		Qty	Unit	Rate	\$	c
<u>BILL 5 - DOORS (Cont)</u>						
<u>OTHER WORKS NECESSARY</u>						
A	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - INTERNAL WALL FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
A	20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to wall and column	1729	m2			
B	20 mm thick cement and sand (1:3) backing screed to receive ceramic wall tiles to wall and column	769	m2			
C	Approved Skim coat on plastered wall surface to received finishes including all surface preparation	1729	m2			
D	(3.1) 'ICI Dulux' all-in-one or other equal and approved paint to plainface plastered (plaster measured seperately) wall and column	1221	m2			
E	(3.2) 'ICI Dulux' pentelite or other equal and approved paint to plainface plastered (plaster measured seperately) wall and column	322	m2			
F	(3.3) 'Cicogress' or other equal and approved 300 mm x 600 mm wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column	769	m2			
G	(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) wall and column	186	m2			
H	'Fosroc' brushbond or other equal and approved cementious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction to wall and column (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	769	m2			

BILL 5 - INTERNAL WALL FINISHES

[illegible]

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - INTERNAL FLOOR FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	<u>30 mm thick cement and sand (1:3) backing screed to floor to receive</u>					
A	Floor tiles	916	m2			
B	Block	39	m2			
C	150 mm high tiles skirting	515	m			
D	Drop in slab		Item			
	<u>(1.3) 'Cicogress' or other equal and approved 300 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
E	Floor	109	m2			
F	Drop in slab		Item			
	<u>(1.4) 'Cicogress' or other equal and approved 600 mm x 600 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
G	Floor	807	m2			
H	Drop in slab		Item			
	<u>(1.8) 'CIFRE CERAMICA' Extend Series or other equal and approved 20 mm thick floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
J	Floor	39	m2			
K	Drop in slab		Item			
	<u>The following skirting, laid on cement and sand screed (screed measured separately)</u>					
L	(2.2) 'Cicogress' or other equal and approved tiles skirting, 150 mm x 600 mm	499	m			
M	(2.6) 20 mm thick CIFRE CERAMICA Extend Series tiles skirting	16	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - INTERNAL FLOOR FINISHES (Cont)</u>					
A	Selective Aluminium U-Channel termination accessories with natural anodised finish to Architect's approval, install strictly in accordance with the manufacturer's instruction	515	m			
B	'Fosroc' brushbond or other equal and approved cementitious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	174	m2			
C	Approved aluminium edge strip and dividing strip, fixed strictly in accordance with manufacturer's instruction		Item			
D	Approved stainless steel divider strip, fixed strictly in accordance with manufacturer's instruction		Item			
	OTHER WORKS NECESSARY					
E	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 5 - INTERNAL FLOOR FINISHES

Description	Qty	Unit	Rate	\$	c
BILL 5 - INTERNAL FLOOR FINISHES (Cont)					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 5 - INTERNAL FLOOR FINISHES Carried to Summary					
PTE159					

BILL 5 - INTERNAL CEILING FINISHES

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - INTERNAL CEILING FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
A	(4.1) 'Gyproc' or other equal and approved gypsum board ceiling with square edge complete with standard fixing accessories all as per manufacturer's detail, recommendation and approval as detailed on drawings.	743	m2			
B	(4.2) 'Gyproc' or other equal and approved gypsum moisture resistant board ceiling with square edge complete with standard fixing accessories all as per manufacturer's detail, recommendation and approval as detailed on drawings.	174	m2			
C	(4.6) 'SIAM' or other equal and approved gypsum weatherbloc ceiling with square edge complete with standard fixing accessories finished, all as per manufacturer's detail, recommendation and approval as detailed on drawings.	39	m2			
	<u>Prepare, prime and apply 'ICI DULUX' or other equal and approved paint finish to</u>					
D	Gypsum board	917	m2			
	<u>Prepare, prime and apply 'Wattyl Solagard' or other equal and approved paint finish to</u>					
E	Gypsum weatherbloc board	39	m2			
F	Shadow gap including paint		Item			
G	Drop in ceiling including paint		Item			
H	<u>Extra for forming ceiling access opening including all frame and painting</u>		Item			
	OTHER WORKS NECESSARY					
J	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					

BILL 5 - INTERNAL CEILING FINISHES

Description	Qty	Unit	Rate	\$	c
BILL 5 - INTERNAL CEILING FINISHES (Cont)					
(Cont) OTHER WORKS NECESSARY					
2) _____					
3) _____					
PTE159			To Collection \$		

BILL 5 - INTERNAL CEILING FINISHES

Description	Qty	Unit	Rate	\$	c
BILL 5 - INTERNAL CEILING FINISHES (Cont)					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
BILL 5 - INTERNAL CEILING FINISHES Carried to Summary					
PTE159					
BQ/2					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - EXTERNAL WALL FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
A	20 mm thick cement and sand (1:3) plainface plaster including trowelling smooth to wall and column	1441	m2			
B	20 mm thick cement and sand (1:3) backing screed to receive ceramic wall tiles to wall and column	182	m2			
C	(3.6) Red Sandstone wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column including primed A5631 or other equalvalent, bracket and all other fixing accessories	182	m2			
D	(3.9) 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) wall and column	1441	m2			
	OTHER WORKS NECESSARY					
E	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - EXTERNAL FLOOR FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
	Rate to include 'Laticrete' tile adhesive and pointing with colour grout mixed with grout adhesive as per schedule		Note			
	<u>30 mm thick cement and sand (1:3) backing screed to floor to receive</u>					
A	Floor tiles	98	m2			
B	Block	205	m2			
C	150 mm high tiles skirting	214	m			
D	Red sandstone	12	m			
E	Drop in slab		Item			
	<u>(1.5) 'Cicogress' wood series or other equal and approved 200 mm x 1200 mm floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
F	Floor	98	m2			
G	Drop in slab		Item			
	<u>(1.8) 'CIFRE CERAMICA' Extend Series or other equal and approved 20 mm thick floor tiles, laid in pattern on cement and sand screed (screed measured separately) to</u>					
H	Floor	205	m2			
J	Drop in slab		Item			
	<u>The following skirting, laid on cement and sand screed (screed measured separately)</u>					
K	(2.3) 'Cicogress' wood series or other equal and approved tiles skirting, 200 mm x 1200 mm	126	m			
L	(2.6) 20 mm thick CIFRE CERAMICA Extend Series tiles skirting	88	m			
M	(2.7) Red sandstone tiles skirting	12	m			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - EXTERNAL FLOOR FINISHES (Cont)</u>					
A	Selective Aluminium U-Channel termination accessories with natural anodised finish to Architect's approval, install strictly in accordance with the manufacturer's instruction	226	m			
B	'Fosroc' brushbond or other equal and approved cementious waterproofing to concrete surfaces, applied strictly in accordance with the manufacturer's instruction (Rate to include for providing a ten (10) years guarantee as specified hereinbefore)	98	m2			
	OTHER WORKS NECESSARY					
C	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159					To Collection \$	
BQ/2						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - EXTERNAL CEILING FINISHES</u>					
	Contractor to refer Schedule of Finishes for complete specification and description		Note			
A	(4.6) 'SIAM' or other equal and approved gypsum weatherbloc ceiling with square edge complete with standard fixing accessories finished, all as per manufacturer's detail, recommendation and approval as detailes on drawings.	288	m2			
	<u>Prepare, prime and apply 'Wattyl Solagard' or other equal and approved paint finish to</u>					
B	Gypsum weatherbloc board	288	m2			
C	<u>Extra for forming ceiling access opening including all frame and painting</u>		Item			
	OTHER WORKS NECESSARY					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 5 - EXTERNAL CEILING FINISHES

Description	Qty	Unit	Rate	\$	c
<u>BILL 5 - EXTERNAL CEILING FINISHES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
BILL 5 - EXTERNAL CEILING FINISHES Carried to Summary					
PTE159					

Description	Qty	Unit	Rate	\$	c
<u>BILL 5 - FURNISHING FITTINGS</u>					
All sizes shall be checked on site prior to fabrication		Note			
All external surfaces shall be of selective Lamitak laminated finish or of equal equivalent unless otherwise stated, face pattern and colour as selected by the Architect		Note			
All internal surfaces shall be of selective Lamitak laminated finish or of equal equivalent unless otherwise stated, face pattern and colour as selected by the Architect		Note			
All hardwood edging and lipping shall be painted with 2 coats of approved transcolor preservative wood stain finishing or of equal equivalent, colour as selected by Architect		Note			
All cabinet doors, shelves and drawers shall be provided with and including approved ironmongeries (Lock set to drawer refer to Architectural drawings denoted as circular keyhole in elevation)		Note			
All counter top finished with 12.3 mm thick 'Samsung Staron' or other equal and approved solid surface material back with plywood and 'Non-drip' edge profile on front and sides of appoved colour as selected by the Architect		Note			
Unless otherwise stated, all finishes and details as shown/detailed on Architectural drawings		Note			
Tenderer shall make his own assessment from all drawings and specification issued at the time of tederer. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained		Note			
Mock up units shall be provided when require		Note			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - FURNISHING FITTINGS (Cont)</u>					
	WASH HAND BASIN COUNTER TOP					
	<u>Wash hand basin counter top and 150 mm high splashboard in approved colour finished with waterproofing, including forming opening to receive basin including mild steel bracket support and all necessary fixing accessories all as detailed on drawing and in specification</u>					
A	Overall size 2103 mm long x 600 mm deep x 200 mm high	5	no			
	KITCHEN LOW AND HIGH CABINETRY					
B	Low Cabinet, overall size 3295 + 1190 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per details on Architectural drawings	1	no			
C	High Cabinet, overall size 1345 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	1	no			
D	High Cabinet, overall size 2425 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	1	no			
E	Low Cabinet, overall size 3477 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per details on Architectural drawings	4	no			
F	Low Cabinet, overall size 1180 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per details on Architectural drawings	4	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - FURNISHING FITTINGS (Cont)</u>					
	(Cont) KITCHEN LOW AND HIGH CABINETRY					
A	High Cabinet, overall size 3477 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	4	no			
B	High Cabinet, overall size 1840 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	4	no			
C	Low Cabinet, overall size 4480 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per details on Architectural drawings	1	no			
D	Low Cabinet, overall size 1660 mm long x 600 mm deep x 850 mm high comprised of cabinet doors, drawers, open shelves, adjustable shelves, splashboard, sink top, forming opening for sink, skirting, all ironmongeries and etc, all as per details on Architectural drawings	1	no			
E	High Cabinet, overall size 4480 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	1	no			
F	High Cabinet, overall size 2310 mm long x 300 mm deep x 1250 mm high comprised of cabinet doors, open shelves, adjustable shelves, all ironmongeries and etc, all as per details on Architectural drawings	1	no			
	WARDROBE					
G	Overall size 2035 mm long x 600 mm deep x 2800 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (bedroom & master's bedroom - wardrobe 1)	16	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - FURNISHING FITTINGS (Cont)</u>					
	(Cont) WARDROBE					
A	Overall size 2492 + 2035 mm long x 600 mm deep x 2800 mm high comprised of wardrobe doors, drawers, open shelves, adjustable shelves, hanging rod, LED strip lighting, skirting, all ironmongeries and etc, all as per detailed on Architectural drawings (master's bedroom - wardrobe 2)	1	no			
	MIRROR					
	<u>8 mm thick bronze tinted mirror with 10 mm thick plywood backing complete with powder coated aluminium frame and all fixing equipment and accessories</u>					
B	Overall size 665 mm long x 1000 mm high	14	no			
C	Overall size 2000 mm long x 1000 mm high	5	no			
	OTHER WORKS NECESSARY					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - PLUMBING</u>					
	<u>PLUMBING</u>					
	Fire Hosereel and all associated tanks, pump sets and plumbing works measured in Bill 8B		Note			
	All bends, junctions, tees and the like shall be with access eye opening of pipe diameter		Note			
	All soil and waste pipes shall be connected to gully trap and first manhole		Note			
	SOIL, WASTE AND VENT PIPES					
A	Waste, soil and vent piping system, including all connection and fittings, all as detailed on drawings and in specification		Item			
B	Floor trap including all connection, fittings and gratings, all as detailed on drawings and in specification		Item			
	GULLY TRAP					
C	Gully trap and chamber size 300 x 300 mm in various depth internally with multiple inlets comprising 125 mm thick concrete (grade 20) wall and base, upvc gully trap to B.S.4660 with perforated grating, 300 x 300 mm stainless steel grating with hinge, etc. finished with cement and sand render internally, epoxy painting, inlet and outlet, jointing to waste pipes, including excavation, disposal, backfilling, formwork, etc, the whole as per detail shown on Engineer's drawing		Item			
	COLD AND HOT WATER SERVICES					
D	Cold water and piping including all fittings and connections, all as detailed on drawings and in specification		Item			
E	Hot water and piping including all fittings and connections, all as detailed on drawings and in specification		Item			

Description		Qty	Unit	Rate	\$	c
<u>BILL 5 - PLUMBING (Cont)</u>						
<u>(Cont) PLUMBING</u>						
TESTING						
A	Allow for testing the whole of the plumbing system to the approval of the relevant authorities and to the satisfaction of the Superintending Officer		Item			
<u>OTHER WORKS NECESSARY</u>						
B	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					
PTE159		To Collection \$				
BQ/2						

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - SANITARY FITTINGS</u>					
	<u>Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	DURAVIT 21180900002-GD-Code Closed-Coupled Washdown W.C., 0927100004-GCistern With 6/3L Dual Flush Fittings, U7070S+P202+I107 Seat & Cover (Soft Close), Bend Connector (S-Trap : 170mm), 1/2" Stop Valve, 3/8" x 1/2" Flexible Hose	17	no			
B	JOHNSON SUISSE WBAENW211WW Windsor 250 BO WC, WBALTN111WW Trend Cistern With Lid, WBFT400335XX Trend 6/3L Flush Fittings, SC402 Seat & Cover (Soft Close), WBFT400101XX Fixing Bolt (X2), P450 Straight Connector (S-Trap : 250mm), AV300 1/2" Stop Valve With Flange, DA650N 1/2" Flexible Hose	2	no			
C	DCODE 23105500002 D-Code Wall-Hung Basin With 1 Tap Hole W/Overflow Hole Size (550 X 430X 175)mm, WBFT400099XX Fixing Bolt (X2), 32mm - 1/4" UPVC Bottle Trap, 08571800002 Half Pedestal With Fixings, AV300 1/2" Stop Valve With Flange (X2)	17	no			
D	JOHNSON SUISSE WBAABS201WW Boston 500 Wall-Hung Basin With 1 Tap Hole W/Overflow Hole Size (500 X 430 X 210)mm, WBFT400099XX Fixing Bolt (X2), WBABHP000WW Half Pedestal, WBFT400101XX Fixing Bolt (X2), 32mm - 1 1/4" UPVC Bottle Trap, AV300 1/2" Stop Valve With Flange (X2)	2	no			
E	FIMA CARLO FRATTINI F3831CR.2 Serie 22 Deck Mounted Basin Mixer (Hot & Cold), Click Clack Pop-Up Waste, 1/2" Supply Hose (X2)	17	no			
F	JOHNSON SUISSE WBFA301434CP Turin Deck Mounted Basin Mixer (Hot & Cold), Chrome Plated Waste, Plug & Chain, 1/2" Supply Hose (X2)	2	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - SANITARY FITTINGS (Cont)</u>					
	<u>(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	JOHNSON SUISSE WBFA300933CP Fermo Deck Mounted Sink Tap (Cold Only)	6	no			
B	JOHNSON SUISSE WBFA300526CP Ravenna Twashing Machine Tap With Screw Collar & Flange (Cold Only)	5	no			
C	FIMA CARLO FRATTINI F3165/RP251CR Serie 22 Shower Column Mixer With Diverter (hot & Cold), ABS Overhead Shower (Dia : 200mm), Anti-Limestone Handshower (1 Spray Mode), 1500mm Brass Flex Hose	5	no			
D	FIMA CARLO FRATTINI F3834/1CR Serie 22 Wall Mounted Exposed Bath & Shower Mixer With Diverter (Hot & Cold), F2297CR 696mm ABS Sliding Rail With 1500mm Brass Flex Hose & Anti Limestone Handshower (1 Spray Mode)	7	no			
E	JOHNSON SUISSE WBFA301439CP Turin Exposed Bath & Shower Mixer With Diverter (Hot & Cold), WBFA300694CP Wall-Mounted Sliding Bar (L-600mm), WBFA300723CP Caspian II Hand Shower (1 Spray Mode), WBFA300583CP Double Interlock Shower Hose (L-1.5m)	2	no			
F	FIMA CARLO FRATTINI F6005/1CR Rotola Toilet Paper Holder	17	no			
G	JOHNSON SUISSE WBBA100264CP Trendy Paper Holder With Cover	2	no			
H	FIMA CARLO FRATTINI F6004/2CR Rotola Double Robe Hook	17	no			
J	JOHNSON SUISSE WBBA100257CP Trendy Single Robe Hook	2	no			
K	FIMA CARLO FRATTINI F6000/60CR Rotola Towel Rail (L-600mm)	12	no			

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 5 - SANITARY FITTINGS (Cont)</u>					
	<u>(Cont) Supply and fix the following or other equal and approved vitreous china (unless otherwise stated) sanitary fittings including setting and bedding in positions, building in all brackets, grouting solid, making all connection to supply, vent, waste, overflow drains and for providing all necessary fixing accessories in strict accordance with the sanitary schedule and manufacturer's instruction</u>					
A	JOHNSON SUISSE WBBA100265CP Trendy Single Towel Rail (Length : 600mm)	2	no			
B	FIMA CARLO FRATTINI F2840/7CR Collettivita Bidet Angle Valve (Cold Only), ABS Hand Bidet Spray, 1200mm Flexible Stainless Steel Hose, Spray Holder	19	no			
C	TORA TR-KS-NH-00146-PolishedDouble Bowl Double Drainer Insert Type Stainless Steel Kitchen Sink Size (1370 X 455 X 180)mm, Waste (X2), 40mm 1/2" UPVC Bottle Trap (X2), AV300 1/2" Stop Valve With Flange, DA650-N 1/2" Flexible Hose	6	no			
D	NOVATEC FT201-6 Stainless Steel Decorative Tile Insert Floor Grating Size (153 X 153)mm, FLV Anti Insect & Odor Flow Valve	44	no			
	OTHER WORKS NECESSARY					
E	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)					
<p><u>NOTES</u></p> <p>The bills are to be read and priced in conjunction with the drawings, specification and include all works described / shown in bills and drawings</p> <p>The Contractor is to comply with the conditions of contract, specification, all preliminaries, etc. necessary for the complete execution of the works</p> <p>The Contractor shall be responsible for applying and obtaining all required permits from the relevant authorities for temporary accesses, etc. and for payment of fees thereof</p> <p>The Contractor must visit the site so as to take into consideration existing conditions and to have satisfied himself as to the nature of the site, soil condition, facilities for access, mobilisation of plants, etc. required under this contract. No claims will be allowed on the grounds of ignorance of the conditions under which the works will be executed</p> <p>Prior to the commencement of any work, the levels of the original surface of the site including all slopes shall be agreed by the Superintending Officer in accordance with Preliminaries under 'Setting Out and Site Levels' and on completion of this works, the Contractor must submit as built drawings as required in Preliminaries under 'Completion Joint-Survey and As Built Drawing' which shall form the basis of measurement</p> <p>The Contractor shall take all measures to protect the existing cables and services that is not affected by his scope of work. Any such damage caused by the Contractor shall be made good at the expense of the Contractor and to the satisfaction of the Superintending Officer</p>		Note			
		Note			
		Note			
		Note			
		Note			
		Note			
				To Collection \$	
PTE159					
BQ/1					

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

Description		Qty	Unit	Rate	\$	c
BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)						
<u>(Cont) NOTES</u>						
All making good shall be executed with materials and workmanship to match in every respect of the surrounding work and shall be properly done thereto to the complete satisfaction of the S.O.			Note			
Unless otherwise specified, all materials and debris resulting from the clearing shall be stacked and removed completely from the site. On no account shall cleared timber or other materials be deposited in areas to be filled. Burning on site shall be prohibited			Note			
No tipping on the adjoining land shall be allowed in this contract. The Contractor is therefore to make his own arrangements for disposal of all surplus excavated materials where directed and is to pay all charges in connection therewith			Note			
Tenderer shall make his own assessment from all drawings and specification issued at the time of tendering. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained			Note			
<u>DEMOLITION</u>						
A	Allow for remove, transfer, redirect and reinstate existing utilities or services that affecting or obstructing the proper execution of works		Item			
B	Allow for and maintain any temporary shorings and bracings that may be required during the process of demolition to ensure the stability of the existing structures / buildings and remove the same off site on completion		Item			
C	Remove existing trees in accordance with Municipal Board procedure / requirements including deliver to government nursery, etc. all to the satisfactory of the Superintendence Officer		Item			
PTE159				To Collection \$		
BQ/2						

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
<u>PRECAST REINFORCED PILES (ALL PROVISIONAL)</u>					
The system installation shall consist of 6.3 and 12.9 metre long precast concrete piles element forced into the ground using drop hammer method including cast in pile shoe		Note			
The piles should conform to B.S. 8110 : 1985 and be approved by CPRU Min. of Development for use in Brunei Darussalam		Note			
Steel reinforcement shall conform to B.S. 4449		Note			
End plate should be manufactured to conform to B.S. 4360		Note			
Concrete strength during transfer should correspond to a cube strength of minimum 25 Mpa		Note			
The 28-day strength of concrete shall not be less than 50 Mpa		Note			
Joint between the consecutive pile element shall be in full weld on each side of the end plates brought in contact		Note			
The setting pressure of twice the working load shall be held for a minimum of ten seconds before release		Note			
Each pile shall not deviate by more than 75 mm from the vertical or more than 74 mm from its designed position at the level of the piling chamber		Note			
The paylengths for the supply and inject complete of each pile shall be measured from pile toe to cut-off level		Note			
Tenderer to refer Engineer's Piling Note for performance specification and details		Note			
Provide and erect on site all necessary plant and equipment for installation of precast concrete piles, and dismantle and clear away on completion		Item			
PTE159	BQ/3			To Collection \$	

