

SCHEDULE OF RATES

FOR TERM CONTRACTS FOR BUILDING WORKS

2019 EDITION

Volume 1
(Builder's Works)



ARCHITECTURAL SERVICES DEPARTMENT
HONG KONG

ARCHITECTURAL SERVICES DEPARTMENT

HONG KONG

August 2019

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Section 00

GENERAL REGULATIONS

SECTION 00**GENERAL REGULATIONS****Associated documents****GR.01**

This Schedule of Rates (hereinafter referred to as "this Schedule" or "the Schedule") shall be read and used in conjunction with :-

- (a) The General Conditions of Contract and Special Conditions of Contract adopted for the Term Contract.
- (b) The Conditions of Tender, Form of Tender and Articles of Agreement of the Term Contract.
- (c) Drawings, Specification and Employer's Requirements of the Term Contract.
- (d) The term "Specification" shall mean the General Specification, Codes of Practice and other documents referred herein below, Particular Specifications and all other specification requirements issued therein and referred to in the Term Contract.
- (e) The General Specifications and other documents for building works including but not limited to the document as listed below including all current amendments issued thereto, and any further document all as referred to in the Term Contract :-
 - (i) General Specification for Building issued by Architectural Services Department.
 - (ii) Appropriate Sections of General Specification for Civil Engineering Works issued by Civil Engineering and Development Department.
 - (iii) Design Manual - Barrier Free Access issued by Buildings Department.
 - (iv) Code of Practice for Fire Safety in Buildings issued by Buildings Department.
 - (v) The Fresh Water Plumbing Maintenance Guide, Handbook on Plumbing Installation for Buildings, Hong Kong Waterworks Standard Requirements for Plumbing Installations in Buildings, Maintenance of Internal Plumbing and Circular Letters issued to Licensed Plumbers and Authorized Persons by Water Supplies Department.
 - (vi) Geotechnical Manual for Slopes, Geoguide 5 - Guide To Slope Maintenance and other relevant Geoguides issued by Geotechnical Engineering Office, Civil Engineering Department.
- (f) The General Specifications, Codes of Practice and other documents for building services installations including but not limited to the document as listed below, which are issued by Architectural Services Department or Electrical and Mechanical Services Department including all current amendments issued thereto, and any further document all as referred to in the Term Contract :-
 - (i) General Specification for Electrical Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
 - (ii) General Specification for Air Conditioning, Refrigeration, Ventilation and Central Monitoring and Control System Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.

**Associated
documents
(Cont'd)**

**GR.01
(Cont'd)**

- (f) (iii) General Specification for Mechanical Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (iv) General Specification for Fire Service Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (v) General Specification for Lift, Escalator and Passenger Conveyor Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (vi) General Specification for Liquefied Petroleum Gas Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (vii) General Specification for Catering Equipment Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (viii) General Specification for Swimming Pool Water Treatment Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (ix) General Requirements for Electronic Contract (ESG01) issued by Electrical and Mechanical Services Department.
- (x) General Specification for Broadcast Reception Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xi) General Specification for Public Address Systems (ESG11) issued by Electrical and Mechanical Services Department.
- (xii) General Technical Specification for Monochrome and Colour Closed Circuit Television Systems (ESG14) issued by Electrical and Mechanical Services Department.
- (xiii) General Technical Specification for Uninterruptible Power Supply (UPS) (ESG15) issued by Electrical and Mechanical Services Department.
- (xiv) General Specification for Plumbing Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xv) General Specification for Drainage Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xvi) Code of Practice for the Electricity (Wiring) Regulations issued by Electrical and Mechanical Services Department.

Associated documents (Cont'd)**GR.01 (Cont'd)**

- (f) (xvii) Code of Practice for Energy Efficiency of Building Services Installation issued by Electrical and Mechanical Services Department.
- (xviii) Code of Practice on Working near Electricity Supply Lines issued by Electrical and Mechanical Services Department.
- (xix) Code of Practice on Avoiding Danger from Gas Pipes issued by Electrical and Mechanical Services Department.
- (xx) Code of Practice for Hong Kong LPG Industry issued by Electrical and Mechanical Services Department.
- (xxi) Code of Practice GU01, GU03 - 06, GU09, GU12, GU13, GU15 and GU21 issued by Electrical and Mechanical Services Department.
- (xxii) Code of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment issued by Fire Services Department.
- (xxiii) Code of Practice for Lift Works and Escalator Works issued by Electrical and Mechanical Services Department.
- (xxiv) Testing and Commissioning Procedure for Electrical Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxv) Testing and Commissioning Procedure for Air-conditioning, Refrigeration, Ventilation and Central Monitoring and Control System Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxvi) Testing and Commissioning Procedure for Fire Services Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxvii) Testing and Commissioning Procedure for Lift, Escalator and Passenger Conveyor Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxviii) Testing and Commissioning Procedure for Liquefied Petroleum Gas Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxix) Testing and Commissioning Procedure for Catering Equipment Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxx) Testing and Commissioning Procedure for Swimming Pool Water Treatment Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.

Associated documents (Cont'd)

GR.01 (Cont'd)

- (f) (xxxi) Testing and Commissioning Procedure for Broadcast Reception Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxxii) Testing and Commissioning Procedure for Burglar Alarm and Security Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxxiii) Testing and Commissioning Procedure for Emergency Generator Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxxiv) Testing and Commissioning Procedure for Steam Boiler and Calorifier Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxxv) Testing and Commissioning Procedure for Plumbing Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxxvi) Testing and Commissioning Procedure for Drainage Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (g) Particular Specification(s) and all other specification requirements issued and referred to in the Term Contract.
- (h) Any Amendments and Corrigenda to the Schedule of Rates issued and referred to in the Term Contract.

All items of works contained in this Schedule and in the Amendments and Corrigenda to the Schedule of Rates issued and referred to in the Term Contract, shall be executed in accordance with the conditions and stipulations as provided in the above mentioned documents, and in compliance with all requirements on workmanship, materials, plant, measurements and any other requirements as stipulated in the above documents.

Due allowance is deemed to have been made in the Contract Percentages for complying with the requirements in the Specification and/or Employer's Requirements as adopted in the Term Contract.

**Definitions
generally****GR.02**

Where any of the definitions given in these General Regulations are at variance with those given in the Special Conditions preceding the Sections throughout this Schedule, the definitions given in the Sections in this Schedule shall take priority.

- “approved” shall mean approved in writing by the Maintenance Surveyor but this approval shall not relieve the Contractor from responsibilities imposed by the Term Contract.
- “described” shall mean described in the Specification and all current amendments (if any) issued thereto.
- “ditto” shall mean the whole of the work described in detail in the preceding item, except as qualified in the description in which it occurs.
- “origin” shall mean the place or country where the material (which shall be natural material only) is originally produced.
- “proprietary” shall mean a proprietary material or product, protected by a patent or registered trade mark ® or a trade mark symbol ™ or similar recognizable trade mark or copyright, that is manufactured and marketed by the owner who has exclusive rights of use, or other material or product that the Contractor could provide authentication documents on its make and origin as required by the Maintenance Surveyor and to his satisfaction.
- “Schedule” shall mean this Schedule of Rates.
- “specified” shall mean specified in the Specification and all current amendments (if any) issued thereto.
- “submission” shall mean the submission of all documents like design, calculation, working drawings, shop drawings, records, etc. as required in the Special Conditions to each Section of the Schedule including obtaining the approval of the Maintenance Surveyor on the submission.
- “Term Contract” shall mean the Contract referring this Schedule as forming part of the Contract.

Abbreviations

- “exc.” shall mean exceeding.
- “n.e.” shall mean not exceeding.
- “c/w” shall mean complete with.
- “xx - yy” shall mean a range of dimensions exceeding the first dimension as stated but not exceeding the second, for example: "1.50 - 3.00" shall mean exceeding 1.50 and not exceeding 3.00.
- “bore” shall mean nominal internal diameter.
- “dia” shall mean nominal diameter.
- “mm” shall mean millimetre.

**Abbreviations
(Cont'd)****GR.02
(Cont'd)**

“m”	shall mean linear metre.
“m ² ”	shall mean square metre.
“m ³ ”	shall mean cubic metre.
“kg”	shall mean kilogram.
“AL”	shall mean Accredited Laboratory which is an independent body accredited by the Hong Kong Laboratory Accreditation Scheme (HOKLAS).
"B.S."	shall mean British Standard.
"DIN"	shall mean German Institute for Standardization.
"DBH"	shall mean diameter of trunk of tree or plant measured at a height of 1.3 m above ground level.
"EN"	shall mean European Standard.
"FRR"	shall mean fire resistance rating.
“G.S.”	shall mean the General Specification and other documents referred to in General Regulations Clause GR.01(e) and (f) where appropriate.
"MDF"	shall mean medium density fibreboard.
"PWL"	shall mean Public Works Laboratories.
“RSE”	shall mean Registered Structural Engineer.
“TCP”	shall mean Technically Competent Person.

**Methods of
measurement****GR.03**

All works including “Supply only of materials” measured and paid for under this Schedule shall be measured in accordance with the conditions and rules detailed herein irrespective of any local or trade customs.

All works shall be measured net as completed or fixed in its place. Due consideration has been made in the Schedule rates for works executed in small quantities, narrow widths, short lengths, isolated patches, repairs, any height or locations above or below ground, difficult positions or confined spaces or any other exceptional circumstances; and no additional payment for such circumstances shall be made except where specifically provided for in this Schedule.

All works of “Supply only of materials” shall be the net quantities specified in a Works Order. No allowance or payment shall be made to the Contractor for small quantities, short lengths, breakage or damage, delivery to store or any designated location as directed by the Maintenance Surveyor or any other circumstance except where specifically provided for in this Schedule.

Any disadvantage which may be entailed by items being performed under exceptional circumstances must be regarded as being offset by other items which may be proven exceptionally advantageous, and due allowance is deemed to have been made in the Contract Percentages.

Overtime	GR.04	<p>All works shall be deemed to be executed during any working hour in a 24 hour-day (from 00:00 hour to 24:00 hour) including Sundays and General Holidays. No additional payment shall be made for any overtime including : -</p> <p>(a) Overtime which is ordered by the Maintenance Surveyor in accordance with the Conditions of Contract to expedite slow progress of the work caused by default, negligence or omission by the Contractor.</p> <p>(b) Watchmen or security guard at any time.</p>
Deductions for voids	GR.05	<p>Where a minimum area is defined for the deduction of voids, such minimum shall refer only to openings or wants detached from the boundaries of the space measured. Openings and wants caused by projections from the boundary of the space measured shall always be the subject of deduction, irrespective of size.</p>
Curved or circular works	GR.06	<p>Except where specified items are included in this Schedule for curved or circular work, all work shall be measured and priced as if straight and flat. Where specific items for curved work or circular work are included, the maximum radius stated in such description shall be the limit for which curved or circular work shall be paid for and any work curved to a radius greater than this limit shall be measured and priced as if straight and flat.</p>
Works executed by Specialist Sub-contractors, sub-contractors, etc.	GR.07	<p>Where appropriate throughout this Schedule and where specified in the Term Contract, the following categories of works shall be executed by : -</p> <p>(a) Specialist Sub-contractors included in the list of Approved Suppliers of Materials and Specialist Contractors for Public Works maintained by Development Bureau namely : -</p> <ul style="list-style-type: none">(i) Air-conditioning Installation(ii) Audio Electronics Installation(iii) Broadcast Reception Installation(iv) Burglar Alarm and Security Installation(v) Catering Equipment Installation(vi) Design, Manufacture and Installation of Glass (or Fibre) Reinforced Plastic Units(vii) Diesel Generator Installation(viii) Electrical Installation(ix) Electrical and Mechanical Installation for Sewage Treatment and Screening Plant(x) Electronic Timing and Display Installation(xi) Fabrication of Steel Pipe Specials

**Works executed
by Specialist
Sub-contractors,
sub-contractors,
etc.
(Cont'd)**

**GR.07
(Cont'd)**

- (a)
- (xii) Fabrication of Unfired Pressure Vessels
 - (xiii) Fire Service Installation
 - (xiv) Fountain Installation
 - (xv) Landscaping
 - (xvi) Landslip Preventive/Remedial Works to Slopes/Retaining Walls
 - (xvii) Lift, Escalator and Passenger Conveyor Installation
 - (xviii) Liquefied Petroleum Gas Installation
 - (xix) Low Voltage Cubicle Switchboard Installation
 - (xx) Mechanical Handling and Lifting Installation
 - (xxi) Mechanical Plant and Equipment Installation
 - (xxii) Plumbing Installation
 - (xxiii) Radio Electronics Installation
 - (xxiv) Repair and Restoration of Historic Buildings
 - (xxv) Repair of Motors, Transformers and Switchgear
 - (xxvi) Road Marking
 - (xxvii) Soil and Rock Testing
 - (xxviii) Space Frame Systems
 - (xxix) Steam and Compressed Air Installation
 - (xxx) Structural Steelwork
 - (xxxi) Supply and Installation of Pumpsets and Associated Pipework
 - (xxxii) Supply and Installation of Water Treatment Plant
 - (xxxiii) Supply of Bituminous Pavement Materials and Construction of Special Bituminous Surfacing
 - (xxxiv) Swimming Pool Water Treatment Installation
 - (xxxv) Turn-key Interior Design and Fitting-out Works
 - (xxxvi) Uninterruptible Power Supply Installation
 - (xxxvii) Video Electronics Installation

Works executed by Specialist Sub-contractors, sub-contractors, etc. (Cont'd)

GR.07 (Cont'd)

- (b) Maintenance Surveyor's approved sub-contractors or applicators namely :-
- (i) Medical Gas
 - (ii) Town Gas
 - (iii) Curtain Walling
 - (iv) Fuel Supply
 - (v) Chimney

The above categories of specialist works are not exhaustive. Other categories of works, if specified in the Term Contract, shall also be executed by Specialist Sub-contractors or other approved sub-contractors or applicators.

Due allowance is deemed to have been made in the Contract Percentages for complying with these requirements.

Latest standards, specification and drawings referred to in this Schedule

GR.08

Where materials, workmanship and works are specified in this Schedule to be in conformity with certain British Standards or other International Standards, or to be in accordance with certain G.S. Items, Code of Practice, drawings and the like, they shall deem to be referred to the latest relevant and equivalent standards and amendments as specified in the Specification; or where no specific dates are stated, they shall deem to be referred to the latest relevant and equivalent standards, specification and drawings current and published before the date of first notice of tender invitation for the Term Contract unless otherwise specified. If conflict occurs between various standards, then the more onerous is to apply.

Due allowance is deemed to have been made in the Contract Percentages for complying with these requirements.

Imperial equivalents where required or necessary

GR.09

Whenever practicable, the Contractor shall supply materials in metric sizes and execute the works strictly in accordance with the metric dimensions specified. Imperial equivalents may be accepted only when circumstances prohibit compliance with this sub-clause (for example, statutory obligations) or where the Maintenance Surveyor considers it impracticable, undesirable or impossible to use metric sizes or dimensions or when suitable materials are not available in metric sizes.

The provision of this sub-clause shall not apply to materials which are specified in this Schedule by their actual manufactured sizes or their metric equivalents (for example, roof tiles, plywood, building boards, p.v.c. pipes, mosaic tiles) or classified in accordance with the relevant British Standards (for example, copper pipes) or other International Standards.

Schedule rates**GR.10**

The rates throughout this Schedule shall include for : -

- (a) All materials supplied, and all works and services executed complying strictly with the Specification as detailed in General Regulations Clause GR.01 and the provision or execution of all samples of materials or finished works in patterns where required.
- (b) Provision of all materials and cutting and wastage on the same, except where otherwise stated, including collection, loading, conveyance, delivery, unloading, stacking, storage of the same, multi-handling between positions as directed on Site and provision of storage accommodation, handling, hoisting, lowering, distributing, etc. to specified location.
- (c) Provision of all labour including contributions to Mandatory Provident Fund, paid leave, travelling expenses, lodging allowance or living accommodation and any other allowances as required.
- (d) Provision of all tools, plant, temporary water, power and lighting, watching and work sheds.
- (e) All expenses for delivery, distribution or transportation of articles, materials, labour, personnel, tools, plant, work sheds etc. by all means including land, sea or air except otherwise specifically provided for in the Special Conditions of each Section in this Schedule or when specifically required and ordered by the Maintenance Surveyor.
- (f) Executing work in any position, location and height unless otherwise stated.
- (g) Providing record of photograph, location plan and schedule of existing trees, if any, within and in close vicinity (within 2.00 m) of the site boundary and works areas including protective and preservative works/measures such as tree surgery works, temporary fencing, etc. and the like, allowance for method of operation and vehicular access for tree preservation throughout the period of the Works and removing all temporary protective and preservative works/measures on completion and making good all works disturbed.
- (h) Setting up monitor points for controlling noise, vibration, settlement and lateral movement imposed on adjoining properties including provision of equipment, technical and supervisory personnel carrying out daily monitoring and submission of records as directed by the Maintenance Surveyor.
- (i) Providing and maintaining temporary access and road as G.S. Item 1.25 and making good to match existing.
- (j) Providing and maintaining temporary drainage system as G.S. Item 1.26 and making good to match existing.
- (k) Provision of drawings including shop drawings and/or as built drawings, and operation and maintenance manuals, and carrying out tests on samples or finished works including the submission of test reports and test certificates to the satisfaction of the Maintenance Surveyor; unless specifically provided otherwise in the Schedule.
- (l) Allowance for the works to be executed by Specialist Sub-contractors, Maintenance Surveyor's approved sub-contractors and applicators where required in the Specification, or as stated in the Special Conditions of each Section of the Schedule.

**Schedule rates
(Cont'd)**

**GR.10
(Cont'd)**

- (m) Carrying out tests by the Public Works Laboratories (PWL) or by an independent body accredited by the Hong Kong Laboratory Accreditation Scheme (HOKLAS) (hereinafter referred to as the "Accredited Laboratory") (AL) including provision and submission of sampling and analysis methodology to the Maintenance Surveyor for approval prior to conducting any tests. The testing laboratories to be engaged by the Contractor shall be approved by the Maintenance Surveyor. The testing laboratories shall submit test results directly from the laboratory to the Maintenance Surveyor in sealed envelopes.
- (n) Conducting compliance tests on structural works by the PWL/AL. The testing laboratories to be engaged by the Contractor shall be approved by the Maintenance Surveyor. The testing laboratories shall submit test results directly from the laboratory to the Maintenance Surveyor in sealed envelopes.
- (o) Certification including the employment of independent certification bodies wherever required or necessary.
- (p) Provision, erection, maintenance, alteration, dismantling and clearing away of the following temporary works and protective measures that are required for the execution and completion of the Works unless specifically provided otherwise in the Schedule : -
- (i) All bamboo, metal or proprietary scaffolding, staging, ladders, trestles, cradles, gondolas, platforms and similar items complete with all netting, coverings, screens, dust sheets, barricades, catch-fans, protective canopies, etc.;
- (ii) All types of hoardings and walkways complete with gateways, adequate lighting, associated power supply and electrical work as required by the Maintenance Surveyor including the types of hoardings and walkways (including internal metal/aluminium hoardings) referred to in Section 10 - Steel and Metal Work of this Schedule and other proprietary hoardings and walkways systems, and the submission of detailed drawings together with supporting calculations certified by TCP or RSE for approval and provision of operation manuals of other proprietary hoardings and walkways systems not referred to in Section 10 - Steel and Metal Work; and
- (iii) Similar temporary measures including but not limited to protective shield coverings, fences, barriers and the like and/or other protective measures specifically covered by the Special Conditions of each Section in this Schedule, and the erection, alteration and dismantling of such temporary measures on a daily basis where required by the Maintenance Surveyor for all necessary protection to new works and the public from harm, dust or nuisance.
- The drawings referred to in Section 10 - Steel and Metal Work of this Schedule and in sub-clause (ii) above are not exhaustive and would be subject to change. The Contractor is deemed to allow for complying with the requirements as stipulated in General Regulations Clause GR.08.
- (q) Clearing away debris, surplus materials or other materials arising from the works and leaving the works and areas affected by the works clean and tidy on completion to the satisfaction of the Maintenance Surveyor.
- (r) Provision of mechanical dump truck covers in accordance with Particular Specification for Mechanical Dump Truck Covers.

**Schedule rates
(Cont'd)****GR.10
(Cont'd)**

- (s) All superintendence, establishment charges, overhead, expenses and profit.
- (t) Any cost and/or expenses incurred for carrying out the works at all times including working outside normal working hours as provided in General Regulations Clause GR.04.
- (u) Any costs and/or expenses in supplying materials or products to match existing works, finishes or systems when instructed by the Maintenance Surveyor, except when such materials or products are not specifically mentioned in this Schedule.
- (v) Any other expenses incurred in conforming with the Term Contract.
- (w) Reinstatement and making good surfaces disturbed.
- (x) Imperial equivalents wherever required or necessary.
- (y) All work, services and obligations for or related to ensuring that all workers involved in site works wear site uniform when they are on the site as prescribed in the Term Contract. There shall be no measurement or separate payment for any of such work, services and obligations.
- (z) The provision of implementation of and compliance with the Sub-contractor Management Plan (SMP) including submission and quarterly updating of SMP in the form and contents as prescribed in the Term Contract. There shall be no separate items in this Schedule for measurement of "complete Sub-contractor Management Plan" and "quarterly updating of Sub-contractor Management Plan".
- (aa) The provision of implementation of and compliance with the Mandatory Construction Tradesman Collaborative Training Scheme (CTS) including submission and quarterly updating of training plan in the form and contents as prescribed in the Term Contract. There shall be no measurement or separate payment for any of such work, services and obligations.