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>(Cont) PRECAST REINFORCED PILES (ALL PROVISIONAL)</u>					
	Allow for moving and handling piling frame and equipment inclusive of assembling and dismantling about at site from position to position including use of Selangan timber matt and hiring of Kobelco for the full duration		Item			
A	Supply, transport, handle, pitch, hammer, weld, extend, cut-off head, etc. 125 mm square precast reinforced (Grade 45) concrete piles, all in strict accordance with the pile specification.	4092	m			
B	Supply, transport, handle, pitch, hammer, weld, extend, cut-off head, etc. 150 mm square precast reinforced (Grade 45) concrete piles, all in strict accordance with the pile specification.	3576	m			
	<u>Provide the necessary kentledge, jack and dial gauges for the application and release of the load test. The rates include all supervision and labour, watching and lighting and removal of kentledge and equipment</u>					
C	Load test of 900 kN for 125 mm RC square piles with design working load of 600 kN	4	no			
D	Load test of 900 kN for 150 mm RC square piles with design working load of 600 kN	4	no			
	<u>SITE PREPARATION</u>					
E	Clear site (on flat or sloping ground) ready for earthwork including cutting down all shrubs, lallang, bushes, trees (any size, height and age), undergrowth, strip top soil, etc. grubbing up roots, buried logs, breaking up any existing obstructions if encountered and backfilling void where required with approved materials together with all subsequent disposal of debris all to the approval of the S.O. (Approximate area 4,008 m2)		Item			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>EARTHWORKS (ALL PROVISIONAL)</u>					
A	Imported earth fill with approved sand soil all as specified to be transported to site, deposit, spread, level, grade and well compacted in layers in making up formation level including forming slopes, ramps and embankments all as detailed on drawings and in the specification (Rate to include for payment of royalty to the Brunei Government Land Department)	4500	m3			
	<u>SOILING AND TURFING</u>					
B	Supply and plant axonopus compressus (cow grass) in close turfing to flat and sloping surfaces as directed, including excavation, disposal, trimming, filling soft sports, top soil, lime, grading, rolling, raking, etc. to the approval of the Superintending Officer.	1298	m2			
C	Allow for maintenance of all turfing till the end of defect liability period including mowing, cutting, watering, weeding, spreading lime and fertilizer, replacement of dead or damaged plants, etc. as directed by the Superintending Officer. The Contractor to submit maintenance programme for approval		Item			
	<u>RETAINING WALL</u>					
	The Contractor is to provide all necessary temporary protection including method statement for Engineer approval before any excavation		Note			
	<u>REINFORCED CONCRETE RETAINING WALL (TYPE 1)</u>					
	<u>50 mm thick lean concrete (grade 15) to underside of</u>					
D	Concrete slab	117	m2			
	<u>Reinforced concrete (grade 30) in</u>					
E	Concrete slab	59	m3			
F	Retaining wall	72	m3			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) <u>RETAINING WALL</u>					
	(Cont) REINFORCED CONCRETE RETAINING WALL (TYPE 1)					
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
A	Concrete slab	7080	kg			
B	Retaining wall	8640	kg			
	<u>Formwork to</u>					
C	Sides of retaining wall	294	m2			
D	Edge of concrete slab	22	m2			
E	20mm thick cement and sand (1:3) plainface plaster trowelled smooth to retaining wall including all approved paint and colour finish	157	m2			
F	Perforated 150 mm diameter upvc class 'D' sub-soil pipe surrounded with aggregates, all as per Engineer's details drawings	41	m			
G	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
H	75 mm diameter pvc weep hole end with single size aggregates wrapped with filter cloth at 2500 mm centre, all as per Engineer's detail drawings		Item			
	GABION WALL (TYPE 1)					
	<u>Gabion wall in approved 75 to 200 mm well grade hard stones filling in galvanised wire mesh gabion, stacking up in courses as directed by Engineer, all as detailed on drawings and specification</u>					
J	Overall size 2000 mm wide x 3000 mm high	36	m			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) <u>RETAINING WALL</u> (Cont) GABION WALL (TYPE 1)					
	250 mm thick reinforced concrete strip footing with upturn kerb including reinforcement bars, formwork and all necessary excavation, compaction, disposal of surplus excavated materials off-site, backfilling and etc., all as detailed on Engineer's drawings					
A	2600 mm wide	36	m			
B	Reinforced concrete stiffener, 200 mm x 200 mm x 3000 mm high including all reinforcement bars and all necessary formwork, finish all exposed surface with approved paint in approved colour, all as detailed on Engineer's drawings	13	no			
C	200 mm diameter approved perforated polypropylene primary subsoil pipe complete with approved geotextile and crushed gravel, all as detailed on Engineer's drawings	72	m			
	<u>DRIVEWAY AND PAVEMENT</u>					
D	Excavate for driveway and carpark commencing from formation level not exceeding 2.00 m deep, get out, cart away excavated material off-site to a tip to be provided by the Contractor at his expense	374	m3			
E	Prepare subgrade surface, grade and makeup to line level and camber to required maximum dry density, CBR value, fall and gradients, all as detailed on drawings and in specification	679	m2			
F	Compact surfaces of subgrade to 90% optimum dry density with minimum soaked CBR value of 4% all as specified, including necessary trimming and levelling surfaces to falls and gradients	679	m2			
G	Proof roll compacted surfaces to detect soft spots, excavate, remove, lay and compact approved sand filling in layer		Item			
PTE159				To Collection \$		
BQ/7						

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) DRIVEWAY AND PAVEMENT					
A	Allow for carrying out Laboratory Compaction Test (4.5 kg hammer) including providing necessary instrument	1	no			
B	Allow for carrying Laboratory CBR Test including providing necessary instrument	1	no			
C	Allow for carrying out Field Density Test on prepared subgrade including providing necessary instrument	1	no			
D	Allow for carrying out CBR Test (BS1377 Pt9; 1990) on prepared subgrade including providing necessary instrument	1	no			
E	250 mm thick mechanically compacted granular sub-base of crushed rock, hard durable particles or fragments of rock crushed to size as specified, spread, level and finished to falls and gradients	679	m2			
F	200 mm thick mechanically compacted crusher run road base of crushed rock, hard durable particles or fragments of rock crushed to size as specified, spread, level and finished to falls and gradients	679	m2			
G	One (1) layer of reinforced base Type '1' laying of reinforced base on earthworks	679	m2			
H	Apply prime coat including sweeping and cleaning surfaces of subbase before application	679	m2			
J	60 mm thick asphaltic concrete binded course, spread, level and consolidate to the required gradients and cambers with power roller as specified	679	m2			
K	Apply bituminous tack coat at the approved rate including sweeping and cleaning surfaces of subbase before application	679	m2			
L	40 mm thick asphaltic concrete wearing course, spread, level and consolidate to the required gradients and cambers with power roller as specified	679	m2			
PTE159				To Collection \$		
BQ/8						

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) DRIVEWAY AND PAVEMENT					
A	Cut edge of existing tarmacadam driveway 250 mm wide x 300 mm deep including prepare surfaces to receive new works, make good surfaces disturbed and remove all debris off site		Item			
	KERB					
B	125 mm wide x 300 mm high precast concrete kerb (grade 30) (straight and curved-on-plan) on 'L' shape foundation and haunch, laid in straight/curve alignment, reinforced with mild steel bar, all exposed surfaces finished fair and prepare and apply two coats of gloss reflective paint in alternating black and white colour, bedded and jointed in cement and sand mortar including all excavation and formwork, all as detailed on drawing	222	m			
C	100 mm diameter upvc pipe through kerb at 3000 mm centre		Item			
	<u>Prepare and apply two coats of approved chlorinated rubber paint on asphaltic for demarcation and directional arrow sign</u>					
D	100 mm wide in straight line	20	m			
E	Straight arrow	2	no			
F	Turn right arrow	2	no			
G	Turn left arrow	2	no			
H	Turn left & right arrow	2	no			
J	Transverse 'Stop Line'	2	no			
	<u>Supply and install approved diamond grade aluminium alloy reflective warning directional sign complete with all post, reinforced concrete footing, excavation, disposal, reinforcement, formwork and painting to approved colour complying to JKR Road Department regulation (Contractor to refer Engineer's drawing for signage details)</u>					
K	'KELUAR'	1	no			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) DRIVEWAY AND PAVEMENT					
	(Cont) KERB					
	(Cont) Supply and install approved diamond grade aluminium alloy reflective warning directional sign complete with all post, reinforced concrete footing, excavation, disposal, reinforcement, formwork and painting to approved colour complying to JKR Road Department regulation (Contractor to refer Engineer's drawing for signage details)					
A	'MASUK'	1	no			
B	'BERHENTI'	2	no			
	<u>SURFACE WATER DRAINAGE</u>					
	The contractor is to check and adjust drain levels on site		Note			
	The contractor is to maintain existing drains including make good all works disturbed		Note			
C	Allow for connection to existing drain and sump including all hacking and make good to works disturbed including matching existing invert level		Item			
	<u>OPEN DRAIN</u>					
	Reinforced concrete (grade 30) water channel laid to falls in straight / curved alignment with 125 mm thick walls and 100 mm thick base, lean concrete (grade 15), 50 mm weep holes with filter stone, etc., finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all necessary excavation, backfilling, crusher run, formwork, reinforcement, forming angles, ends, outlet, junctions, etc. all as detailed on drawings (all dimensions stated are internal and depth to invert level)					
D	350 mm wide x 500 mm deep (average)	40	m			
E	450 mm wide x 500 mm deep (average)	76	m			
F	450 mm wide x 515 mm deep (average)	25	m			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) SURFACE WATER DRAINAGE					
	(Cont) OPEN DRAIN					
	(Cont) Reinforced concrete (grade 30) water channel laid to falls in straight / curved alignment with 125 mm thick walls and 100 mm thick base, lean concrete (grade 15), 50 mm weep holes with filter stone, etc., finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all necessary excavation, backfilling, crusher run, formwork, reinforcement, forming angles, ends, outlet, junctions, etc. all as detailed on drawings (all dimensions stated are internal and depth to invert level)					
A	450 mm wide x 605 mm deep (average)	36	m			
B	450 mm wide x 625 mm deep (average)	28	m			
C	450 mm wide x 650 mm deep (average)	28	m			
D	450 mm wide x 755 mm deep (average)	58	m			
E	450 mm wide x 780 mm deep (average)	91	m			
F	450 mm wide x 785 mm deep (average)	32	m			
	GRATING					
	Hot dipped galvanised drain grating complete with angle with lugs embedded in concrete including all welding and painting, all as Engineer's details drawing for					
G	450 mm wide drain	91	m			
	Precase reinforced concrete (grade 25) grating including all necessary reinforcement and formwork, laid in position all as per Architectural and Engineer's drawing for					
H	350 mm wide drain	40	m			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) SURFACE WATER DRAINAGE (Cont) GRATING					
A	Allow for making 'L' shape angle to exsiting drain to receive new drain grating including all hacking, cutting of reinforcement, replastering, and make good to all surface disturbed to match existing SUMP <u>Reinforced concrete (grade 30) sump, comprising 150 mm thick walls and base on and including lean concrete, reinforcement bar, splayed fillet at base corners, top of sump with rebate and angle framing to receive and and including hot dipped galvanised steel sump grating, finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all excavation, backfilling, disposal, formwork, forming opening and connections of incoming and outgoing drain, all as detailed on drawings (all dimensions stated are internal and depth to invert level)</u>	182	m			
B	750 x 750 x 550 mm deep	1	no			
C	750 x 750 x 450 mm deep	2	no			
D	750 x 750 x 660 mm deep	1	no			
E	750 x 750 x 850 mm deep	1	no			
F	750 x 750 x 900 mm deep	1	no			
G	750 x 750 x 800 mm deep	1	no			
H	750 x 750 x 720 mm deep	1	no			
J	750 x 750 x 580 mm deep <u>Hot dipped galvanised sump grating complete with angle with lugs embedded in concrete including all welding and painting, all as Engineer's details drawing for (all dimensions stated are internal)</u>	1	no			
K	750 mm square sump	9	no			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>SLOTTED DRAIN</u>					
	Reinforced concrete (grade 30) slotted surface water channel laid to falls in straight/ curved alignment with reinforcement bar and including 100 mm thick hardcore and 50 mm thick lean concrete (grade 15), 300 mm diameter half round slotted drain bolted to bothside of concrete drain, upvc weephole with hydrocell prefabricated wall drainage panel wrapped all sides with one layer Bonal Nwa non-woven geotextile at 3000 centre, finished on all exposed surfaces with 12 mm thick cement and sand (1:3) plaster trowelled smooth including all necessary excavation, backfilling, compacted subgrade, formwork, forming angles, ends, outlet, junctions, etc. all as detailed on drawings (all dimensions stated are internal)					
A	450 mm wide x 850 mm deep (average)	15	m			
	<u>EXTERNAL WATER SUPPLY</u>					
	All water tanks and pump sets measured in Mechanical & Electrical Works Bill 8A		Note			
	All pipes shall be deemed to include all excavation, backfilling, disposal, etc., complete with all made bends, elbows, bends, tees, couplings, connectors, unions, diminishing sockets, reducers, etc, whichever fittings/ accessories are applicable and wrapping and insulation		Note			
	All MDPE, ductile iron and stainless steel pipe which will be contact with soil shall be wrapped with authority approved polythene sheet		Note			
	All flanged or flexible joints shall be protected with 'Denso Mastic' and wrapped around with Denso tape		Note			
B	Excavate to locate and expose existing pipe main, for connection to new pipe and all necessary accessories, cutting existing pipe, backfilling, compaction, removal of debris and making good all works disturbed		Item			
	PTE159			To Collection \$		

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) EXTERNAL WATER SUPPLY					
A	75 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	28	m			
B	50 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	83	m			
C	20 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	200	m			
D	75 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand and reinforced concrete surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	7	m			
E	20 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand and 50 mm diameter pipe sleeve including plyage HRD blue marker mesh greater than 30 mm diameter	4	m			
	<u>Approved stainless steel pipe and fittings to 316L laid underground to fall with various compacted sand in layers including all necessary excavation, disposal, connection and other fixing accessories</u>					
F	20 mm diameter water supply pipe	211	m			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) EXTERNAL WATER SUPPLY					
	<u>Approved stainless steel 316L pipe in 100 mm diameter heavy duty uPVC pipesleeve laid underground to fall including all necessary excavation, disposal, connection and other fixing accessories</u>					
A	50 mm diameter pipe	211	m			
B	Standard precast concrete (Grade 25) sluice valve chamber, internal size 280 x 430 x 1000 mm deep, comprising free draining compacted granular material and ground beam at base, 100 mm thick precast concrete wall and both faces with cement and sand (1:3) rendering on all exposed surfaces, standard cover and frame with concrete surround, forming opening to receive incoming and outgoing piping with 7 mm thick bituminous felt at opening, 1 no. 50 mm diameter upvc weep pipe cast into wall and externally plugged with 200 x 200 x 200 mm crushed gravel wrapped with and including Terram 500 filter cloth, all necessary excavation, disposal of excavated material, formwork, thrust block all as shown on Engineer's drawings	1	no			
C	100 mm diameter approved sluice valve, complete with piping, fittings, cast iron and concrete surface box encased, all as per Engineer's detail drawings	1	no			
D	Supply and install approved master water meter complete with all pipes and fittings, brass ferrule, elbow, gate valve, coupling, adaptor/reducer and all others fixing accessories including reinforced concrete chamber slab, pipe barrier in black and white paint, all necessary excavation and formwork as per Engineer's drawings	1	no			
E	Approved wash out with concrete chamber and base including all piping, fittings and accessories, all excavation, disposal, formwork, connection, etc.	1	no			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) EXTERNAL WATER SUPPLY					
A	100 mm diameter ductile iron short pipe laid underground, tapping from existing main to water bulk meter including sluice valve with chamber and all necessary accessories, excavation, backfilling, compaction, concrete surround, breaking up existing tarmacadam road and subbase approximately 700 mm wide for laying of pipe, removal of debris and making good all works disturbed, all as detailed on drawings	1	no			
B	65 mm diameter 'Glendfield-type 2' or other equal and approved fire hydrant to B.S. 750 complete with standard fire hose tread, connection to pipes, pipes in short length and fittings, and all others fixing accessories including reinforced concrete base and surface box encase with cover, 100 mm diameter sluice valve, all necessary excavation and formwork as per Engineer's drawings	1	no			
C	Precast concrete (Grade 25) marker post overall size 115 mm width x 955 mm high x 75 mm thick with inscribed lettering on aluminium plate to read "H", painted black with white back ground, the whole reinforced with 2 no. BRC 10 bars and 8 no. 8 mm links and planted in 400 x 400 x 450 mm deep concrete base underground, exposed post surfaces painted golden yellow, including all necessary excavation, mould, and removal of debris	1	no			
D	Precast concrete (Grade 25) marker post overall size 115 mm width x 955 mm high x 75 mm thick with painted lettering to read "WATER" vertically, the whole reinforced with 2 no. BRC 10 bars and 8 no. 8 mm links and planted in 300 x 300 x 300 mm deep concrete base underground, exposed post surfaces painted golden yellow, including all necessary excavation, mould, and removal of debris	1	no			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) <u>EXTERNAL WATER SUPPLY</u>					
A	Garden tap PVC box chamber / valve pit with cover, overall size 530 x 400 x 300 mm high complete with quick coupling valve and gate valve connected to 20 mm diameter stainless steel water supply pipe including all excavation, 75 mm thick gravel base, 75 mm thick loose hard core base and disposal of excavated materials off site	2	no			
B	Approved stop cock/gate valve in various diameter, all as detailed on drawings		Item			
C	Concrete thrust block for bend, tee, end cap and sluice valve including all excavation, disposal and backfilling, lean concrete, concrete, formwork and reinforcement, all as detailed on drawings		Item			
D	Allow for sterilising of cold water main pipes prior to connection to existing mains		Item			
E	Allow for pipe flushing and disinfection the whole of the external water supply services to the approval of the relevant authorities and satisfaction of the Superintending Officer		Item			
F	Allow for testing the whole of the external water supply services to the approval of the relevant authorities and satisfaction of the Superintending Officer		Item			
	<u>FOUL DRAINAGE AND MANHOLES</u>					
	Pipe laid under existing road shall be by pipe jacking method		Note			
G	Allow for determine the foul drainage and manhole levels, prepare and submit longitudinal sections, all to the approval of the Superintending Officer		Item			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) FOUL DRAINAGE AND MANHOLES					
	PIPE WORKS					
A	200 mm diameter vitrified clay sewer pipe to B.S. EN 295 laid to falls in trench in spigot and socket polyester flexible joints, including all excavation, disposal, backfilling, sand filling, lean concrete, concrete bed and surround, concrete saddle, reinforcement and formwork, all as detailed on drawings	8	m			
B	150 mm diameter vitrified clay sewer pipe to B.S. EN 295 laid to falls in trench in spigot and socket polyester flexible joints, including all excavation, disposal, backfilling, sand filling, lean concrete, concrete bed and surround, concrete saddle, reinforcement and formwork, all as detailed on drawings	132	m			
C	Allow 200 mm diameter vitrified clay backdrop pipe in short lengths to suit in spigot and socket joint and lain vertically in trench including all fittings, tee junction, bend, excavation, backfilling, disposal, concrete encasing, formwork, connection, etc.	1	no			
D	Allow 150 mm diameter vitrified clay backdrop pipe in short lengths to suit in spigot and socket joint and lain vertically in trench including all fittings, tee junction, bend, excavation, backfilling, disposal, concrete encasing, formwork, connection, etc.	1	no			
	REINFORCED CONCRETE (GRADE 25) MANHOLES, ALL AS DETAILED DRAWINGS					
	All dimensions stated are internal with depth taken from top of cover slab to invert		Note			
	All concrete shall be sulphate resisting cement		Note			
E	The rate for manhole shall include the following:					

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) FOUL DRAINAGE AND MANHOLES					
	(Cont) REINFORCED CONCRETE (GRADE 25) MANHOLES, ALL AS DETAILED DRAWINGS					
	150 mm thick top slab, 225 mm thick wall, 200 mm thick base, forming opening in top slab to receive cover, 50 mm lean concrete (grade 15) under, reinforcement, formwork, excavation, remove surplus excavated material off-site and backfilling		Note			
	High tensile and mild steel reinforcement 12 mm diameter bar to insitu concrete top slab, wall and base		Note			
	Galvanised malleable step iron to BS.1247 for manhole at 300 mm centre in staggered horizontally and vertically		Note			
	Grade 304 stainless steel ladder comprised of 65 mm diameter x 5 mm thick handrail and 50 mm diameter x 5 mm thick steps with non-slip rungs complete with all fixing accessories, all as detailed on Engineer's drawings		Note			
	12 mm thick cement and sand (1:3) trowelled smooth internally and externally.		Note			
	JKR approved 1220 mm diameter precast concrete ring to BS. 5911 with mortar joints		Note			
	<u>Square salt-glazed stoneware main or branch channel or in three-quarter section all bedded and jointed in cement and sand (1:2), sulphate resisting cement concrete (grade 30) benching in varying thickness to suit at manhole bottom, top of benching trowelled to a hard smooth surface with sulphate resisting (1:2) cement mortar laid monolithic to falls and cross-falls at 1:12 gradient, forming circular opening through manhole wall ready to receive incoming and outgoing sewer pipe</u>					
A	Overall size 2250 x 1500 x 613 mm deep (MH-1)	1	no			
B	Overall size 2250 x 1500 x 706 mm deep (MH-2)	1	no			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) FOUL DRAINAGE AND MANHOLES					
	(Cont) REINFORCED CONCRETE (GRADE 25) MANHOLES, ALL AS DETAILED DRAWINGS					
	(Cont) Square salt-glazed stoneware main or branch channel or in three-quarter section all bedded and jointed in cement and sand (1:2), sulphate resisting cement concrete (grade 30) benching in varying thickness to suit at manhole bottom, top of benching trowelled to a hard smooth surface with sulphate resisting (1:2) cement mortar laid monolithic to falls and cross-falls at 1:12 gradient, forming circular opening through manhole wall ready to receive incoming and outgoing sewer pipe					
A	Overall size 2250 x 1500 x 865 mm deep (MH-3)	1	no			
B	Overall size 2250 x 1500 x 998 mm deep (MH-4)	1	no			
C	Overall size 2250 x 1500 x 880 mm deep (MH-4A)	1	no			
D	Overall size 2250 x 1500 x 571 mm deep (MH-4B)	1	no			
E	Overall size 2250 x 1500 x 450 mm deep (MH-4C)	1	no			
F	Overall size 2250 x 1500 x 1182 mm deep (MH-5)	1	no			
G	Overall size 2250 x 1500 x 1341 mm deep (MH-6)	1	no			
	MANHOLE COVER					
H	BS EN 124 Class B125 ductile iron manhole cover and frame including bedding frame in cement and sand mortar and setting cover in grease	9	no			
	TESTING					
J	Allow for testing as specified the whole of the foul drainage including grease trap according to BS CP 301:1971 and to the approval of the relevant authorities and satisfaction of the Superintending Officer		Item			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>PLANTER BOX</u>					
	Construction and completion of planter box including all excavation, compacted hardcore, lean concrete, reinforced concrete slab, decorative wall, waterproofing, coarse aggregate, 300 mm thick planting soil, 100 mm thick fine aggregate, all necessary plumbing works connected to nearest drain, finished with all exposed concrete / brick surfaces with approved heavy duty tiles of approved colour on cement and sand screed with approved tile colour grouting, skimmer, all as detailed on Architectural and Engineer's drawings and in specification					
A	Overall size, 8420 mm x 1200 mm x 325 mm high	1	no			
B	Overall size, 6400 mm x 1200 mm x 325 mm high	1	no			
C	Overall size, 9650 mm x 2400 mm x 750 mm high	1	no			
D	Overall size, 4250 mm x 8850 mm x 750 mm high	1	no			
	<u>REFLECTIVE POOL</u>					
	Construction and completion of reflective pool including all excavation, compacted hardcore, lean concrete, reinforced concrete slab, decorative wall, waterproofing, coarse aggregate, 300 mm thick planting soil, 100 mm thick fine aggregate, all necessary plumbing works connected to nearest drain including flap valve, finished with all exposed concrete / brick surfaces with approved glass mosaic tiles of approved colour on cement and sand screed with approved tile colour grouting, all lighting (lighting and associated M&E works measure in Mechanical & Electrical Bill 8A), all as detailed on Architectural and Engineer's drawings and in specification					
E	Overall size, 14000 mm x 13000 mm x 1010 mm deep	1	no			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	<u>WATER FEATURE POND</u>					
	Construction and completion of water feature pool complete with planter and seating including all excavation, compacted hardcore, lean concrete, reinforced concrete slab, decorative wall, waterproofing, coarse aggregate, 300 mm thick planting soil, 100 mm thick fine aggregate, all necessary plumbing works connected to nearest drain including flap valve, finished with all exposed concrete / brick surfaces with approved granite tiles of approved colour on cement and sand screed with approved tile colour grouting, all water fountain and lighting (water fountain, lighting and associated M&E works measure in Mechanical & Electrical Bill 8B), all as detailed on Architectural and Engineer's drawings and in specification					
A	Overall size, 4250 mm x 1500mm x 700 mm high with overflow scupper drain in selective stone pebble	2	no			
	<u>FLAG POLE</u>					
B	2 Nos. of 60 mm diameter to varies stainless steel pipe flag pole, overall high 6000 mm in weld connection comprising of 7500 mm long x 1000 mm wide upstand reinforced concrete base, finish all exposed concrete surfaces with cement and sand (1:3) plaster, approved tiles finishes complete with stainless steel plates, bolts, nut, washers, 25 mm diameter steel eye, 125 mm diameter stainless steel dome, ring, necking, stainless steel pulley, tapered end, end plate, stainless steel rod, rod cleat, nylon rod and etc. including all necessary excavation, disposal, formwork, reinforcement and fixing accessories all as shown on Architectural and Engineer's drawing (Piling measure separately)	1	no			
	<u>ANCILLARY BUILDING</u>					
	All ancillary building to include anti-termite chemical treatment (Provide 10 years warranty)		Note			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	<u>BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)</u>					
	<u>(Cont) ANCILLARY BUILDING</u>					
	GUARD HOUSE					
A	Construction and completion of Guard House overall size 3350 x 3000 x 4200 mm high including all excavation, foundation, reinforcement, reinforced concrete ground slab, apron slab, brickwall, metal works up to roof top, perimeter drain complete with all finishing works, approved signage and joinery fittings, plumbing and services, etc. (excluding electrical and lighting which are under Machanical and Electrical works) all as shown on Architectural drawing and Engineer's drawings (Piling measure separately)	1	no			
	<u>DECORATIVE AND BICKWALL FENCE</u>					
	CONCRETE WORKS					
	<u>50 mm thick lean concrete (Grade 15) to underside of</u>					
B	Footing	21	m2			
C	Ground beam	51	m2			
	<u>Reinforced concrete (Grade 30) in</u>					
D	Footing	13	m3			
E	Column	13	m3			
F	Ground beam	31	m3			
	<u>10 mm to 16 mm diameter mild steel / high tensile reinforcement bar in</u>					
G	Footing	1378	kg			
H	Column	2197	kg			
J	Ground beam	3162	kg			
	<u>Formwork to</u>					
K	Sides of footing	78	m2			
L	Sides of column	282	m2			
M	Sides of ground beam	318	m2			

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To Collection \$

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) DECORATIVE AND BICKWALL FENCE					
	DECORATIVE FENCING					
A	'Archifoam' CPC Pattern or other equal and approved 25 mm thick grill / screen, fixed on reinforced concrete foundation, column and beam (concrete foundation, column and beam measured seperately), complete with all approved fixing accessories all in strict accordance with the manufacturer's specification and instruction	96	m2			
	BRICKWALL					
	<u>Brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course to wall</u>					
B	115 mm thick	645	m2			
C	Approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
D	6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			
	EXTERNAL WALL FINISHES					
E	20 mm thick cement and sand (1:3) plainface plaster including trowelled smooth to wall, column and expose ground beam	1431	m2			
F	Red Sandstone wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column including primed A5631 or other equalvalent, bracket and all other fixing accessories	99	m2			
G	'KCC' textcoat 404 or other equal and approved spraytile texture with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) wall, column and expose groung beam	1332	m2			

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

	Description	Qty	Unit	Rate	\$	c
	BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
	(Cont) DECORATIVE AND BICKWALL FENCE					
	STAINLESS STEEL GATE					
A	Sliding gate incorporate with small swing gate comprised of pattern screen in 100 x 100 mm RHS stainless steel frame structure, design to pattern as per Architectural's details drawing in welded connection including all cutting and complete with all approved lock and fixing accessories, Stainless steel roller and wheel guide, Sliding motor (to Engineer's specification), all as per details on drawing and specification, overall size 7465 x 3000 mm high	1	no			
	SIGNAGES					
	<u>Supply, deliver to site, placing or install in position the bi-lingual wall mounted signage in approved colour 3D cut out powder coated aluminium text including all necessary fixing accessories (size to refer drawing)</u>					
B	INDIA HIGH COMMISSIONER'S RESIDENCE	1	set			
	<u>Supply, deliver to site, placing or install in position wall / fence mounted logo in approved colour powder coated aluminium including all necessary fixing accessories (size to refer drawing)</u>					
C	Wall logo	1	no			
	<u>OTHER WORKS NECESSARY</u>					
D	Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
	1) _____					
	2) _____					
	3) _____					

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
Page No. BQ/6					
Page No. BQ/7					
Page No. BQ/8					
Page No. BQ/9					
Page No. BQ/10					
Page No. BQ/11					
Page No. BQ/12					
Page No. BQ/13					
Page No. BQ/14					
Page No. BQ/15					
Page No. BQ/16					
Page No. BQ/17					
Page No. BQ/18					
Page No. BQ/19					
Page No. BQ/20					
Page No. BQ/21					
Page No. BQ/22					
Page No. BQ/23					
PTE159					
BQ/26					

BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
COLLECTION					
Page No. BQ/24					
Page No. BQ/25					
BILL 6A - EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE) Carried to Summary					
PTE159					
BQ/27					

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
<p>BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)</p> <p><u>NOTES</u></p> <p>The bills are to be read and priced in conjunction with the drawings, specification and include all works described / shown in bills and drawings</p> <p>The Contractor is to comply with the conditions of contract, specification, all preliminaries, etc. necessary for the complete execution of the works</p> <p>The Contractor shall be responsible for applying and obtaining all required permits from the relevant authorities for temporary accesses, etc. and for payment of fees thereof</p> <p>The Contractor must visit the site so as to take into consideration existing conditions and to have satisfied himself as to the nature of the site, soil condition, facilities for access, mobilisation of plants, etc. required under this contract. No claims will be allowed on the grounds of ignorance of the conditions under which the works will be executed</p> <p>Prior to the commencement of any work, the levels of the original surface of the site including all slopes shall be agreed by the Superintending Officer in accordance with Preliminaries under 'Setting Out and Site Levels' and on completion of this works, the Contractor must submit as built drawings as required in Preliminaries under 'Completion Joint-Survey and As Built Drawing' which shall form the basis of measurement</p> <p>The Contractor shall take all measures to protect the existing cables and services that is not affected by his scope of work. Any such damage caused by the Contractor shall be made good at the expense of the Contractor and to the satisfaction of the Superintending Officer</p>		<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			
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BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)				(Cont)		
<u>(Cont) NOTES</u>						
All making good shall be executed with materials and workmanship to match in every respect of the surrounding work and shall be properly done thereto to the complete satisfaction of the S.O.			Note			
Unless otherwise specified, all materials and debris resulting from the clearing shall be stacked and removed completely from the site. On no account shall cleared timber or other materials be deposited in areas to be filled. Burning on site shall be prohibited			Note			
No tipping on the adjoining land shall be allowed in this contract. The Contractor is therefore to make his own arrangements for disposal of all surplus excavated materials where directed and is to pay all charges in connection therewith			Note			
Tenderer shall make his own assessment from all drawings and specification issued at the time of tendering. Any discrepancies between drawing and Bill of Quantities, the drawings shall take precedence. No additional claim will be entertained			Note			
<u>DEMOLITION</u>						
A	Allow for remove, transfer, redirect and reinstate existing utilities or services that affecting or obstructing the proper execution of works		Item			
B	Allow for and maintain any temporary shorings and bracings that may be required during the process of demolition to ensure the stability of the existing structures / buildings and remove the same off site on completion		Item			
C	Remove existing trees in accordance with Municipal Board procedure / requirements including deliver to government nursery, etc. all to the satisfactory of the Superintendence Officer		Item			
PTE159					To Collection \$	
BQ/2						

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
<u>PRECAST REINFORCED PILES (ALL PROVISIONAL)</u>					
<p>The system installation shall consist of 6.3 and 12.9 metre long precast concrete piles element forced into the ground using drop hammer method including cast in pile shoe</p> <p>The piles should conform to B.S. 8110 : 1985 and be approved by CPRU Min. of Development for use in Brunei Darussalam</p> <p>Steel reinforcement shall conform to B.S. 4449</p> <p>End plate should be manufactured to conform to B.S. 4360</p> <p>Concrete strength during transfer should correspond to a cube strength of minimum 25 Mpa</p> <p>The 28-day strength of concrete shall not be less than 50 Mpa</p> <p>Joint between the consecutive pile element shall be in full weld on each side of the end plates brought in contact</p> <p>The setting pressure of twice the working load shall be held for a minimum of ten seconds before release</p> <p>Each pile shall not deviate by more than 75 mm from the vertical or more than 74 mm from its designed position at the level of the piling chamber</p> <p>The paylengths for the supply and inject complete of each pile shall be measured from pile toe to cut-off level</p> <p>Provide and erect on site all necessary plant and equipment for installation of precast concrete piles, and dismantle and clear away on completion</p> <p>Allow for moving and handling piling frame and equipment inclusive of assembling and dismantling about at site from position to position including use of Selangan timber matt and hiring of Kobelco for the full duration</p>		Note			
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PTE159					
To Collection \$					

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) PRECAST REINFORCED PILES (ALL PROVISIONAL)</u>					
A	Supply, transport, handle, pitch, hammer, weld, extend, cut-off head, etc. 125 mm square precast reinforced (Grade 45) concrete piles, all in strict accordance with the pile specification.	16584	m			
B	Supply, transport, handle, pitch, hammer, weld, extend, cut-off head, etc. 150 mm square precast reinforced (Grade 50) concrete piles, all in strict accordance with the pile specification.	7242	m			
	<u>Provide the necessary kentledge, jack and dial gauges for the application and release of the load test. The rates include all supervision and labour, watching and lighting and removal of kentledge and equipment</u>					
C	Load test of 900 kN for 125 mm RC square piles with design working load of 600 kN	4	no			
D	Load test of 900 kN for 150 mm RC square piles with design working load of 600 kN	4	no			
	<u>SITE PREPARATION</u>					
E	Clear site (on flat or sloping ground) ready for earthwork including cutting down all shrubs, lallang, bushes, trees (any size, height and age), undergrowth, strip top soil, etc. grubbing up roots, buried logs, breaking up any existing obstructions if encountered and backfilling void where required with approved materials together with all subsequent disposal of debris all to the approval of the S.O. (Approximate area 13,267 m2)		Item			
	<u>EARTHWORKS (ALL PROVISIONAL)</u>					
F	Open cut excavation from original ground level (level of cut as per drawing or to determine by Engineer), load and transport off site to a tip to be provided by the Contractor at his own expense	3500	m3			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) <u>EARTHWORKS (ALL PROVISIONAL)</u>					
A	Imported earth fill with approved sand soil all as specified to be transported to site, deposit, spread, level, grade and well compacted in layers in making up formation level including forming slopes, ramps and embankments all as detailed on drawings and in the specification (Rate to include for payment of royalty to the Brunei Government Land Department)	9500	m3			
	<u>SOILING AND TURFING</u>					
B	Supply and plant axonopus compressus (cow grass) in close turfing to flat and sloping surfaces as directed, including excavation, disposal, trimming, filling soft sports, top soil, lime, grading, rolling, raking, etc. to the approval of the Superintending Officer.	5768	m2			
C	Allow for maintenance of all turfing till the end of defect liability period including mowing, cutting, watering, weeding, spreading lime and fertilizer, replacement of dead or damaged plants, etc. as directed by the Superintending Officer. The Contractor to submit maintenance programme for approval		Item			
	<u>RETAINING WALL</u>					
	The Contractor is to provide all necessary temporary protection including method statement for Engineer approval before any excavation		Note			
	<u>REINFORCED CONCRETE RETAINING WALL (TYPE A)</u>					
	<u>50 mm thick lean concrete (grade 15) to underside of</u>					
D	Concrete slab	253	m2			
	<u>Reinforced concrete (grade 30) in</u>					
E	Concrete slab	101	m3			
F	Retaining wall	86	m3			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) <u>RETAINING WALL</u>					
	(Cont) REINFORCED CONCRETE RETAINING WALL (TYPE A)					
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
A	Concrete slab	12120	kg			
B	Retaining wall	10320	kg			
	<u>Formwork to</u>					
C	Sides of retaining wall	691	m2			
D	Edge of concrete slab	86	m2			
E	20mm thick cement and sand (1:3) plainface plaster trowelled smooth to retaining wall including all approved paint and colour finish	945	m2			
F	Perforated 200 mm diameter upvc class 'D' sub-soil pipe surrounded with aggregates, all as per Engineer's details drawings	204	m			
G	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
H	75 mm diameter pvc weep hole end with single size aggregates wrapped with filter cloth at 3000 mm centre, all as per Engineer's detail drawings		Item			
	REINFORCED CONCRETE RETAINING WALL (TYPE B)					
	<u>50 mm thick lean concrete (grade 15) to underside of</u>					
J	Concrete slab	92	m2			
	<u>Reinforced concrete (grade 30) in</u>					
K	Concrete slab	37	m3			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) <u>RETAINING WALL</u>					
	(Cont) REINFORCED CONCRETE RETAINING WALL (TYPE B)					
	(Cont) Reinforced concrete (grade 30) in					
A	Retaining wall	35	m3			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
B	Concrete slab	4440	kg			
C	Retaining wall	4200	kg			
	<u>Formwork to</u>					
D	Sides of retaining wall	280	m2			
E	Edge of concrete slab	32	m2			
F	20mm thick cement and sand (1:3) plainface plaster trowelled smooth to retaining wall including all approved paint and colour finish	372	m2			
G	Perforated 200 mm diameter upvc class 'D' sub-soil pipe surrounded with aggregates, all as per Engineer's details drawings	74	m			
H	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
J	75 mm diameter pvc weep hole end with single size aggregates wrapped with filter cloth at 3000 mm centre, all as per Engineer's detail drawings		Item			
	REINFORCED CONCRETE RETAINING WALL (TYPE 1)					
	<u>50 mm thick lean concrete (grade 15) to underside of</u>					
K	Concrete slab	252	m2			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) <u>RETAINING WALL</u>					
	(Cont) REINFORCED CONCRETE RETAINING WALL (TYPE 1)					
	<u>Reinforced concrete (grade 30) in</u>					
A	Concrete slab	126	m3			
B	Retaining wall	155	m3			
	<u>10 mm to 25 mm diameter mild steel / high tensile reinforcement bar in</u>					
C	Concrete slab	15120	kg			
D	Retaining wall	18600	kg			
	<u>Formwork to</u>					
E	Sides of retaining wall	626	m2			
F	Edge of concrete slab	50	m2			
G	20mm thick cement and sand (1:3) plainface plaster trowelled smooth to retaining wall including all approved paint and colour finish	330	m2			
H	Perforated 150 mm diameter upvc class 'D' sub-soil pipe surrounded with aggregates, all as per Engineer's details drawings	89	m			
J	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep 'Expandite 99' or other equal and approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		Item			
K	75 mm diameter pvc weep hole end with single size aggregates wrapped with filter cloth at 2500 mm centre, all as per Engineer's detail drawings		Item			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>DRIVEWAY AND PAVEMENT</u>					
A	Excavate for driveway and carpark commencing from formation level not exceeding 2.00 m deep, get out, cart away excavated material off-site to a tip to be provided by the Contractor at his expense	1769	m3			
B	Prepare subgrade surface, grade and makeup to line level and camber to required maximum dry density, CBR value, fall and gradients, all as detailed on drawings and in specification	3215	m2			
C	Compact surfaces of subgrade to 90% optimum dry density with minimum soaked CBR value of 4% all as specified, including necessary trimming and levelling surfaces to falls and gradients	3215	m2			
D	Proof roll compacted surfaces to detect soft spots, excavate, remove, lay and compact approved sand filling in layer		Item			
E	Allow for carrying out Laboratory Compaction Test (4.5 kg hammer) including providing necessary instrument	1	no			
F	Allow for carrying Laboratory CBR Test including providing necessary instrument	1	no			
G	Allow for carrying out Field Density Test on prepared subgrade including providing necessary instrument	1	no			
H	Allow for carrying out CBR Test (BS1377 Pt9; 1990) on prepared subgrade including providing necessary instrument	1	no			
J	250 mm thick mechanically compacted granular sub-base of crushed rock, hard durable particles or fragments of rock crushed to size as specified, spread, level and finished to falls and gradients	3215	m2			
K	200 mm thick mechanically compacted crusher run road base of crushed rock, hard durable particles or fragments of rock crushed to size as specified, spread, level and finished to falls and gradients	3215	m2			
L	One (1) layer of reinforced base Type '1' laying of reinforced base on earthworks	3215	m2			

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BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) DRIVEWAY AND PAVEMENT					
A	Apply prime coat including sweeping and cleaning surfaces of subbase before application	3215	m2			
B	60 mm thick asphaltic concrete binded course, spread, level and consolidate to the required gradients and cambers with power roller as specified	3215	m2			
C	Apply bituminous tack coat at the approved rate including sweeping and cleaning surfaces of subbase before application	3215	m2			
D	40 mm thick asphaltic concrete wearing course, spread, level and consolidate to the required gradients and cambers with power roller as specified	3215	m2			
E	Cut edge of existing tarmacadam driveway 250 mm wide x 300 mm deep including prepare surfaces to receive new works, make good surfaces disturbed and remove all debris off site		Item			
	KERB					
F	125 mm wide x 300 mm high precast concrete kerb (grade 30) (straight and curved-on-plan) on 'L' shape foundation and haunch, laid in straight/curve alignment, reinforced with mild steel bar, all exposed surfaces finished fair and prepare and apply two coats of gloss reflective paint in alternating black and white colour, bedded and jointed in cement and sand mortar including all excavation and formwork, all as detailed on drawing	968	m			
G	100 mm diameter upvc pipe through kerb at 3000 mm centre		Item			
	<u>Prepare and apply two coats of approved chlorinated rubber paint on asphaltic for demarcation and directional arrow sign</u>					
H	100 mm wide in straight / curved-on-plan line	105	m			
J	Straight arrow	19	no			
K	Turn right arrow	5	no			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) DRIVEWAY AND PAVEMENT					
	(Cont) KERB					
	(Cont) Prepare and apply two coats of approved chlorinated rubber paint on asphaltic for demarcation and directional arrow sign					
A	Turn left arrow	2	no			
B	Turn left & right arrow	2	no			
C	Transverse 'Stop Line'	3	no			
	Supply and install approved diamond grade aluminium alloy reflective warning directional sign complete with all post, reinforced concrete footing, excavation, disposal, reinforcement, formwork and painting to approved colour complying to JKR Road Department regulation (Contractor to refer Engineer's drawing for signage details)					
D	'KELUAR'	2	no			
E	'MASUK'	2	no			
F	'BERHENTI'	5	no			
	<u>SURFACE WATER DRAINAGE</u>					
	The contractor is to check and adjust drain levels on site		Note			
	The contractor is to maintain existing drains including make good all works disturbed		Note			
G	Allow for connection to existing drain and sump including all hacking and make good to works disturbed including matching existing invert level		Item			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)						
(Cont) SURFACE WATER DRAINAGE						
DRAIN						
Reinforced concrete (grade 30) water channel laid to falls in straight / curved alignment with 125 mm thick sides and 150 mm thick base, lean concrete (grade 15), 50 mm weep holes with filter stone, etc., finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all necessary excavation, backfilling, crusher run, formwork, reinforcement, forming angles, ends, outlet, junctions, etc. all as detailed on drawings (all dimensions stated are internal and depth to invert level)						
A	300 mm wide x 400 mm deep (average)	29	m			
B	300 mm wide x 500 mm deep (average)	48	m			
C	300 mm wide x 600 mm deep (average)	167	m			
D	300 mm wide x 700 mm deep (average)	70	m			
E	450 mm wide x 325 mm deep (average)	11	m			
F	450 mm wide x 400 mm deep (average)	56	m			
G	450 mm wide x 500 mm deep (average)	155	m			
H	450 mm wide x 1400 mm deep (average)	63	m			
J	650 mm wide x 600 mm deep (average)	264	m			
K	650 mm wide x 900 mm deep (average)	18	m			
L	650 mm wide x 1300 mm deep (average)	52	m			
M	650 mm wide x 1600 mm deep (average)	49	m			
N	650 mm wide x 700 mm deep (average)	14	m			
P	650 mm wide x 800 mm deep (average)	11	m			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) SURFACE WATER DRAINAGE (Cont) DRAIN					
	Reinforced concrete (grade 30) J drain laid to falls in straight / curved alignment with 200 mm thick sides and 1175 mm thick base, lean concrete (grade 15), 50 mm weep holes with filter stone, etc., finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all necessary excavation, backfilling, crusher run, formwork, reinforcement, forming angles, ends, outlet, junctions, etc. all as detailed on drawings (all dimensions stated are internal and depth to invert level)					
A	650 mm wide x 800 mm deep (average)	70	m			
	Reinforced concrete (grade 30) J drain (Type 1) laid to falls in straight / curved alignment with 200 mm thick sides and 175 mm thick base, lean concrete (grade 15), 50 mm weep holes with filter stone, etc., finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all necessary excavation, backfilling, crusher run, formwork, reinforcement, forming angles, ends, outlet, junctions, etc. all as detailed on drawings (all dimensions stated are internal and depth to invert level)					
B	650 mm wide x 600 mm deep (average)	40	m			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) SURFACE WATER DRAINAGE (Cont) DRAIN					
	Reinforced concrete (grade 30) J drain (Type 2) laid to falls in straight / curved alignment with 200 mm thick sides and 175 mm thick base, lean concrete (grade 15), 50 mm weep holes with filter stone, etc., finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all necessary excavation, backfilling, crusher run, formwork, reinforcement, forming angles, ends, outlet, junctions, etc. all as detailed on drawings (all dimensions stated are internal and depth to invert level)					
A	650 mm wide x 1000 mm deep (average)	32	m			
B	650 mm wide x 1500 mm deep (average)	9	m			
	Reinforced concrete (grade 30) cover drain laid to falls in straight / curved alignment with 125 mm thick sides and 150 mm thick base, lean concrete (grade 15), 50 mm weep holes with filter stone, etc., finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all necessary excavation, backfilling, crusher run, formwork, reinforcement, forming angles, ends, outlet, junctions, etc. all as detailed on drawings (all dimensions stated are internal and depth to invert level)					
C	650 mm wide x 625 mm deep (average)	25	m			
	GRATING					
	Hot dipped galvanised drain grating complete with angle with lugs embedded in concrete including all welding and painting, all as Engineer's details drawing for					
D	450 mm wide drain	56	m			
E	650 mm wide drain	67	m			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) SURFACE WATER DRAINAGE (Cont) GRATING					
	<u>Precast reinforced concrete (grade 25) grating including all necessary reinforcement and formwork, laid in position all as per Architectural and Engineer's drawing</u>					
A	650 mm wide drain	25	m			
B	Allow for making 'L' shape angle to exsiting drain to receive new drain grating including all hacking, cutting of reinforcement, replastering, and make good to all surface disturbed to match existing	123	m			
	SUMP					
	<u>Reinforced concrete (grade 30) sump, comprising 150 mm thick walls and base on and including lean concrete, reinforcement bar, splayed fillet at base corners, top of sump with rebate and angle framing to receive and and including hot dipped galvanised steel sump grating, finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all excavation, backfilling, disposal, formwork, forming opening and connections of incoming and outgoing drain, all as detailed on drawings (all dimensions stated are internal and depth to invert level)</u>					
C	450 x 450 x 300 mm deep	1	no			
D	450 x 450 x 420 mm deep	1	no			
E	450 x 450 x 450 mm deep	1	no			
F	450 x 450 x 500 mm deep	2	no			
G	450 x 450 x 820 mm deep	1	no			
H	450 x 450 x 2200 mm deep	1	no			
J	750 x 750 x 350 mm deep	1	no			
K	750 x 750 x 450 mm deep	2	no			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) SURFACE WATER DRAINAGE					
	(Cont) SUMP					
	(Cont) Reinforced concrete (grade 30) sump, comprising 150 mm thick walls and base on and including lean concrete, reinforcement bar, splayed fillet at base corners, top of sump with rebate and angle framing to receive and including hot dipped galvanised steel sump grating, finished on all exposed surfaces with cement and sand (1:3) plaster trowelled smooth, including all excavation, backfilling, disposal, formwork, forming opening and connections of incoming and outgoing drain, all as detailed on drawings (all dimensions stated are internal and depth to invert level)					
A	750 x 750 x 500 mm deep	2	no			
B	750 x 750 x 570 mm deep	1	no			
C	750 x 750 x 600 mm deep	1	no			
D	750 x 750 x 650 mm deep	1	no			
E	750 x 750 x 660 mm deep	2	no			
F	750 x 750 x 700 mm deep	1	no			
G	750 x 750 x 740 mm deep	1	no			
H	750 x 750 x 800 mm deep	1	no			
J	750 x 750 x 860 mm deep	2	no			
K	750 x 750 x 930 mm deep	1	no			
L	750 x 750 x 1130 mm deep	1	no			
M	750 x 750 x 1300 mm deep	1	no			
N	750 x 750 x 1650 mm deep	2	no			
P	750 x 750 x 2450 mm deep	1	no			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) SURFACE WATER DRAINAGE</u> <u>(Cont) SUMP</u>					
	<u>Hot dipped galvanised sump grating complete with angle with lugs embedded in concrete including all welding and painting, all as Engineer's details drawing for (all dimensions stated are internal)</u>					
A	450 mm square sump	7	no			
B	750 mm square sump	21	no			
	<u>SLOTTED DRAIN</u>					
	<u>Reinforced concrete (grade 30) slotted surface water channel laid to falls in straight/ curved alignment with reinforcement bar and including 100 mm thick hardcore and 50 mm thick lean concrete (grade 15), 300 mm diameter half round slotted drain bolted to bothside of concrete drain, upvc weephole with hydrocell prefabricated wall drainage panel wrapped all sides with one layer Bonal Nwa non-woven geotextile at 3000 centre, finished on all exposed surfaces with 12 mm thick cement and sand (1:3) plaster trowelled smooth including all necessary excavation, backfilling, compacted subgrade, formwork, forming angles, ends, outlet, junctions, etc. all as detailed on drawings (all dimensions stated are internal)</u>					
C	650 mm wide x 600 mm deep (average)	17	m			
	<u>CULVERT & DIVERSION</u>					
D	600 mm diameter precast concrete (grade 30) culvert laid to falls including all excavation, backfilling, disposal, connection, concrete surround etc all as detailed on drawings.	20	m			
E	750 mm diameter precast concrete (grade 30) culvert laid to falls including all excavation, backfilling, disposal, connection, concrete surround etc all as detailed on drawings.	14	m			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