Where the Contractor considers any of the rate contained in the Schedule is insufficient or inadequate, the Contractor is deemed to have made all necessary allowances in the Contract Percentages adjustment and/or in any other priced items in the Term Contract for executing the works as contained in the Schedule and in compliance with all requirements as stipulated in the Term Contract.

**Schedule rates and
application of
Contract
Percentages****GR.11**

The Schedule rates in this Schedule are derived from the basic rates of provisions of labour, materials, plant and all other provisions as stated in this Schedule including adjustments made to the basic rates giving due consideration of factors including market trends, trade practices and the management efficiency and bidding strategies of contractors as reflected in the past term contracts procurement.

The Schedule rates also take into account conditions under which term contracts works are executed, which may include but not be limited to works executed in small quantities or large quantities, narrow widths, short lengths, isolated patches, repairs, any height or locations above or below ground, difficult positions or confined spaces or any other exceptional circumstances of the works.

Schedule rates and application of Contract Percentages (Cont'd)

GR.11 (Cont'd)

The Schedule rates shall apply to the valuation of works instructed by the Maintenance Surveyor, and in all cases, the Schedule rates to be paid for the works shall be determined and applied before applying any relevant Contract Percentages.

The Contract Percentages including any percentage addition/adjustment as priced and included in the Contract shall include the Contractor's profits and overheads, attendance, all costs and expenses incurred in connection with the Works and are necessary in fulfilling the requirements of the Term Contract where they are not separately itemized or stated in this Schedule, including the works or services assessed under proportional rate items, star rate items and re-applicable rate items.

Rates for items not specifically mentioned in this Schedule

GR.12

Rates for items not specifically mentioned in this Schedule shall be valued as follows : -

- (a) Proportional rate When an article, a material, workmanship or service is of similar form, character or quality to that detailed in the Schedule or executed under similar conditions and circumstances as described therein, then at a rate equal to a Schedule rate but with a fair adjustment for the difference in form, character and quality or in conditions and circumstances, and such rate to be agreed upon between the Maintenance Surveyor and the Contractor.
- Such proportional rate shall be subject to relevant Contract Percentages adjustment.
- (b) Star rate When an article, a material, workmanship or service is not of similar form, character or quality to that detailed in the Schedule or not executed under similar conditions and circumstances as described therein, or when work or material of any kind which is not detailed in the Schedule, then at a reasonable rate to be agreed upon between the Maintenance Surveyor and the Contractor.
- Such star rate shall not be subject to relevant Contract Percentages adjustment unless otherwise specifically stated.
- (c) Re-applicable rate A rate fixed in accordance with the Term Contract requirements and to be re-applicable in any other Works Orders as approved by the Maintenance Surveyor for the whole duration of the Term Contract and not subject to adjustment of fluctuation and Contract Percentages adjustment.

Materials supplied by Government or other designated suppliers

GR.13

When materials are supplied to the Contractor by Government or other designated suppliers, no allowance shall be made to the Contractor other than the payment for "Fix only" ("Lay only" or "Set only", etc.) as detailed under the appropriate items of this Schedule.

“Supply only”**GR.14**

The term “Supply only” used throughout this Schedule shall mean the provision complete by the Contractor of an article, a fitting or a material. The rates for such items shall include for, where applicable, obtaining and taking delivery of the articles, fittings or materials, transporting by land, sea, or air to sites or Government stores or other designated locations as directed by the Maintenance Surveyor, and all necessary off-loading and moving into sites, Government stores or other designated locations.

The rates listed in the “SUPPLY ONLY OF MATERIALS” in each Section of this Schedule shall include all the foregoing charges and allowance for replacement of materials damaged during delivery to sites, off-loading and moving into sites, Government stores or other designated locations as directed by the Maintenance Surveyor.

**“Take down
 (“Take up” or
 “Take out”, etc.)
 and clear away”****GR.15**

The term “Take down (“Take up” or “Take out”, etc.) and clear away” used throughout this Schedule shall mean execution complete by the Contractor of the work of taking down, taking up or taking out of an existing article, fitting or material either in whole or in part and removing from Site and disposing of the same. The rates for such items shall include for all or any of the following :-

- (a) Works executed by skilled labourers of the required trades, unless specifically provided otherwise in the Schedule.
- (b) Payment of all fees and charges.
- (c) Taking down, taking up or taking out of the articles, fittings or materials either in whole or in part together with any associated plugs, holdfasts, lugs, brackets and other fixings and all necessary cutting out and disposal.
- (d) Making good any works disturbed and any damage to surrounding surfaces and filling up all mortices, holes, etc. or alternatively leaving the same open and clean to receive readily new articles, fittings or materials.
- (e) Reinstatement and making good surfaces disturbed.
- (f) Preparing edges, ends or surfaces of remaining materials to receive junctions with new.
- (g) Taking up or removing covers, access doors, etc. and the like for the execution of the works and re-fixing the same on completion.

The articles, fittings, or materials taken down shall become property of the Contractor. Unless otherwise specified, due allowance for credits has been considered in the Schedule rates where applicable.

“Take down (“Take up” or “Take out”, etc.) and set aside for re-use”

GR.16

The term “Take down (“Take up” or “Take out”, etc.) and set aside for re-use” used throughout this Schedule shall mean execution complete by the Contractor of the work of taking down, taking up or taking out of an existing article, fitting or material either in whole or in part and setting the same aside on site or transporting to Government stores or other Government sites for subsequent re-use. The rates for such items shall include for all or any of the following : -

- (a) Works executed by skilled labourers of the required trades, unless specifically provided otherwise in the Schedule.
- (b) Payment of all fees and charges.
- (c) Carefully taking down, taking up or taking out of the articles, fittings or materials together with associated plugs, holdfasts, lugs, brackets and other fixings and all necessary cutting out and disposal.
- (d) Thoroughly cleaning, oiling and adjusting the articles, fittings or materials ready for re-use, dismantling, re-assembling again as necessary, moving and stacking or putting into stores on sites or alternatively loading, transporting, unloading and moving to Government stores or other Government sites.
- (e) Making good any works disturbed and any damage to surrounding surfaces and filling up all mortices, holes, etc. or alternatively leaving the same open and clean to receive readily re-used or new articles, fittings or materials.
- (f) Reinstatement and making good surfaces disturbed.
- (g) Preparing edges, ends or surfaces of remaining materials to receive junctions with re-used or new.
- (h) Repairing or replacing at Contractor's own cost any damage caused to the articles, fittings or materials during taking down, taking up, taking out, etc. and transit.
- (i) Taking up or removing covers, access doors, etc. and the like for the execution of the works and re-fixing the same on completion.

**“Fix only”
 (“Lay only”
 or “Set only”,
 etc.)**

GR.17

The term “Fix only” (“Lay only” or “Set only”, etc.) used throughout this Schedule shall mean execution complete by the Contractor of the work of fixing, laying, setting, jointing, re-fixing, re-laying, re-setting and re-jointing an article, a fitting or a material made available free of charge to the Contractor by Government or it has been previously taken down. The prior taking down of the existing articles, fittings or materials shall be measured separately and paid for at the appropriate rates under applicable Sections of this Schedule. The rates for such items shall include for any or all of the following : -

- (a) Works executed by skilled labourers of the required trades, unless specifically provided otherwise in the Schedule.
- (b) Payment of all fees and charges.
- (c) Taking delivery of the articles, fittings or materials at Government stores or other designated suppliers, loading, transporting to sites, unloading, checking and examining the same and storing on sites and returning any crates and other packings to Government stores, if required.
- (d) Taking the articles, fittings or materials from stores on sites, sorting, cutting and fitting, fabricating, assembling, moving, hoisting, distributing at locations, fixing, laying, setting, jointing, re-fixing, re-laying, re-setting and re-jointing in new or existing work, opening or position.
- (e) Providing all fixing and jointing materials such as nails, bolts, nuts, washers, screws, gaskets, mastic, adhesive, mortar and the like or other fixing and jointing materials made available from taking down.
- (f) Executing all plugging and screwing, jointing, cutting all mortices and grouting the same, and executing all cutting, fitting, easing or adapting necessary to the articles, fittings or materials to the positions in which the same are to be fixed, and oiling and leaving in good working order.
- (g) Making good any damage caused to the articles, fittings or materials and surrounding surfaces and making good new or existing finishes up to the same.
- (h) Reinstatement and making good surfaces disturbed.

When the articles, fittings or materials despite having been taken down from another positions and set aside for re-use or having been delivered by Government or other designated suppliers or their agents are made available on site, no deduction shall be made from the rates of “Fix only” (“Lay only” or “Set only”, etc.) for transporting the said articles, fittings or materials to Site.

**Built up fittings or
 composite units**

GR.18

The rates for “Take down and clear away”, “Take down and set aside for re-use” and “Fix only” are not intended to cover built up fittings or composite units, i.e. fittings or units that are fabricated and can be moved in their entirety or broken down into fabricated components. These items are to be measured as the appropriate items in the respective Sections unless otherwise provided in this Schedule.

Nominated Sub-contractors' accounts	GR.19	When works are carried out by Nominated Sub-contractors and facilities for the execution of such works are afforded to the Nominated Sub-contractors by the Contractor and accounts for such works are paid by the Contractor in accordance with the Conditions of Contract, the percentage addition allowed to the Contractor on the net cost of such works shall be as that contained in the Form of Tender for "Profit and Attendance on Nominated Sub-contractors' Works".
"Making good"	GR.20	The term "Making good" shall be understood as including all labour and materials necessary to bring the disturbed area to the same appearance, colour, texture, etc., in the same materials as the surrounding work and shall include for painting, colouring and/or varnishing any new work to match the surrounding existing work to the entire satisfaction of the Maintenance Surveyor.
Daywork	GR.21	When daywork is ordered by the Maintenance Surveyor, measurement of daywork shall be made according to the Special Conditions set out in Section 17 - Labour and Section 18 - Temporary Plant and Facilities of this Schedule.
"Utility Connection And Pavement Works"	GR.22	<p>The term "Utility Connection And Pavement Works" shall mean the works of drainage connection, water supply connection, construction of run-in and reinstatement of footways which shall be executed complete by contractors selected and employed by the Contractor from the "List of Approved Contractor for Public Works in Group A, B or C for Road & Drainage Works" for the drainage connection and construction of run-in and reinstatement of footways and from the "List of Approved Contractors for Public Works in Group A, B or C for Waterworks" for the water supply connection work.</p> <p>When Utility Connection and Pavement Works are required to be executed under the Term Contract and are ordered specifically by the Maintenance Surveyor for such purpose, the Contractor shall be reimbursed a lump sum fee payment as included in Item 03062 in Section 03 – Excavation of this Schedule for compliance with the requirements stated herein and as provided in the Term Contract for the Utility Connection and Pavement Works. This lump sum fee payment is an allowance made for all costs and expenses other than the valued works executed in connection with the Utility Connection and Pavement Works under the relevant Sections in this Schedule, and shall include for the following : -</p> <ol style="list-style-type: none"> (a) Complying with the requirements and procedures in connection with the Utility Connection And Pavement Works specified in the Particular Specification referred to in the Term Contract and submitting assessments and reports as required. (b) Liaising with the relevant authorities and utility companies, preparing and submitting relevant drawings, programmes and documents and completing all the forms in connection with the Utility Connection And Pavement Works. (c) Submitting all the detailed particulars in connection with the granting of an Excavation Permit [Note : Excavation Permit means any excavation permit issued by the Government in respect of the Utility Connection And Pavement Works under Section 8 of the Land (Miscellaneous Provision) Ordinance] as required by the Maintenance Surveyor. (d) Obtaining approvals and permits from relevant utility companies or Government departments.

**“Utility Connection
And Pavement
Works”
(Cont'd)**

**GR.22
(Cont'd)**

- (e) Complying with the conditions of any Excavation Permit applicable to the Utility Connection And Pavement Works.
- (f) Providing and maintaining temporary road or access where required for pedestrian and vehicular traffic diversions and subsequent clearing away after completion of the Works.
- (g) Providing and maintaining traffic control as G.S. Item 1.18.
- (h) Locating and protecting existing services as G.S. Item 1.22.
- (i) Carrying out all necessary site inspections (including handing over inspections) jointly with the relevant authorities and utility companies.
- (j) Provision of identification tapes along the water connection mains.
- (k) Cleaning and sterilization of fresh water mains for making connections.
- (l) Provision of as built drawings and test reports as specified.
- (m) Protection of curbs, masking and unmasking of drainage channels, manhole covers, gully gratings, expansion joints, road studs and road marking.
- (n) Provision, maintenance and removal of all measures to maintain traffic flow including labour and temporary traffic diversion lighting and signs and paying all charges incurred.
- (o) Provision, maintenance and removal of temporary road, walkway, covers to trenches and the like.
- (p) Making good all surfaces, features, etc. and the like disturbed by all temporary road, access, traffic control, pedestrian footway, etc. and the like to match existing and including all requirements as stipulated in the Term Contract for carrying out the Utility Connection and Pavement Works.

This lump sum fee payment shall only be paid once for each location specified in the Works Order. Works executed in connection with the Utility Connection and Pavement Works shall be measured separately in accordance with the General Regulations and the Special Conditions of the relevant Sections in this Schedule.

**Submission of
measurement
and accounts**

GR.23

All quantities shall be measured and rounded to the nearest two decimals of a unit.

**Materials/
Products****GR.24**

All materials/products shall generally be based on the corresponding properties and/or performance standards as stipulated in the Specification (as defined in General Regulations Clause GR.01(d) herein) and/or as set out in this Schedule.

Where materials, products or works in this Schedule are stipulated as "proprietary", "approved", of "specific quality" or by their origins of which properties and/or performance standards are specified without their brand names, authentication documents on such materials, products or works including certificates of origins, technical literature and catalogues, test certificates and/or compliance test reports, manufacturers' guarantees or warranties, samples and mock-ups of these materials, products or works together with other documents required by the Maintenance Surveyor should be submitted or provided for the Maintenance Surveyor's written approval before purchase, delivery and execution. If any of these materials, products or works delivered or executed without the Maintenance Surveyor's prior written approval, or are not carried out to the Maintenance Surveyor's satisfaction, they should be removed or reinstated by the Contractor at his own expenses. The Maintenance Surveyor may also adjust this payment to the Contractor in accordance with General Regulations Clause GR.26.

For all materials, products and works within the definition of "proprietary" in General Regulations Clause GR.02, the Contractor, if required by the Maintenance Surveyor, shall provide a certificate of patent or registered trade mark or copy right; or provide authentication documents like the make or origin of the materials or products, test reports, test certificates, operation and maintenance manuals, warranties and manufacturer's guarantees and any other document that could provide the authentication to the same effect; and provide local project reference to demonstrate that the materials, products and works have proven track record of similar application, all to the satisfaction of the Maintenance Surveyor. The Contractor shall further be required to have specific proprietary materials/products/works executed by approved sub-contractors/applicators and submit technical literature, method statements, etc. where required by the Maintenance Surveyor or as stated in the Term Contract.

Due allowance is deemed to have been made in the Contract Percentages for complying with all of the above requirements.

**Materials/Products
specified as
"specific quality"****GR.25**

Certain materials/products in this Schedule are stipulated as of "specific quality". These shall generally be materials/products of significance, such as those that are safety critical, prestigious in nature, or such are required to create a specific visual impact to the completed works, or are critical to the completed works from their functionality, operation and maintenance perspectives that the quality of such materials/products exceeds the requirement generally stated in the General Specification and in the Term Contract.

The Contractor shall provide authentication of documentary evidence and proof including those specified in this Clause and General Regulations Clause GR.24 herein to identify and justify the properties and/or performance standards of "specific quality" of the subject materials/products are generally of higher quality than that specified in the General Specification and the requirements as stated in the Specification of the Term Contract, for the Maintenance Surveyor's approval. Such proof may include carrying out appropriate quality tests to verify the quality of the subject materials/products is of quality higher than that specified in the General Specification, or obtaining certification from an independent testing authority/expert (to be approved by the Maintenance Surveyor) confirming of such specific quality.

Due allowance is deemed to have been made in the Contract Percentages for complying with all of the above requirements.

Payment for materials/products**GR.26**

Throughout this Schedule and including items valued under General Regulations Clause GR.12, the payment of materials/products shall generally be assessed according to the corresponding properties or performance standards as set out in this Schedule (with reference to the Specification) regardless of whether the materials/products are specified with brand names or referred as "proprietary", "approved", of "specific quality" or by their origins, or not.

The onus of proof is vested with the Contractor to identify the origins, properties and/or performance standards of materials/products used in the works corresponding to those set out in this Schedule (with reference to the Specification) and/or approved or accepted by the Maintenance Surveyor, and to provide the necessary documentary evidence and authentications including but not limited to certificates of origins, certificates of patent, registered trade marks or copy rights, local job references to demonstrate that the materials, products and works have proven track records of similar applications, technical literature and catalogues, test certificates and/or compliance test reports, manufacturers' guarantees or warranties, sub-contractors' or applicators' warranties and the like of the materials/products specified or approved all to the satisfaction of the Maintenance Surveyor, and for use by the Maintenance Surveyor for payment of the corresponding materials/products as set out in this Schedule.

In the absence of any documentary evidence and authentications that are required to demonstrate the conformity or compliance of the materials/products/works with the respective "proprietary", "approved", of "specific quality", origins or brand names, the assessment of such materials/products/works may be based on the basic costs of the materials/products/works that are available in the Schedule as ascertained by the Maintenance Surveyor, or otherwise the Maintenance Surveyor shall withhold or deduct the value of such materials/products/works that are not being carried out to his satisfaction from the final value of the works.

Adjustment to unit rates exceeding \$99,999.99**GR.27**

Whenever the unit rate for an item exceeds \$99,999.99, it has been divided by a factor ("adjustment factor") to reduce the figure to fall within \$99,999.99 ("adjusted rate") for inclusion in this Schedule. Such unit rate before adjustment is described in the item description as the actual rate. When the adjusted rate is to be used for all purposes under the Term Contract, such adjusted rate shall be multiplied by the adjustment factor to revert it back to the actual rate before making any adjustment of the relevant Contract Percentages.

Application of Schedule rates**GR.28**

This Schedule comprises Volume 1 for Builder's Works and Volume 2 for Building Services Works (B.S. Works). The compilation of unit rates in these two volumes of Schedule of Rates are made with due consideration on the specific natures, purposes and requirements which would vary for the execution of the builder's works and the building services works.

Where similar Schedule rates are found in different Sections, whether within the same volume or different volume of the Schedule, such valuation shall in so far as reasonable be based on Schedule rates of the same Section under which the works are executed.

Section 01

CONTRACT FACILITIES AND SPECIAL ATTENDANCES

SECTION 01

CONTRACT FACILITIES AND SPECIAL ATTENDANCES

SPECIAL CONDITIONS

Contract Requirements

- SC01.01** This Section shall be read and used in conjunction with the Specification and the Employer's Requirements adopted in the Contract.
- Contract Facilities stated in this Section shall refer to land transport facilities, contract equipment and contract staff services provided by the Contractor for the exclusive use by the Maintenance Surveyor, his representatives, the Employer or his staff all in accordance with the requirements of the Contract for the Contract Period or such other period as instructed by the Maintenance Surveyor.
- Special Attendances stated in this Section shall mean the Contractor's provision of means of access for the works in Works Orders of incidental minor maintenance and repair nature at a height of over 10 metre where no other proper means of access is available. Payments of Special Attendances shall satisfy the conditions as stated in Special Conditions Clause SC01.11 below.
- The Contractor shall arrange for the provisions of Contract Facilities and Special Attendances to be readily available for use at the time or any time, for the duration and in the manner as specified in the Contract, or otherwise as may be instructed by the Maintenance Surveyor.

Particular Preamble

- SC01.02** The rates appearing in this Section are allowances for providing the Contract Facilities as required in the Contract and Special Attendances. The Contractor is deemed to have allowed in his Contract Percentage(s) for this and other Sections in the Schedule of Rates of any insufficiency of rates and all other expenses incurred under the Contract for : -
- (a) Meeting all contractual and statutory obligations in connection with the provision of Contract Facilities and Special Attendances, and any other related obligations, liabilities, risks and profit borne by the Contractor;
 - (b) Any of the Contract Facilities requirement which is impracticable or not available (e.g. when the model satisfying the contract requirement is no longer available or out of stock), the Contractor shall provide similar facilities and services satisfying the requirement of the Contract and accepted by the Maintenance Surveyor;
 - (c) Any item or part thereof of any Contract Facilities that is required and specified in the Contract but the methods of measurement provided hereunder do not measure or have excluded such item or part thereof in this Section;
 - (d) The payment for Special Attendances shall in no way vitiate the provisions as stipulated in General Regulations for all works and services carried out under the Contract;
 - (e) Any further period of Contract Facilities provided beyond the period of measurement as provided in the Special Conditions contained in this Section and without any confirmation from the Maintenance Surveyor; and
 - (f) All other allowance as stipulated in the Contract in connection with the provision of the Contract Facilities and Special Attendances.

SPECIAL CONDITIONS

Rates generally
SC01.03

The rates in this Section shall generally include for : -

- (a) Maintenance, repairs, service charges, tax, licence and any other government fees and charges in connection with the use of the Contract Facilities and provisions of Special Attendances.
- (b) Provisions of all insurances on the Contract Facilities against accident, damage, loss by theft or fire, etc.
- (c) Replacement of contract staff.
- (d) Replacement of damaged or lost facilities.
- (e) Removal of the Contract Facilities within the time as stipulated in the Contract, or at any time as may be informed by the Maintenance Surveyor.

Measurement of Contract Facilities generally
SC01.04

The items for Contract Facilities shall generally be measured and paid for in accordance with the Special Conditions provided below and the Employer's Requirements where such facilities are specifically stated in the Contract.

LAND TRANSPORT

Measurement of land transport facilities
SC01.05

The land transport facilities shall include the provision of petrol private car, electric vehicle or multi-purpose vehicle (MPV) and the driver services as specified in the Contract.

The rates for land transport facilities shall be measured each and on a monthly basis for the period from the date when such land transport facilities are provided for use under the Contract until the expiry of the Contract Period as specified in the Contract, and any further period of provision of the land transport facilities that the Maintenance Surveyor expressly confirms in writing.

In case where the period of the provision of land transport facilities provided for use is not in a whole month, or where no land transport or alternative replacement facilities are provided on any day(s) within a particular month, the rate to be paid to the Contractor shall be adjusted as follows : -

Amount to be deducted from the Schedule rate for the provision of land transport facilities in a particular month for each number vehicle $= \frac{D_1}{D} \times R$

D_1 = The number of days on which the land transport or alternative replacement facility is not provided in the particular month.

D = Total number of days in the particular month where provision of the land transport facility is required.

R = Schedule rate for the provision of land transport facilities in a particular month for each number vehicle subject to Contract Percentage adjustment.

The periods (D_1) and (D) are measured in half calendar day unit occurring during the said month.

No measurement and payment shall be made for any period of time during which no land transport nor other alternative replacement facilities are provided for use under the Contract.

SPECIAL CONDITIONS**LAND TRANSPORT****Rates for
land transport
facilities****SC01.06**

The rates for land transport facilities shall further include for : -

- (a) Provision of Environment-friendly Petrol Private Cars, Electric Vehicles or Hybrid Vehicles of not more than one year old, and in good working order. A valid Environment-friendly Vehicle Certificate shall be provided for Environment-friendly Petrol Private Cars.
- (b) Provision of a competent and licensed driver for each vehicle who must have not less than 3 years' driving experience, no dangerous driving records and who shall be approved by the Maintenance Surveyor. The driver shall be equipped with a mobile telephone for contact purpose when on duty.
- (c) Provision of the vehicles at all times and for the uses as specified in the Contract.
- (d) Arranging the vehicles to be standby during the period when the vehicles are not in use including having the vehicles parked at a location designated by the Maintenance Surveyor.
- (e) All tunnels, bridges and cross harbour tunnel toll fees, and parking fees including the parking fees incurred when the vehicles are standby.
- (f) Maintaining a record of the use of the vehicles including details, times and purposes of journeys together with appropriate pedometer readings and distances travelled.
- (g) Maintaining effective comprehensive insurances covering passenger liabilities of the vehicles to be driven by any driver. In the case of a private car under the ownership of the Contractor, inclusion of an endorsement in the insurance policy expanding the definition to cover the Maintenance Surveyor and his Representatives and all personnel of the Employer.
- (h) Fuels, oils, lubricant and the like for the proper running and functioning of the vehicles.
- (i) Provision for similar alternative transport when the vehicles provided are unavailable.
- (j) Providing or painting the contract number, contract title, the Contractor's name or other suitable identification as approved by the Maintenance Surveyor to the vehicles.

SPECIAL CONDITIONS**CONTRACT EQUIPMENT****Measurement of contract equipment****SC01.07**

The rates for provision of contract equipment shall be measured each and on a monthly basis from the date when such equipment is provided for use until the expiry of the Contract Period as specified in the Contract, and any further period of provision of the contract equipment that the Maintenance Surveyor expressly confirms in writing.

In case where the period of the provision of contract equipment provided for use is not in a whole month, or where no contract equipment or alternative replacement is provided for each period exceeding seven calendar days within a particular month, the rate to be paid to the Contractor shall be adjusted as follows : -

Amount to be deducted from the Schedule rate for the provision of contract equipment in a particular month for each number contract equipment = $\frac{D_1}{D} \times R$

D_1 = The number of days on which the contract equipment or alternative replacement is not provided in the particular month.

D = Total number of days in the particular month where provision of the contract equipment is required.

R = Schedule rate for the provision of contract equipment in a particular month for each number contract equipment subject to Contract Percentage adjustment.

The periods (D_1) and (D) are measured in half calendar day unit occurring during the said month.

Deduction shall be made for each period of continuous non-provision more than seven calendar days and of which shall include the initial seven calendar days of that period of non-provision. For clarity, no deduction shall be made if the period of non-provision does not exceed seven calendar days within a particular month.

Save as the aforesaid provisions, no measurement and payment shall be made for any period of time during which no contract equipment nor other alternative replacement is provided for use under the Contract.

Rates for contract equipment**SC01.08**

The rates for contract equipment shall further include for : -

- (a) Provision of all equipment with functions, configurations and specifications as stated in the Contract and in good working order.
- (b) Provision of all necessary consumables like paper, toner, etc.
- (c) Licence fees, connection charges, rental charges, broadband internet connection, service charges, insurance and the like.
- (d) Maintaining monthly report on usage.
- (e) Regular maintenance, repair and temporary replacement of the devices of similar functions and configurations during period of repair.

SPECIAL CONDITIONS

CONTRACT STAFF SERVICES

**Measurement of
contract staff
services**

SC01.09

The contract staff services shall include the provision of the following staff services when specified in the Contract : -

- (a) Clerical support staff
- (b) Maintenance support officer
- (c) Technical officer
- (d) Works supervisor (builder's work) and works supervisor (building services)
- (e) Quality control assistant (builder's work) and quality control assistant (building services)
- (f) Customer services officer
- (g) Senior customer services officer

The rates for provisions of contract staff services shall be measured each and on a monthly basis from the date when the contract staff reports duty at the Employer's office until the expiry of the Contract Period as specified in the Contract, and any further period of provision of the contract staff services that the Maintenance Surveyor expressly confirms in writing.

Payment shall only be made when the Contractor has demonstrated to the Maintenance Surveyor's satisfaction that salary payments have been received by the contract staff.

In case where the period of the provision of contract staff services is not in a whole month, or where replacement is not provided for the respective contract staff service on any day(s) within a particular month, the rate to be paid to the Contractor shall be adjusted as follows : -

Amount to be deducted from the Schedule rate for
the provision of contract staff services in a
particular month for each number contract staff

$$= \frac{D_1}{D} \times R$$

D_1 = The number of days on which the contract staff or alternative replacement is not provided in the particular month.

D = Total number of days in the particular month where provision of the contract staff services is required.

R = Schedule rate for the provision of contract staff services in a particular month for each number contract staff subject to Contract Percentage adjustment.

The periods (D_1) and (D) are measured in half calendar day unit occurring during the said month.

No measurement and payment shall be made for the period of time during which no contract staff services nor other alternative replacement are provided for use under the Contract.

SPECIAL CONDITIONS**CONTRACT STAFF SERVICES****Rates for
contract staff
services****SC01.10**

The rates for "contract staff services" shall further include for : -

- (a) Provision of full time contract staff with qualification and experience that meet the requirements as specified in the Contract.
- (b) Performance of all duties.
- (c) Maintenance of an attendance diary.
- (d) All expenses and reimbursement in connection with employment of the contract staff including but not limited to basic salary, contribution to the Mandatory Provident Fund, gratuity and all necessary levies, e.g. levy for Construction Industry Council, insurances, etc.
- (e) Transportation arrangement required for executing their respective duties.
- (f) Provision of facilities for executing their respective duties like computer equipment and mobile phone (including internet connection and its services charges, hardware and software), digital cameras, stationery and consumables, etc.
- (g) Working outside normal working hours.
- (h) Working on General Holidays, emergency and urgent works and working at specific locations.
- (i) Replacement by temporary staff when the contract staff is on leave, absent or resigned.
- (j) Any other related costs and expenses that the Contractor may incur from the recruitment, management and deployment of the contract staff services.

PAYMENT FOR SPECIAL ATTENDANCES**Measurement of
Payment
for Special
Attendances****SC01.11**

The item for "Payment for Special Attendances" shall only be measured and paid for when the Maintenance Surveyor is satisfied that the following conditions have been fulfilled : -

- (a) Where the work instructed under the Works Order is incidental minor maintenance and repair work in nature and the claimed value of the works under the Works Order alone does not exceed \$1,000;
- (b) Works is carried out to walls or ceiling soffits, where the work is at a clear height over 10 m high (measured from the level on which the staging or the means of access is erected, or where the level is sloping, measured from the level immediately at the provision of the staging or the means of access) with no other means of access available;
- (c) Submission of reports and photographic records to justify such payment; and
- (d) The provision of the staging or means of access is made by the Contractor himself.

SPECIAL CONDITIONS**PAYMENT FOR SPECIAL ATTENDANCES****Measurement of
Payment
for Special
Attendances
(Cont'd)****SC01.11
(Cont'd)**

Where works under more than one Works Orders of incidental minor maintenance and repair nature are carried out at the same location at or around the same period of time by the Contractor or his Specialist Sub-contractors, the Contractor shall arrange for the full utilization of the means of access to be provided for these Works Orders. Subject to fulfilment of the conditions stated in sub-clauses (a) to (d) herein, payment for Special Attendances shall only be made once irrespective of the number of Works Orders issued under such circumstance.

No measurement and payment shall be made for "Payment for Special Attendances" under either one of the following conditions : -

- (i) The claimed value of the works carried out under the above circumstances exceeds \$1,000 per Works Order.
- (ii) Where means of access is available or provided at the location by the owners, the Employer or other parties.
- (iii) The Contractor fails to submit the report and photographic records to justify the payment of the Special Attendances claimed, or the Maintenance Surveyor considers that the report submitted fails to provide adequate information to demonstrate satisfaction of the conditions as stated in sub-clauses (a) to (d) herein.
- (iv) Where works are carried out under separate Works Order with staging or means of access provided at the same location at or around the same period of time, and the estimated value of the works exceeds \$1,000 for that Works Order.

**Rates for
Payment
for Special
Attendances****SC01.12**

The rates for "Payment for Special Attendances" shall further include for : -

- (a) Providing any means of access including but not be limited to scaffolding, screens, working platforms, staging, gondolas and the like; and erection, subsequent dismantling and removal of the same upon completion of the works;
- (b) Compliance with all safety requirements and certification from independent checking engineer, where required, and payment of all fees; and
- (c) Submission of all necessary records and reports in the format as approved by the Maintenance Surveyor.

Item		Item	
CONTRACT FACILITIES			
Note : - The following Items 01001 to 01018 inclusive shall only be paid for if the requirements as set out in the Contract and the conditions as set out in the Special Conditions are complied with.			
LAND TRANSPORT			
<i>Per number-month</i>		A \$	
01001	Private car - fully air conditioned saloon car with seating capacity of not less than five seats (including driver).....	24,000.00	01001
01002	MPV - fully air conditioned saloon car with seating capacity of not less than seven seats (including driver).....	26,000.00	01002
CONTRACT EQUIPMENT			
<i>Per number-month</i>		A \$	
01003	Provision of facsimile machine (for A4 size).....	120.00	01003
01004	Provision of mobile phone.....	240.00	01004
01005	Provision of computer facilities.....	280.00	01005
01006	Provision of monochrome laser-jet printer (for A4 size).....	180.00	01006
01007	Provision of colour inkjet printer (for A3 size).....	250.00	01007
01008	Provision of colour laser printer (for A3 size).....	380.00	01008
01009	Provision of digital camera.....	40.00	01009
CONTRACT STAFF SERVICES			
<i>Per number-month</i>		A \$	
01010	Clerical support staff.....	11,900.00	01010
01011	Maintenance support officer.....	15,900.00	01011
01012	Technical officer.....	17,200.00	01012
01013	Works supervisor (builder's work).....	22,800.00	01013
01014	Works supervisor (building services).....	22,800.00	01014
01015	Quality control assistant (builder's work).....	17,200.00	01015
01016	Quality control assistant (building services).....	17,200.00	01016
01017	Customer services officer.....	13,200.00	01017
01018	Senior customer services officer.....	14,600.00	01018

Item	Item			
PAYMENT FOR SPECIAL ATTENDANCES				
Note : - Item 01019 shall only be paid for if the requirements as set out in the Contract and the conditions as set out in the Special Conditions are complied with.				
<i>Per item</i>				
01019	01019			
Payment for Special Attendances.....	<table border="1"> <tr> <td data-bbox="1394 383 1412 407">A</td> </tr> <tr> <td data-bbox="1394 412 1412 436">\$</td> </tr> <tr> <td data-bbox="1374 463 1449 488">3,000.00</td> </tr> </table>	A	\$	3,000.00
A				
\$				
3,000.00				

Section 02

DEMOLITION

SECTION 02

DEMOLITION

SPECIAL CONDITIONS

**Measurement
generally**

SC02.01

All demolition works in this Section shall mean the demolition of the whole building or part of concrete or other structures irrespective of storey height including all partitions, fittings, finishes, services, etc. within the building.

Alteration and repairs other than demolition in this Section shall be measured and paid for at the appropriate rates under applicable Work Sections of this Schedule including but not limited to : -

- | | | |
|-----|---|--------------------------------------|
| (a) | Taking down concrete for alteration | Section 04 - Concrete Work |
| (b) | Taking down brickwork or blockwork walling for alteration | Section 05 - Brickwork and Blockwork |
| (c) | Taking down rubble walling for alteration | Section 06 - Masonry |
| (d) | Taking down structural steel for alteration | Section 10 - Steel and Metal Work |

**Measurement
of demolition of
whole building or
part of structures**

SC02.02

Demolition of whole building shall be measured net on the covered floor area of the building to be demolished.

Covered floor area is measured from the outer face of the external walls of a fully covered structure and measured over all walls, partitions, columns, stair wells, lift wells, escalator openings, bay windows, covered balconies, pipe/drain/cable ducts and the like; and it excludes all projections beyond the outer face of external wall and uncovered trafficable areas such as external playground, landscaped areas and the like.

Demolition of canopies shall only be measured and valued separately where the width of the canopies exceeds 2 m (measured from the outer face of the external walls); and shall be measured the overall flat plan area of the canopy to be demolished. Vertical edge and sides of canopies shall not be measured separately but shall be deemed included as part of the canopies. Any canopy with width not exceeding 2 m shall be deemed to be included in the demolition of the whole building and shall not be measured separately.

Demolition of roof shall be measured the overall flat plan area of the roof to be demolished and shall be measured as either one of the following categories : -

- (i) Roof in concrete construction (including all structures above roof slab) of building or structure;
- (ii) Roof other than concrete construction (including all structures above roof slab) of building or structure.

SPECIAL CONDITIONS

Measurement of demolition of whole building or part of structures (Cont'd)	SC02.02 (Cont'd)	<p>Roof other than concrete construction refers to structure of timber, steel or other construction. Measurement of such demolition work shall not apply to structure built on top of concrete roof structure of which shall be held to be included under demolition of roof in concrete construction.</p> <p>When measuring "Demolish and clear away whole building at Ground Floor", cockloft and the like where access is within the floor shall be measured separately. Break up and clear away existing slabs on grade, footings, foundations and the like and backfilling voids shall be measured and paid for at the appropriate rates in Section 03 - Excavation of this Schedule.</p> <p>When measuring "Demolish and clear away cockloft and the like", it shall include area of staircase or any part of the access.</p> <p>Removal of asbestos containing materials shall be measured separately.</p>
Measurement of single storey shed	SC02.03	<p>Demolition of single storey sheds other than concrete or structural steel encased with concrete structures shall be measured separately. The covered floor area of the single storey structure to be demolished shall be measured. The rate shall be inclusive of the whole structure including roof, all internal structures, fixtures and the like but excluding slabs on grade which shall be measured in accordance with Special Conditions Clause SC02.02 of this Section.</p>
Measurement of asbestos containing corrugated sheeting	SC02.04	<p>Asbestos containing corrugated sheeting shall be measured flat (not girth on corrugations) over the net area covered. No deduction shall be made for openings not exceeding 1.00 m². Ridges, hips and the like shall be measured the net length times the average height as fixed. Sheeting of curved, sloped, circular on plan or vertical shall be measured flat. Taking down and clearing away existing metal or wooden framings shall be measured separately. In case where the whole building will be demolished, no separate measurement for framing shall be made.</p>
Measurement of asbestos containing plaster	SC02.05	<p>Asbestos containing plaster shall be measured the net area. An allowance shall be made for walls and ceilings for additional area of moulded or carved work. No deduction shall be made for openings not exceeding 1.00 m².</p>
Measurement of asbestos containing plaster boards, etc.	SC02.06	<p>Asbestos containing plaster boards, ceiling tiles, particle boards, etc. and the like shall be measured over the area covered. No deduction shall be made for openings not exceeding 1.00 m². Taking down and clearing away existing metal or wooden framings shall be measured separately. In case where the whole building will be demolished, no separate measurement for framing shall be made.</p>
Rates for demolition of whole building or part of structures	SC02.07	<p>The rates for demolition of whole building or part of structures shall include for : -</p> <p>(a) Carrying out survey of building or structures prior to demolition and preparation of record drawings and survey reports where required including taking photographic records and measurements.</p>

SPECIAL CONDITIONS

**Rates for
demolition of
whole building
or part of
structures
(Cont'd)**

**SC02.07
(Cont'd)**

- (b) Submission of demolition proposals, method statement, sequence of demolition, all necessary design and calculations for all temporary works, including certification and endorsement by Registered Structural Engineer for the Maintenance Surveyor's approval before commencing demolition work.
- (c) Providing all precautionary and protective measures, scaffolding, canopy, netting, covering, dust-proof screens, heavy duty protective nettings, warning signs, and all other measures proposed by the Contractor in the method statement that are required for the execution of the demolition works.
- (d) In addition to Clause GR.10(p) of Section 00 - General Regulations of this Schedule, providing all enhanced and heavy duty precautionary protective measures including propping, shoring, strutting, special covered walkways, scaffolding, catch fans and platforms, dust-proof screens, heavy duty protective netting and all other measures proposed by the Contractor in the method statement that are required for the execution of the demolition work.
- (e) Provision of recording the entire demolition process in the form of CCTV of sufficient number of cameras to be installed at strategic location(s) to be agreed with the Maintenance Surveyor; and subsequent removal of the same upon completion of the demolition process.
- (f) Plain or reinforced concrete in case of concrete construction.
- (g) Provision of all necessary safety measures and taking all necessary measures to minimize nuisance caused by the demolition works to adjoining properties and occupants, the public in general, passing vehicles and workmen.
- (h) Giving notice to relevant utility undertaker(s) or Government departments and identify utilities that will be affected by the proposed demolition and arranging utilities undertaker(s) or Government department for disconnection of services. Disconnecting and sealing utilities, and marking and recording position of sealed utilities, including liaising with relevant utility undertaker(s) and Government department.
- (i) Taking down and clearing away all structures, finishes, fittings and the like from the structural floor level.
- (j) Demolition of canopies of width not exceeding 2 m as stated in Special Conditions Clause SC02.02.
- (k) Watering debris as necessary to reduce dust nuisance to a minimum.
- (l) Removing off site all materials, debris and other arisings which shall become the property of the Contractor, and complying with all relevant regulations and requirements relating to the sorting and removal etc. of all demolition materials.
- (m) Protecting areas adjacent to demolition works from damages resulting from such demolition.
- (n) Making good to buildings, structures, pavings, etc. and the like caused by the demolition of adjacent building or structure.

SPECIAL CONDITIONS

Rates for demolition of whole building or part of structures (Cont'd)	SC02.07 (Cont'd)	<ul style="list-style-type: none"> (o) Provision of settlement monitoring points and reports as required. (p) Provision of full time safety officer and/or registered professional engineer when required for the demolition work. (q) Executing works to comply with statutory requirements.
Rates for demolition of canopy of width exceeding 2 m	SC02.08	<p>The rates for demolition of canopy of width exceeding 2 m shall, in addition to the requirements of Special Conditions Clause SC02.07, include for : -</p> <ul style="list-style-type: none"> (a) Cladding, covering and all supporting framings and suspension systems. (b) Vertical columns and/or suspended structures above the canopies. (c) Any provisions and/or work required for demolition of canopies where such canopies are projected beyond the Site boundary and/or at any heights.
Rates for demolition of roof	SC02.09	<p>The rates for demolition of concrete structural roof shall, in addition to the requirements of Special Conditions Clause SC02.07, include for : -</p> <ul style="list-style-type: none"> (a) All parapets and rails. (b) All upper stairs, water tanks and all structures and fittings above roof slab.
Rates for demolition of roof other than concrete structural roof	SC02.10	<p>The rates for demolition of roof other than concrete structural roof shall, in addition to the requirements of Special Conditions Clause SC02.07, include for : -</p> <ul style="list-style-type: none"> (a) Cladding, roof covering and all supporting framings, flashings, gutters and the like. (b) All associated features to the roof.
Rates for removal of asbestos containing materials	SC02.11	<p>The rates for removal of asbestos containing materials shall include for : -</p> <ul style="list-style-type: none"> (a) Works carrying out by an approved Environmental Protection Department (EPD) Registered Asbestos Contractor in compliance with statutory requirements. (b) All preparation work, air monitoring by approved EPD Registered Asbestos Laboratory, safety precaution, giving statutory notices, disposal of waste and other works as required by the Asbestos Abatement Plan or relevant legislation and codes of practice issued under the Air Pollution Control Ordinance and Waste Disposal Ordinance. (c) Carrying out the works in accordance with the Code of Practice on the Preparation of Asbestos Investigation Reports, Asbestos Management Plans and Asbestos Abatement Plans. (d) Provision for taking personal air samples for the worker carrying out asbestos removal work as specified in G.S. Item 2.52.