Description		Qty	Unit	Rate	\$	c
BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)				(Cont)		
<u>EXTERNAL WATER SUPPLY</u>						
All water tanks and pump sets measured in Mechanical & Electrical Works Bill 8B			Note			
All pipes shall be deemed to include all excavation, backfilling, disposal, etc., complete with all made bends, elbows, bends, tees, couplings, connectors, unions, diminishing sockets, reducers, etc, whichever fittings/ accessories are applicable and wrapping and insulation			Note			
All MDPE, ductile iron and stainless steel pipe which will be contact with soil shall be wrapped with authority approved polythene sheet			Note			
All flanged or flexible joints shall be protected with 'Denso Mastic' and wrapped around with Denso tape			Note			
A	Excavate to locate and expose existing pipe main, for connection to new pipe and all necessary accessories, cutting existing pipe, backfilling, compaction, removal of debris and making good all works disturbed		Item			
B	125 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	397	m			
C	125 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand and reinforced concrete surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	56	m			
D	63 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	133	m			
PTE159		To Collection \$				
BQ/18						

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) EXTERNAL WATER SUPPLY					
A	50 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	117	m			
B	50 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand and 100 mm diameter HDUPVC pipe sleeve including plyage HRD blue marker mesh greater than 30 mm diameter	16	m			
C	40 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	8	m			
D	20 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand surround in layers including plyage HRD blue marker mesh greater than 30 mm diameter	302	m			
E	20 mm diameter approved MDPE pipe water supply mains jointed in push-in spigot and socket joints with rubber ring seals, laid in trench with various compacted sand and 100 mm diameter HDUPVC pipe sleeve including plyage HRD blue marker mesh greater than 30 mm diameter	12	m			
PTE159				To Collection \$		
	BQ/19					

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) EXTERNAL WATER SUPPLY</u>					
A	Standard precast concrete (Grade 25) sluice valve chamber, internal size 280 x 430 x 1000 mm deep, comprising free draining compacted granular material and ground beam at base, 100 mm thick precast concrete wall and both faces with cement and sand (1:3) rendering on all exposed surfaces, standard cover and frame with concrete surround, forming opening to receive incoming and outgoing piping with 7 mm thick bituminous felt at opening, 1 no. 50 mm diameter upvc weep pipe cast into wall and externally plugged with 200 x 200 x 200 mm crushed gravel wrapped with and including Terram 500 filter cloth, all necessary excavation, disposal of excavated material, formwork, thrust block all as shown on Engineer's drawings	5	no			
B	100 mm diameter approved sluice valve, complete with piping, fittings, cast iron and concrete surface box encased, all as per Engineer's detail drawings	5	no			
C	Supply and install approved master water meter complete with all pipes and fittings, brass ferrule, elbow, gate valve, coupling, adaptor/reducer and all others fixing accessories including reinforced concrete chamber slab, pipe barrier in black and white paint, all necessary excavation and formwork as per Engineer's drawings	1	no			
D	Approved wash out with concrete chamber and base including all piping, fittings and accessories, all excavation, disposal, formwork, connection, etc.	1	no			
E	100 mm diameter ductile iron short pipe laid underground, tapping from existing main to water bulk meter including sluice valve with chamber and all necessary accessories, excavation, backfilling, compaction, concrete surround, breaking up existing tarmacadam road and subbase approximately 700 mm wide for laying of pipe, removal of debris and making good all works disturbed, all as detailed on drawings	1	no			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) EXTERNAL WATER SUPPLY					
A	65 mm diameter 'Glendfield-type 2' or other equal and approved fire hydrant to B.S. 750 complete with standard fire hose tread, connection to pipes, pipes in short length and fittings, and all others fixing accessories including reinforced concrete base and surface box encase with cover, 100 mm diameter sluice valve, all necessary excavation and formwork as per Engineer's drawings	2	no			
B	Precast concrete (Grade 25) marker post overall size 115 mm width x 955 mm high x 75 mm thick with inscribed lettering on aluminium plate to read "H", painted black with white back ground, the whole reinforced with 2 no. BRC 10 bars and 8 no. 8 mm links and planted in 400 x 400 x 450 mm deep concrete base underground, exposed post surfaces painted golden yellow, including all necessary excavation, mould, and removal of debris	2	no			
C	Precast concrete (Grade 25) marker post overall size 115 mm width x 955 mm high x 75 mm thick with painted lettering to read "WATER" vertically, the whole reinforced with 2 no. BRC 10 bars and 8 no. 8 mm links and planted in 300 x 300 x 300 mm deep concrete base underground, exposed post surfaces painted golden yellow, including all necessary excavation, mould, and removal of debris	5	no			
D	Garden tap PVC box chamber / valve pit with cover, overall size 530 x 400 x 300 mm high complete with quick coupling valve and gate valve connected to 20 mm diameter stainless steel water supply pipe including all excavation, 75 mm thick gravel base, 75 mm thick loose hard core base and disposal of excavated materials off site	2	no			
E	Approved stop cock/gate valve in various diameter, all as detailed on drawings		Item			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) EXTERNAL WATER SUPPLY</u>					
A	Concrete thrust block for bend, tee, end cap and sluice valve including all excavation, disposal and backfilling, lean concrete, concrete, formwork and reinforcement, all as detailed on drawings		Item			
B	Allow for sterilising of cold water main pipes prior to connection to existing mains		Item			
C	Allow for testing the whole of the external water supply services to the approval of the relevant authorities and satisfaction of the Superintending Officer		Item			
D	Allow for pipe flushing and disinfection the whole of the external water supply services to the approval of the relevant authorities and satisfaction of the Superintending Officer		Item			
	<u>FOUL DRAINAGE AND MANHOLES</u>					
	Pipe laid under existing road shall be by pipe jacking method		Note			
E	Allow for determine the foul drainage and manhole levels, prepare and submit longitudinal sections, all to the approval of the Superintending Officer		Item			
	<u>PIPE WORKS</u>					
F	200 mm diameter vitrified clay sewer pipe to B.S. EN 295 laid to falls in trench in spigot and socket polyester flexible joints, including all excavation, disposal, backfilling, sand filling, lean concrete, concrete bed and surround, concrete saddle, reinforcement and formwork, all as detailed on Engineer's drawings	296	m			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
(Cont) FOUL DRAINAGE AND MANHOLES					
(Cont) PIPE WORKS					
150 mm diameter vitrified clay sewer pipe to B.S. EN 295 laid to falls in trench in spigot and socket polyester flexible joints, including all excavation, disposal, backfilling, sand filling, lean concrete, concrete bed and surround, concrete saddle, reinforcement and formwork, all as detailed on Engineer's drawings	346	m			
Allow 200 mm diameter vitrified clay backdrop pipe in short lengths to suit in spigot and socket joint and lain vertically in trench including all fittings, tee junction, bend, excavation, backfilling, disposal, concrete encasing, formwork, connection, etc.	2	no			
Allow 150 mm diameter vitrified clay backdrop pipe in short lengths to suit in spigot and socket joint and lain vertically in trench including all fittings, tee junction, bend, excavation, backfilling, disposal, concrete encasing, formwork, connection, etc.	2	no			
REINFORCED CONCRETE (GRADE 25) MANHOLES, ALL AS DETAILED DRAWINGS					
All dimensions stated are internal with depth taken from top of cover slab to invert		Note			
All concrete shall be sulphate resisting cement		Note			
The rate for manhole shall include the following:					
150 mm thick top slab, 225 mm thick wall, 200 mm thick base, forming opening in top slab to receive cover, 50 mm lean concrete (grade 15) under, reinforcement, formwork, excavation, remove surplus excavated material off-site and backfilling		Note			
High tensile and mild steel reinforcement 12 mm diameter bar to insitu concrete top slab, wall and base		Note			
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BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) FOUL DRAINAGE AND MANHOLES					
	(Cont) REINFORCED CONCRETE (GRADE 25) MANHOLES, ALL AS DETAILED DRAWINGS					
	Galvanised malleable step iron to BS.1247 for manhole at 300 mm centre in staggered horizontally and vertically		Note			
	Grade 304 stainless steel ladder comprised of 65 mm diameter x 5 mm thick handrail and 50 mm diameter x 5 mm thick steps with non-slip rungs complete with all fixing accessories, all as detailed on Engineer's drawings		Note			
	12 mm thick cement and sand (1:3) trowelled smooth internally and externally.		Note			
	JKR approved 1220 mm diameter precast concrete ring to BS. EN 124 with mortar joints		Note			
	<u>Half round salt-glazed stoneware main or branch channel or in three-quarter section all bedded and jointed in cement and sand (1:2), sulphate resisting cement concrete (grade 30) benching in varying thickness to suit at manhole bottom, top of benching trowelled to a hard smooth surface with sulphate resisting (1:2) cement mortar laid monolithic to falls and cross-falls at 1:12 gradient, forming circular opening through manhole wall ready to receive incoming and outgoing sewer pipe</u>					
A	Overall size 1200 diameter x 1630 mm deep (MH 1)	1	no			
B	Overall size 1200 diameter x 2360 mm deep (MH 2)	1	no			
C	Overall size 1200 diameter x 3210 mm deep (MH 3)	1	no			
D	Overall size 1200 diameter x 3360 mm deep (MH 4)	1	no			
E	Overall size 1200 diameter x 4510 mm deep (MH 5)	1	no			
F	Overall size 1200 diameter x 4650 mm deep (MH 6)	1	no			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) FOUL DRAINAGE AND MANHOLES					
	(Cont) REINFORCED CONCRETE (GRADE 25)					
	MANHOLES, ALL AS DETAILED DRAWINGS					
	(Cont) Half round salt-glazed stoneware					
	main or branch channel or in three-quarter					
	section all bedded and jointed in cement					
	and sand (1:2), sulphate resisting cement					
	concrete (grade 30) benching in varying					
	thickness to suit at manhole bottom, top					
	of benching trowelled to a hard smooth					
	surface with sulphate resisting (1:2)					
	cement mortar laid monolithic to falls and					
	cross-falls at 1:12 gradient, forming					
	circular opening through manhole wall					
	ready to receive incoming and outgoing					
	sewer pipe					
A	Overall size 1200 diameter x 3810 mm deep (MH 7)	1	no			
B	Overall size 1200 diameter x 3920 mm deep (MH 8)	1	no			
C	Overall size 1200 diameter x 3070 mm deep (MH 9)	1	no			
D	Overall size 1200 diameter x 2220 mm deep (MH 10)	1	no			
	Square salt-glazed stoneware main or					
	branch channel or in three-quarter section					
	all bedded and jointed in cement and sand					
	(1:2), sulphate resisting cement concrete					
	(grade 30) benching in varying thickness					
	to suit at manhole bottom, top of benching					
	trowelled to a hard smooth surface with					
	sulphate resisting (1:2) cement mortar					
	laid monolithic to falls and cross-falls					
	at 1:12 gradient, forming circular opening					
	through manhole wall ready to receive					
	incoming and outgoing sewer pipe					
E	Overall size 2250 x 1500 x 750 mm deep (MH-1)	1	no			
F	Overall size 2250 x 1500 x 883 mm deep (MH-2)	1	no			
G	Overall size 2250 x 1500 x 1003 mm deep (MH-3)	1	no			
H	Overall size 2250 x 1500 x 1077 mm deep (MH-4)	1	no			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) <u>FOUL DRAINAGE AND MANHOLES</u>					
	(Cont) <u>REINFORCED CONCRETE (GRADE 25)</u>					
	<u>MANHOLES, ALL AS DETAILED DRAWINGS</u>					
	(Cont) <u>Square salt-glazed stoneware main</u>					
	<u>or branch channel or in three-quarter</u>					
	<u>section all bedded and jointed in cement</u>					
	<u>and sand (1:2), sulphate resisting cement</u>					
	<u>concrete (grade 30) benching in varying</u>					
	<u>thickness to suit at manhole bottom, top</u>					
	<u>of benching trowelled to a hard smooth</u>					
	<u>surface with sulphate resisting (1:2)</u>					
	<u>cement mortar laid monolithic to falls and</u>					
	<u>cross-falls at 1:12 gradient, forming</u>					
	<u>circular opening through manhole wall</u>					
	<u>ready to receive incoming and outgoing</u>					
	<u>sewer pipe</u>					
A	Overall size 2250 x 1500 x 1221 mm deep (MH-5)	1	no			
B	Overall size 2250 x 1500 x 1388 mm deep (MH-6)	1	no			
C	Overall size 2250 x 1500 x 1411 mm deep (MH-7)	1	no			
D	Overall size 2250 x 1500 x 1466 mm deep (MH-8)	1	no			
E	Overall size 2250 x 1500 x 1407 mm deep (MH-8a)	1	no			
F	Overall size 2250 x 1500 x 1286 mm deep (MH-8b)	1	no			
G	Overall size 2250 x 1500 x 2805 mm deep (MH-9)	1	no			
H	Overall size 2250 x 1500 x 954 mm deep (MH-10)	1	no			
J	Overall size 2250 x 1500 x 855 mm deep (MH-10a)	1	no			
K	Overall size 2250 x 1500 x 750 mm deep (MH-10b)	1	no			
L	Overall size 2250 x 1500 x 1072 mm deep (MH-11)	1	no			
M	Overall size 2250 x 1500 x 1181 mm deep (MH-12)	1	no			

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To Collection \$

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) FOUL DRAINAGE AND MANHOLES					
	(Cont) REINFORCED CONCRETE (GRADE 25)					
	MANHOLES, ALL AS DETAILED DRAWINGS					
	(Cont) Square salt-glazed stoneware main or branch channel or in three-quarter section all bedded and jointed in cement and sand (1:2), sulphate resisting cement concrete (grade 30) benching in varying thickness to suit at manhole bottom, top of benching trowelled to a hard smooth surface with sulphate resisting (1:2) cement mortar laid monolithic to falls and cross-falls at 1:12 gradient, forming circular opening through manhole wall ready to receive incoming and outgoing sewer pipe					
A	Overall size 2250 x 1500 x 1368 mm deep (MH-13)	1	no			
B	Overall size 2250 x 1500 x 1459 mm deep (MH-14)	1	no			
C	Overall size 2250 x 1500 x 1334 mm deep (MH-15)	1	no			
D	Overall size 2250 x 1500 x 1411 mm deep (MH-15a)	1	no			
E	Overall size 2250 x 1500 x 1097 mm deep (MH-16)	1	no			
F	Overall size 2250 x 1500 x 1031 mm deep (MH-17)	1	no			
G	Overall size 2250 x 1500 x 866 mm deep (MH-18)	1	no			
H	Overall size 2250 x 1500 x 790 mm deep (MH-18a)	1	no			
J	Overall size 2250 x 1500 x 670 mm deep (MH-18b)	1	no			
K	Overall size 2250 x 1500 x 2697 mm deep (MH-19)	1	no			
L	Overall size 2250 x 1500 x 972 mm deep (MH-20)	1	no			
M	Overall size 2250 x 1500 x 797 mm deep (MH-21)	1	no			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) FOUL DRAINAGE AND MANHOLES					
	(Cont) REINFORCED CONCRETE (GRADE 25) MANHOLES, ALL AS DETAILED DRAWINGS					
	(Cont) Square salt-glazed stoneware main or branch channel or in three-quarter section all bedded and jointed in cement and sand (1:2), sulphate resisting cement concrete (grade 30) benching in varying thickness to suit at manhole bottom, top of benching trowelled to a hard smooth surface with sulphate resisting (1:2) cement mortar laid monolithic to falls and cross-falls at 1:12 gradient, forming circular opening through manhole wall ready to receive incoming and outgoing sewer pipe					
A	Overall size 2250 x 1500 x 750 mm deep (MH-22)	1	no			
	MANHOLE COVER					
B	BS EN 124 Class D400 ductile iron manhole cover and frame including bedding frame in cement and sand mortar and setting cover in grease	10	no			
C	BS EN 124 Class B125 ductile iron manhole cover and frame including bedding frame in cement and sand mortar and setting cover in grease	29	no			
	TESTING					
D	Allow for testing as specified the whole of the foul drainage including grease trap according to BS CP 301:1971 and to the approval of the relevant authorities and satisfaction of the Superintending Officer		Item			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>PLANTER BOX</u>					
	Construction and completion of planter box including all excavation, compacted hardcore, lean concrete, reinforced concrete slab, decorative wall, waterproofing, coarse aggregate, 300 mm thick planting soil, 100 mm thick fine aggregate, all necessary plumbing works connected to nearest drain, finished with all exposed concrete / brick surfaces with approved heavy duty tiles of approved colour on cement and sand screed with approved tile colour grouting, all as detailed on Architectural and Engineer's drawings and in specification					
A	Overall size, 3000 mm x 1500 mm x 750 mm high	1	no			
B	Overall size, 4845 mm x 1500 mm x 600 mm high	1	no			
C	Overall size, 5830 mm x 3800 mm x 300 mm high	1	no			
	<u>REFLECTIVE POOL</u>					
	Construction and completion of reflective pool including all excavation, compacted hardcore, lean concrete, reinforced concrete slab, decorative wall, waterproofing, coarse aggregate, 300 mm thick planting soil, 100 mm thick fine aggregate, all necessary plumbing works connected to nearest drain including flap valve, finished with all exposed concrete / brick surfaces with KCC textcoat 404 spraytile texture with Wattyl Solagard paint and approved glass mosaic tiles of approved colour on cement and sand screed with approved tile colour grouting, all lighting (lighting and associated M&E works measure in Mechanical & Electrical Bill 8B), all as detailed on Architectural and Engineer's drawings and in specification					
D	Overall size, 10000 mm x 8570 mm x 900 mm deep	1	no			
PTE159					To Collection \$	
BQ/29						