SPECIAL CONDITIONS

Rates for removal of asbestos containing materials (Cont'd)	SC02.11 (Cont'd)	<ul style="list-style-type: none"> (e) Provision of respirator and protective clothing for use by Maintenance Surveyor's Representative for inspection of the removal work. (f) Where there is no Asbestos Abatement Plan, preparing and submission of a method statement of the removal works before commencement of the removal works. (g) Removal of asbestos-containing materials using glove bag method. (h) Conducting smoke test by a registered asbestos consultant before commencement of asbestos removal works to ensure the integrity of the full containment. (i) The opening up of pipe duct, etc., to gain access to asbestos containing material, and the subsequent reinstatement, the making good of disturbed surface and the application of non-asbestos substitute material.
Rates for asbestos survey	SC02.12	<p>The rates for asbestos survey and Asbestos Investigation Report shall include for : -</p> <ul style="list-style-type: none"> (a) Designing, and directing bulk sampling and analysis work. (The work itself by an approved EPD Registered Asbestos Laboratory is measured separately.) (b) Carrying out the work in accordance with the Code of Practice on the Preparation of Asbestos Investigation Reports, Asbestos Management Plans and Asbestos Abatement Plans. (c) Providing labelling asbestos containing materials and obtaining endorsement from Environmental Protection Department on the Report.
Rate for Asbestos Management Plan	SC02.13	<p>The rate for Asbestos Management Plan shall include preparing an Asbestos Abatement Plan for materials to be removed and an Operation and Maintenance Plan for asbestos containing materials to be retained. The rate shall also include for obtaining endorsement on the plan from Environmental Protection Department.</p>
Rate for employing an approved EPD Registered Asbestos Consultant	SC02.14	<p>The rate for employing an approved EPD Registered Asbestos Consultant shall include for : -</p> <ul style="list-style-type: none"> (a) Submission of the proposed Registered Asbestos Consultant to the approval of the Maintenance Surveyor. (b) Provision of supervision services of the Asbestos Contractor's work to ensure that the work is carried out in accordance with the relevant legislation and codes of practice, and to manage the implementation of the approved Asbestos Abatement Plan. (c) Provision of services for revision of the abatement method where necessary. (d) Liaising and co-ordinating with the Environmental Protection Department.
G.S. clauses	SC02.15	<p>G.S. clauses for demolition can be found in Demolition, Site Clearance and Alterations Section of the General Specification for Building.</p>

Item		Item	
DEMOLITION OF WHOLE BUILDING OR PART OF STRUCTURES			
Demolish whole building or part of structures in any height including clearing away all materials arising from Site :-			
(Note :- The demolition of a whole building or part of structures shall be paid for on a floor-by-floor basis at the rates of the following Items 02001 to 02009 inclusive)			
<i>Per square metre</i>		A \$	
02001	Ground floor storey of building or structures (excluding slabs on grade).....	752.00	02001
02002	Suspended ground slab or cockloft of building or structures including staircase.....	367.30	02002
02003	Mezzanine floor of building or structures.....	759.70	02003
02004	Canopies of building or structures exceeding 2 m wide.....	458.10	02004
02005	First to fourth floor of building or structures.....	767.40	02005
02006	Additional floor from fifth floor and above (except roof) of building or structures.....	775.10	02006
02007	Roof (including all structures above roof slab) of building or structures.....	700.30	02007
02008	Ditto but other than concrete construction (steel, timber or others construction).....	69.00	02008
02009	Single storey shed, building, structure, etc. (other than concrete construction).....	115.40	02009
RELATED WORKS FOR REMOVAL OF ASBESTOS CONTAINING MATERIALS			
<i>Each</i>		A \$	
02010	Set up total containment with 3-chamber decontamination unit, maintaining negative air pressure by using HEPA-filtered appliance throughout the course of asbestos abatement work, and taking down the containment on completion..... (The work shall be carried out in accordance with the Asbestos Abatement Plan and the Code of Practice on Asbestos Control - Asbestos Work Using Full Containment and Mini-containment.)	12,203.00	02010
02011	Set up segregation between asbestos work area and external area using plastic sheets, and decontamination unit and debris port where specified, taking down the segregation on completion..... (The work shall be carried out in accordance with the Code of Practice on Asbestos Control- Safe Handling of Low Risk Asbestos Containing Material.)	9,231.00	02011
02012	Carry out bulk sampling of suspected asbestos containing material and conduct examination using polarized light microscopy method on the presence, content and type of asbestos by an approved EPD Registered Asbestos Laboratory.....	511.00	02012
02013	Carry out further analysis (where the content of asbestos in a bulk sample cannot be determined by polarized light microscopy method) using point counting method by an approved EPD Registered Asbestos Laboratory.....	2,308.00	02013
02014	Carry out environmental air sampling and analysis to measure the fibre concentration by an approved EPD Registered Asbestos Laboratory.....	288.00	02014
02015	Dispose a collection of loose items with asbestos containing materials like fire blankets and bench mats, from one site..... (The work shall be carried out in accordance with the Code of Practice on Handling, Transportation and Disposal of Asbestos Waste.)	2,885.00	02015

Item		Item
REMOVAL OF ASBESTOS CONTAINING MATERIALS		
<i>Per square metre</i>		
02016	Take down and clear away from Site asbestos containing roof insulation tiles.....	277.20
02017	Ditto but asbestos containing corrugated or flat cement sheets fixed to a metal or timber frame.....	170.60
02018	Ditto but asbestos containing plaster.....	426.50
02019	Ditto but asbestos containing plaster boards, chalkboards, particle boards, etc. and the like fixed to wall or other structure.....	191.90
02020	Ditto but asbestos containing vinyl tile and tile adhesive by low VOC mastic remover, including degreasing agent if any as recommended by manufacturer.....	213.20
02021	Ditto but asbestos containing vinyl tile and adhesive including existing cement sand screeding.....	191.90
02022	Ditto but asbestos containing cement grille block wall and cement panel wall.....	277.20
02023	Ditto but asbestos containing insulation on calorifier or other surfaces.....	639.70
<i>Per linear metre</i>		
02024	Take down and clear away from Site asbestos containing refuse chutes of any sizes.....	1,705.90
02025	Ditto but asbestos containing lagging or in-situ and pre-moulded insulation to pipework of any sizes.....	1,279.40
02026	Ditto but asbestos containing gasket and flexible joint in air duct of any sizes.....	1,066.20
02027	Ditto but asbestos containing pipe or drain of any sizes.....	852.90
<i>Each</i>		
02028	Take down and clear away from Site asbestos containing fire-stopping material around electric cable of any sizes running through wall and floor.....	341.00
02029	Ditto but asbestos containing arc chute of any sizes in electric switch box, including attendance by a qualified electrician.....	483.00
ASBESTOS SURVEY		
<i>Per item</i>		
02030	Carry out asbestos survey for total floor area n.e. 200 m ² of a building or structure and prepare an Asbestos Investigation Report by an approved EPD Registered Asbestos Consultant.....	9,900.00
02031	Ditto but for total floor area 200 - 1,200 m ² of a building or structure.....	18,500.00
02032	Extra over Item 02031 for each additional 200 m ² or part thereof in total floor area of a building or structure in excess of 1,200 m ² of a building or structure.....	2,500.00
ASBESTOS MANAGEMENT PLAN		
<i>Per item</i>		
02033	Prepare an Asbestos Management Plan by an approved EPD Registered Asbestos Consultant on premises where an Asbestos Investigation Report is already available.....	7,100.00
02034	Employ an approved EPD Registered Asbestos Consultant to manage the implementation of an Asbestos Abatement Plan. (Note : - This item shall only be paid for, if ordered by the Maintenance Surveyor in writing.)	12,300.00

Section 03

EXCAVATION

SECTION 03

EXCAVATION

SPECIAL CONDITIONS

Measurement generally

SC03.01

Excavation shall be measured net with no increase for working space or bulkage of material, allowance for both having been made in the rates. Blasting will not be permitted. Should occasion ever occur when blasting is permitted, no adjustment shall be made to the rates in this Schedule.

Where excavation oversite to areas exceeds an average of 200 mm deep, it shall be measured as reduced level excavation from existing ground level (i.e. no top soil or surface excavation item shall first be measured). Trench for foundation, manholes, pits, etc. and other excavation items shall be measured from the reduced levels or ground levels, whichever is the lower. The definitions of trench excavation and bulk excavation shall be in accordance with G.S. Item 3.01(xi) and (xii).

Excavation for pipes and cables shall be measured to the nearest 0.25 m average depth.

When measuring "Extra over pipe or cable trench excavation for excavating in brickwork, concrete, solid rock etc.", the net width of trench excavation measured shall be in accordance with the trench widths as specified in the Specification for Plumbing and Drainage Installations adopted in the Contract.

Measurements for spreading or removal of spoil arising from the Contractor's excavation shall be made net on the basis of the solid contents before excavation and no allowance shall be made for increase in bulk. Where the spoil to be removed has not been excavated by the Contractor, as in the case of landslips, debris or rubbish, etc., the actual cubic contents shall be measured.

Soil, hardcore, granular or graded granular filling items shall be measured net after completion.

Measurement of steel sheet piling

SC03.02

Throughout this Schedule, rates for all Sections shall include for all temporary preventive, protective and supporting measures to the faces of excavation. No payment shall be made for steel sheet piling and the likes under any circumstances, except where specifically ordered by the Maintenance Surveyor in writing.

Steel sheet piling including non-standard make up piles shall be measured net on the area of the piling driven. The measurement of the calculated weight shall be the length along the centre line of the alignment of completed sheet pile multiplied by the average depth from the ground level or reduced level, whichever the lower to the toe edge of the pile driven.

Extra over steel sheet piling for corner piles and junction piles shall be the net length measured from the ground level or reduced level, whichever is the lower, to the toe edge of the piles driven.

The measurement of burning off the tops of steel piles shall be the length along the centre line of the alignment of piles driven. This item shall only be paid for, if ordered by the Maintenance Surveyor in writing.

All temporary strutting and shoring to sheet piling including waling, strutting, bracing, posts and connecting members shall be found in Section 10 - Steel and Metal Work of this Schedule.

SPECIAL CONDITIONS

Measurement of earth, granular and hardcore filling	SC03.03	The measurement shall be the compacted thickness as specified by the Maintenance Surveyor, whether laid in one or more layers. No deduction shall be made for voids not exceeding 1.00 m ³ .
Measurement of filter membrane	SC03.04	Filter membrane shall be measured as the surface area of the face to be covered and no allowance shall be made for surface irregularities or other local peculiarities. No deduction shall be made for an area not exceeding 1.00 m ² .
Rates for excavation items	SC03.05	<p>The rates for all excavation items shall include for : -</p> <ul style="list-style-type: none"> (a) Mobilization, maintenance and demobilization of excavator, roller, compaction plant, moving plant and the like. (b) Allowance for working space and increase in bulk of all materials arising from excavation, down taking, alteration or demolition. (c) Excavating in any type of level or sloping ground encountered including earth, clay, sand, gravel, loose boulders not exceeding 0.20 m³, etc. (Note : - "Extra over general excavation or pipe or cable trench excavation for excavating in solid rock" as defined in Special Conditions Clause SC03.09 herein below, shall be paid in addition). (d) Setting out the work and all profiles, rods, etc., and work straight or circular on plan. (e) Cutting down shrubs, undergrowth, etc., including trees not exceeding 95 mm diameter at breast height, grubbing up roots and clearing away. (f) Removing old drains and sealing off connections. (g) Getting out excavated material by any means necessary and deposit excavated material in heaps including multi-handling within Site area. (h) Keeping excavations free from water by baling, pumping, temporary diversion channels or other means. All contaminated water arising from excavation shall be treated in accordance with the requirements of Environmental Protection Department (EPD) before disposing into the public drainage system. All additional expenses incurred shall be included in the rates. (i) Trimming sides, vertical or battered, and trimming, levelling, grading and ramming bottoms, and trimming slopes and banks. (j) Protecting the exposed surfaces of excavation by any means necessary. (k) Strutting, shoring, supporting and protecting measures for the faces of excavation. (Note : - Timbering/Steel works required to be left-in shall be paid for, if ordered by the Maintenance Surveyor in writing, at the rates contained in Section 08 - Carpentry and Joinery and Section 10 - Steel and Metal Work of this Schedule.)

SPECIAL CONDITIONS

Rates for excavation items (Cont'd)	SC03.05 (Cont'd)	<ul style="list-style-type: none"> (l) Steel plates or other approved coverings to trenches or pits where required to provide crossings for pedestrian and vehicular traffic, shall comply with all regulations and requirements including providing traffic lights, warning lights, signs etc. and payment of all charges incurred. (m) All multi-handling and temporary spoil heaps, on or off-site between excavation and final position. (n) Temporarily supporting drain pipes, cables, etc., during excavation and making good any damage that may be caused to the same. (o) Filling with concrete or backfilling and compacting strictly in accordance with G.S. to “over excavation” areas or as a result of the Contractor's proposed method of excavation or where additional concrete is placed in lieu of trimming rock bottoms to exact level. (p) Making good with lean concrete to any surface irregularities under the formation of rock cuttings which remain after trimming of rock excavation. (q) Preparation of record survey including an over Site topographical survey by a registered surveyor when ordered by the Maintenance Surveyor in writing. (r) Design of Temporary Works associated with earthworks, including temporary slopes, stockpiles and drainage by Registered Structural Engineers. Submit the design and calculations of the Temporary Works for the approval of the Maintenance Surveyor. Prepare and submit method statement for the erection and removal of Temporary Works. (s) Settlement monitoring points.
Rates for “Extra over excavation for excavating in brickwork, concrete, etc.”	SC03.06	The rates for “Extra over general excavation or pipe or cable trench excavation for excavating in brickwork, concrete, solid rock, etc.” shall further include for trimming the faces or edges of the work remaining.
Rates for soil filling and removal	SC03.07	The rates for soil filling and removal shall further include for all multi-handling to final position.
Rates for soil, hardcore, granular and graded granular filling	SC03.08	<p>The rates for all soil, hardcore, granular and graded granular filling items shall further include for : -</p> <ul style="list-style-type: none"> (a) Mobilization, maintenance and demobilization of earth moving plant, rollers, compaction plant and other plant necessary for the works. (b) Deposition and compaction including compaction in layers to the required density. (c) Finishing surfaces level or to falls, gradients, crowns and cambers to exact profile required, with each successive surface finished parallel to the final finished surface.

SPECIAL CONDITIONS

Rates for soil, hardcore, granular and graded granular filling (Cont'd)	SC03.08 (Cont'd)	<ul style="list-style-type: none"> (d) Additional bulk of material required to allow for compaction and consolidation. (e) All wheeling and multi-handling of material from temporary spoil heaps to place of final incorporation in the work. (f) Forming and trimming banks and slopes. (g) Temporary retaining boards to edges and slopes and any necessary handpacking at stepping and the like. (h) Removing, replacing or making good placed or compacted filling material where filling material subsequently becomes damaged or unsuitable. (i) Protecting the exposed surfaces of filling by any means necessary. (j) Keeping and maintaining the exposed surfaces clean. (k) Preparation of record survey when ordered by the Maintenance Surveyor in writing. (l) Carrying out soil tests and in-situ tests.
Rates for rock excavation	SC03.09	<p>Solid rock shall be defined as "Rock, which in the opinion of the Maintenance Surveyor can only be excavated by means of wedging and splitting, the use of pneumatic tools or stitch core, cut, drill, core hydraulic splitter, and shall only be allowed when the net quantity to be actually cut, split and excavated in any isolated individual portion exceeds 0.20 m³, except that in the case of excavating post holes the net quantity excavated shall be paid for". For the purposes of this Schedule, excavation in solid rock has been assumed based on excavation by hand or with tools. Should occasion ever occur when blasting is permitted, no adjustment shall be made to these rates but the Contractor shall submit method statement for approval, provide blast screens as necessary and take all other precautions and make good any damage caused at his own expense.</p>
Brick, concrete, rock, etc., to become property of the Contractor	SC03.10	<p>Any brick, concrete, rock, etc., arising from the excavations shall become the property of the Contractor, and may if required, and approved by the Maintenance Surveyor, be broken and used for hardcore filling. For the purposes of removal, these materials shall be paid for as ordinary soils but if they are subsequently used as hardcore filling on the Site, no removal from the Site will be measured.</p>
Rates for steel sheet piling	SC03.11	<p>The rates for steel sheet piling shall further include for : -</p> <ul style="list-style-type: none"> (a) Welding, jointing and splicing. (b) Fabrication of non-standard make up piles. (c) Initial trenching and guide frames. (d) Temporary strutting and waling for driving.

SPECIAL CONDITIONS

Rates for steel sheet piling (Cont'd)	SC03.11 (Cont'd)	<ul style="list-style-type: none"> (e) Preparing and submitting details and drawings with method statement all in accordance with G.S. Section 4 - Steel Sheet Piling Work and by Registered Structural Engineer. (f) Additional work and cost related to obstructions in accordance with G.S. Items 4.12 and 4.13. (g) Preparing and applying protective coating or other surface treatment to sheet pile. (h) Extraction of sheet piles. (i) Left-in position sheet pile when ordered by the Maintenance Surveyor in writing.
Rates for burning off tops of sheet pile	SC03.12	<p>The rates for burning off tops of sheet pile shall further include for :-</p> <ul style="list-style-type: none"> (a) Provision, maintenance and removal from Site tools and equipment necessary for the works. (b) Disposal of surplus length of piles. (c) Cleaning the affected area and applying protective coatings or other surface treatment.
Payment for "Utility Connection And Pavement Works"	SC03.13	<p>For payment purpose, the lump sum fee payment for "Utility Connection And Pavement Works" shall not be payable, unless the Contractor has demonstrated and substantiated by :-</p> <ul style="list-style-type: none"> (a) A copy of successfully granted Excavation Permit for the work. (b) Relevant approval forms and drawings from utility companies or Government departments. (c) Contractor's prior written notice to the Maintenance Surveyor of the name of the specialist contractors employed for the Utility Connection And Pavement Works when the Contractor is not included in the relevant List of Approved Contractors for Public Works to carry out the Utility Connection And Pavement Works.
Specification for drain trench excavation	SC03.14	<p>Specification for drain trench excavation can be found in the Specification for Plumbing and Drainage Installations adopted in the Contract.</p>
G.S. clauses for steel sheet piling	SC03.15	<p>G.S. clauses for steel sheet piling can be found in Steel Sheet Piling Work Section of the General Specification for Building.</p>

Item

Item

STEEL SHEET PILING TO EXCAVATION

(Note : - The following Items 03001 to 03006 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Plant : -

Per item

A
\$
25,200.00

03001 Mobilization, maintenance and demobilization of piling plant, crane, compressor and other equipment necessary for the work..... 03001

Supplying, handling, transporting, pitching, driving and withdrawing/left in sheet piles as G.S. Item 4.01 : -

Design length (m)		
n.e. 10	10 - 20	20 - 30
A	B	C
\$	\$	\$
9.30	10.20	10.70

Per kg

03002 Steel sheet piles..... 03002

Per linear metre

A
\$
670.90
671.00

03003 Extra over Item 03002 for corner piles..... 03003

03004 Extra over Item 03002 for junction piles..... 03004

Sundries : -

Per linear metre

03005 Burning off tops of sheet piles..... 03005

Each

Diameter (mm)				
n.e. 100	100 - 200	200 - 300	300 - 400	400 - 500
A	B	C	D	E
\$	\$	\$	\$	\$
57.90	116.00	173.00	262.00	319.00

03006 Cutting or burning holes through sheet piling..... 03006

Item

Item

GENERAL EXCAVATION

Per cubic metre

03007	Excavate over Site.....	A \$ 188.00	03007
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That portion of excavation

n.e. 1.50 m deep	1.50 - 3.00 m deep	3.00 - 4.50 m deep	4.50 - 6.00 m deep
A \$	B \$	C \$	D \$
165.40	168.10	174.00	178.30
168.00	182.80	201.00	217.10

Per cubic metre

03008	Excavate trenches for foundation.....		03008
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03009	Excavate for foundations, manholes, pits, cesspits, etc., and the like.....		03009
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Each