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>WATER FEATURE POOL</u>					
	Construction and completion of water feature pool complete with planter and seating including all excavation, compacted hardcore, lean concrete, reinforced concrete slab, decorative wall, waterproofing, coarse aggregate, 300 mm thick planting soil, 100 mm thick fine aggregate, all necessary plumbing works connected to nearest drain including flap valve, finished with all exposed concrete / brick surfaces with approved glass mosaic tiles of approved colour on cement and sand screed with approved tile colour grouting, all water fountain and lighting (water fountain, lighting and associated M&E works measure in Mechanical & Electrical Bill 8B), all as detailed on Architectural and Engineer's drawings and in specification					
A	Overall size, 23100 mm x 7600mm x 900 mm deep with overflow scupper drain in selective stone pebble	1	no			
	<u>FLAG POLE</u>					
B	2 Nos. of 60 mm diameter to varies stainless steel pipe flag pole, overall high 6000 mm in weld connection comprising of 7500 mm long x 1000 mm wide upstand reinforced concrete base, finish all exposed concrete surfaces with cement and sand (1:3) plaster, approved tiles finishes complete with stainless steel plates, bolts, nut, washers, 25 mm diameter steel eye, 125 mm diameter stainless steel dome, ring, necking, stainless steel pulley, tapered end, end plate, stainless steel rod, rod cleat, nylon rod and etc. including all necessary excavation, disposal, formwork, reinforcement and fixing accessories all as shown on Architectural and Engineer's drawing (Piling measure separately)	1	no			
	<u>ANCILLARY BUILDING</u>					
	All ancillary building to include anti-termite chemical treatment (Provide 10 years warranty)		Note			
PTE159				To Collection \$		
	BQ/30					

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) ANCILLARY BUILDING</u>					
	SUBSTATION					
A	Construction and completion of the Substation overall size 10900 x 7000 x 5150 mm high including all excavation, foundation, reinforcement, reinforced concrete trench, plinth, ground slab, apron slab, roof slab, ramp, vent blocks, metal works up to roof top complete with all finishing works, approved signage, joinery and sanitary fittings, etc all as shown in Architectural and Engineer's drawing (excluding electrical and lighting which are under M & E works) (Piling measured separately)	1	no			
	GUARD HOUSE					
B	Construction and completion of Guard House overall size 3350 x 3000 x 4200 mm high including all excavation, foundation, reinforcement, reinforced concrete ground slab, apron slab, brickwall, metal works up to roof top, perimeter drain complete with all finishing works, approved signage and joinery fittings, plumbing and services, etc. (excluding electrical and lighting which are under Mechanical and Electrical works) all as shown on Architectural drawing and Engineer's drawings (Piling measure separately)	2	no			
	<u>COVERED WALKWAY / LINK WAY</u>					
C	Construction and completion of covered walkway including all excavation, foundation, ground slab, reinforcement, metal works up to roof top, gutter, ramp, handrailing and curved metal roofing complete with all finishing works, etc. (excluding electrical and lighting which are under Mechanical and Electrical works Bill 8B), all as detailed on Architectural and Engineer's drawings	35	m2			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	(Cont) COVERED WALKWAY / LINK WAY					
A	Construction and completion of covered walkway including all excavation, foundation, ground slab, reinforcement, metal works up to roof top, gutter and curved metal roofing complete with all finishing works, etc. (excluding electrical and lighting which are under Machanical and Electrical works Bill 8B), all as detailed on Architectural and Engineer's drawings	131	m2			
B	Construction and completion of pathway including all excavation, foundation, ground slab, reinforcement, complete with all finishing works, etc. (excluding electrical and lighting which are under Machanical and Electrical works Bill 8B), all as detailed on Architectural and Engineer's drawings	67	m2			
	<u>DECORATIVE AND BICKWALL FENCE</u>					
	<u>CONCRETE WORKS</u>					
	<u>50 mm thick lean concrete (Grade 15) to underside of</u>					
C	Footing	29	m2			
D	Ground beam	71	m2			
	<u>Reinforced concrete (Grade 30) in</u>					
E	Footing	17	m3			
F	Column	30	m3			
G	Ground beam	43	m3			
	<u>10 mm to 16 mm diameter mild steel / high tensile reinforcement bar in</u>					
H	Footing	1802	kg			
J	Column	5070	kg			
K	Ground beam	4386	kg			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) DECORATIVE AND BICKWALL FENCE</u> (Cont) CONCRETE WORKS					
	<u>Formwork to</u>					
A	Sides of footing	107	m2			
B	Sides of column	571	m2			
C	Sides of ground beam	423	m2			
	DECORATIVE FENCING					
D	'Archifoam' CPC Pattern or other equal and approved 25 mm thick grill / screen, fixed on reinforced concrete foundation, column and beam (concrete foundation, column and beam measured seperately), complete with all approved fixing accessories all in strict accordance with the manufacturer's specification and instruction	244	m2			
	BRICKWALL					
	<u>Brickwall in cement and sand (1:3) mortar with and including 'Exmet' reinforcement at every fourth course to wall</u>					
E	230 mm thick	38	m2			
F	120 mm thick	696	m2			
G	Approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		Item			
H	6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		Item			
	EXTERNAL WALL FINISHES					
J	20 mm thick cement and sand (1:3) plainface plaster including trowelled smooth to wall, column and expose ground beam	1735	m2			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>(Cont) DECORATIVE AND BICKWALL FENCE</u> <u>(Cont) EXTERNAL WALL FINISHES</u>					
A	Red Sandstone wall tiles, laid on cement and sand screed (screed measured seperately) to wall and column including primed A5631 or other equalvalent, bracket and all other fixing accessories	388	m2			
B	'KCC' textcoat 404 or other equal and approved spraytile texture with 'Wattyl Solagard' or other equal and approved paint to plainface plastered (plaster measured separately) wall, column and expose ground beam	1348	m2			
	STAINLESS STEEL GATE					
C	Sliding gate comprised of pattern screen in 100 x 100 mm RHS stainless steel frame structure, design to pattern as per Architectural's details drawing in welded connection including all cutting and complete with all approved lock and fixing accessories, Stainless steel roller and wheel guide, Sliding motor (to Engineer's specification), all as per details on drawing and specification, overall size 6900 x 3000 mm high	2	no			
	SIGNAGES					
	<u>Supply, deliver to site, placing or install in position the bi-lingual wall mounted signage in approved colour 3D cut out powder coated aluminium text including all necessary fixing accessories (size to refer drawing)</u>					
D	HIGH COMMISSION OF INDIA	1	set			
	<u>Supply, deliver to site, placing or install in position wall / fence mounted logo in approved colour powder coated aluminium including all necessary fixing accessories (size to refer drawing)</u>					
E	Wall logo	2	no			

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
<u>FEATURE WALL</u>					
Feature wall, overall size 12500 mm x 3000 mm x 380 mm thick comprised of brick cavity wall, RC capping, finished all exposed surface with red sandstone wall tiles on cement and sand plainface plaster, all as detailed on Architectural drawings	1	no			
Construction and completion of pump and sand filter enclosure including all excavation, ground slab, reinforcement, pipe works, complete with all finishing works, etc. (excluding electrical, pump and sand filter which are under Machanical and Electrical works Bill 8B), all as detailed on Architectural and Engineer's drawings	1	no			
<u>OTHER WORKS NECESSARY</u>					
Other works not covered in the above items but mentioned in specifications and/ or drawings necessary for the completion of the works (Tenderers must specify actual work involved therein)		Item			
1) _____					
2) _____					
3) _____					
PTE159 To Collection \$					

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
COLLECTION					
Page No. BQ/1					
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Page No. BQ/19					
Page No. BQ/20					
Page No. BQ/21					
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Page No. BQ/23					
PTE159					
BQ/36					

BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
COLLECTION					
Page No. BQ/24					
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Page No. BQ/30					
Page No. BQ/31					
Page No. BQ/32					
Page No. BQ/33					
Page No. BQ/34					
Page No. BQ/35					
BILL 6B - EXTERNAL WORKS (CHANCERY BUILDING & STAFF RESIDENCES)					
Carried to Summary					
PTE159					

BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE)					
<u>PRIME COST & PROVISIONAL SUMS</u>					
Amount of Prime Cost & Provisional Sums including profit and attendance shall be deducted in whole or in part if not used.		Note			
Profit & Attendance shall be adjusted proportionately with the actual expenditure of Prime Cost Sums.		Note			
<u>NOMINATED SUBCONTRACTORS AND SUPPLIERS</u>					
The Contractor will be responsible for supervision and administration of all works carried out by Nominated Subcontractors or material supplied by Nominated Suppliers in accordance with the Conditions of Contract whether subject to Prime Cost allowance or otherwise.		Note			
Without prejudice to his responsibility under this Contract, the Contractor shall enter into written Contracts with all Nominated Subcontractors and Suppliers, lodging a copy of each Subcontract with the Superintending Officer. Approval of the form of Contract shall be given by the Superintending Officer.		Note			
The Contract price shall be deemed to include the cost of the provision by the Contractor of attendance upon every Nominated Subcontractor and the term 'Attendance' shall mean the following:		Note			
(1) Confer with the Nominated Subcontractor and coordinate his work as necessary with general building works.		Note			
(2) Allow him full access to the site during normal working hours or otherwise by arrangement.		Note			
(3) Allow him the use of ladders, staging, scaffolding, etc.		Note			
(4) Allow him the use of water.		Note			
(5) Allow him the use of toilet, washing and other facilities.		Note			
PTE159	BQ/1			To Collection \$	

BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE) (Cont)					
(Cont) <u>NOMINATED SUBCONTRACTORS AND SUPPLIERS</u>					
(6) Allow him the use of adequate electrical power of the purpose of the work and for all tests.		Note			
(7) Be responsible for the arrangement of all site deliveries and provide for the hoisting of materials and equipment to the floors on which they will be required. For this purpose, the Contractor shall allow the Subcontractor the use of the hoist and hoist driver, crane and crane driver in ordinary working hours, provided that the Subcontractor cooperates with other trades requirements in hoisting facilities.		Note			
(8) Provide adequate lighting on the floor required.		Note			
(9) Provide suitable storage areas in partially completed building.		Note			
(10) Form openings and recesses, building, fixing, etc., which have been marked out before hand by the Nominated Subcontractor or details of which have been supplied by him.		Note			
(11) Do all normal making good to walls, floors, ceilings and other surfaces.		Note			
Where Nominated Subcontractors require chases to be cut or other similar work involving the cutting away of executed work, they shall unless by other arrangements with the Contractor, perform such work and the making good at their own cost. The Owner will not entertain any claims resulting from work of this nature whether it be carried out by the Contractor or by a Nominated Subcontractor. The Contractor and Nominated Subcontractors shall coordinate their work to avoid as far as possible the necessary to damage completed work.		Note			

BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE)

Description		Qty	Unit	Rate	\$	c
BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE)					(Cont)	
<u>(Cont) NOMINATED SUBCONTRACTORS AND SUPPLIERS</u>						
<p>The Contractor's attention is drawn to the fact that should he elect and be approved by the Superintending Officer to tender for any of the items listed hereafter his quotation will be deemed to include all profit and attendance. Should his tender be accepted and the Contract awarded, the particular sum together with the profit and attendance as indicated hereafter shall be wholly omitted and the accepted tender amount shall be taken as the new sum.</p> <p>The Contractor shall not be entitled to any profit and attendance for works executed by Local Authorities for which Provisional Sums are provided for, and for works executed by Direct Contractors</p>			Note			
<u>PRIME COST SUMS</u>						
<u>LANDSCAPING</u>						
A	Provide the Prime Cost Sum of Brunei Dollar One Hundred and Fifty Thousand Only (B\$150,000.00) for the supply and installation of Landscaping by a firm to be nominated by the S.O./ Architect		Item			
B	Add for Profit		%			
C	Add for Attendance		%			
<u>PROVISIONAL SUMS</u>						
<u>SIGNAGES</u>						
D	Provide the Provisional Sum of Brunei Dollars Thirty Thousand Only (B\$30,000.00) for Signages to be expended at the direction of the Superintending Officer		Item			
<u>CONNECTION CHARGES</u>						
E	Provide the Provisional Sum of Brunei Dollars Twenty Thousand Only (B\$20,000.00) for Connection Charges to be expended at the direction of the S.O./ Architect		Item			

BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE)

Description		Qty	Unit	Rate	\$	c
BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE)					(Cont)	
<u>(Cont) PROVISIONAL SUMS</u>						
<u>BUILDER'S WORK IN CONNECTION WITH SPECIALIST'S AND MECHANICAL & ELECTRICAL WORKS</u>						
A	Provide the Provisional Sum of Brunei Dollars Thirty Thousand Only (B\$30,000.00) for Builder's Work In Connection With Specialist's and Mechanical & Electrical Works to be expended at the direction of the S.O./ Architect		Item			
<u>DAYWORKS AND MATERIALS</u>						
B	Provide the Provisional Sum of Brunei Dollars Fifty Thousand Only (B\$50,000.00) for Dayworks and Materials to be expended at the direction of the Superintending Officer		Item			
<u>CONTINGENCY</u>						
C	Provide a Provisional Sum of Brunei Dollars Seventy Thousand Only (B\$70,000.00) for Contingency to be expended at the direction of the S.O./ Architect		Item			
PTE159		To Collection \$				
BQ/4						

BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE)

Description	Qty	Unit	Rate	\$	c
BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE) (Cont.)					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
BILL 7A - PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE) Carried to Summary					
PTE159					

BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES)					
<u>PRIME COST & PROVISIONAL SUMS</u>					
Amount of Prime Cost & Provisional Sums including profit and attendance shall be deducted in whole or in part if not used.		Note			
Profit & Attendance shall be adjusted proportionately with the actual expenditure of Prime Cost Sums.		Note			
<u>NOMINATED SUBCONTRACTORS AND SUPPLIERS</u>					
The Contractor will be responsible for supervision and administration of all works carried out by Nominated Subcontractors or material supplied by Nominated Suppliers in accordance with the Conditions of Contract whether subject to Prime Cost allowance or otherwise.		Note			
Without prejudice to his responsibility under this Contract, the Contractor shall enter into written Contracts with all Nominated Subcontractors and Suppliers, lodging a copy of each Subcontract with the Superintending Officer. Approval of the form of Contract shall be given by the Superintending Officer.		Note			
The Contract price shall be deemed to include the cost of the provision by the Contractor of attendance upon every Nominated Subcontractor and the term 'Attendance' shall mean the following:		Note			
(1) Confer with the Nominated Subcontractor and coordinate his work as necessary with general building works.		Note			
(2) Allow him full access to the site during normal working hours or otherwise by arrangement.		Note			
(3) Allow him the use of ladders, staging, scaffolding, etc.		Note			
(4) Allow him the use of water.		Note			
(5) Allow him the use of toilet, washing and other facilities.		Note			
PTE159	BQ/1			To Collection \$	

BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
<u>(Cont) NOMINATED SUBCONTRACTORS AND SUPPLIERS</u>					
(6) Allow him the use of adequate electrical power of the purpose of the work and for all tests.		Note			
(7) Be responsible for the arrangement of all site deliveries and provide for the hoisting of materials and equipment to the floors on which they will be required. For this purpose, the Contractor shall allow the Subcontractor the use of the hoist and hoist driver, crane and crane driver in ordinary working hours, provided that the Subcontractor cooperates with other trades requirements in hoisting facilities.		Note			
(8) Provide adequate lighting on the floor required.		Note			
(9) Provide suitable storage areas in partially completed building.		Note			
(10) Form openings and recesses, building, fixing, etc., which have been marked out before hand by the Nominated Subcontractor or details of which have been supplied by him.		Note			
(11) Do all normal making good to walls, floors, ceilings and other surfaces.		Note			
Where Nominated Subcontractors require chases to be cut or other similar work involving the cutting away of executed work, they shall unless by other arrangements with the Contractor, perform such work and the making good at their own cost. The Owner will not entertain any claims resulting from work of this nature whether it be carried out by the Contractor or by a Nominated Subcontractor. The Contractor and Nominated Subcontractors shall coordinate their work to avoid as far as possible the necessary to damage completed work.		Note			

BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
<u>(Cont) NOMINATED SUBCONTRACTORS AND SUPPLIERS</u>					
The Contractor's attention is drawn to the fact that should he elect and be approved by the Superintending Officer to tender for any of the items listed hereafter his quotation will be deemed to include all profit and attendance. Should his tender be accepted and the Contract awarded, the particular sum together with the profit and attendance as indicated hereafter shall be wholly omitted and the accepted tender amount shall be taken as the new sum.		Note			
The Contractor shall not be entitled to any profit and attendance for works executed by Local Authorities for which Provisional Sums are provided for, and for works executed by Direct Contractors		Note			
<u>PRIME COST SUMS</u>					
<u>PREPARATION AREA COUNTER TOP AND EQUIPMENTS</u>					
Provide the Prime Cost Sum of Brunei Dollar Eighty Thousand Only (B\$80,000.00) for the supply and installation of Preparation Area Counter Top & Equipments by a firm to be nominated by the S.O./ Architect		Item			
Add for Profit		%			
Add for Attendance		%			
<u>LANDSCAPING</u>					
Provide the Prime Cost Sum of Brunei Dollar One Hundred and Fifty Thousand Only (B\$150,000.00) for the supply and installation of Landscaping by a firm to be nominated by the S.O./ Architect		Item			
Add for Profit		%			
Add for Attendance		%			

BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES)

	Description	Qty	Unit	Rate	\$	c
	BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
	<u>PROVISIONAL SUMS</u>					
	<u>SIGNAGES</u>					
A	Provide the Provisional Sum of Brunei Dollars Seventy Five Thousand Only (B\$75,000.00) for Signages to be expended at the direction of the Superintending Officer		Item			
	<u>CONNECTION CHARGES</u>					
B	Provide the Provisional Sum of Brunei Dollars Twenty Thousand Only (B\$20,000.00) for Connection Charges to be expended at the direction of the S.O./ Architect		Item			
	<u>BUILDER'S WORK IN CONNECTION WITH SPECIALIST'S AND MECHANICAL & ELECTRICAL WORKS</u>					
C	Provide the Provisional Sum of Brunei Dollars Thirty Thousand Only (B\$30,000.00) for Builder's Work In Connection With Specialist's and Mechanical & Electrical Works to be expended at the direction of the S.O./ Architect		Item			
	<u>DAYWORKS AND MATERIALS</u>					
D	Provide the Provisional Sum of Brunei Dollars Fifty Thousand Only (B\$50,000.00) for Dayworks and Materials to be expended at the direction of the Superintending Officer		Item			
	<u>CONTINGENCY</u>					
E	Provide a Provisional Sum of Brunei Dollars One Hundred and Twenty Thousand Only (B\$120,000.00) for Contingency to be expended at the direction of the S.O./ Architect		Item			

BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES)

Description	Qty	Unit	Rate	\$	c
BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES) (Cont)					
COLLECTION					
Page No. BQ/1					
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Page No. BQ/4					
BILL 7B - PRIME COST AND PROVISIONAL SUMS (CHANCERY BUILDING & STAFF RESIDENCES) Carried to Summary					

MAIN SUMMARY

			HIGH COMMISSIONER'S RESIDENCE, CHANCERY & STAFF RESIDENCE
			B\$
BILL 1A	- GENERALLY AND PRELIMINARIES (HIGH COMMISSIONER'S RESIDENCE)	FROM PAGE BQ/30	
BILL 1B	- GENERALLY AND PRELIMINARIES (CHANCERY & STAFF RESIDENCES)	FROM PAGE BQ/30	
BILL 2	- HIGH COMMISSIONER'S RESIDENCE	FROM PAGE SUM/1	
BILL 3	- CHANCERY BUILDING	FROM PAGE SUM/2	
BILL 4	- STAFF RESIDENCES (RG)	FROM PAGE SUM/3	
BILL 5	- STAFF RESIDENCES (NRG)	FROM PAGE SUM/4	
BILL 6A	- EXTERNAL WORKS (HIGH COMMISSIONER'S RESIDENCE)	FROM PAGE BQ/27	
BILL 6B	- EXTERNAL WORKS (CHANCERY & STAFF RESIDENCES)	FROM PAGE BQ/37	
BILL 7A	- PRIME COST AND PROVISIONAL SUMS (HIGH COMMISSIONER'S RESIDENCE)	FROM PAGE BQ/5	
BILL 7B	- PRIME COST AND PROVISIONAL SUMS (CHANCERY & STAFF RESIDENCES)	FROM PAGE BQ/5	
BILL 8A	- MECHANICAL & ELECTRICAL WORKS (HIGH COMMISSIONER'S RESIDENCE)	FROM PAGE B8A/SUM/1	
BILL 8B	- MECHANICAL & ELECTRICAL WORKS (CHANCERY & STAFF RESIDENCES)	FROM PAGE B8B/SUM/2	
TOTAL CARRIED TO FORM OF TENDER ... B\$			\$

CONTRACTOR : _____

SIGNATURE : _____

AUTHORITY : _____

DATE : _____

Note:

It is the tenderer's responsibility to ensure that there is no page missing or in duplicate

	Description	Qty	Unit	Rate	\$	c
	<u>SCHEDULE OF RATES</u>					
	The rates entered shall form part of the Contract and be used to adjust the Bills of Quantities where applicable for the evaluation and award of the Tender, and shall be valid throughout the Contract Period for variation works if any		Note			
	<u>SUBSTRUCTURE</u>					
A	Movement/Expansion joint, filled with 25 mm wide x 50 mm deep approved expansion / movement joint complete with 25 mm thick softboard filler including slip membrane and additional use of formwork, all as detailed on drawings and in specification		m			
	<u>ROOF</u>					
B	M20 x 350 mm long holding down bolts including nuts and washers		no			
C	M32 x 400 mm long holding down bolts including nuts and washers		no			
D	M10 bolts including nuts and washers		no			
E	M12 bolts including nuts and washers		no			
F	M12 HILTI HSA anchor bolts including nuts and washers		no			
G	M24 HSFG bolts including nuts and washers		no			
H	M32 HSFG bolts including nuts and washers		no			
	<u>The following in 'Lysaght'</u>					
J	Longitudinal fascia capping		m			
K	Transverse fascia capping		m			
L	Corrugation end closure		m			
M	Longitudinal end flashing, fixed with and including turning down at ends (measured nett - no allowance made for laps)		m			
N	<u>Extra over</u> for forming 500 mm wide x 50 mm depth scupper drain finished with screeding and approved high quality waterproofing to specification and Architect's approval, all as detailed on drawings		m			

	Description	Qty	Unit	Rate	\$	c
	<u>SCHEDULE OF RATES (Cont)</u>					
	<u>(Cont) ROOF</u>					
	<u>(Cont) The following in 'Lysaght'</u>					
A	Decorative reinforced concrete capping to gutter wall including all necessary formwork, reinforcement and finished all expose surface with 'KCC' textcoat with 'Wattyl Solagard' or other equal and approved paint in approved colour		m			
B	Two-piece flashing where 100 mm diameter vent pipe passes through roof, complete with under flashing and 150 mm high collar, dressed to suit profile of roofing sheets and bedded in mastic compound, the overflashing consisting of 225 mm high sleeve bedded to pipe in mastic compound and fixed with stout galvanised wire		no			
C	Two-piece flashing where 150 mm diameter vent pipe passes through roof, complete with under flashing and 150 mm high collar, dressed to suit profile of roofing sheets and bedded in mastic compound, the overflashing consisting of 225 mm high sleeve bedded to pipe in mastic compound and fixed with stout galvanised wire		no			
	<u>EXTERNAL WALL</u>					
D	115 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		m			
E	150 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		m			
F	300 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		m			
G	415 mm wide with 150 mm upturn approved damp proof course bedded in joints of brickwall (measured nett-rate to include for laps)		m			
PTE159						
BQ/2						