03010	Excavate for post holes n.e. 0.30 m ³ including return, fill in and compact and remove surplus excavated material from Site.....	A \$ 125.00	03010
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Item											Item	
PIPE OR CABLE TRENCH EXCAVATION												
Excavate trench for pipe or cable with concrete bed (if any), including return, fill in, compact and remove surplus excavated material from Site :-												
Pipe bore or cable diameter (mm)												
	n.e. 150	150 - 300	300 - 450	450 - 600	600 - 900	900 - 1,200	1,200 - 1,500	1,500 - 1,800	Two pipes side by side each n.e. 150	Three pipes side by side each n.e. 150		
	A	B	C	D	E	F	G	H	I	J		
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
	<i>Per linear metre</i>											
03011	Trench n.e. 1.50 m deep and average 0.25 m deep.....	26.50	38.80	-	-	-	-	-	40.60	54.70	03011	
03012	Ditto average 0.50 m deep.....	48.20	69.80	94.90	130.20	-	-	-	74.30	100.30	03012	
03013	Ditto average 0.75 m deep.....	73.20	94.50	126.20	171.60	223.00	-	-	104.10	140.10	03013	
03014	Ditto average 1.00 m deep.....	107.00	124.00	157.50	205.50	265.60	345.70	-	134.00	180.00	03014	
03015	Ditto average 1.25 m deep.....	135.10	161.30	193.40	239.70	313.30	408.60	498.40	175.00	215.00	03015	
03016	Ditto average 1.50 m deep.....	160.80	190.60	227.60	281.20	363.50	470.10	568.40	672.80	190.40	232.90	03016
03017	Trench 1.50 - 3.00 m deep and average 1.75 m deep.....	187.70	221.20	263.20	324.60	416.40	534.90	642.40	755.00	242.40	297.10	03017
03018	Ditto average 2.00 m deep.....	215.00	252.10	299.40	368.40	470.20	601.10	717.20	838.60	274.50	336.30	03018
03019	Ditto average 2.25 m deep.....	246.80	288.10	340.60	417.60	529.30	672.70	798.00	928.20	319.90	390.00	03019
03020	Ditto average 2.50 m deep.....	283.80	329.20	387.00	472.20	593.50	750.00	885.00	1,023.70	362.30	440.70	03020
03021	Ditto average 2.75 m deep.....	311.90	361.40	424.60	517.90	649.80	818.90	963.70	1,098.60	398.30	485.10	03021
03022	Ditto average 3.00 m deep.....	340.50	394.30	463.30	565.30	707.80	890.90	1,045.50	1,202.20	435.90	531.10	03022
03023	Trench 3.00 - 4.50 m deep and average 3.25 m deep.....	379.00	436.90	511.80	622.40	776.10	972.70	1,137.50	1,304.00	482.60	586.80	03023
03024	Ditto average 3.50 m deep.....	408.30	470.70	551.80	671.40	836.30	1,047.10	1,222.40	1,398.30	521.20	634.30	03024
03025	Ditto average 3.75 m deep.....	438.10	505.40	592.20	720.90	897.10	1,122.70	1,308.60	1,494.60	560.30	682.50	03025
03026	Ditto average 4.00 m deep.....	472.90	544.70	637.90	775.90	963.90	1,204.00	1,400.80	1,597.00	604.40	735.80	03026
03027	Ditto average 4.25 m deep.....	503.60	580.00	679.70	827.00	1,027.00	1,282.10	1,490.00	1,696.30	644.40	785.50	03027
03028	Ditto average 4.50 m deep.....	539.50	621.20	727.30	885.20	1,097.40	1,368.50	1,588.00	1,805.10	690.70	841.50	03028

Item		Item
EXCAVATING IN BRICKWORK, CONCRETE, ROCK, ETC.		
<i>Per cubic metre</i>		
03029	Extra over either of Items 03007 to 03028 inclusive for excavating in chunam surfacing, cement rendering, masonry, brickwork, blockwork, bituminous surfacing, etc. and the like.....	51.00 03029
03030	Ditto for excavating in plain concrete foundations, surface beds, etc.....	179.10 03030
03031	Ditto for excavating in reinforced concrete foundations, surface beds, etc., including cutting reinforcement.....	302.90 03031
03032	Ditto for excavating in solid rock as described in Special Conditions Clause SC03.09.....	365.60 03032
03033	Ditto for excavating in solid rock with non-explosive demolition agent..... (Note : - This item shall only be paid for, if ordered by the Maintenance Surveyor in writing.)	573.70 03033
SOIL FILLING		
(Note : - The following Items 03036 to 03037 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)		
<i>Per cubic metre</i>		
03034	Return, fill in and compact suitable excavated materials around foundations, etc., and the like.....	51.50 03034
03035	Wheel, spread, level and compact suitable excavated materials in layers as filling to make up level.....	50.20 03035
03036	Approved suitable filling materials including both general filling material or special filling material as G.S. Items 3.01(vii), (viii) and (ix) brought to Site from Contractor's own source, wheel, spread, level and compact in layers as filling around foundations, etc. and the like.....	128.50 03036
03037	Ditto but as filling to make up level.....	113.90 03037
REMOVAL		
<i>Per cubic metre</i>		
03038	Load surplus or unsuitable excavated material and remove from Site.....	186.20 03038
03039	Load spoil, debris, rubbish, etc., and the like not arising from the works and remove from Site..... (Note : - This item shall only be paid for, if ordered by the Maintenance Surveyor in writing and the quantity agreed before removal commences.)	206.30 03039
GRANULAR FILLING		
<i>Per cubic metre</i>		
03040	Wheel, spread, level and compact sand/fine aggregate in layers including blinding top surface with approved fine filling material.....	170.40 03040
03041	Wheel, spread, level and compact granular filling of size 75 - 150 mm coarse aggregate in layers including blinding top surface with approved fine filling material.....	234.70 03041
03042	Ditto but filling behind retaining walls.....	247.40 03042

Item	Item						
HARDCORE FILLING							
Hardcore size : not exceeding 150 mm in single or multi-graded size(s)							
<i>Per cubic metre</i>							
03043	03043						
Wheel, spread, level and compact hardcore in beds under floors, pavings, etc., and the like in layers n.e. 150 mm thick including blind top surface with approved fine filling material.....	<table border="1"> <tr> <td style="text-align: center;">A \$</td> </tr> <tr> <td style="text-align: right;">166.90</td> </tr> <tr> <td style="text-align: right;">174.60</td> </tr> </table>	A \$	166.90	174.60			
A \$							
166.90							
174.60							
03044	03044						
Ditto but in layers filled in behind retaining walls including hand packing where necessary.....							
FILTER MEMBRANE							
Supply and lay thermally bonded non-woven filter membrane complying with the following specification : -							
<i>Per square metre</i>							
03045	03045						
Filter membrane with pore size $\leq 300\mu\text{m}$; permeability (at 5cm head) $\leq 150 \text{ l/m}^2\cdot\text{s}$; wide width strip tensile strength $\geq 3.0 \text{ kN/m}$	<table border="1"> <tr> <td style="text-align: center;">A \$</td> </tr> <tr> <td style="text-align: right;">17.80</td> </tr> <tr> <td style="text-align: right;">19.60</td> </tr> <tr> <td style="text-align: right;">23.70</td> </tr> <tr> <td style="text-align: right;">26.00</td> </tr> <tr> <td style="text-align: right;">31.50</td> </tr> </table>	A \$	17.80	19.60	23.70	26.00	31.50
A \$							
17.80							
19.60							
23.70							
26.00							
31.50							
03046	03046						
Ditto but with pore size $\leq 180\mu\text{m}$; permeability (at 5cm head) $\leq 130 \text{ l/m}^2\cdot\text{s}$; wide width strip tensile strength $\geq 6.0 \text{ kN/m}$							
03047	03047						
Ditto but with pore size $\leq 150\mu\text{m}$; permeability (at 5cm head) $\leq 100 \text{ l/m}^2\cdot\text{s}$; wide width strip tensile strength $\geq 8.0 \text{ kN/m}$							
03048	03048						
Ditto but with pore size $\leq 125\mu\text{m}$; permeability (at 5cm head) $\leq 75 \text{ l/m}^2\cdot\text{s}$; wide width strip tensile strength $\geq 12.5 \text{ kN/m}$							
03049	03049						
Ditto but with pore size $\leq 110\mu\text{m}$; permeability (at 5cm head) $\leq 65 \text{ l/m}^2\cdot\text{s}$; wide width strip tensile strength $\geq 14.5 \text{ kN/m}$							
MISCELLANEOUS ITEMS							
<i>Per linear metre</i>							
03050	03050						
Clear and clean out mud, debris and the like from rainwater channel, earth ditch and/or culvert with waterway in sectional area n.e. 0.10 m ² including raising and afterward replacing any channel cover, cutting back any vegetation alongside and removing all debris from Site.....	<table border="1"> <tr> <td style="text-align: center;">A \$</td> </tr> <tr> <td style="text-align: right;">8.30</td> </tr> <tr> <td style="text-align: right;">12.50</td> </tr> <tr> <td style="text-align: right;">2.50</td> </tr> <tr> <td style="text-align: right;">4.90</td> </tr> </table>	A \$	8.30	12.50	2.50	4.90	
A \$							
8.30							
12.50							
2.50							
4.90							
03051	03051						
Ditto but 0.10 - 0.20 m ²							
03052	03052						
Add to Item 03051 for each additional 0.10 m ² or part thereof sectional area.....							
03053	03053						
Clean out eaves gutter at any height and removing all debris from Site..... (Note : - This item shall not be paid for if the gutter is required to be painted.)							

Item	Item
MISCELLANEOUS ITEMS (CONT'D)	
<i>Each</i>	
03054 Clear out mud, vegetation, debris and the like from weep hole approximately 600 mm deep from slopes, retaining walls, etc. and removing all debris from Site.....	A \$ 4.90 03054
03055 Rod out, clear and clean choked drain run including trap, gully, or manhole at either end, raising and afterward replacing any covers and removing all debris from Site.....	80.10 03055
03056 Ditto but choked soil, waste or rainwater down pipe including heads, bends and other fittings.....	81.60 03056
03057 Ditto but choked trap or soil or waste branch pipe to bath, W.C., basin, sink and other sanitary fittings.....	41.90 03057
03058 Clear out mud, vegetation, debris and the like from catch pit n.e. 0.30 m ³ internally, raising and afterward replacing any covers and removing all debris from Site.....	57.00 03058
03059 Add to Item 03058 for each additional 0.15 m ³ or part thereof internally.....	24.80 03059
03060 Supply sackcloth or nylon sandbag n.e. 0.10 m ³ and excavate ordinary dry earth free from stones, etc., on Site and filled bag with dry earth or clean sand either from Site or from Contractor's own source and place in position.....	24.80 03060
03061 Add to Item 03060 for mixing 10% cement with the dry earth or sand before filling into the bag.....	8.00 03061
UTILITY CONNECTION AND PAVEMENT WORKS	
<i>Per item</i>	
03062 Lump sum fee for Utility Connection And Pavement Works..... (Note : - This item shall only be paid for, if ordered by the Maintenance Surveyor in writing.)	A \$ 10,500.00 03062

Section 04

CONCRETE WORK

SECTION 04

CONCRETE WORK

SPECIAL CONDITIONS

Measurement of concrete	SC04.01	<p>Concrete shall be measured net as laid or cast.</p> <p>No deduction shall be made for : -</p> <p>(a) Voids not exceeding 0.05 m³.</p> <p>(b) The volume of reinforcement, steel joists, stanchions and the like cast in.</p> <p>(c) Openings in walls, floors, roof slabs and the like not exceeding 0.10 m².</p>
Measurement of cutting and taking down existing concrete	SC04.02	<p>Measurements of cutting and taking down existing concrete shall include the thickness of any plastering, rendering or other finish on the surface of concrete.</p> <p>The items contained in this Section shall only apply to alterations. Any demolition works with respect to whole or part of a building shall be measured separately and paid for at appropriate rates under Section 02 - Demolition of this Schedule.</p>
Measurement of formwork	SC04.03	<p>Formwork shall be measured as the actual surface in contact with concrete. No deduction shall be made for openings not exceeding 1.00 m². Boxing for opening exceeding 1.00 m² shall be measured as edges. Wrot formwork shall be measured only when a fair finished face to the concrete is specifically ordered by the Maintenance Surveyor in writing.</p>
Measurement of reinforcement	SC04.04	<p>Reinforcement shall be measured net as fixed. No allowance shall be made in the weight for rolling margin. The weight of reinforcement shall be calculated in accordance with the weight per linear metre in Table 7 of Annex 'C' - Tables of Metal Weights, etc. to this Schedule (regardless of the actual weight).</p> <p>Fabric reinforcement shall be measured the net area covered excluding laps. No deduction shall be made for openings not exceeding 1.00 m².</p>
Measurement of underlays	SC04.05	<p>Underlays shall be measured net as laid excluding laps. No deduction shall be made for openings not exceeding 1.00 m².</p>
Measurement of precast concrete	SC04.06	<p>Precast concrete shall be measured the actual size of the item casted. Any plasterwork shall be excluded in the measurement and it shall be separately measured and paid for at appropriate rates under relevant Sections of this Schedule.</p>
Measurement of movement joints	SC04.07	<p>Movement joints for structural concrete works, including concrete roads and pavings, shall be separately measured.</p>

SPECIAL CONDITIONS

**Measurement of
movement joints
(Cont'd)**

**SC04.07
(Cont'd)**

Movement joints for roofing, finishes and other non-structural elements, except repointing of movements joints for repair and replacement, shall be deemed to be included in the rates of the items in the respective Sections.

Repointing of movement joints for roofing, finishes and other non-structural elements for repair and replacement shall be separately measured.

**Rates for
concrete
generally**

SC04.08

The rates for all concrete shall generally include for :-

- (a) Mobilization, maintenance and demobilization of concrete mixer, tower crane, mobile crane, hoist, concrete pump, vibrator and other plant necessary for the works.
- (b) Conveying, lowering, hoisting, pumping, placing in position, compacting with vibrator, curing and protection.
- (c) Formwork to sides or edges of plain concrete.
- (d) Construction joints including formwork, water bars and waterstops.
- (e) Laying beds level or to falls, and laying beds or slabs in alternative bays including necessary formwork to joints between bays.
- (f) Finishing surfaces level or to falls, currents and cambers and to receive pavings unless otherwise specifically stated.
- (g) Casting kickers monolithically with base slab where these are required at base of walls and columns.
- (h) Forming all necessary sinkings in or handpacking of hardcore.
- (i) Forming or cutting all chases, grooves, notches, rebates, mortices, holes, grouting in ends with cement mortar including making good to match existing.
- (j) Forming all angles, ends, junctions, intersections, outlets and similar labours to curbs, channels and the like.
- (k) Casting in, building in and grouting in work to concrete inserts, puddle flanges, water stops, ducts and pipes, bolts and cramps, dowels, baluster ends and the like and making good.
- (l) Giving adequate notice to the Maintenance Surveyor to permit inspection of relevant part of the structure before concrete is placed and prior to commencing concreting after approval has been obtained from the Maintenance Surveyor.
- (m) Submission of samples and testing of materials before trial mix or making concrete for use in the works.
- (n) Carrying out trial mixes, sampling and testing on the same.
- (o) Carrying out tests including making concrete cubes and testing on the same including all necessary security handling of concrete cube.

SPECIAL CONDITIONS

Rates for concrete generally (Cont'd)	SC04.08 (Cont'd)	<ul style="list-style-type: none"> (p) Sampling of fresh concrete and finished concrete including taking core samples from the finished concrete works and tests on the same including all necessary security handling of core samples. (q) Filling core hole, tie bar holes with cement mortar or concrete of same strength to the parent concrete and making good. (r) Providing method statement for the replacement of condemned concrete and any remedial works which may be supervised by a Registered Structural Engineer. (s) All labours and equipment required at the specified locations including any necessary hoisting, craneage, scaffolding and temporary platforms, etc. for making test cores. (t) Removing from Site any concrete work failed to conform to the Specification. (u) Recording and submitting records for ready-mixed concrete. (v) Submitting details of mix design. (w) Control of alkali-aggregate reaction in concrete. (x) Use of recycled aggregate and/or recycled water in concrete.
Rates for plain concrete	SC04.09	<p>The rates for plain concrete shall further include for : -</p> <ul style="list-style-type: none"> (a) Erecting, maintaining and removing formwork or falsework. (b) Additional volume of concrete for filling over-break or working space.
Rates for reinforced concrete	SC04.10	<p>The rates for reinforced concrete shall further include for : -</p> <ul style="list-style-type: none"> (a) Tamping around reinforcement.
Rates for reinforcement	SC04.11	<p>The rates for reinforcement shall include for : -</p> <ul style="list-style-type: none"> (a) Cleaning, cutting to length, bending (including cranks and hooked ends), hoisting, fixing and securely supporting in the required position. (b) Plastic cover spacers, spacer blocks, steel spacer rods, steel clips, steel chairs and annealed iron tying wire or tack welding. (c) Sampling and testing including stock management on Site and removal of non-compliant re-bars. (d) Extra fabric reinforcement at laps. (e) Provision of test certificates. (f) Submission of bar bending schedule.

SPECIAL CONDITIONS

Rates for epoxy coating to reinforcement

SC04.12 The rates for epoxy coating to reinforcement shall further include for compliance with the Specification.

Rates for formwork

SC04.13 The rates for formwork shall include for : -

- (a) Submission of design on formwork and falsework including supports and foundations, and where required, by a Registered Structural Engineer.
- (b) Erecting, maintaining and striking formwork and falsework.
- (c) Preventing loss of grout between joints.
- (d) Fixing inserts and chases.
- (e) Boxing out to form holes not exceeding 1.00 m².
- (f) Preparing and applying surface retarders and release agents.
- (g) Multi-handling of removing formwork and falsework when striking without overloading the finished concrete work.
- (h) Preparing and applying wood preservatives to all surfaces of left-in timber formwork.
- (i) Forming cambers and falls.
- (j) Individual fillets, chambers, splays, drips, rebates, recesses, grooves and the like, not exceeding 100 mm total girth measured on the faces in contact with the concrete.
- (k) Strutting to soffits at any height.
- (l) Soffits of solid slabs in any thickness.
- (m) Sides and soffits of beams in any depth.
- (n) In case of formwork materials proposed by the Contractor, all necessary preparation work other than spatterdash.

Rates for precast concrete

SC04.14 The rates for precast concrete items shall include for : -

- (a) Conveying, lowering, hoisting and multi-handling within the Site or other locations.
- (b) All moulds, formwork, etc. including chamfers, throats, weathering, splayed edges, rounded tops and the like.
- (c) Fixing or laying, jointing and pointing in position including cement mortar.
- (d) Providing and fixing of steel reinforcement.

SPECIAL CONDITIONS

Rates for surface treatment to concrete

- SC04.15** The rates for surface treatment to concrete surface shall include for : -
- (a) Preparing plastered or unplastered surfaces ready to receive surface treatment including making good cracks with cement mortar.
 - (b) Cleaning grease or other contaminations.
 - (c) Forming fillets with cement mortar at junction between slabs and walls.
 - (d) Carrying out the works all in accordance with the manufacturer's instructions.

Rates for cutting and taking down existing concrete

- SC04.16** The rates for cutting and taking down existing concrete shall include for : -
- (a) Cutting, saw cutting, taking down and clearing away existing concrete by hand or mechanical plant or both.
 - (b) Providing all necessary supports, props, struts and shores during taking down period or until the stability of the affected works is approved by the Maintenance Surveyor.
 - (c) Providing all necessary protection.
 - (d) Trimming, bending, straightening and cleaning of reinforcement for connection of new reinforcement.
 - (e) Providing keys for bonding of new surface.
 - (f) Preparing and applying bonding agent or primer.
 - (g) Making good all structures, surfaces and finishings disturbed to match existing.
 - (h) Submission of method statements for approval.
 - (i) Submission of records.

Rates for cutting chases, sinking, etc.

- SC04.17** The rates for cutting chases, sinking, grooves, holes and the like shall include for : -
- (a) Cutting and clearing away from Site existing concrete by hand or mechanical plant or both.
 - (b) Making good all structures, surfaces and finishings disturbed to match existing.

Rates for diamond coring to existing concrete

- SC04.18** The rates for diamond coring to existing concrete shall include for : -
- (a) Mobilization, maintenance and demobilization of coring plant and other mechanical plants necessary for the works.
 - (b) Coring through existing concrete or reinforced concrete walls, floors, slabs, roofs and the like including any finishes.
 - (c) Providing temporary water and power supplies and working platform.