	Description	Qty	Unit	Rate	\$	c
	<u>SCHEDULE OF RATES (Cont)</u>					
	<u>(Cont) EXTERNAL WALL</u>					
A	6 mm diameter x 450 mm long mild steel bonding ties, one end cast into concrete column and hooked around column reinforcement and other end built into joints of brickwork including forming perforation in formwork		no			
B	Approved 225 mm long mild steel cavity wall ties, installed in a slight fall and both ends pressed down in fresh mortar and surrounded by mortar		no			
	<u>WINDOWS</u>					
C	Precast reinforced concrete (grade 20) lintel, overall size 150 x 200 mm reinforced with, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		m			
D	Precast reinforced concrete (grade 20) window head, overall size 200 x 400 mm reinforced with, bedded and jointed in cement and sand (1:3) mortar, hoisted and fixed in position, finished fair on all exposed surfaces, all as detailed on drawings and in specification		m			
	<u>DOORS</u>					
	<u>Precast reinforced concrete (grade 20) including all reinforcement, mould, bedding and jointing in cement and sand (1:3) including hoisting and fixing in position and finished fair on all exposed surfaces</u>					
E	150 x 200 mm high lintel cast in various lengths, reinforced with and including 4 nos. 12 mm tensile bar and 10 mm mild steel stirrup at 150 mm centres		m			
F	150 x 50 x 100 mm high heelstone cast to suit the profile of door jamb with one end built into door jamb and other end cast into heelstone and finished fair		m			

	Description	Qty	Unit	Rate	\$	c
	<u>SCHEDULE OF RATES (Cont)</u>					
	<u>(Cont) DOORS</u>					
	<u>(Cont) Precast reinforced concrete (grade 20) including all reinforcement, mould, bedding and jointing in cement and sand (1:3) including hoisting and fixing in position and finished fair on all exposed surfaces</u>					
A	150 x 25 x 3 mm thick mild steel lugs with one end fishtailed built into joints of brickwork and the other end turned up, holed and screwed to back of timber door frame		m			
B	6 mm wide approved silicone sealant pointing to gap between frame and tile		m			
	<u>WALL FINISHES</u>					
C	Approved heavy duty wall tiles in approved colour, laid in pattern with adhesive and colour grout pointing on cement and sand screed (screed measured seperately) to wall		m2			
	<u>FLOOR FINISHES</u>					
D	<u>Extra for</u> foming groove line to ramp		m			
E	25 mm wide expansion joint at 6.0 m bothways comprising 'Flexel' or other equal and approved filler board, expamet steel 264 and aliminium construction joint profile to Architect approval		m			
F	Isolation joint in pavement slab, filled with 12 mm thick flexcell and forming round edges groove including all necessary use of sawn formwork		m			
G	Construction joint in pavement slab, filled with and including 12 x 20 mm 'Thioflex-600' or other equal and approved sealant, 12 mm thick flexcell, slab held together and formed rounded edges groove with and including 20 mm diameter mild steel dowel bar at 450 mm centres with one half of bar debonded with grease/bitumen and one end of bar fitted with plastic foam filler with metal sliding fit including necessary use of sawn formwork		m			

	Description	Qty	Unit	Rate	\$	c
	<u>SCHEDULE OF RATES (Cont)</u>					
	<u>(Cont) FLOOR FINISHES</u>					
A	Approved aluminium edge strip and dividing strip, fixed strictly in accordance with manufacturer's instruction		m			
B	Approved stainless steel divider strip, fixed strictly in accordance with manufacturer's instruction		m			
	<u>CEILING FINISHES</u>					
C	Access panel complete with aluminium edge finish with approved jointing compound to gypsum board / cement board		no			
D	Shadow gaps / cove to gypsum board / cement board including painting		m			
E	Drop in ceiling to gypsum board / cement board including paint		m			
F	Forming 25 mm wide drip mold including all approved paint finished		m			
	<u>PLUMBING</u>					
	<u>COLD WATER SERVICES</u>					
	<u>Copper pipe and fittings to B.S. 2871 Part 1 to ceiling space, wall duct and slab soffit, etc. including chasing into and complete with hangers, clips and brackets, etc.</u>					
G	15 mm diameter supply / riser / dropper pipe		m			
H	20 mm diameter supply / riser / dropper pipe		m			
J	25 mm diameter supply / riser / dropper pipe		m			
K	32 mm diameter supply / riser / dropper pipe		m			
L	40 mm diameter supply / riser / dropper pipe		m			
M	50 mm diameter supply / riser / dropper pipe		m			

Description		Qty	Unit	Rate	\$	c
<u>SCHEDULE OF RATES (Cont)</u>						
<u>(Cont) PLUMBING</u>						
<u>(Cont) COLD WATER SERVICES</u>						
<u>(Cont) Copper pipe and fittings to B.S. 2871 Part 1 to ceiling space, wall duct and slab soffit, etc. including chasing into and complete with hangers, clips and brackets, etc.</u>						
A	65 mm diameter supply / riser / dropper pipe		m			
B	100 mm diameter supply / riser / dropper pipe		m			
C	150 mm diameter supply / riser / dropper pipe		m			
D	100 mm diameter drain pipe		m			
<u>HOT WATER SERVICES</u>						
<u>Copper pipe and fittings to B.S. 2871 Part 1 to ceiling space, wall duct and slab soffit, etc. including chasing into and complete with hangers, clips and brackets, etc.</u>						
E	12 mm diameter supply / riser / dropper pipe		m			
F	19 mm diameter supply / riser / dropper pipe		m			
G	25 mm diameter supply / riser / dropper pipe		m			
H	100 mm diameter supply / riser / dropper pipe		m			
J	15 mm diameter approved brass gate valve		no			
K	20 mm diameter approved brass gate valve		no			
L	25 mm diameter approved brass gate valve		no			
M	32 mm diameter approved brass gate valve		no			
N	40 mm diameter approved brass gate valve		no			
P	50 mm diameter approved brass gate valve		no			

Description		Qty	Unit	Rate	\$	c
<u>SCHEDULE OF RATES (Cont)</u>						
<u>(Cont) PLUMBING</u>						
SOIL, WASTE AND VENT PIPE						
<u>Upvc soil, waste and vent pipes and fittings to B.S. 4660, laid in trench including all excavation, disposal and backfilling etc.</u>						
A	50 mm diameter waste pipe		m			
B	75 mm diameter waste pipe		m			
C	100 mm diameter waste pipe		m			
D	75 mm diameter drain pipe		m			
E	75mm diameter soil pipe		m			
F	100 mm diameter soil pipe		m			
G	50 mm diameter vent pipe		m			
H	100 mm diameter vent pipe		m			
J	100 mm diameter acid waste pipe		m			
<u>Upvc soil, waste and vent pipes and fittings to B.S. 4514 to ceiling space, wall, duct and slab soffit, etc. including chasing into and complete with hangers, clips and brackets</u>						
K	50 mm diameter waste pipe		m			
L	75 mm diameter waste pipe		m			
M	100 mm diameter waste pipe		m			
N	75 mm diameter soil pipe		m			
P	100 mm diameter soil pipe		m			
Q	50mm diameter vent pipe		m			
R	75mm diameter vent pipe		m			
S	100 mm diameter vent pipe		m			
T	50 mm diameter acid waste pipe		m			
U	75 mm diameter acid waste pipe		m			

Description		Qty	Unit	Rate	\$	c
<u>SCHEDULE OF RATES (Cont)</u>						
(Cont) PLUMBING						
(Cont) SOIL, WASTE AND VENT PIPE						
(Cont) Upvc soil, waste and vent pipes and fittings to B.S. 4514 to ceiling space, wall, duct and slab soffit, etc. including chasing into and complete with hangers, clips and brackets						
A	100 mm diameter acid waste pipe		m			
B	<u>Extra over</u> for 50 mm bend		no			
C	<u>Extra over</u> for 50 mm bend with inspection eye		no			
D	<u>Extra over</u> for 100 mm bend		no			
E	<u>Extra over</u> for 150 mm bend		no			
F	<u>Extra over</u> for 50 x 50 x 50 mm junction with inspection cover		no			
G	<u>Extra over</u> for 100 x 100 x 50 mm junction with inspection cover		no			
H	<u>Extra over</u> for 150 x 150 x 50 mm junction with inspection cover		no			
<u>Wire Cowl</u>						
J	100 mm diameter approved upvc vent wire cowl fixed on top of 100 mm diameter vent pipe		no			
GAS PIPING SERVICES						
<u>Copper Gas pipe to Table Y and fittings run exposed below ceiling and complete with quick acting shut off valve, hangers, clips and brackets.</u>						
K	15 mm diameter		m			
L	20 mm diameter		m			
M	25 mm diameter		m			
N	32 mm diameter		m			
P	40 mm diameter		m			

	Description	Qty	Unit	Rate	\$	c
	<u>SCHEDULE OF RATES (Cont)</u>					
	(Cont) PLUMBING					
	(Cont) GAS PIPING SERVICES					
A	Sump Gully and chamber size 900 x 900 mm in various depth internally with multiple inlets comprising 150 mm thick concrete (grade 30) wall and base, upvc gully trap to B.S. 4660 with 344 x 344 removable stainless steel grating with hinges, etc. finished with cement and sand render internally, epoxy painting, inlet and outlet, jointing to waste pipes, including excavation, disposal, backfilling, formwork, etc, the whole as per detail shown on Engineer's drawing		no			
B	Gully trap and chamber size 300 x 300 mm in various depth internally with multiple inlets comprising 125 mm thick concrete (grade 20) wall and base, upvc gully trap to B.S.4660 with perforated grating, 415 x 415 mm stainless steel grating with hinge, etc. finished with cement and sand render internally, epoxy painting, inlet and outlet, jointing to waste pipes, including excavation, disposal, backfilling, formwork, etc, the whole as per detail shown on Engineer's drawing		no			
	<u>ROAD AND DRIVEWAY</u>					
C	Excavate for driveway and carpark commencing from formation level not exceeding 2.00 m deep, get out, cart away excavated material off-site to a tip to be provided by the Contractor at his expense		m3			
D	Prepare subgrade surface, grade and makeup to line level and camber to required maximum dry density, CBR value, fall and gradients, all as detailed on drawings and in specification		m2			
E	Compact surfaces of subgrade to 90% optimum dry density (CBR > 5%) all as specified, including necessary trimming and levelling surfaces to falls and gradients		m2			
F	One (1) layers of approved Geogrid reinforced base type 1, all laying and earthwork preparation to manufacturer's specifications and as detailed on drawings		m2			

	Description	Qty	Unit	Rate	\$	c
	<u>SCHEDULE OF RATES (Cont)</u>					
	<u>(Cont) ROAD AND DRIVEWAY</u>					
A	350 mm thick mechanically compacted crusher run stone base of crushed rock, hard durable particles or fragments of rock crushed to size as specified, spread, level and finished to falls and gradients		m2			
B	150 mm thick reinforced concrete (Grade 30) in pavement/ramp laid in bays to falls including all necessary formwork		m2			
C	BRC A10 fabric mesh reinforcement in pavement slab (measured nett - rate to include for laps, cutting and waste)		m2			
D	Proof roll compacted surfaces to detect soft spots, excavate, remove, lay and compact approved sand filling in layer		m2			
E	Allow for carrying out Laboratory Compaction Test (4.5 kg hammer) including providing necessary instrument		no			
F	Allow for carrying Laboratory CBR Test including providing necessary instrument		no			
G	Allow for carrying out Field Density Test on prepared subgrade including providing necessary instrument		no			
H	Allow for carrying out CBR Test (BS1377 Pt9; 1990) on prepared subgrade including providing necessary instrument		no			
J	Expansion joint in pavement slab, all as per Engineer's details drawings		m			
K	Cut edge of existing tarmacadam driveway 250 mm wide x 300 mm deep including prepare surfaces to receive new works, make good surfaces disturbed and remove all debris off site		m			
L	Approved stop cock/gate valve in various diameter, all as detailed on drawings		no			
PTE159						
BQ/10						

Description	Qty	Unit	Rate	\$	c
<u>SCHEDULE OF RATES (Cont)</u>					
Concrete thrust block for bend, tee, end cap and sluice valve including all excavation, disposal and backfilling, lean concrete, concrete, formwork and reinforcement, all as detailed on drawings		no			
CONTRACTOR :					
WITNESS :					
DATE :					

Description	Qty	Unit	Rate	\$	c
<u>SCHEDULE OF RATES (Cont)</u>					
COLLECTION					
Page No. BQ/1					
Page No. BQ/2					
Page No. BQ/3					
Page No. BQ/4					
Page No. BQ/5					
Page No. BQ/6					
Page No. BQ/7					
Page No. BQ/8					
Page No. BQ/9					
Page No. BQ/10					
Page No. BQ/11					
SCHEDULE OF RATES					
Carried to Summary					

DAYWORK SCHEDULE

Any work ordered by the Architect to be carried out by daywork shall be paid for at the rates entered hereunder subject to the following conditions:

1. The rates entered for labour shall be deemed to include all on-costs associated with the employment of such labour including (inter alia), Head Office charges, overhead charges, profit, site supervision and staff, insurances, wages, travelling time and expenses, subsistence allowances, time lost due to inclement weather, bonus, holiday and sick pay, and any other employee's fringe benefit(s), small tools and consumable stores, temporary equipment such as wagons, temporary tracks, ladders, staging, scaffolding and all items of a similar nature unless these are provided or set up exclusively for daywork.
2. The wages for gangers and loading hands working with their gang shall be paid for at the appropriate rates, but the time of walking gangers, sub-foremen and foremen will not be including and shall be deemed to be included in the rates entered for labour under site supervision and staff.
3. The cost of special watching and lighting necessitated by daywork shall be included in the rates.
4. The rates entered for Plant shall apply only to Plant which the Contractor has available on the Site. Such rates shall be deemed to include all overhead charges, profit, site supervision and staff, hire charges, fuel, maintenance, consumable stores, spare parts, insurances, etc. but shall exclude the cost of wages for drivers and operators which shall be payable separately as dealt with under paragraph 1 above.
5. Payment for mechanically operated Plant shall be made only at such time as the plant is engaged on daywork and shall exclude all standing, idle or down time.
6. If any workmen or items of Plant or Daywork do not readily belong to any classification included in the Schedule or inserted by the Contractor at the time of tendering the Architect shall determine the equivalent classification to be adopted for such workmen or item of plant and payment for such will be made accordingly.

Daywork Schedule

7. The rates inserted by the Contractor shall be realistic rates in conformity with those on which his tender has been based and shall be based on conditions prevailing at the time of tender but bearing in mind that claims for escalation will not be entertained.
8. Notwithstanding the provisions of the Labour Enactments of Brunei Darussalam, overtime working if approved by the S.O. will be deemed to be works carried outside the hours of 7.30 a.m. and 5.30 p.m. on Monday to Sunday inclusive with payment for overtime working calculated on the following basis:-

Monday to Sunday inclusive - between the hours of 5.30 p.m. and midnight - at time and a half (i.e. 1 1/2 times the amount entered under Labour)

Monday to Sunday inclusive - between the hours of midnight and 7.30 a.m. - at double time (i.e. 2 times the amount entered under Labour)

Daywork Schedule

LABOUR

	<u>Description</u>	<u>Unit</u>	<u>Rate</u> <u>B\$</u>
A	Labourer - Male	hour	
B	Labourer - Female	hour	
C	Concretor	hour	
D	Steel bender	hour	
E	Mason	hour	
F	Drainlayer	hour	
G	Carpenter/Joiner	hour	
H	Steelworker	hour	
I	Welder	hour	
J	Electrician	hour	
K	Plumber	hour	
L	Painter	hour	
M	Driver	hour	
N	Mechanic	hour	
O	Plant Operator - Mechanical Plant under 100 B.H.P.	hour	
P	Plant Operator - Mechanical Plant 100 B.H.P. and over	hour	

(Any classification not included above)

Daywork Schedule

<u>PLANT</u>				
	<u>Description</u>		<u>Capacity</u>	<u>Unit</u> <u>Rate</u> <u>B\$</u>
A	Compressors - Portable (incl. pneumatic breaker, tools & hose)		250c.f.m.	hour
B	Compressors - Ditto		450c.f.m.	hour
C	Compressors - Mobile (incl. tools & hose)		450c.f.m.	hour
D	Crane - Mobile		10 t	hour
E	Crane - Ditto		20 t	hour
F	Dumpers (or Dump Trucks)		5 m3	hour
G	Excavators - (incl. Face shovels, skimmers, dragliners, or backactors)		0.5 m3	hour
H	Excavators - Ditto		1.0 m3	hour
I	Excavators - Ditto		1.5 m3	hour
J	Excavators - Ditto		2.0 m3	hour
K	Tractors shovel		1.0 m3	hour
L	Generating sets		5 k.v.a.	hour
M	Lorries - Van or similar utility		1000 kg	hour
N	Lorries - ordinary flat top		6 t	hour
O	Lorries - ordinary - heavy haulage		10 t	hour
P	Mixers - Concrete, open drum		0.80 m3	hour
Q	Mixers - Ditto		1.00 m3	hour
R	Mixers - with weigh batchers		2.00 m3	hour

PLANT - CON'T

	<u>Description</u>		<u>Capacity</u>	<u>Unit</u>	<u>Rate</u> <u>B\$</u>
A	Pumps	- Portable (incl. foot valves, suction hose, up to 60 ft of delivery hose and all fittings)			
B	Pumps	- diesel or petrol driven	75 mm	hour	
C	Pumps	- Ditto	100 mm	hour	
D	Pumps	- air driven	75 mm	hour	
E	Pumps	- electrically driven	100 mm	hour	
F	Tractors	- Crawler type with bull or angle dozer balde and/or ripper	18 k.w.	hour	
G	Tractors	- Ditto	25 k.w.	hour	
H	Tractors	- Ditto	75 k.w.	hour	
I	Tractors	- Wheel	18 k.w.	hour	
J	Tractors	- Tractor shover	18 k.w.	hour	
K	Tractors	- Pneumatic tyred with cu yd scraper	25 k.w.	hour	
L	Trench Digger	-	25 k.w.	hour	
M	Water truck (Type) (Incl. spraying equipment)		1500 ltr.	hour	
N	Welding and cutting set (oxy acetylene inclusive of oxygen and acetylene)		each	hour	
O	Ditto - (Electric Arc)		each	hour	

Daywork Schedule

MATERIALS

	<u>Description</u>	<u>Unit</u>	<u>Rate</u> <u>B\$</u>
A	Cement (50 kg bag)	bag	
B.	Sand	m3	
C	20 mm aggregate	m3	
D	25 mm aggregate	m3	
E	38 mm aggregate	m3	
F	Mild steel bar 13 mm and below	t	
G	Ditto 16 mm to 32 mm	t	
H	High tensile bar 13 mm and below	t	
I	Ditto 16 mm to 32 mm	t	
J	Bricks - ordinary first quality	pc	
K	Timber - sawn Meranti	m3	
L	Timber - wrot Meranti	m3	
M	Timber - sawn Kapur Bukit	m3	
N	Timber - wrot Kapur Bukit	m3	
O	6 mm plywood	m2	
P	12 mm plywood	m2	

Appendix A

PERFORMA OF BANK GUARANTEE (PERFORMANCE)

(Judicial Stamp paper of appropriate value as per stamp Act-of respective state)

Head of Chancery
High Commission of India
Baitussayifaa, Simpang 40-22
Jalan Sungai Akar
Bandar Seri Begawan BC3916
Brunei Darussalam

Whereas the Head of Chancery,,High Commission of India, Baitussayifaa, Simpang 40-22,,Jalan Sungai Akar,,Bandar Seri Begawan BC3916, Brunei Darussalam (hereinafter called “HIGH COMMISSION OF INDIA” which expression shall unless repugnant to the subject or context include its successors and assigns) having awarded a work order / contract / supply order No. dated (hereinafter called the contract) to M/s (hereinafter called the contractor / supplier) at a total price of B\$ subject to the terms and conditions contained in the contract.

WHEREAS, the terms and conditions of the contract require the contractor to furnish a bank guarantee for B\$(Brunei Dollars) being 5% of the total value of the contract for proper execution and due fulfillment of the terms and conditions contained in the contract.

We, the Bank, (hereinafter called the “Bank”) do hereby unconditionally and irrevocably undertake to pay to HIGH COMMISSION OF INDIA immediately on demand in writing and without protest / or demur all moneys payable by the contractor / supplier to HIGH COMMISSION OF INDIA in connection with the execution / supply of and performance of the works / equipment, inclusive of any loss, damages, charges, expenses and costs caused to or suffered by or which would be caused to or suffered by HIGH COMMISSION OF INDIA by reason of any breach by the contractor / supplier of any of the terms and conditions contained in the contract as specified in the notice of demand made by HIGH COMMISSION OF INDIA to the bank. Any such demand made by NBCC on the bank shall be conclusive evidence of the amount due and payable by the bank under this guarantee. However, the Bank’s liability under this guarantee, shall be limited to B\$..... in the aggregate and the bank hereby agrees to the following terms and conditions:-

- (i) This guarantee shall be a continuing guarantee and irrevocable for all claims of HIGH COMMISSION OF INDIA as specified above and shall be valid during the period specified for the performance of the contract.
- (ii) We, the said bank further agree with HIGH COMMISSION OF INDIA that HIGH COMMISSION OF INDIA shall have the fullest liberty without our consent and without affecting in any manner our obligations and liabilities hereunder to vary any of the terms and conditions of the said contract or to extend time for performance of contract by the Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by HIGH COMMISSION OF INDIA against the contractor / supplier under the contract and forbear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason of any such variations or extension being granted to the contractor or for any forbearance, act or omission on the part of HIGH COMMISSION OF INDIA or any indulgence by HIGH COMMISSION OF INDIA to the contractor or by any such matter or thing whatsoever, which under the law relating to the sureties would, but for this provision, have effect of so relieving us.

- (iii) This guarantee / undertaking shall be in addition to any other guarantee or security whatsoever HIGH COMMISSION OF INDIA may now or at any time have in relation to the performance of the works / equipment and the company shall have full re-course to or enforce this security in performance to any other security or guarantee which the HIGH COMMISSION OF INDIA may have or obtained and there shall be no forbearance on the part of the company in enforcing or requiring enforcement of any other security which shall have the effect of releasing the Bank from its full liability. It shall not be necessary for HIGH COMMISSION OF INDIA to proceed against the said contractor / supplier before proceeding against the Bank.
- (iv) This guarantee / undertaking shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the supplier / contractor, but shall in all respects and for all purposes be binding and operative until payment of all moneys payable to HIGH COMMISSION OF INDIA in terms thereof are paid by the Bank.
- (v) The Bank hereby waives all rights at any time inconsistent with the terms of this Guarantee and the obligations of the bank in terms hereof, shall not be otherwise effected or suspended by reasons of any dispute or disputes having been raised by the supplier / contractor (whether or not pending before any Arbitrator, Tribunal or Court) or any denial of liability by the supplier / contractor stopping or preventing or purporting to stop or prevent any payments by the Bank to HIGH COMMISSION OF INDIA in terms hereof.