SPECIAL CONDITIONS

Rates for diamond coring to existing concrete (Cont'd)	SC04.18 (Cont'd)	<ul style="list-style-type: none"> (d) Making good all structures, surfaces and finishings disturbed to match existing. (e) Clearing away all debris arose.
Rates for underlay	SC04.19	<p>The rates for underlay shall include for : -</p> <ul style="list-style-type: none"> (a) Allowance for laps.
Rates for forming movement joints generally	SC04.20	<p>The rates for movement joints shall generally include for : -</p> <ul style="list-style-type: none"> (a) Supply of movement joint components including but not be limited to water stops, joint filler, bond breaker, back-up materials and sealants, all of which shall be of an approved proprietary make, as stated in G.S. Item 6.61. (b) Provision of non-acidic and anti-mould sealants. (c) Installation of movement joints strictly as specified in the Contract and in accordance with the manufacturer's recommendations. (d) Prior to applying joint sealants, keeping the edges of the joints true and free from cracks, spalling and other imperfections, and keeping the joints clean, dry and free from dust or grease. (e) Fixing joint filler to concrete with a bituminous adhesive prior to casting adjoining bay. (f) Pressing and finishing all sealants with a smooth regular surface. (g) Provision of warranty as specified in the Contract.
Rates for rebound hammer tests	SC04.21	<p>The rates for rebound hammer tests shall include for : -</p> <ul style="list-style-type: none"> (a) Mobilization, maintenance and demobilization of all necessary mechanical plants and instruments necessary for the works. (b) Preparing test areas including removing loose mortar and the like before test. (c) Providing temporary working platform and protection. (d) Recording and submitting records and test reports.
Quality assurance for structural concrete	SC04.22	<p>All structural concrete shall be produced and supplied in accordance with the Quality Assurance requirement for Structural Concrete as stated in the Contract.</p>

Item							Item					
PLAIN CONCRETE												
						Concrete Grade						
						10P	20P	30P				
						A	B	C				
						\$	\$	\$				
<i>Per cubic metre</i>												
04001	Mass filling, packing, thickening and the like.....					800.30	885.30	900.10	04001			
04002	Foundations.....					819.00	904.10	918.80	04002			
04003	Beds, paving slabs and the like.....					819.00	904.10	918.80	04003			
04004	Blinding under foundations.....					819.00	904.10	918.80	04004			
04005	Curbs, upstands, plinths and the like.....					869.50	954.50	969.30	04005			
REINFORCED CONCRETE												
						Concrete Grade						
						20MPa or 20D	25MPa or 25D	30MPa or 30D	35MPa or 35D	40MPa or 40D	45MPa or 45D	
						A	B	C	D	E	F	
						\$	\$	\$	\$	\$	\$	
<i>Per cubic metre</i>												
04006	Foundations, isolated and attached bases and the like.....					860.00	888.60	899.50	919.30	964.30	977.90	04006
04007	Ground beams, tie beams and the like.....					874.90	903.50	914.40	934.20	979.30	992.80	04007
04008	Machine bases, thrust blocks and the like.....					882.30	910.90	921.80	941.60	986.70	1,000.20	04008
04009	Ground slabs or suspended slabs.....					888.50	917.10	928.10	947.80	992.90	1,006.40	04009
04010	Sloping suspended slabs.....					897.20	925.80	936.80	956.50	1,001.60	1,015.10	04010
04011	Walls.....					883.60	912.20	923.10	942.90	988.00	1,001.50	04011
04012	Retaining walls.....					894.70	923.40	934.30	954.10	999.10	1,012.60	04012
04013	Piers and columns.....					918.40	947.00	957.90	977.70	1,022.70	1,036.30	04013
04014	Beams.....					888.50	917.10	928.10	947.80	992.90	1,006.40	04014
04015	Fins and the like.....					888.50	917.10	928.10	947.80	992.90	1,006.40	04015
04016	Casings to structural steelwork.....					918.40	947.00	957.90	977.70	1,022.70	1,036.30	04016
04017	Stairs.....					961.80	990.40	1,001.40	1,021.20	1,066.20	1,079.70	04017
04018	Curbs, upstands and the like.....					888.50	917.10	928.10	947.80	992.90	1,006.40	04018
Extra over either of Items 04006 to 04018 inclusive for concrete in liquid retaining structures.....											6%	
Extra over either of Items 04006 to 04018 inclusive for concrete with use of pulverized fuel ash.....											1%	
Extra over either of Items 04006 to 04018 inclusive for concrete with recycled coarse aggregates.....											14%	

Item	Item			
"NO FINES" CONCRETE				
<i>Per cubic metre</i>				
04019	04019			
No-fines concrete filling.....	<table border="1"> <tr><td>A</td></tr> <tr><td>\$</td></tr> <tr><td>823.10</td></tr> </table>	A	\$	823.10
A				
\$				
823.10				
LIGHTWEIGHT CONCRETE				
<i>Per cubic metre</i>				
04020	04020			
Cement and vermiculite (1:6) by volume or other approved lightweight concrete filling, thickening, insulation slabs and the like.....	<table border="1"> <tr><td>A</td></tr> <tr><td>\$</td></tr> <tr><td>1,791.30</td></tr> </table>	A	\$	1,791.30
A				
\$				
1,791.30				
STEEL REINFORCEMENT				
<i>Per kg</i>				
04021	04021			
Plain steel reinforcing bars n.e. 16 mm diameter.....	<table border="1"> <tr><td>A</td></tr> <tr><td>\$</td></tr> <tr><td>11.00</td></tr> </table>	A	\$	11.00
A				
\$				
11.00				
04022	04022			
Ditto exceeding 16 mm diameter.....	<table border="1"> <tr><td>A</td></tr> <tr><td>\$</td></tr> <tr><td>11.00</td></tr> </table>	A	\$	11.00
A				
\$				
11.00				
04023	04023			
Ribbed steel reinforcing bars 10 - 40 mm diameter.....	<table border="1"> <tr><td>A</td></tr> <tr><td>\$</td></tr> <tr><td>10.20</td></tr> </table>	A	\$	10.20
A				
\$				
10.20				
04024	04024			
Fabric reinforcement lapped at joints.....	<table border="1"> <tr><td>A</td></tr> <tr><td>\$</td></tr> <tr><td>14.60</td></tr> </table>	A	\$	14.60
A				
\$				
14.60				
Extra over either of Items 04021 to 04024 inclusive for epoxy coating including handling, cutting and bending, sampling and testing (as Specification).....				
(Note : - This item shall only be paid for, if ordered by the Maintenance Surveyor in writing.)				
<table border="1"> <tr><td>A</td></tr> <tr><td>\$</td></tr> <tr><td>45%</td></tr> </table>		A	\$	45%
A				
\$				
45%				

Item			Item
	FORMWORK		
		Sawn formwork	Wrot formwork
		A \$	B \$
	<i>Per square metre</i>		
04025	Vertical surfaces of foundations, ground beams, tie beams and the like.....	345.50	-
04026	Ditto but to casing of structural steelwork.....	376.80	383.50
04027	Ditto but to machine base, thrust blocks and the like.....	369.60	376.30
04028	Ditto but to piers, columns, stanchions and the like.....	381.60	388.30
04029	Ditto but to fins and the like.....	376.80	383.50
04030	Soffits of suspended slabs.....	395.70	403.10
04031	Sloping soffits of suspended slabs.....	438.80	446.20
04032	Vertical surfaces of walls.....	382.60	390.10
04033	Battered surfaces of walls.....	418.70	426.10
04034	Sides and soffits of beams.....	398.90	406.30
04035	Casing of steel beams.....	395.70	403.10
04036	Sloping soffits of stairs.....	438.80	446.20
04037	Edges of curbs, upstands, slabs and the like exceeding 300 mm high.....	303.70	311.10
04038	Forming upper surfaces sloping exceeding 15 degrees from horizontal.....	236.90	244.30
	<i>Per linear metre</i>		
04039	Edges, open strings or risers n.e. 300 mm wide.....	52.70	53.80
	Extra over either of Items 04025 to 04039 inclusive for formwork to produce rough board finish (as G.S. Item 6.73) ordered by the Maintenance Surveyor in writing.....	-	50%
	Extra over either of Items 04025 to 04039 inclusive for formwork to be left in position ordered by the Maintenance Surveyor in writing.....	20%	-
	Extra over either of Items 04025 to 04039 inclusive for formwork curved on plan or elevation to a radius on face n.e. 3.00 m.....	30%	30%
	Ditto but 3.00 - 15.00 m.....	15%	15%

Item		Concrete Grade		Item	
		20MPa or 20D	30MPa or 30D		
		A \$	B \$		
	PRECAST REINFORCED CONCRETE				
	Precast reinforced concrete placed in position with mortar or cast into concrete : -				
	<i>Per cubic metre</i>				
04040	Cooking shelf, sink, partition, slabs and the like.....	2,694.90	2,752.00	04040	
04041	Lintols, beams, rafters, struts and columns, cills, strings, copings, cornices, kerbs, pier caps, pit covers and the like.....	2,420.30	2,477.40	04041	
04042	Planters, refuse bins and the like.....	1,786.20	1,843.30	04042	
04043	Fencing components, posts and the like.....	2,766.00	2,823.10	04043	
04044	Ventilators, grilles, grille panelled walls and the like.....	2,557.60	2,614.70	04044	
		Take out and clear away	Take out and set aside for re-use	Fix only	
	<i>Per cubic metre</i>	A \$	B \$	C \$	
04045	Precast item laid or placed in position.....	166.00	149.30	248.90	04045
04046	Ditto but cast into concrete (measured separately).....	232.30	209.10	348.40	04046
04047	Ditto built in or bedded in cement mortar.....	207.50	187.50	311.90	04047
	SURFACE TREATMENT TO CONCRETE				
	<i>Per square metre</i>				
04048	Treat surfaces with an approved liquid hardener to horizontal surfaces.....			26.10	04048
04049	Ditto but to vertical or sloping surfaces.....			28.00	04049
04050	Treat surfaces with carborundum grains to horizontal surfaces.....			15.80	04050
04051	Ditto but vertical or sloping surfaces.....			17.10	04051

Item			Item	
	FINISHINGS AND SUNDRY LABOURS ON NEW CONCRETE			
	<i>Per square metre</i>	A \$		
04052	Float surface fair and even with a wood float including any additional cement required.....	17.40	04052	
04053	Trowel surface hard and smooth with a steel trowel including ditto.....	23.80	04053	
04054	Score surface with parallel anti-slip grooves approximately 15 mm wide x 15 mm deep at 100 mm centres.....	31.90	04054	
04055	Punch small anti-slip holes in surface approximately 15 mm deep at 150 mm centres staggered.....	14.30	04055	
04056	Heavily tamp surface to form corrugated non-slip finish.....	12.70	04056	
04057	Damp proof course of bitumen sprayed or brushed on surface at the rate of 0.50 litre/m ²	29.80	04057	
	<i>Per linear metre</i>			
04058	Form channel n.e. 150 mm girth with rounded bottom finished to falls including angles, ends junctions, outlets, and similar labours and trowelling smooth.....	25.50	04058	
04059	Ditto 150 - 300 mm girth.....	52.60	04059	
	Extra over either of Items 04058 and 04059 for forming channel curved on plan to a radius n.e. 3.00 m.....	15%		
	TAKING DOWN CONCRETE FOR ALTERATION WORKS			
	Note :-			
	(i) The following Items 04060 and 04061 shall only apply to alteration works. All demolition works in respect of a whole or part of a building shall be measured and priced under Section 02 - Demolition of this Schedule.			
	(ii) Diamond coring shall only be measured separately if specifically ordered by the Maintenance Surveyor in writing.			
	<i>Per cubic metre</i>			
		Concrete of any grade		
		Plain concrete	Reinforced concrete	
		A \$	B \$	
04060	Take down or break out and clear away concrete structural elements in any position n.e. 150 mm thick.....	471.00	568.00	04060
04061	Ditto exceeding 150 mm thick.....	529.10	641.60	04061

Item		Concrete of any grade		Item
		Plain concrete	Reinforced concrete	
		A \$	B \$	
CUTTING AND SUNDRY LABOURS ON EXISTING CONCRETE				
<i>Per cubic metre</i>				
04062	Cut through wall, floor slab or similar, exceeding 0.05 m ³ for new door, window or other opening, or to enlarge existing opening, including trimming surfaces to receive new plaster or other finish (finishes measured separately) (net size of required opening measured).....	568.00	665.00	04062
<i>Per square metre</i>				
04063	Hack surface or edge to provide key for new concrete.....	11.40	-	04063
04064	Cut parallel anti-slip grooves approximately 15 mm wide x 15 mm deep at 100 mm centres and make good.....	28.40	-	04064
04065	Cut small anti-slip holes in surface approximately 15 mm deep at 150 mm centres staggered and make good.....	17.10	-	04065
04066	Cut into concrete floor all over n.e. 25 mm deep, trim and level surface to receive screed.....	18.50	-	04066
04067	Ditto but 25 - 50 mm deep.....	35.50	46.90	04067
04068	Add to Item 04067 for each additional 25 mm depth or part thereof in excess of 50 mm.....	18.50	24.20	04068
04069	Cut sinking exceeding 0.10 m ² but n.e. 25 mm deep into surface, including trimming and making good back face and edges (net size of required sinking measured).....	25.60	-	04069
04070	Ditto but 25 - 50 mm deep.....	42.70	56.90	04070
04071	Add to Item 04070 for each additional 25 mm depth or part thereof in excess of 50 mm.....	18.50	24.20	04071
<i>Per linear metre</i>				
04072	Cut chase, groove or rebate n.e. 0.0005 m ² sectional area and make good, including pinning in and bedding and pointing edges of slabs, cills, steps, pipes, and similar items.....	18.50	21.30	04072
04073	Ditto 0.0005 - 0.01 m ² sectional area.....	35.50	46.90	04073
04074	Cut channel n.e. 150 mm girth with rounded bottom finished to falls, and make good including rendering with 15 mm cement and sand (1:3) and forming all angles, ends, junctions, outlets and similar labours.....	37.30	48.50	04074
04075	Ditto but 150 - 300 mm girth.....	63.30	74.20	04075
	Extra over either of Items 04072 to 04075 inclusive for cutting chase, groove, rebate or channel curved on plan to a radius n.e. 3.00 m.....	20%	20%	
	Extra over either of Items 04072 to 04075 inclusive for cutting chase, groove, rebate or channel curved on plan to a radius 3.00 - 15.00 m.....	10%	10%	

Item	Concrete of any grade	Item
	Plain concrete	
	Reinforced concrete	
	A \$	B \$
CUTTING AND SUNDRY LABOURS ON EXISTING CONCRETE (CONT'D)		
<i>Each</i>		
04076	Cut sinking n.e. 0.01 m ² and 25 mm deep into surface including trimming and making good back face and edges (net size of required sinking measured).....	8.50 11.40 04076
04077	Add to Item 04076 for each additional 25 mm or part of 25 mm in depth.....	4.30 5.70 04077
04078	Cut sinking as Item 04076 but 0.01 - 0.10 m ²	18.50 22.80 04078
04079	Add to Item 04078 for each additional 25 mm or part of 25 mm in depth.....	10.00 12.80 04079
04080	Cut hole through concrete for pipe, air brick, access panel or similar article n.e. 0.0001 m ³ (net size of pipe or article measured) and grout or render around reveals in cement mortar (1:2) and make good one or both sides.....	15.20 17.50 04080
04081	Ditto 0.0001 - 0.0002 m ³	21.50 23.90 04081
04082	Ditto 0.0002 - 0.002 m ³	37.40 45.00 04082
04083	Ditto 0.002 - 0.01 m ³	53.80 69.40 04083
04084	Ditto 0.01 - 0.05 m ³	99.00 124.00 04084
04085	Cut or drill mortice in existing concrete structure for dowel, end of baluster, bracket, fixing cramp, or similar article n.e. 0.0001 m ³ (net size of article for end measured) and grout in cement and sand (1:2) and make good.....	14.40 17.50 04085
04086	Ditto 0.0001 - 0.0002 m ³	21.50 23.90 04086
DIAMOND CORING ON EXISTING CONCRETE		
(Note : - The following Items 04087 to 04098 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)		
<i>Per linear centimetre</i>		
04087	Core diameter n.e. 25 mm.....	5.10 04087
04088	Ditto 25 - 50 mm.....	5.80 04088
04089	Ditto 50 - 75 mm.....	6.90 04089
04090	Ditto 75 - 100 mm.....	8.30 04090
04091	Ditto 100 - 125 mm.....	10.50 04091
04092	Ditto 125 - 150 mm.....	13.30 04092
04093	Ditto 150 - 175 mm.....	15.80 04093
04094	Ditto 175 - 200 mm.....	18.00 04094
04095	Ditto 200 - 225 mm.....	22.80 04095
04096	Ditto 225 - 250 mm.....	29.80 04096
04097	Ditto 250 - 275 mm.....	36.10 04097
04098	Ditto 275 - 300 mm.....	41.30 04098

Item

Item

MOVEMENT JOINTS

Per linear metre

A
\$

04099	Form horizontal or vertical movement joint through full thickness of slab or wall n.e. 75 mm thick including formwork to one edge, providing approved centre bulb type plastic water stop 150 mm (minimum) wide and casting in one edge, coating concrete edge with bitumen at the rate of 0.50 litre/m ² or with approved proprietary primer at rate recommended by the manufacturer when formwork removed, supporting and casting in the other edge of the water stop to the abutting slab or wall, and forming cut and welded joints at all junctions of the water stop in accordance with the manufacturer's instructions.....	183.70	04099
04100	Add to Item 04099 for each additional 75 mm thickness, or part thereof, of slab or wall.....	16.70	04100
04101	Cover movement joint with approved "T" or "Y" section P.V.C. or rubber cover strip pressed firmly into the joint including forming groove in concrete or wall plaster and fixing clips at 300 mm centres.....	150.50	04101
04102	Thoroughly rake out existing mastic or sealant pointing to movement joint and enlarge groove in plaster, paving, concrete, etc., as necessary ready for re-pointing (measured separately).....	7.60	04102

Filler thickness (mm)				
9.50	12.50	19.00	25.00	
A	B	C	D	
\$	\$	\$	\$	
7.40	8.00	9.00	10.00	04103
12.10	13.80	16.50	25.70	04104
16.90	19.80	24.30	29.80	04105
18.50	25.50	32.00	39.60	04106

Per linear metre

04103	Proprietary preformed rigid joint filler placed and supported in position against horizontal or vertical slab edge, wall end, etc., n.e. 75 mm thick, including splitting into two widths if necessary to accommodate plastic water stop (measured separately).....	7.40	8.00	9.00	10.00	04103
04104	Ditto 75 - 150 mm thick.....	12.10	13.80	16.50	25.70	04104
04105	Ditto 150 - 225 mm thick.....	16.90	19.80	24.30	29.80	04105
04106	Ditto 225 - 300 mm thick.....	18.50	25.50	32.00	39.60	04106

Item

Item

MOVEMENT JOINTS (CONT'D)

Point horizontal or vertical joint with one of the following joint sealants as ordered or approved proprietary make with prefabricated angle and intersection pieces including cleaning and preparing surfaces of joint to receive the sealant :-

Per linear metre

	Joint size (mm)								
	5 x 15	5 x 25	15 x 15	15 x 25	15 x 50	25 x 25	25 x 50		
	A	B	C	D	E	F	G		
	\$	\$	\$	\$	\$	\$	\$		
04107	General purpose, oil based standard grade mastic joint sealant of strong adhesion property and high durability, body of sealant to remain flexible under paintable skin which forms between 24-48 hours, sealant to give weathertight seal and for general pointing, bedding and joint sealant up to 20 mm wide.....	11.70	16.60	26.50	41.50	78.60	-	-	04107
04108	Cold applied, two part elastomeric polyurethane black sealant for joint in concrete paved area, self levelling, resistant to fuel, oil and hydraulic fluid spillage, to BS5212, tack free and accept traffic after 16-24 hours of application.....	9.90	13.80	21.50	33.20	61.70	51.50	101.50	04108
04109	Thermoplastic bitumen based black putty joint sealant, hot applied, for joint in water retaining structures including vertical and inclined joints of width up to 40 mm wide, weather resistant seal, resistant to bacteriological attack, for permanent immersion in water, joint surfaces to be primed with compatible primer from the same manufacturer and allowed to dry.....	12.50	17.60	27.70	43.30	81.40	68.60	132.90	04109
04110	Hot poured, black rubber bitumen horizontal joint sealant, for movement and construction joints of width up to 65 mm (non trafficking) in concrete pavements and floor slabs including water retaining structures, potable water tanks, strong adhesion to concrete and asphalt surfaces, resistant to grit, porous surfaces to be primed with compatible primer from the same manufacturer and allowed to dry.....	9.80	13.00	19.10	28.30	51.50	43.70	82.40	04110
04111	Liquid polysulphide polymer joint sealant for sealing joints of 5-50 mm wide in brickwork, floors, retaining walls, basements and subways, with or without backing rod, including strong adhesion to most common substrates, to ISO11600:1993, BS4254 and ASTM C920-87, Type M, Class 25, surfaces to be primed with compatible primer from the same manufacturer.....	18.80	27.30	43.40	68.90	110.70	98.80	158.40	04111

Item

Item

MOVEMENT JOINTS (CONT'D)

Joint size (mm)						
5 x 15	5 x 25	15 x 15	15 x 25	15 x 50	25 x 25	25 x 50
A	B	C	D	E	F	G
\$	\$	\$	\$	\$	\$	\$
12.30	17.90	22.10	29.10	47.20	43.30	71.70

Per linear metre

04112	Point horizontal or vertical joint with approved epoxy mortar including cleaning and preparing surfaces of joint and priming surfaces with approved epoxy primer before applying epoxy mortar.....	12.30	17.90	22.10	29.10	47.20	43.30	71.70	04112
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REBOUND HAMMER TEST*Per item*

04113	Carry out rebound hammer test on existing concrete surface in accordance with BS EN 12504-2 including setting up equipment, calibrating, carrying out test and submitting reports.....							A \$ 276.00	04113
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UNDERLAYS*Per square metre*

04114	Reinforced waterproof building paper laid on surfaces.....							A \$ 7.50	04114
04115	Ditto but fixed to edges of slabs or tops of walls with and including mastic.....							13.70	04115
04116	0.08 mm Thick polythene sheet laid on surfaces.....							9.10	04116
04117	Ditto but fixed to edges of slabs or tops of walls with and including mastic.....							16.40	04117

SUPPLY ONLY OF MATERIALS*Per cubic metre*

04118	40 mm Granite aggregate.....							A \$ 112.10	04118
04119	20 mm Ditto.....							112.10	04119
04120	Granite fines.....							143.10	04120
04121	Sand.....							206.80	04121

Per 100 kg

04122	Ordinary Portland cement.....							79.80	04122
04123	Coloured cement.....							157.00	04123

Section 05

BRICKWORK AND BLOCKWORK

SECTION 05

BRICKWORK AND BLOCKWORK

SPECIAL CONDITIONS

**Measurement of
brickwork and
blockwork
generally**

SC05.01

Brickwork and blockwork shall generally be measured net as built. Where exceeding 225 mm or one brick thick, it shall be measured in cubic metres, and where 225 mm or one brick thick or less, it shall be measured in square metres. Flues and chimney breasts shall be measured solid. Apertures and voids for ranges, boilers, grates, cookers etc., shall be deducted. Deductions shall also be made for string courses, cills, lintols, etc., but only to the extent of a full brick course in height.