We, the said Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of NBCC in writing upon expiry of which, we shall be relieved from all liabilities under this guarantee thereafter.

Signed this day of at

For and on behalf of Bank

WITNESS

- 1. _____
- 2. _____

LIST OF DRAWING

ARCHITECTURAL

DRAWING NO.

DESCRIPTION

HIGH COMMISSIONER'S RESIDENCE

AR-1693/Indian HighCom/High Commissioner's
Residence/

TS-1.00	TITLE PAGE
TS-1.01	LOCATION PLAN, TOPOGRAPHICAL SURVEY, RG DRAIN DETAIL
TS-1.02	SITE DEVELOPMENT PLAN
TS-1.03	SITE DEVELOPMENT PLAN (FENCE LAYOUT)
TS-2.01	KEY PLAN
TS-2.02	GROUND FLOOR PLAN – A
TS-2.03	GROUND FLOOR PLAN – B
TS-2.04	FIRST FLOOR PLAN
TS-2.05	GROUND FLOOR CEILING PLAN
TS-2.06	FIRST FLOOR CEILING PLAN
TS-2.07	ROOF PLAN
TS-3.01	SECTION A-A & SECTION B-B
TS-3.02	SECTION C-C
TS-4.01	ELEVATION A & ELEVATION B
TS-4.02	ELEVATION C & ELEVATION D
TS-5.01	DOORS SCHEDULE
TS-5.02	WINDOW SCHEDULES W1 – W11
TS-5.03	WINDOW SCHEDULES W12 – W24
TS-5.04	WINDOW SCHEDULES W25 – W30, DAYLIGHT VENTILATION AND TABULATION
TS-5.05	DECORATIVE SCREEN SCHEDULE
TS-7.01	SANITARY SCHEDULE (1 OF 4)
TS-7.02	SANITARY SCHEDULE (2 OF 4)
TS-7.03	SANITARY SCHEDULE (3 OF 4)
TS-7.04	SANITARY SCHEDULE (4 OF 4)
TS-8.01	SCHEDULE OF FINISHES
TS-9.01	IRONMONGERY SCHEDULE
TS-11.01	PERIMETER FENCE 1E AND GATE DETAILS
TS-11.02	PERIMETER FENCE 1F AND SECTIONS & DETAILS
TS-11.03	PERIMETER FENCE 1G AND SECTIONS
TS-11.04	DETAIL OF WC-01 (GF-21), SECTIONS, COUNTER TOP DETAIL
TS-11.05	DETAIL OF WC-03 (GF-17), SECTIONS, DETAIL OF WC-06 (GF-07), SECTIONS

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LIST OF DRAWING

ARCHITECTURAL

DRAWING NO.

DESCRIPTION

HIGH COMMISSIONER'S RESIDENCE (cont'd)

AR-1693/Indian HighCom/High Commissioner's
Residence/

TS-11.06	DETAIL OF WC-01 (FF-07), SECTIONS, COUNTER TOP DETAIL
TS-11.07	DETAIL OF WC-02 (FF-09), SECTIONS, COUNTER TOP DETAIL
TS-11.08	DETAIL OF WC-03 (FF-10), SECTIONS, COUNTER TOP DETAIL
TS-11.09	DETAIL OF WC-04 (FF-13), SECTIONS, COUNTER TOP DETAIL
TS-11.10	DETAIL OF WC-05 (FF-09), SECTIONS, DETAIL OF WC-06 (FF-14), SECTIONS
TS-11.11	KITCHEN (GF-04) DETAILS
TS-11.12	COUNTER TOP 1, 2 & 3 DETAILS FOR KITCHEN (GF-04)
TS-11.13	PANTRY / FAMILY KITCHEN (FF-08) DETAILS, COUNTER TOP DETAILS
TS-11.14	DETAIL OF STAIRCASE 1, DETAIL OF STAIRCASE 2, SECTION DETAIL
TS-11.15	TIMBER LOUVERS SCREEN PLAN & GUEST BEDROOM & @ MASTER BEDROOM DETAILS, SECTIONS
TS-11.16	TIMBER LOUVERS SCREEN PLAN @ MASTER BEDROOM DETAILS, SECTIONS
TS-11.17	TIMBER LOUVERS SCREEN PLAN @ BEDROOM 1 & 2 DETAILS, SECTIONS
TS-11.18	MISCELLANEOUS DETAILS
TS-11.19	BAY SECTIONS
TS-11.20	MAID'S ROOM (GF-06) & GUEST BEDROOM (GF-08) WARDROBE DETAILS
TS-11.21	FAMILY DINING BAR (GF-02) CABINET 1 & 2 DETAILS
TS-11.22	MASTER'S BEDROOM (FF-01) WALK IN CLOSET 1 DETAILS
TS-11.23	MASTER'S BEDROOM (FF-01) WALK IN CLOSET 2 DETAILS & WARDROBE 1 DETAILS
TS-11.24	BEDROOM 01 & 02 (FF-02) (FF-03) WALK IN CLOSET DETAILS
TS-11.25	BEDROOM 01 & 02 (FF-02) (FF-03) WARDROBE 1 DETAILS & BEDROOM 3 (FF-04) WARDROBE 1 DETAILS
TS-11.26	TYPICAL COUNTER TOP KITCHENETTE (FF- 16&FF-17) DETAILS & ENTRANCE WATER FEATURE DETAILS

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LIST OF DRAWING

ARCHITECTURAL

DRAWING NO.

DESCRIPTION

HIGH COMMISSIONER'S RESIDENCE (cont'd)

AR-1693/Indian HighCom/High Commissioner's Residence/	TS-11.27	TV CABINET DETAILS (FF-01)
	TS-11.28	GUARD POST DETAIL
	TS-11.29	REFLECTIVE POOL DETAILS
	TS-11.30	FLAGPOLE DETAILS
	TS-11.31	CARPORCH FEATURE WALL DETAILS
	TS-11.32	GLAZING WORKS SPOT DETAILS (01-10)
	TS-11.33	GLAZING WORKS SPOT DETAILS (11-18)
	TS-11.34	GUARD POST COUNTER DETAIL

CHANCERY COMPLEX

AR-1693/Indian HighCom/India Chancery Complex/	TS-1.00	TITLE PAGE
	TS-1.01	LOCATION PLAN, TOPOGRAPHICAL SURVEY, RC DRAIN & WINGWALL DETAILS
	TS-1.02	SITE DEVELOPMENT PLAN
	TS-1.03	SITE DEVELOPMENT PLAN (FENCE LAYOUT PLAN)
	TS-2.01	LOWER GROUND FLOOR PLAN (KEY PLAN)
	TS-2.02	GROUND FLOOR PLAN (KEY PLAN)
	TS-2.03	GROUND FLOOR PLAN – A
	TS-2.04	GROUND FLOOR PLAN – B
	TS-2.05	GROUND FLOOR PLAN – C
	TS-2.06	GROUND FLOOR PLAN – D
	TS-2.07	1 ST FLOOR PLAN (KEY PLAN)
	TS-2.08	1 ST FLOOR PLAN – A
	TS-2.09	1 ST FLOOR PLAN – B
	TS-2.10	1 ST FLOOR PLAN – C
	TS-2.11	1 ST FLOOR PLAN – D
	TS-2.12	ROOF PLAN (KEY PLAN)
	TS-2.13	ROOF PLAN –A
	TS-2.14	ROOF PLAN – B
	TS-2.15	ROOF PLAN – C
	TS-2.16	ROOF PLAN – D
	TS-2.17	GROUND FLOOR CEILING PLAN (KEY PLAN)
	TS-2.18	GROUND FLOOR REFLECTED CEILING PLAN – A
	TS-2.19	GROUND FLOOR REFLECTED CEILING PLAN – B

LIST OF DRAWING

ARCHITECTURAL

DRAWING NO.

DESCRIPTION

CHANCERY COMPLEX (cont'd)

AR-1693/Indian HighCom/India Chancery Complex/

TS-2.20	GROUND FLOOR REFLECTED CEILING PLAN – C
TS-2.21	GROUND FLOOR REFLECTED CEILING PLAN – D
TS-2.22	1 ST FLOOR CEILING PLAN – (KEY PLAN)
TS-2.23	1 ST FLOOR REFLECTED CEILING PLAN – A
TS-2.24	1 ST FLOOR REFLECTED CEILING PLAN – B
TS-2.25	1 ST FLOOR REFLECTED CEILINGPLAN – C
TS-2.26	1 ST FLOOR REFLECTED CEILING PLAN – D
TS-3.01	SECTION A-A & SECTION B-B
TS-3.02	SECTION C-C
TS-3.03	SECTION D-D & SECTION E-E
TS-4.01	ELEVATION A & ELEVATION B
TS-4.02	ELEVATION C & ELEVATION D
TS-4.03	ELEVATION E
TS-4.04	ELEVATION F
TS-5.01	DOORS SCHEDULE
TS-5.02	WINDOWS SCHEDULE (1 OF 5)
TS-5.03	WINDOWS SCHEDULE (2 OF 5)
TS-5.04	WINDOWS SCHEDULE (3 OF 5)
TS-5.05	WINDOWS SCHEDULE (4 OF 5)
TS-5.06	WINDOWS SCHEDULE (5 OF 5)
TS-5.07	DECORATIVE SCREEN SCHEDULE
TS-5.08	DAYLIGHT, VENTILATION TABULATIONS
TS-7.01	SANITARY SCHEDULES (1 OF 4)
TS-7.02	SANITARY SCHEDULES (2 OF 4)
TS-7.03	SANITARY SCHEDULES (3 OF 4)
TS-7.04	SANITARY SCHEDULES (4 OF 4)
TS-8.01	FINISHES SCHEDULES
TS-9.01	IRONMONGERY SCHEDULES (1 OF 2)
TS-9.02	IRONMONGERY SCHEDULES (2 OF 2)
TS-11.01	PERIMETER FENCE – 1A PLAN & ELEVATIONS, SECTIONS AND DETAIL
TS-11.02	PERIMETER FENCE – 1B PLAN & ELEVATIONS AND DETAILS
TS-11.03	PERIMETER FENCE – 1C PLAN & ELEVATION D AND SECTION T-T

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LIST OF DRAWING

ARCHITECTURAL

DRAWING NO.

DESCRIPTION

CHANCERY COMPLEX (cont'd)

AR-1693/Indian HighCom/India Chancery Complex/

TS-11.04	PERIMETER FENCE – 1C ELEVATION E (INSIDE) AND GATE DETAILS
TS-11.05	PERIMETER FENCE – 1D PLAN, ELEVATION F AND SECTION T-T
TS-11.06	ELECTRICAL SUBSTATION PLANS, SECTIONS & ELEVATIONS
TS-11.07	DOORS & WINDOWS SCHEDULE, DAYLIGHT & VENTILATION TABULATIONS
TS-11.08	DETAILS
TS-11.09	TOILET DETAIL 01 (GF-06, GF-07)
TS-11.10	TOILET DETAIL 01 (GF-06, GF-07)
TS-11.11	TOILET DETAIL 02 (GF-33, GF-34)
TS-11.12	TOILET DETAIL 02 (GF-33, GF-34)
TS-11.13	WC-3 (GF-37) & WC-4 (GF-38) DETAILS
TS-11.14	WC-5 (GF-40) & WC-6 (GF-42) DETAILS, WC-7 (GF-24) DETAILS
TS-11.15	FEMALE WC (1F-05) & MALE WC (1F-06)
TS-11.16	TOILET (1F-17) DETAIL
TS-11.17	PANTRY DETAIL (GF-11), PANTRY 1 & 2 DETAIL (1F-07 & 1F-20)
TS-11.18	COUNTER TOP DETAILS (GF-11, 1F-07 & 1F-20)
TS-11.19	STAIRCASE 01 DETAILS, SECTIONAL ELEVATIONS OF STAIRCASE 01
TS-11.20	STAIRCASE 02 DETAILS, SECTIONAL ELEVATIONS OF STAIRCASE 02
TS-11.21	BAY SECTIONS (1 OF 2)
TS-11.22	BAY SECTIONS (2 OF 2) & SEATING DETAILS
TS-11.23	EXTERNAL STAIRWAY DETAIL
TS-11.24	MISCELLANEOUS DETAILS
TS-11.25	GLAZING WORKS SPOT DETAILS (01-08)
TS-11.26	GLAZING WORKS SPOT DETAILS (09-16)
TS-11.27	GLAZING WORKS SPOT DETAILS 917-22)
TS-11.28	GUARD POST DETAILS (2 NOS.)
TS-11.29	FEATURE WALL DETAILS & HANDICAP RAMP DETAILS
TS-11.30	WATER FEATURE DETAILS
TS-11.31	REFLECTIVE POOL DETAILS
TS-11.32	CARPORCH FEATURE WALL DETAILS
TS-11.33	MULTI-PURPOSE HALL CEILING DETAILS
TS-11.34	GUARD POST COUNTER DETAILS (2 NOS.)
TS-11.35	GUARD OFFICE COUNTER DETAILS

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LIST OF DRAWING

ARCHITECTURAL

DRAWING NO.

DESCRIPTION

RG STAFF RESIDENCE

AR-1693/Indian HighCom/RG Staff Residence/

TS-1.00	TITLE PAGE
TS-1.01	SITE DEVELOPMENT PLAN / KEY PLAN
TS-2.01	GROUND FLOOR PLANS
TS-2.02	1 ST FLOOR PLAN
TS-2.03	2 ND FLOOR PLAN
TS-2.04	ROOF PLAN
TS-2.05	GROUND FLOOR REFLECTED CEILING PLANS
TS-2.06	1 ST FLOOR REFLECTED CEILING PLANS
TS-2.07	2 ND FLOOR REFLCETED CEILING PLAN
TS-3.01	SECTION K-K & SECTION J-J
TS-4.01	ELEVATION K & ELEVATION L
TS-4.02	ELEVATION M & ELEVATION N
TS-5.01	DOORS SCHEDULE
TS-5.02	WINDOWS SCHEDULE
TS-5.03	DECORATIVE SCREEN SCHEDULES
TS-5.04	DAYLIGHT, VENTILATION & TABULATIONS
TS-7.01	SANITARY SCHEDULE (1 OF 3)
TS-7.02	SANITARY SCHEDULE (2 OF 3)
TS-7.03	SANITARY SCHEDULE (3 OF 3)
TS-8.01	SCHEDULE OF FINISHES
TS-9.01	IRONMONGERY SCHEDULE
TS-11.01	TYPICAL TOILET 01 (GF-05, 1F-07 & 2F-09) DETAILS, TOILET (1F-07) DETAILS
TS-11.02	TOILET 02 DETAILS (2F-06), TOILET 03 DETAILS (2F-07) POWDER ROOM DETAILS (1F-08)
TS-11.03	KITCHEN (GF-04) DETAILS, KITCHEN CABINET DETAILS
TS-11.04	KITCHEN (1F-10) DETAILS, KITCHEN COUNTER DETAILS
TS-11.05	PANTRY (1F-11) DETAILS, PANTRY CABINET DETAILS

LIST OF DRAWING

ARCHITECTURAL

DRAWING NO.

DESCRIPTION

RG STAFF RESIDENCE

AR-1693/Indian HighCom/RG Staff Residence/ TS-11.06	TYPICAL DETAIL OF STAIRCASE, SECTION DETAIL
TS-11.07	MISCELLANEOUS DETAILS
TS-11.08	BEDROOM (GF-03), (1F-04), (2F-05) & MASTER'S BEDROOM (2F-02) WARDROBE 1 DETAILS & MASTER'S BEDROOM (2F- 02) WARDROBE 2 DETAILS
TS-11.09	TYPICAL DETAIL OF WALKWAY
TS-11.10	GLAZING WORKS SPOT DETAILS (01-10)
TS-11.11	GLAZING WORKS SPOT DETAILS (01-10)

NRG STAFF RESIDENCE

AR-1693/Indian HighCom/NRG Staff Residence/ TS-1.00	TITLE PAGE
TS-1.01	SITE DEVELOPMENT PLAN / KEY PLAN
TS-2.01	GROUND FLOOR PLAN
TS-2.02	TYPICAL 1 ST & 2 ND FLOOR PLANS
TS-2.03	3 RD FLOOR PLAN
TS-2.04	ROOF PLAN
TS-2.05	GROUND FLOOR CEILING PLAN
TS-2.06	TYPICAL 1 ST & 2 ND FLOOR CEILING PLANS
TS-2.07	3 RD FLOOR CEILING PLAN
TS-3.01	SECTION G-G & SECTION H-H
TS-4.01	ELEVATION G & ELEVATION H
TS-4.02	ELEVATION I & ELEVATION J
TS-5.01	DOOR SCHEDULE
TS-5.02	WINDOW SCHEDULE
TS-5.03	DECORATIVE SCREEN SCHEDULE
TS-5.04	DAYLIGHT & VENTILATION TABULATIONS
TS-7.01	SANITARY SCHEDULE (1 OF 2)
TS-7.02	SANITARY SCHEDULE (2 OF 2)
TS-8.01	FINISHES SCHEDULE

LIST OF DRAWING

ARCHITECTURAL

DRAWING NO.

DESCRIPTION

NRG STAFF RESIDENCE (cont'd)

AR-1693/Indian HighCom/NRG Staff Residence/

TS-9.01	IRONMONGERIES SCHEDULE (1 OF 2)
TS-9.02	IRONMONGERIES SCHEDULE (2 OF 2)
TS-11.01	DETAIL OF WC (GF-02) DETAIL, TYPICAL WC-02 (1F-07 & 2F-07) DETAILS
TS-11.02	TYPICAL POWDER RM .(1F-06 & 2F-06) DETAIL, TYPICAL WC-01 (1F-04 & 2F-04)
TS-11.03	WC-01 (3F-03) & POWDER RM (3F-04) DETAIL
TS-11.04	WC-03 (3F-10) & WC-04 (3F-23) DETAIL, WC-02 (3F-10) DETAIL
TS-11.05	WC-05 (3F-15) DETAIL
TS-11.06	DETAIL OF STAIRCASE (1 OF 2)
TS-11.07	DETAIL OF STAIRCASE (2 OF 2)
TS-11.08	KITCHEN (GF-01) DETAIL, COUNTER DETAILS
TS-11.09	TYPICAL KITCHEN (1F-05 & 2F-05) DETAILS, KITCHEN (3F-05) DETAILS
TS-11.10	COUNTER 1 & 2 DETAILS FOR KITCHEN (1F-05, 2F-05 & 3F-05)
TS-11.11	MISCELLANEOUS DETAILS
TS-11.12	BEDROOM (GF-03), (1F-08), (1F-09), (3F-11), (3F-14), (3F-16) MASTER'S BEDROOM (1F-03), WARDROBE 1 DETAILS & MASTER'S BEDROOM (3F-09) WARDROBE 2 DETAILS
TS-11.13	CARPARK FEATURE WALL DETAILS
TS-11.14	GLAZING WORKS SPOT DETAILS (01-10)
TS-11.15	GLAZING WORKS SPOT DETAILS (11-15)

LIST OF DRAWING

CIVIL & STRUCTURAL

DRAWING NO.

DESCRIPTION

HIGH COMMISSIONER'S RESIDENCE

OA344-COVER PAGE	COVER PAGE
OA344-DRAWING LIST-01	DRAWING LIST
OA344-DRAWING LIST-02	DRAWING LIST
OA344-DRAWING LIST-03	DRAWING LIST
OA344-DRAWING LIST-04	DRAWING LIST
OA344-GENERAL NOTES	GENERAL NOTES

KEY PLAN

OA344-HCR-KYP-01	FOUNDATION PLAN
OA344-HCR-KYP-02	GROUND FLOOR PLAN
OA344-HCR-KYP-03	FIRST FLOOR PLAN & MEZZANINE FLOOR PLAN
OA344-HCR-KYP-04	ROOF PLAN

DETAILS

OA344-HCR-PILECAP-01	PILECAP DETAILS
OA344-HCR-COL-01	COLUMN DETAILS
OA344-HCR-STAR-01	STAR 1 DETAILS
OA344-HCR-STAR-02	STAR 2 DETAILS
OA344-HCR-MSC-01	MISCELLANEOUS DETAILS
OA344-HCR-MSC-01	MISCELLANEOUS DETAILS

GROUND FLOOR BEAM DETAILS

OA344-HCR-GB-01	GROUND FLOOR BEAMS DETAILS
OA344-HCR-GB-02	GROUND FLOOR BEAMS DETAILS
OA344-HCR-GB-03	GROUND FLOOR BEAMS DETAILS
OA344-HCR-GB-04	GROUND FLOOR BEAMS DETAILS
OA344-HCR-GB-05	GROUND FLOOR BEAMS DETAILS
OA344-HCR-GB-06	GROUND FLOOR BEAMS DETAILS
OA344-HCR-GB-07	GROUND FLOOR BEAMS DETAILS

GROUND FLOOR SLAB DETAILS

OA344-HCR-GS-01	GROUND FLOOR SLABS DETAILS
OA344-HCR-GS-02	GROUND FLOOR SLABS DETAILS
OA344-HCR-GS-03	GROUND FLOOR SLABS DETAILS
OA344-HCR-GS-04	GROUND FLOOR SLABS DETAILS
OA344-HCR-GS-05	GROUND FLOOR SLABS DETAILS

LIST OF DRAWING

CIVIL & STRUCTURAL

DRAWING NO.

DESCRIPTION

HIGH COMMISSIONER'S RESIDENCE (cont'd)

FIRST FLOOR BEAM DETAILS

OA344-HCR-FB-01	FIRST FLOOR BEAMS DETAILS
OA344-HCR-FB-02	FIRST FLOOR BEAMS DETAILS
OA344-HCR-FB-03	FIRST FLOOR BEAMS DETAILS
OA344-HCR-FB-04	FIRST FLOOR BEAMS DETAILS

FIRST FLOOR SLAB DETAILS

OA344-HCR-FS-01	FIRST FLOOR SLABS DETAILS
OA344-HCR-FS-02	FIRST FLOOR SLABS DETAILS

MEZZANINE FLOOR BEAM DETAILS

OA344-HCR-MEZ-01	MEZZANINE FLOOR BEAMS DETAILS
OA344-HCR-MEZ-02	MEZZANINE FLOOR BEAMS DETAILS

MEZZANINE FLOOR SLAB DETAILS

OA344-HCR-MS-01	MEZZANINE FLOOR SLAB DETAILS
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ROOF BEAM DETAILS

OA344-HCR-RB-01	ROOF BEAMS DETAILS
OA344-HCR-RB-02	ROOF BEAMS DETAILS
OA344-HCR-RB-03	ROOF BEAMS DETAILS

ROOF SLAB DETAILS

OA344-HCR-RS-01	ROOF SLABS DETAILS
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ROOF TRUSS DETAILS

OA344-HCR-RT-01	ROOF TRUSS DETAILS
OA344-HCR-RT-02	ROOF TRUSS DETAILS

FENCE DETAILS

OA344-HCR-FENC-DET-01	FENCE LAYOUT PLAN
OA344-HCR-FENC-DET-02	FENCE DETAILS
OA344-HCR-FENC-DET-03	FENCE DETAILS
OA344-HCR-FENC-DET-04	FENCE DETAILS
OA344-HCR-FENC-DET-05	FENCE DETAILS

LIST OF DRAWING

CIVIL & STRUCTURAL

<u>DRAWING NO.</u>	<u>DESCRIPTION</u>
<u>CHANCERY COMPLEX</u>	
<u>KEY PLAN</u>	
OA344-CC-KYP-01	FOUNDATION PLAN
OA344-CC-KYP-02	GROUND FLOOR PLAN
OA344-CC-KYP-03	FIRST FLOOR PLAN
OA344-CC-KYP-04	ROOF PLAN
OA344-CC-KYP-05	BASEMENT PLAN
<u>KEYPLAN REBARS</u>	
OA344-CC-GRD-TOP-01	GROUND FLOOR SLAB PLAN FOR TOP REBARS
OA344-CC-GRD-BOT-01	GROUND FLOOR SLAB PLAN FOR BOTTOM REBARS
OA344-CC-F01-TOP-01	FIRST FLOOR SLAB PLAN FOR TOP REBARS
OA344-CC-F01-BOT-01	FIRST FLOOR SLAB PLAN FOR BOTTOM REBARS
OA344-CC-RRF-TOP-01	ROOF SLAB PLAN FOR TOP REBARS
OA344-CC-RRF-BOT-01	ROOF SLAB PLAN FOR BOTTOM REBARS
<u>DETAILS</u>	
OA344-CC-PILECAP-DET-01	PILECAP DETAILS
QA344-CC-COL-01	COLUMN DETAILS
QA344-CC-COL-02	COLUMN DETAILS
QA344-CC-COL-03	COLUMN DETAILS
QA344-CC-LIFT-01	LIFT 1 DETAILS
QA344-CC-STAIR-01	STAIR 1 DETAILS
QA344-CC-STAIR-02	STAIR 2 DETAILS
QA344-CC-LR-01	LOWER ROOF TRUSS DETAILS
QA344-CC-TR-01	UPPER ROOF TRUSS DETAILS
<u>BASEMENT BEAM DETAILS</u>	
OA344-CC-BA-01	BASEMENT BEAMS DETAILS
OA344-CC-BA-02	BASEMENT BEAMS DETAILS
<u>GROUND FLOOR BEAM DETAILS</u>	
OA344-CC-GGR-01	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-02	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-03	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-04	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-05	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-06	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-07	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-08	GROUND FLOOR BEAMS DETAILS

LIST OF DRAWING

CIVIL & STRUCTURAL

DRAWING NO.	DESCRIPTION
<u>CHANCERY COMPLEX (cont'd)</u>	
<u>GROUND FLOOR BEAM DETAILS</u>	
OA344-CC-GGR-09	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-10	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-11	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-12	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-13	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-14	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-15	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-16	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-17	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-18	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-19	GROUND FLOOR BEAMS DETAILS
OA344-CC-GGR-20	GROUND FLOOR BEAMS DETAILS
<u>FIRST FLOOR BEAM DETAILS</u>	
OA344-CC-F01-01	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-02	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-03	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-04	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-05	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-06	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-07	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-08	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-09	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-10	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-11	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-12	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-13	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-14	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-15	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-16	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-17	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-18	FIRST FLOOR BEAMS DETAILS
OA344-CC-F01-19	FIRST FLOOR BEAMS DETAILS
<u>ROOF BEAM DETAILS</u>	
OA344-CC-RRF-01	ROOF BEAMS DETAILS
OA344-CC-RRF-02	ROOF BEAMS DETAILS
OA344-CC-RRF-03	ROOF BEAMS DETAILS
OA344-CC-RRF-04	ROOF BEAMS DETAILS
OA344-CC-RRF-05	ROOF BEAMS DETAILS

LIST OF DRAWING

CIVIL & STRUCTURAL

DRAWING NO.

DESCRIPTION

RG RESIDENCE

KEYPLAN

OA344-RG-KYP-01	FOUNDATION PLAN & GROUND FLOOR PLAN
OA344-RG-KYP-02	FIRST & SECOND FLOOR PLAN
OA344-RG-KYP-03	ROOF PLAN

DETAILS

OA344-RG-PILECAP-01	PILECAP DETAILS
OA344-RG-COL-01	COLUMN DETAILS
OA344-RG-STAR-01	STAR 1 & 2 DETAILS
OA344-RG-RT-01	ROOF TRUSS DETAILS

GROUND FLOOR BEAM DETAILS

OA344-RG-GB-01	GROUND FLOOR BEAMS DETAILS
OA344-RG-GB-02	GROUND FLOOR BEAMS DETAILS

GROUND FLOOR SLAB DETAILS

OA344-RG-GS-01	GROUND FLOOR SLABS DETAILS
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FIRST FLOOR BEAM DETAILS

OA344-RG-F01-01	FIRST FLOOR BEAMS DETAILS
OA344-RG-F01-02	FIRST FLOOR BEAMS DETAILS

FIRST FLOOR SLAB DETAILS

OA344-RG-FS-01	FIRST FLOOR SLABS DETAILS
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SECOND FLOOR BEAM DETAILS

OA344-RG-F02-01	SECOND FLOOR BEAMS DETAILS
OA344-RG-F02-02	SECOND FLOOR BEAMS DETAILS

SECOND FLOOR SLAB DETAILS

OA344-RG-SS-01	SECOND FLOOR SLAB DETAILS
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ROOF BEAM DETAILS

OA344-RG-RRF-01	ROOF BEAMS DETAILS
OA344-RG-RRF-02	ROOF BEAMS DETAILS
OA344-RG-RRF-03	ROOF BEAMS DETAILS

LIST OF DRAWING

CIVIL & STRUCTURAL

DRAWING NO.

DESCRIPTION

RG RESIDENCE (cont'd)

ROOF SLAB DETAILS

OA344-RG-RS-01

ROOF FLOOR SLABS DETAILS

NON-RG RESIDENCE

KEYPLAN

OA344-NRG-KYP-01

FOUNDATION PLAN & GROUND FLOOR PLAN

OA344-NRG-KYP-02

FIRST & SECOND FLOOR PLAN

OA344-NRG-KYP-03

THIRD FLOOR & ROOF PLAN

DETAILS

OA344-NRG-PILECAP-01

PILECAP DETAILS

OA344-NRG-COLUMN-01

COLUMN DETAILS

OA344-NRG-STAR-01

STAR 1 & 2 DETAILS

OA344-NRG-RT-01

ROOF TRUSS DETAILS

GROUND FLOOR BEAM DETAILS

OA344-NRG-GB-01

GROUND FLOOR BEAMS DETAILS

OA344-NRG-GB-02

GROUND FLOOR BEAMS DETAILS

GROUND FLOOR SLAB DETAILS

OA344-NRG-GS-01

GROUND FLOOR SLABS DETAILS

FIRST FLOOR BEAM DETAILS

OA344-NRG-F01-01

FIRST FLOOR BEAMS DETAILS

OA344-NRG-F01-02

FIRST FLOOR BEAMS DETAILS

FIRST FLOOR SLAB DETAILS

OA344-NRG-FS-01

FIRST FLOOR SLAB DETAILS

SECOND FLOOR BEAM DETAILS

OA344-NRG-F02-01

SECOND FLOOR BEAMS DETAILS

OA344-NRG-F02-02

SECOND FLOOR BEAMS DETAILS

LIST OF DRAWING

CIVIL & STRUCTURAL

DRAWING NO.

DESCRIPTION

NON-RG RESIDENCE (cont'd)

SECOND FLOOR SLAB DETAILS

OA344-NRG-SS-01

SECOND FLOOR SLAB DETAILS

THIRD FLOOR BEAM DETAILS

OA344-NRG-F03-01

THIRD FLOOR BEAMS DETAILS

OA344-NRG-F03-02

THIRD FLOOR BEAMS DETAILS

THIRD FLOOR SLAB DETAILS

OA344-NRG-TS-01

THIRD FLOOR SLAB DETAILS

ROOF BEAM DETAILS

OA344-NRG-RRF-01

ROOF BEAMS DETAILS

OA344-NRG-RRF-02

ROOF BEAMS DETAILS

OA344-NRG-RRF-03

ROOF BEAMS DETAILS

INFRA & CIVIL WORKS

SITE PLAN

OA344-CIV-HC-SW-SP-01B

SITE PLAN – SEWERAGE LAYOUT

OA344-CIV-HC-WS-SP-01B

SITE PLAN – WATER SUPPLY LAYOUT

OA344-CIV-HC-RD-SP-01C

SITE PLAN – ROAD AND DRAINAGE LAYOUT

DETAIL OF DRAINAGE WORKS

OA344-CIV-DN-DET-01

DETAIL OF DRAINAGE WORKS – SHEET 1

DETAIL OF EARTH WORKS

OA344-CIV-EW-SEC-01

EARTHWORKS – LONGITUDINAL SECTION 01

OA344-CIV-EW-DET-01

TYPICAL DETAIL OF WASH DAY & MISCELLANEOUS
DETAILS

OA344-CIV-EW-DET-02

DETAIL OF SLOPE PROTECTION

OA344-CIV-EW-DET-03

DETAIL OF SLOPE PROTECTION

LIST OF DRAWING

CIVIL & STRUCTURAL

DRAWING NO.

DESCRIPTION

INFRA & CIVIL WORKS (cont'd)

DETAIL OF ROAD WORKS

OA344-CIV-RW-DET-01	TYPICAL SECTION DETAIL OF ROAD – SHEET 01
OA344-CIV-RW-DET-02	TYPICAL SECTION DETAIL OF ROAD – SHEET 02

DETAIL OF SEWERAGE WORKS

OA344-CIV-SW-DET-01	DETAIL OF SEWERAGE WORKS - SHEET 01
OA344-CIV-SW-DET-02	DETAIL OF SEWERAGE WORKS - SHEET 02
OA344-CIV-SW-DET-03	DETAIL OF SEWERAGE WORKS - SHEET 03
OA344-CIV-SW-DET-04	DETAIL OF SEWERAGE WORKS - SHEET 04
OA344-CIV-SW-LS-01A	MANHOLES SECTION DIAGRAM 01

DETAIL OF WATER WORKS

OA344-CIV-WS-DET-01	DETAIL OF WATER WORKS - SHEET 01
OA344-CIV-WS-DET-02	DETAIL OF WATER WORKS - SHEET 02
OA344-CIV-WS-DET-03	DETAIL OF WATER WORKS - SHEET 03

GUARD HOUSE

OA344-CC-GH-KYP-01	FOUNDATION, GROUND & ROOF PLAN
OA344-CC-GH-DET-01	PILECAP DETAILS & COLUMN SCHEDULE
OA344-CC-GH-DET-02	GROUND FLOOR BEAM, ROOF BEAM & SLAB DETAILS

SUBSTATION

OA344-SS-KYP-01	FOUNDATION, GROUND & ROOF PLAN
OA344-SS-DET-01	PILECAP DETAILS & COLUMN SCHEDULE
OA344-SS-GB-01	GROUND FLOOR BEAM DETAILS
OA344-SS-GB-02	GROUND FLOOR BEAM & SLAB DETAILS
OA344-SS-RB-01	ROOF BEAM DETAILS
OA344-SS-RB-02	ROOF BEAM & SLAB DETAILS

LIST OF DRAWING

MECHANICAL & ELECTRICAL

DRAWING NO.

DESCRIPTION

HIGH COMMISSIONER'S RESIDENCE

LKA/RES/001/EL-101	EXTERNAL LIGHTING LAYOUT – SITE DEVELOPMENT PLAN AND LGIHTING & POWER LAYOUT FOR GUARD HOUSE
LKA/RES/001/EL-201	LIGHTING LAYOUT – GROUND FLOOR PLAN
LKA/RES/001/EL-202	LIGHTING LAYOUT – FIRST FLOOR PLAN
LKA/RES/001/EP-201	POWER LAYOUT – GROUND FLOOR PLAN
LKA/RES/001/EP-202	POWER LAYOUT – FIRST FLOOR PLAN
LKA/RES/001/SL-301	SINGLE LINE DIAGRAMS – 1
LKA/RES/001/SL-302	SINGLE LINE DIAGRAMS – 2
LKA/RES/001/TEL-101	EXTERNAL TELEPHONE LAYOUT – SITE DEVELOPMENT PLAN
LKA/RES/001/TEL-201	TELEPHONE LAYOUT – GROUND FLOOR PLAN
LKA/RES/001/TEL-202	TELEPHONE LAYOUT – FIRST FLOOR PLAN
LKA/RES/001/TEL-301	TELEPHONE LAYOUT – GUARD HOUSE, SCHEMATIC DIAGRAM AND CJB-1 DETAILS
LKA/RES/001/TEL-302	STANDARD DETAILS TELEPHONE FOOTWAY JUNCTION BOX NO. 3 (FJB-3)
LKA/RES/001/SC-201	SECURITY SYSTEM LAYOUT – GROUND FLOOR PLAN AND SCHEMATIC DIAGRAM
LKA/RES/001/TV-201	MATV LAYOUT – GROUND FLOOR PLAN
LKA/RES/001/TV-202	MATV LAYOUT – FIRST FLOOR PLAN AND SCHEMATIC DIAGRAM
LKA/RES/001/AC-201	A/C & VENTILATION LAYOUT – GROUND FLOOR PLAN
LKA/RES/001/AC-202	A/C & VENTILATION LAYOUT – FIRST FLOOR PLAN AND GUARD HOUSE

LIST OF DRAWING

MECHANICAL & ELECTRICAL

<u>DRAWING NO.</u>	<u>DESCRIPTION</u>
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HIGH COMMISSIONER'S RESIDENCE (cont'd)

LKA/RES/001/PL-101	WATER LAYOUT – SITE DEVELOPMENT PLAN
LKA/RES/001/PL-201	WATER LAYOUT – GROUND FLOOR PLAN
LKA/RES/001/PL-202	WATER LAYOUT – FIRST FLOOR PLAN AND GUARD HOUSE
LKA/RES/001/PL-301	WATER SCHEMATIC & STANDARD DETAILS – 1
LKA/RES/001/PL-302	STANDARD DETAILS – 2
LKA/RES/001/PL-303	STANDARD DETAILS – 3
LKA/RES/001/SN-201	SANITARY LAYOUT – SITE DEVELOPMENT PLAN / GROUND FLOOR PLAN
LKA/RES/001/SN-202	SANITARY LAYOUT – FIRST FLOOR PLAN
LKA/RES/001/SN-301	SANITARY SCHEMATIC DIAGRAMS
LKA/RES/001/SN-302	MISCELLANEOUS DETAILS – 1
LKA/RES/001/SN-303	MISCELLANEOUS DETAILS - 2

CHANCERY COMPLEX

LKA/IND/001/LV-101	LV CABLE ROUTE LAYOUT – SITE DEVELOPMENT PLAN
LKA/IND/001/EL-101	EXTERNAL LIGHTING LAYOUT – SITE DEVELOPMENT PLAN
LKA/IND/001/EL-201	LIGHTING LAYOUT – GROUND FLOOR PLAN
LKA/IND/001/EL-202	LIGHTING LAYOUT – FIRST FLOOR PLAN
LKA/IND/001/EL-203	RESIDENCE HOUSE BLOCK A LIGHTING LAYOUT – FLOOR PLANS
LKA/IND/001/EL-204	RESIDENCE HOUSE BLOCK B LIGHTING LAYOUT – FLOOR PLANS
LKA/IND/001/EP-201	POWER LAYOUT – GROUND FLOOR PLAN
LKA/IND/001/EP-202	POWER LAYOUT – FIRST FLOOR PLAN

LIST OF DRAWING

MECHANICAL & ELECTRICAL

<u>DRAWING NO.</u>	<u>DESCRIPTION</u>
<u>CHANCERY COMPLEX (cont'd)</u>	
LKA/IND/001/EP-203	RESIDENCE HOUSE BLOCK A POWER LAYOUT – FLOOR PLANS
LKA/IND/001/EP-204	RESIDENCE HOUSE BLOCK B POWER LAYOUT – FLOOR PLANS
LKA/IND/001/SL-201	SINGLE LINE DIAGRAMS – 1
LKA/IND/001/SL-202	SINGLE LINE DIAGRAMS – 2
LKA/IND/001/SL-203	SINGLE LINE DIAGRAMS – 3
LKA/IND/001/SL-204	SINGLE LINE DIAGRAMS – 4
LKA/IND/001/SL-205	SINGLE LINE DIAGRAMS – 5
LKA/IND/001/SL-206	SINGLE LINE DIAGRAMS – 6
LKA/IND/001/TEL-101	EXTERNAL TELEPHONE LAYOUT – SITE DEVELOPMENT PLAN
LKA/IND/001/TEL-201	TELEPHONE & COMPUTER LAYOUT – GROUND FLOOR PLAN
LKA/IND/001/TEL-202	TELEPHONE & COMPUTER LAYOUT – FIRST FLOOR PLAN AND SCHEMATIC DIAGRAM
LKA/IND/001/TEL-203	RESIDENCE HOUSE BLOCK A TELEPHONE LAYOUT – FLOOR PLANS
LKA/IND/001/TEL-204	RESIDENCE HOUSE BLOCK B TELEPHONE LAYOUT – FLOOR PLANS AND SCHEMATIC DIAGRAM
LKA/IND/001/TEL-301	STANDARD DETAIL TELEPHONE FOOTWAY JUNCTION BOX NO. 3 (FJB-3)
LKA/IND/001/AV-201	AUDIO VISUAL LAYOUT – GROUND FLOOR PLAN
LKA/IND/001/SC-201	SECURITY SYSTEM LAYOUT – GROUND FLOOR PLAN AND SCHEMATIC DIAGRAM
LKA/IND/001/LF-201	LIFT INSTALLATION AND DETAILS
LKA/IND/001/FA-201	FIRE ALARM LAYOUT – GROUND FLOOR PLAN
LKA/IND/001/FA-202	FIRE ALARM LAYOUT – FIRST FLOOR PLAN AND SCHEMATIC DIAGRAM

LIST OF DRAWING

MECHANICAL & ELECTRICAL

DRAWING NO.

DESCRIPTION

CHANCERY COMPLEX (cont'd)

LKA/IND/001/FA-203	RESIDENCE HOUSE BLOCK A FIRE ALARM LAYOUT – FLOOR PLANS
LKA/IND/001/FA-204	RESIDENCE HOUSE BLOCK B FIRE ALARM LAYOUT – FLOOR PLANS
LKA/IND/001/AC-201	A/C & VENTILATION LAYOUT – GROUND FLOOR PLAN
LKA/IND/001/AC-202	A/C & VENTILATION LAYOUT – FIRST FLOOR PLAN
LKA/IND/001/AC-203	A/C & VENTILATION LAYOUT – ROOF DECK PLAN
LKA/IND/001/AC-204	RESIDENCE HOUSE BLOCK A A/C & VENTILATION LAYOUT FLOOR PLANS
LKA/IND/001/AC-205	RESIDENCE HOUSE BLOCK B A/C & VENTILATION LAYOUT FLOOR PLANS
LKA/IND/001/AC-301	SCHEMATIC & MISCELLANEOUS DETAILS
LKA/IND/001/AC-302	SECTION FOR SUPPLY AIR DUCT
LKA/IND/001/FHR-201	FIRE HOSEREEL LAYOUT – GROUND & FIRST FLOOR PLANS
LKA/IND/001/FHR-301	FIRE HOSEREEL SYSTEM EQUIPMENT & PIPING – ENLARGED PLAN AND EQUIPMENT SCHEDULES
LKA/IND/001/FHR-302	FIRE HOSEREEL SYSTEM SCHEMATIC DIAGRAM AND MISCELLANEOUS DETAIL
LKA/IND/001/PL-101	PLUMBING LAYOUT – SITE DEVELOPMENT PLAN & PUMP ROOM LAYOUT
LKA/IND/001/PL-201	PLUMBING LAYOUT – GROUND FLOOR PLAN PART 1 OF 2
LKA/IND/001/PL-202	PLUMBING LAYOUT – GROUND FLOOR PLAN PART 2 OF 2
LKA/IND/001/PL-203	RESIDENCE HOUSE BLOCK A PLUMBING LAYOUT FLOOR PLANS
LKA/IND/001/PL-204	RESIDENCE HOUSE BLOCK B PLUMBING LAYOUT FLOOR PLANS

LIST OF DRAWING

MECHANICAL & ELECTRICAL

<u>DRAWING NO.</u>	<u>DESCRIPTION</u>
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CHANCERY COMPLEX (cont'd)

LKA/IND/001/PL-205	PLUMBING LAYOUT FIRST FLOOR PLAN OF CHANCERY BUILDING
LKA/IND/001/PL-301	PLUMBING SCHEMATIC DIAGRAM PART 1 OF 2
LKA/IND/001/PL-302	PLUMBING LAYOUT SCHEMATIC DIAGRAM PART 3 AND WATER DEMAND
LKA/IND/001/PL-303	DOMESTIC WATER SYSTEM EQUIPMENT & PIPING ENLARGED PLAN & EQUIPMENT SCHEDULES
LKA/IND/001/PL-304	MISCELLANEOUS DETAIL
LKA/IND/001/PL-305	MISCELLANEOUS DETAIL
LKA/IND/001/PL-306	MISCELLANEOUS DETAIL
LKA/IND/001/SN-101	SANITARY LAYOUT – SITE DEVELOPMENT PLAN
LKA/IND/001/SN-201	SANITARY LAYOUT – GROUND FLOOR PLAN
LKA/IND/001/SN-202	SANITARY LAYOUT – FIRST FLOOR PLAN, CONSULAR BLDG. AND GUARD HOUSE FLOOR PLANS
LKA/IND/001/SN-203	SANITARY LAYOUT – GROUND FLOOR PLAN & TYP. FIRST AND SECOND FLOOR PLAN (RESIDENCE HOUSE BLOCK A)
LKA/IND/001/SN-204	SANITARY LAYOUT – THIRD FLOOR PLAN (RESIDENCE HOUSE BLOCK A) & GROUND FLOOR PLAN (STAFF ACCOMMODATION BLOCK B)
LKA/IND/001/SN-205	SANITARY LAYOUT – FIRST FLOOR PLAN & SECOND FLOOR PLAN (RESIDENCE HOUSE BLOCK B)
LKA/IND/001/SN-301	SEWER PROFILES – 1
LKA/IND/001/SN-302	SEWER PROFILES – 2
LKA/IND/001/SN-303	SANITARY SCHEMATIC DIAGRAMS – 1
LKA/IND/001/SN-304	SANITARY SCHEMATIC DIAGRAMS – 2
LKA/IND/001/SN-305	SANITARY SCHEMATIC DIAGRAMS – 3
LKA/IND/001/SN-306	SEWER PROFILE – 3 AND MISCELLANEOUS DETAIL - 1
LKA/IND/001/SN-307	MISCELLANEOUS DETAIL - 2