No deduction shall be made for : -

- (a) Openings not exceeding 0.10 m².
- (b) Flues not exceeding 0.25 m² in sectional area.
- (c) String courses, cills, lintols, etc., less than a full brick course in height.

Apart from face work, no additional rate shall be allowed for brickwork or blockwork curved on plan or built battered.

**Measurement of
facing brickwork**

SC05.02

Facing brickwork shall be measured net over the whole exposed surface including additional girth of top and bottom returns of oversailing and receding courses, top of copings and the like. Exposed surfaces of all fair axed arches shall not be deducted from the area of general facings and measured separately as "Extra over" general brickwork for arches.

On no account will facing be measured where the work is to be plastered, rendered or otherwise covered up, or left rough as in trenches, backs, retaining walls and the like.

**Measurement of
fair face
to blockwork**

SC05.03

Fair face work shall be measured net as "Extra over" the general blockwork over the whole exposed surface including additional girth of top and bottom returns of oversailing and receding courses, top of copings and the like.

On no account will fair face work be measured where the work is to be plastered, rendered or otherwise covered up, or left rough as in trenches, backs, retaining walls and the like.

SPECIAL CONDITIONS

Measurement for cutting and sundry labours on existing brickwork and blockwork

SC05.04

Measurement for cutting, etc., and sundry labours on existing brickwork and blockwork shall include the thickness of any plastering, rendering, or other finishes on both sides. In the case of taking down walls 300 mm thick and less, the net thickness of the brickwork or blockwork shall be stated.

Rates for brickwork and blockwork

SC05.05

The rates for brickwork, blockwork and facings shall include for :-

- (a) Rough and fair cuttings and bonding at angles, intersections, etc..
- (b) Oversailing and receding courses.
- (c) Rough relieving and discharging arches.
- (d) Wedging and pinning.
- (e) Raking out joints to form key.
- (f) Raking out and enlarging joints, and cement or lime mortar pointing to flashings and the like.
- (g) Bedding and pointing frames, plates and the like in cement or lime mortar.
- (h) Eaves filling.
- (i) Plumbing angles.
- (j) Forming square or rebated reveals.
- (k) Cutting squints, birdsmouths, splays, chamfers and the like.
- (l) Leaving or cutting chases, notches, holes, mortices and the like, and grouting in ends, pipes and the like, and making good.
- (m) Leaving pockets in the work to receive built-in items including subsequently blocking up.
- (n) Cutting and pinning ends and making good.
- (o) Mild steel rod reinforcement or bonding rods painted with two coats of bituminous paint, galvanised mild steel fabric reinforcement and the like.
- (p) Special bonding and tying for conduit installation.
- (q) Bonding to existing work.

SPECIAL CONDITIONS

Rates for brickwork and blockwork (Cont'd)	SC05.05 (Cont'd)	<ul style="list-style-type: none"> (r) Bonding to walls of different construction. (s) Protection to faced and fair faced work until completion of the Works. (t) Sundry items of like nature to any of the above. (u) Facing brickwork in all types of bond.
Rates for blockwork	SC05.06	<p>The rates for blockwork shall further include for : -</p> <ul style="list-style-type: none"> (a) Special quoin blocks, plain reveal blocks, closers and the like. (b) In the case of hollow blocks, filling cavities solid with cement mortar at ends, opening reveals, intersections and similar positions if necessary.
Rates for fire resisting lightweight concrete blocks	SC05.07	<p>The rates for fire resisting lightweight concrete blocks shall further include for : -</p> <ul style="list-style-type: none"> (a) Submission of test certificates and manufacturer's guarantee.
Rates for recycled glass blocks	SC05.08	<p>The rates for recycled glass blocks shall further include for : -</p> <ul style="list-style-type: none"> (a) Submission of test certificates.
Rates for cutting and sundry labour on existing brickwork or blockwork	SC05.09	<p>The rates for cutting and sundry labour on existing brickwork or blockwork shall include for : -</p> <ul style="list-style-type: none"> (a) Cutting opening, cutting chase or rebate, cutting hole or sinking, cutting or drilling mortice and similar labour through all types of brickwork and/or blockwork. (b) Removal from the Site of all debris and materials arising from the cutting and labour operations. (c) Removal of all related plastering, rendering or other finishes on one or both sides of brickwork or blockwork. (d) Making good any disturbed surfaces and existing surfaces.
Rates for cutting chases, sinkings, etc.	SC05.10	<p>The rates for cutting chases, sinkings, grooves, rebates, holes and the like shall include for removing debris and making good any existing finish.</p>
Glass blocks	SC05.11	<p>Glass block panelling can be found in Section 14 - Glazing of this Schedule.</p>

Item	A S	Item
GENERAL BRICKWORK		
Note : - The nominal size of standard brick is 225 x 112.5 x 75 mm. Thus nominal thickness of : - One brick wall is 225 mm thick. Half brick wall is 112.5 mm thick. Brick on edge wall is 75 mm thick.		
Brickwork built in cement/lime mortar or cement mortar : -		
<i>Per cubic metre</i>		
05001 Solid brickwork exceeding one brick thick.....	1,185.90	05001
<i>Per square metre</i>		
05002 Brick-on-edge wall.....	124.70	05002
05003 Ditto built honeycomb.....	100.40	05003
05004 Half brick wall.....	133.10	05004
05005 Ditto built honeycomb.....	111.10	05005
05006 One brick wall.....	241.00	05006
05007 One brick staining to wall.....	303.50	05007
05008 Ditto with mortar bed joints but open vertical joints.....	300.60	05008
05009 Half brick lining to stone or concrete wall bonded to same with and including flushing up solid between the brick wall and stone or concrete with mortar.....	135.40	05009
05010 One brick lining ditto.....	242.00	05010
<i>Per linear metre</i>		
05011 Brick-on-edge coping, upstand kerb or similar 75 mm wide including angles and ends.....	51.40	05011
05012 Ditto but 225 mm wide.....	79.60	05012
<i>Per square metre</i>		
05013 Form cavity between brick walls, including providing and building in wall ties in accordance with G.S. items 9.11 and 9.36.....	17.90	05013

Item		Internal girth (m)			Item
		n.e. 0.90	0.90 - 1.35	1.35 - 1.80	
		A \$	B \$	C \$	
BRICK PITS					
	<i>Each</i>				
05014	Small pit for stop-cock, etc., n.e. 300 mm deep internally constructed of 75 mm thick concrete Grade 10P base extending to outside face of sides and trowelled smooth and half brick sides in cement mortar finished fair and pointed, or rendered in 15 mm cement and sand (1:3) internally, including all excavation, disposal and formwork (cover measured separately).....	275.00	327.00	378.00	05014
05015	Ditto 300 - 600 mm deep internally.....	386.00	463.00	539.00	05015
05016	Ditto 600 - 900 mm deep internally.....	497.00	599.00	700.00	05016
05017	Add to either of Items 05014 to 05016 inclusive for 75 mm thick precast concrete Grade 20P cover slab extending to outside face of sides, reinforced with and including expanded mesh fabric, finished fair and placed in position including all moulds and additional excavation.....	124.00	154.00	184.00	05017
FACING BRICKWORK					
	<i>Per square metre</i>			A \$	
05018	Extra over brickwork exceeding one brick thick in any type of bonds for facing and pointing with a neat struck or flush joint as the work proceeds.....			131.50	05018
05019	Ditto but battered.....			125.90	05019
05020	Half brick wall in any type of bonds faced and pointed with a neat struck or flush joint as the work proceeds one side.....			216.70	05020
05021	Ditto both sides.....			281.40	05021
05022	One brick wall in any type of bonds faced and pointed with a neat struck or flush joint as work proceeds one side.....			418.50	05022
05023	Ditto both sides.....			421.80	05023
	Add to either of Items 05018 to 05023 inclusive for work built circular on plan to a radius n.e. 1.50 m.....			15%	
	Add to ditto for work built circular on plan to a radius 1.50 - 15.00 m.....			10%	

Item		Item	
FACING BRICKWORK (CONT'D)			
<i>Per linear metre</i>		A \$	
05024	Brick-on-edge coping, upstand kerb or similar 75 mm wide including angles and ends.....	61.70	05024
05025	Ditto but 225 mm wide.....	100.10	05025
05026	Extra over brickwork for one brick axed arch in facing (or arch of purpose made bricks) jointing and pointing.....	120.30	05026
Add to either of Items 05024 to 05026 inclusive for work built circular on plan to a radius n.e. 1.50 m.....		15%	
Add to ditto for work built circular on plan to radius 1.50 - 15.00 m.....		10%	
GENERAL FIRE BRICKWORK AND SUNDRY WORK TO FLUES			
Brickwork in approved imported firebricks set and jointed in approved fire cement or in a mortar composed of one part of high-alumina cement to two parts of finely crushed firebrick by volume :-			
<i>Per cubic metre</i>		A \$	
05027	Solid brickwork exceeding one brick thick in lining to flues, boilers, grates, cookers, and similar positions.....	4,846.40	05027
<i>Per square metre</i>			
05028	Brick-on-edge wall.....	370.60	05028
05029	Half brick wall.....	523.80	05029
05030	One brick wall.....	1,136.10	05030
05031	Rendering to flues in approved fire cement or in mortar composed of one part of high-alumina cement to two parts of finely crushed firebrick by volume 25 mm thick.....	374.90	05031

Item

Item

BLOCKWORK*Per cubic metre*

		A \$	
05032	Solid concrete block walling exceeding 225 mm thick in cement mortar.....	1,203.60	05032
05033	Hollow concrete block walling ditto.....	1,454.70	05033

Thickness of wall (mm)			
n.e 75	75 - 150	150 - 225	
A \$	B \$	C \$	
05034	Solid concrete block walling in cement mortar.....	134.20 145.60 170.90	05034
05035	Hollow concrete block ditto.....	140.20 178.60 228.80	05035
05036	Solid vermiculite or other approved lightweight aggregate concrete block walling in cement/lime/sand (1:2:9) by volume.....	131.80 163.20 208.20	05036

Per square metre

		A \$	
05034	Solid concrete block walling in cement mortar.....	134.20	05034
05035	Hollow concrete block ditto.....	140.20	05035
05036	Solid vermiculite or other approved lightweight aggregate concrete block walling in cement/lime/sand (1:2:9) by volume.....	131.80	05036

Per square metre

		A \$	
05037	Extra over either of Items 05032 to 05036 inclusive for finishing with a fair face and pointing with a neat flush or struck joint as the work proceeds.....	11.50	05037
	Add to Item 05037 for work built circular on plan to a radius n.e. 1.50 m.....	15%	
	Add to ditto for work built circular on plan to a radius 1.50 - 15.00 m.....	10%	

FIRE RESISTING LIGHTWEIGHT CONCRETE BLOCKS

(Note :- The following Items 05038 and 05039 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Fire resisting lightweight concrete blocks in any size and thickness :-

Per square metre

		FRR (hours)			
		1	2	4	
		A \$	B \$	C \$	
05038	Fire resisting lightweight concrete block walling bedded and pointed in fireproof mortar.....	168.80	179.80	195.80	05038

Per square metre

		A \$	
05039	Extra over Item 05038 for sealing one side of wall with moisture sealer.....	32.80	05039

Item				Item														
PERFORATED CONCRETE BLOCKWORK																		
<i>Per square metre</i>																		
05040	90 mm Perforated concrete block walling laid in standard pattern in cement mortar pointed with neat flush or struck joint both sides as the work proceeds.....	144.10	A \$	05040														
05041	90 mm Ditto but built honeycomb.....	96.00		05041														
RECYCLED GLASS BLOCKS																		
Recycled glass blocks complying with the following : -																		
<table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Major Components (By weight)</td> <td>Not less than 60 % recycled aggregates from local source Not less than 20 % recycled glass sand from local source Not less than 7 % cement as binder</td> </tr> <tr> <td>Compressive Strength</td> <td>≥ 6.0 Mpa</td> </tr> <tr> <td>Fire Resistance Rating according to BS 476 Part 22</td> <td>Insulation : ≥ 120 minutes Integrity : ≥ 120 minutes (no failure)</td> </tr> </table>		Major Components (By weight)	Not less than 60 % recycled aggregates from local source Not less than 20 % recycled glass sand from local source Not less than 7 % cement as binder	Compressive Strength	≥ 6.0 Mpa	Fire Resistance Rating according to BS 476 Part 22	Insulation : ≥ 120 minutes Integrity : ≥ 120 minutes (no failure)	<table border="1" style="width: 100%;"> <tr> <th colspan="2">Thickness of wall (mm)</th> </tr> <tr> <th>100</th> <th>150</th> </tr> <tr> <td>A \$</td> <td>B \$</td> </tr> <tr> <td>174.70</td> <td>229.20</td> </tr> </table>			Thickness of wall (mm)		100	150	A \$	B \$	174.70	229.20
Major Components (By weight)	Not less than 60 % recycled aggregates from local source Not less than 20 % recycled glass sand from local source Not less than 7 % cement as binder																	
Compressive Strength	≥ 6.0 Mpa																	
Fire Resistance Rating according to BS 476 Part 22	Insulation : ≥ 120 minutes Integrity : ≥ 120 minutes (no failure)																	
Thickness of wall (mm)																		
100	150																	
A \$	B \$																	
174.70	229.20																	
<i>Per square metre</i>																		
05042	Recycled glass block walling in cement mortar.....	174.70	229.20	05042														
SUNDRIES																		
<i>Per square metre</i>																		
05043	Hack off and clear away existing glass bottling bonded in mortar and make good in cement mortar.....	49.10	A \$	05043														
<i>Per linear metre</i>																		
(Note : - The following Items 05044 and 05045 inclusive shall not be paid for, if working on new works item.)																		
05044	Fillet in cement/lime mortar or cement mortar n.e. 0.002 m ² sectional area.....	10.00		05044														
05045	Add to Item 05044 for each additional 0.001 m ² or part thereof in sectional area.....	5.10		05045														
<i>Each</i>																		
05046	Glass or cement "tell-tale" executed complete including inscribing in legible figures the date of fixing, and removing old "tell-tale" where necessary.....	22.30		05046														
05047	Add to Item 05046 if cutting is necessary on stone or concrete wall for fixing.....	11.20		05047														
DAMP PROOF COURSE																		
<i>Per square metre</i>																		
05048	One course bituminous felt damp proof course laid on, under, or to vertical face of, walls, lapped 150 mm at joints, and including cement mortar levelling bed on wall or concrete under (measured net).....	135.20	A \$	05048														

Item	A \$	Item
CUTTING AND SUNDRY LABOURS ON EXISTING BRICKWORK OR BLOCKWORK IN CEMENT OR CEMENT/LIME MORTAR		
(Note : - The following Items 05049 to 05065 inclusive shall not be paid for, if working on new works item.)		
<i>Per cubic metre</i>		
05049	1,007.80	05049
Cut through wall exceeding 0.05 m ³ for new door, window or other opening, or to enlarge existing opening including any necessary strutting and shoring required, levelling for cills, cutting toothings and providing and bonding in any new bricks required, and making out jambs and heads ready to receive new plaster or other finish, cutting and pinning in ends of new cills, lintols, fixing lugs, cramps, bolts, etc., and clearing away all debris (net size of required opening including allowance for lintol or arch and cill but excluding pockets for fixing lugs, cramps, bolts, etc., measured. New lintol, arch, plastering, decoration or facing all measured separately).....		
<i>Per square metre</i>		
05050	44.70	05050
Rake out joints 10 mm deep and re-point in cement or cement/lime mortar with a neat struck weathered or flush joint.....		
05051	50.40	05051
Level and prepare top of wall for raising.....		
05052	72.80	05052
Cut sinking exceeding 0.10 m ² but n.e. 25 mm deep into surface, including trimming and making good back face and edges (net size of required sinking measured).....		
05053	61.50	05053
Add to Item 05052 for each additional 25 mm or part of 25 mm in depth.....		
05054	179.10	05054
Wedge and pin up top of wall to new soffit.....		
05055	112.00	05055
Bed corrugated roof sheeting on top of wall in cement mortar including pointing edges if required.....		
05056	145.60	05056
Make good end or face of wall where existing wall which was bonded in has been removed including providing selected bricks or blocks and jointing in and pointing if required to match existing (any new plaster, etc. measured separately).....		
05057	257.50	05057
Cut out decayed or broken bricks or blocks of any thickness and replace with new selected bricks or blocks and joint in and point, if required to match existing (in areas where more than seven adjacent bricks or one block are replaced) (any new plaster, etc. measured separately).....		
<i>Per linear metre</i>		
05058	15.80	05058
Bed frame, plate or similar item n.e. 150 mm wide, when fixing in existing opening or position, in cement mortar and point one or both sides if required.....		
05059	21.60	05059
Ditto 150 - 300 mm wide.....		
05060	6.30	05060
Rake out defective joint, at least 10 mm deep around door frame or window, or to flashing or similar, and re-point in cement mortar.....		
05061	6.00	05061
Rake out crack in wall, beam, slab or other position and point in cement mortar (Note : - Repairs of minor cracks included in preparation for painting, refer to Section 15 - Painting of this Schedule).....		
05062	14.20	05062
Rake out and enlarge joint for turn in of new lead or asphalt flashing or similar, and point in cement mortar including lead or teak wedging if necessary.....		
05063	11.90	05063
Add to either of Items 05058 to 05062 inclusive of pointing in non-acidic and anti-mould mastic or coloured cement mortar in lieu of cement mortar (per side pointed).....		
05064	12.50	05064
Point joint of all sizes with white or coloured cement to metal/wood frames or sanitary appliance, etc.....		
05065	13.00	05065
Point joint of all sizes with non-acidic and anti-mould white or coloured silicone sealant to metal/wood frames or sanitary appliance, etc.....		

Item	A \$	Item
CUTTING AND SUNDRY LABOURS ON EXISTING BRICKWORK OR BLOCKWORK IN CEMENT OR CEMENT/LIME MORTAR (CONT'D)		
(Note :- The following Items 05066 to 05080 inclusive shall not be paid for, if working on new works item.)		
<i>Per linear metre</i>		
05066	17.30	05066
05067	25.50	05067
05068	34.20	05068
<i>Each</i>		
05069	12.40	05069
05070	7.80	05070
05071	24.60	05071
05072	14.60	05072
05073	7.80	05073
05074	16.70	05074
05075	28.00	05075
05076	39.10	05076
05077	50.40	05077
05078	44.70	05078
(Note :- Rates for ragbolts, rawbolts, etc., in Section 10 - Steel and Metal Work of this Schedule include for all mortices and grouting.)		
05079	7.80	05079
05080	16.70	05080
TAKING DOWN EXISTING BRICKWORK OR BLOCKWORK		
<i>Per cubic metre</i>		
05081	265.50	05081
<i>Per square metre</i>		
05082	24.80	05082
05083	37.30	05083
05084	66.30	05084

Item								Item	
	FIXING RANGES, FIRE SURROUNDS, BOILERS AND SIMILAR								
	<i>Each</i>								
		Take down and clear away	Take down and set aside for re-use	Fix only					
		A \$	B \$	C \$					
05085	Free standing range or kitcheners, with single or double ovens, side or high-pressure boilers, and feed cistern if required.....	83.00	87.10	98.60				05085	
05086	Domestic boiler, copper, rice container or similar.....	54.00	56.40	67.80				05086	
05087	Range or kitcheners (not free-standing) with single or double ovens, side or high-pressure boilers, feed cistern if required.....	133.00	139.00	146.00				05087	
05088	Damper and frame, soot door, fire door, fireplace fret or similar (when not included with any of the above fittings).....	12.50	13.30	17.30				05088	
	FIXING SUNDRY METAL WORK ITEMS								
	Fix or place in position (fixing material measured separately) : -								
	<i>Each</i>								
		Take down and clear away	Take down and set aside for re-use	Fix only					
		A \$	B \$	C \$					
05089	Combined gate, covers, fireplace surround, mantel, range, damper and frame, soot door, fire door, fireplace fret, fire bar, and the like except manhole covers and frames n.e. 3 kg to concrete, brickwork, blockwork or masonry.....	2.00	3.20	4.60				05089	
05090	Ditto 3 - 12 kg.....	10.20	12.80	18.20				05090	
05091	Ditto 12 - 24 kg.....	24.40	28.40	38.20				05091	
05092	Add to Item 05091 for each additional 12 kg or part thereof n.e. 100 kg.....	8.30	9.10	12.40				05092	
05093	Safe in any weight.....	540.00	566.00	696.00				05093	
	SUPPLY ONLY OF MATERIALS								
	<i>Per 1,000</i>						A \$		
05094	Bricks.....						1,469.00	05094	
05095	Facing bricks.....						2,783.00	05095	
05096	Firebricks.....						3,994.00	05096	
	<i>Per 100</i>								
		Thickness (mm)							
		75	100	140	190	220			
		A \$	B \$	C \$	D \$	E \$			
05097	390 x 190 mm Solid concrete blocks.....	272.00	363.00	-	-	-		05097	
05098	390 x 190 mm Hollow concrete blocks.....	261.00	348.00	707.00	825.00	1,179.00		05098	
05099	300 x 150 mm Recycled glass blocks.....	-	537.00	-	-	-		05099	

Section 06

MASONRY

SECTION 06

MASONRY

SPECIAL CONDITIONS

Particular Preamble	SC06.01	<p>Manufactured sand, as defined in SC11.02 of Section 11 - Plastering and Finishes, shall be adopted for local production of cement mortar to be used in plastering, rendering and floor screeding works of all public works contracts. The works related to the use of manufactured sand shall generally be read and used in conjunction with the Particular Specification for Manufactured Sand for Local Production of Cement Mortar in Plastering, Rendering, Floor Screeding Works.</p> <p>Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the said Particular Specification adopted in the Contract for the use of manufactured sand.</p>
Drawings for rubble walling	SC06.02	<p>The sketches for rubble walling as referred to in this Schedule are provided in G.S. Section 10 - Masonry and listed in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule which can be viewed on the internet website via the pathway referred therein. Refer to Section 00 - General Regulations Clause GR.08 for the requirements of the drawings.</p>
Measurement generally	SC06.03	<p>All unsquared random rubble walling, hearthing or backing to face of walls shall be measured net and grouped together irrespective of thickness.</p> <p>All squared rubble walling shall be measured net as fixed.</p> <p>No deduction shall be made for : -</p> <p>(a) Openings not exceeding 0.10 m².</p> <p>(b) String courses, cills, lintols and the like not exceeding 100 mm high.</p> <p>Apart from fair facing, no additional rate shall be allowed for random rubble walling built curved on plan or battered.</p>
Measurement of squared rubble walls	SC06.04	<p>Squared rubble walls as facing to brick, concrete or random rubble hearthing or backing, shall be measured net thickness. No addition shall be measured for the additional volume of the bond stones projecting into or through the hearthing or backing and no deduction shall be made from the hearthing or backing for the volume of such bond stones.</p>
Measurement of extra over for fair face	SC06.05	<p>Fair facing shall be measured net as "Extra over" the random rubble walls over the whole exposed surface including additional girth of top and bottom returns of oversailing and receding courses, top of copings and the like.</p> <p>On no account will fair facing be measured where the work is to be plastered, rendered, or otherwise covered up or left rough as trenches, backs, retaining walls and the like.</p>

SPECIAL CONDITIONS

Measurement of battered face	SC06.06	Battered faces shall be measured net over the exposed surface area on line of batter as "Extra over" stone wall. Battered faces shall not be measured on random rubble hearthing or backing.
Measurement of cutting opening through walls	SC06.07	The measurement of cutting opening through walls shall be the net size required including allowance for lintel or arch. New lintel or arch shall be measured separately.
Measurement of fully dressed stone	SC06.08	Fully dressed stone shall be measured the smallest square or rectangular shaped block from which it can be worked.
Measurement for cutting, etc., or taking down existing stone	SC06.09	Measurement for cutting mortices and the like, or taking down existing stone shall include the thickness of any rendering or other surfacing.
Rates for all random and squared rubble walling, facework and fully dressed stone generally	SC06.10	<p>The rates for all random and squared rubble walling, facework and fully dressed stone shall generally include for : -</p> <ul style="list-style-type: none"> (a) Irregular shaped roughly cut random rubble or roughly squared rubble walling. (b) Preparing all existing beds and joints, hoisting, setting, jointing and pointing the work in any position including all joggles, templates, ties, dowels, cramps, other fixing devices and the like. (c) Bedding and jointing in cement mortar including submission of manufactured sand producer's or supplier's declaration verifying the grading of the manufactured sand in the cement mortar and that the manufactured sand is clean and free of organic substances and test certificates. (d) Oversailing and receding courses. (e) Rough and fair cutting and bonding at angles, intersections and the like. (f) Rough relieving and discharging arches. (g) Raking out joints for and pointing as the work proceeds. (h) Bedding and pointing frames, plates and the like. (i) Plumbing angles.

SPECIAL CONDITIONS

Rates for all random and squared rubble walling, facework and fully dressed stone generally (Cont'd)	SC06.10 (Cont'd)	<ul style="list-style-type: none"> (j) Forming reveals, returns, rounded, coved, moulded angles and the like. (k) Leaving or forming chases, notches, holes, grooves, rebates, throats, chamfers, arrises, splays, sinkings, margins, mortices and the like and building in ends, pipes and the like (work where cutting on the face involved shall be measured). (l) Casing or protecting work with slurry, cleaning off and rubbing down on completion if required. (m) Bonding into existing work. (n) Marking for identification and delivery in any matching sequence. (o) Temporary protection and subsequent removal.
Rates for extra over random rubble walling for fair face	SC06.11	<p>The rates for extra over random rubble walling for fair face shall further include for : -</p> <ul style="list-style-type: none"> (a) Selected quality of random granite rubble in evenness, texture, stainless and sharpness of arrises. (b) Cutting in, replacing with approved quality rubbles and removing inferiority from Site.
Rates for squared rubble walling	SC06.12	<p>The rates for squared rubble walling shall further include for : -</p> <ul style="list-style-type: none"> (a) Preparation of joint faces of each stone to a square and true plane surfaces, free from hollow or rough area. (b) Building quoins and jambs in selected stones each 175 to 250 mm high to bond in with the wall courses if required. (c) Flushing up backing with cement mortar. (d) Making good affected works to match existing. (e) Removal from Site all arisings.
Rates for take down and set aside for re-use	SC06.13	<p>The rates for take down and set aside for re-use shall include for : -</p> <ul style="list-style-type: none"> (a) Taking down stonework at any locations. (b) Providing, maintaining and dismantling all necessary strutting, shoring and the like, and working platform. (c) Cleaning stonework free from mortar or other contaminations. (d) Multi-handling, storage and delivery of stoneworks to designated locations including that as directed by the Maintenance Surveyor.

SPECIAL CONDITIONS**Rates for fully dressed granite****SC06.14**

The rates for fully dressed granite shall further include for : -

- (a) Dressing and fine punching on all exposed surfaces accurately.
- (b) Forming squared back and punching bed and other sides to produce joints not exceeding 3 mm thick.
- (c) Setting, bedding, jointing and pointing with flush, weathered or recessed joints in cement and granite fines (1:3) mortar.

Rates for cutting opening through walls**SC06.15**

The rates for cutting opening through walls shall include for : -

- (a) Providing, maintaining and dismantling all necessary strutting, shoring and the like.
- (b) Levelling, cutting, cutting toothing, dressing and the like.
- (c) Providing and bonding in new stone, making out jambs, heads and facing and pointing the same to match existing.
- (d) Cutting and pinning in ends of new walls, lintels and the like.
- (e) Making good affected works to match existing.
- (f) Removal from Site all arisings.

Rates for cutting toothings**SC06.16**

The rates for cutting toothings shall include for : -

- (a) Providing, maintaining and dismantling all necessary strutting, shoring and the like.
- (b) Cutting, dressing and the like.
- (c) Providing and bonding new stone as required.
- (d) Making good affected works to match existing.
- (e) Removal from Site all arisings.

Rates for cutting holes**SC06.17**

The rates for cutting holes shall include for : -

- (a) Mobilization, maintenance and demobilization of coring plant and other mechanical plant necessary for the works.
- (b) Coring through existing stone works including any finishes.

SPECIAL CONDITIONS

**Rates for
cutting holes
(Cont'd)**

**SC06.17
(Cont'd)**

- (c) Providing temporary water and power supplies and working platform as required.
- (d) Grouting in pipes or articles and rendering around reveals with cement mortar as required.
- (e) Making good disturbed surfaces to match existing.
- (f) Removal from Site all arisings.

Item		Supply and lay	Take down and clear away	Take down and set aside for re-use	Lay only	Item
	RANDOM RUBBLE WALLING BUILT DRY					
	<i>Per cubic metre</i>	A \$	B \$	C \$	D \$	
06001	Walling of any thickness.....	1,042.70	170.60	217.80	441.20	06001
	RANDOM RUBBLE WALLING SOLIDLY BEDDED AND JOINTED IN CEMENT MORTAR					
	<i>Per cubic metre</i>					
06002	Walling of any thickness.....	1,257.00	188.20	253.90	609.20	06002
06003	Hearthings or backing of any thickness to squared rubble face wall (measured separately).....	1,257.00	188.20	253.90	609.20	06003
	<i>Per square metre</i>					
06004	Extra over either of Items 06002 to 06003 inclusive for fair face in the form as sketch "A".....	14.60	-	-	7.20	06004
06005	Extra over either of Items 06002 to 06003 inclusive for battered face.....	53.20	-	-	26.10	06005
	Add to either of Items 06002 to 06005 inclusive for work built circular on plan to radius n.e. 1.50 m.....	20%	-	-	20%	
	Ditto but 1.50 - 15.00 m.....	10%	-	-	10%	
	UNCOURSED SQUARED RUBBLE WALLING (AS SKETCH "B") SOLIDLY BEDDED AND JOINTED IN CEMENT MORTAR					
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
06006	Walling n.e. 75 mm thick.....	108.40	18.90	28.80	70.10	06006
06007	Ditto but as facing to brick, concrete or random rubble backing (measured separately) including bonding screed.....	149.90	18.30	26.50	94.30	06007
06008	Add to either of Items 06006 to 06007 inclusive for each additional 25 mm or part thereof in thickness.....	37.80	6.10	9.10	29.00	06008
06009	Extra over either of Items 06006 to 06007 inclusive for battered face.....	43.30	-	-	18.20	06009
	Add to either of Items 06006 to 06009 inclusive for work built circular on plan to radius n.e. 1.50 m.....	20%	-	-	20%	
	Ditto but 1.50 - 15.00 m.....	10%	-	-	10%	

Item					Item	
SQUARED RUBBLE WALLING BROUGHT UP TO COURSES (AS SKETCH "C") SOLIDLY BEDDED AND JOINTED IN CEMENT MORTAR						
		Supply and lay	Take down and clear away	Take down and set aside for re-use	Lay only	
		A \$	B \$	C \$	D \$	
	<i>Per square metre</i>					
06010	Walling n.e. 75 mm thick.....	127.30	20.50	32.00	76.10	06010
06011	Ditto but as facing to brick, concrete or random rubble hearthing or backing (measured separately).....	158.60	19.90	30.90	100.40	06011
06012	Add to either of Items 06010 to 06011 inclusive for each additional 25 mm or part thereof in thickness.....	40.80	6.60	10.10	31.50	06012
06013	Extra over either of Items 06010 to 06011 inclusive for battered face.....	51.00	-	-	21.50	06013
	Add to either of Items 06010 to 06013 inclusive for work built circular on plan to radius n.e. 1.50 m.....	20%	-	-	20%	
	Ditto but 1.50 - 15.00 m.....	10%	-	-	10%	
SQUARED COURSED RUBBLE WALLING (AS SKETCH "D") SOLIDLY BEDDED AND JOINTED IN CEMENT MORTAR						
	<i>Per square metre</i>					
06014	Walling n.e. 75 mm thick.....	136.50	22.00	35.10	72.30	06014
06015	Ditto but as facing to brick, concrete or random rubble hearthing (measured separately).....	164.90	24.10	37.90	108.50	06015
06016	Add to either of Items 06014 to 06015 inclusive for each additional 25 mm or part thereof in thickness (up to a maximum of 250 mm).....	44.60	8.30	13.30	27.10	06016
06017	Extra over either of Items 06014 to 06015 inclusive for battered face.....	54.60	-	-	23.00	06017
	Add to either of Items 06014 to 06017 inclusive for work built circular on plan to radius n.e. 1.50 m.....	20%	-	-	20%	
	Ditto but 1.50 - 15.00 m.....	10%	-	-	10%	
PREPARATION OF SURFACING FINISH TO RUBBLE WALLING						
		Random rubble walling as Sketch "A"	Un- coursed squared rubble walling	Squared rubble walling brought up to courses	Regular coursed squared rubble walling	
		A \$	B \$	C \$	D \$	
	<i>Per square metre</i>					
06018	Prepare surface to regular convex "rock faced" finish including allowance for additional thickening.....	102.70	55.00	55.00	55.00	06018
06019	Prepare surface finish as G.S. item 10.18 including allowance for additional thickening.....	300.70	156.90	156.90	156.90	06019

Item					Item	
FULLY DRESSED GRANITE						
		Supply and lay	Take down and clear away	Take down and set aside for re-use	Lay only	
		A \$	B \$	C \$	D \$	
06020	Ashlar walling or facing n.e. 100 mm thick.....	159.00	15.60	21.30	54.00	06020
06021	Ditto 100 mm to 300 mm thick.....	318.20	31.30	45.50	105.10	06021
	Add to either of Items 06020 to 06021 inclusive for work circular on plan to radius n.e. 1.50 m.....	20%	-	-	20%	
	Ditto but 1.50 - 15.00 m.....	10%	-	-	10%	
CUTTING AND SUNDRY LABOURS ON EXISTING STONE						
(Note :- The following Items 06022 to 06030 inclusive shall not be paid for, if working on new works item.)						
		Random rubble walling	Un- coursed squared rubble walling	Squared rubble walling brought up to courses	Regular coursed squared rubble walling	Fully dressed granite
		A \$	B \$	C \$	D \$	E \$
06022	Rake out joints not less than 15 mm deep and re-point with flush, weathered or recessed joint as required in cement mortar.....	64.40	49.10	49.10	49.10	41.60
06023	Redress face to wall where discoloured or badly stained by fine punching (any re-pointing required measured separately).....	-	61.00	61.00	61.00	84.80
06024	Level and prepare top of wall for raising or to receive damp proof course.....	50.90	50.90	50.90	50.90	-
06025	Make good end or face of wall where existing wall which was bonded in has been removed including providing cutting and building in any new stone required and facing and pointing to match existing (vertical face in contact with old wall measured).....	152.60	208.50	208.50	208.50	322.10
06026	Cut toothings not less than 100 mm deep and at not more than 300 mm centres vertically in face of existing wall.....	96.60	98.30	98.30	98.30	113.60
Per linear metre						
06027	Rake out single detached joint not less than 15 mm deep and re-point with flush, weathered or recessed joint as required in cement mortar.....	11.90	11.90	11.90	11.90	11.90
06028	Rake out from wall crack, etc., cut back edges as required and point with flush, weathered or recessed joint in cement mortar.....	17.00	17.00	17.00	17.00	17.00
Each						
06029	Cut or drill mortice for dowel, baluster end, bracket end, fixing cramp, bolt or similar article n.e. 0.0001 m ³ (net size of article or end measured) and grout in cement and sand (1:2) and make good.....					17.00
06030	Ditto 0.0001 - 0.0002 m ³					28.80

Item

Item

CUTTING AND SUNDRY LABOURS ON EXISTING STONE (CONT'D)

(Note :- The following Items 06031 to 06033 inclusive shall not be paid for, if working on new works item.)

Each

		Thickness of stone (mm)				
		n.e. 150	150 - 300	300 - 450	450 - 600	
		A	B	C	D	
		\$	\$	\$	\$	
06031	Cut hole for pipe or similar article n.e. 0.004 m ²	37.30	74.60	114.00	151.00	06031
06032	Ditto 0.004 - 0.008 m ²	47.50	96.60	136.00	161.00	06032
06033	Ditto 0.008 - 0.017 m ²	74.60	151.00	225.00	315.00	06033

CUTTING LETTERS IN NEW OR EXISTING STONE

Each

		Height of letter or number (mm)				
		n.e. 75	75 - 150	150 - 225	225 - 300	
		A	B	C	D	
		\$	\$	\$	\$	
06034	Cut plain block letter or number in face of stone including picking out with painting.....	71.20	124.00	162.00	183.00	06034
06035	Cut Chinese character ditto.....	89.80	151.00	199.00	225.00	06035

Add to either of Items 06034 to 06035 inclusive for working on existing stonework.....

10%

Section 07

ROOFING AND WATERPROOFING

SECTION 07

ROOFING AND WATERPROOFING

SPECIAL CONDITIONS

Definition of whole roof slope	SC07.01	Whole roof slope shall mean an area extending from one gable wall to another, from gable wall to hip or valley between two hips, between two valleys, or between hip and valley in length, and from eaves to ridge in breath and shall include any subsidiary features such as roofs to dormers which may be contained within such area.
Particular Preamble	SC07.02	Laying or re-laying of proprietary roofing system or floor waterproofing system apart from patch repairs shall be measured in accordance with this Section 07 - Roofing and Waterproofing. Patch repairs to proprietary roofing system or floor waterproofing system shall be measured in accordance with Section 16 - Repairs and Alterations to Specialty Works.
	SC07.03	<p>Manufactured sand, as defined in SC11.02 of Section 11 - Plastering and Finishes, shall be adopted for local production of cement mortar to be used in plastering, rendering and floor screeding works of all public works contracts. The works related to the use of manufactured sand shall generally be read and used in conjunction with the Particular Specification for Manufactured Sand for Local Production of Cement Mortar in Plastering, Rendering, Floor Screeding Works.</p> <p>Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the said Particular Specification adopted in the Contract for the use of manufactured sand.</p>
Rates for roofing and waterproofing generally	SC07.04	<p>The rates for roofing and waterproofing shall generally include for :-</p> <ul style="list-style-type: none"> (a) Works at any height and locations. (b) Works to new or existing surfaces in repairs. (c) All curved works when fixing roofing to timber or metal framing (measured separately). (d) Forming and including movement joints, expansion joints and the like, and allowing for laps including side and end laps when required. (e) Allowing for cutting, waste and breakage including those at abutments, top edges, verges, hips and valleys. (f) Preparing, cleaning and protection of surfaces to receive roofing or waterproofing materials.

SPECIAL CONDITIONS

**Rates for
roofing and
waterproofing
generally
(Cont'd)**

**SC07.04
(Cont'd)**

- (g) Fixing or laying to falls and currents.
- (h) Sealing at edges, joints and around intersections and projections.
- (i) All narrow widths and small areas.
- (j) Cleaning and priming to surfaces prior to applying roofing or waterproofing materials all in accordance with the manufacturer's instructions.
- (k) Cutting back existing roofing or waterproofing materials to provide joints for new roofing or waterproofing when required.
- (l) Allowing all cutting, fitting, dressing and making good around rainwater outlets, pipes, flues, openings and the like.
- (m) Sampling and testing of roofing or waterproofing materials.
- (n) Providing shop drawings as necessary for the works.
- (o) Providing waterproofed rain shelter or any other covers completed with rigid framing when required throughout the progress of the work to roof areas to prevent the ingress of rain or other water.
- (p) Providing temporary drainage system throughout the progress of the work.
- (q) Making good affected areas to match existing.
- (r) Temporary protective measures, cleaning and removing all arisings.
- (s) Infra-red thermograph testing when non-destructive test is not instructed by the Maintenance Surveyor.
- (t) Keep a register of all dangerous substances including those hazardous to health, which are delivered to and stored on Site for use on the Works. The register include information physical and chemical properties, hazards, safe handling and storage, precautionary measures to be taken, first aid measures, disposal of containers and surplus of waste materials, and measures to be taken in case of accidents.
- (u) Leaving roof or floor clean, windproof and watertight on completion and cleaning out rainwater outlets and gutters.
- (v) Provision of manufacturer's guarantee and warranty.

SPECIAL CONDITIONS

BITUMEN FELT BUILT-UP AND BITUMINOUS EMULSION ROOFING

Measurement of bitumen felt built-up and bituminous emulsion roofing

SC07.05

Bitumen felt built-up and bituminous emulsion roofing shall be measured net over the whole exposed finished top surface, additional girth of vertical or sloping faces and sides or ends of upstands, gutters, flashings, skirtings, edge coverings, steps in roof level and the like. No deduction shall be made for openings not exceeding 0.50 m².

Measurement of strip off existing bitumen felt built-up roofing and bituminous emulsion roofing

SC07.06

Measurement of strip off existing bitumen felt built-up roofing and bituminous emulsion roofing shall not be measured when the backing screed, sheet roofing or insulation layer is also taking down simultaneously unless it is specifically ordered by the Maintenance Surveyor in writing.

Rates for bitumen felt built-up and bituminous emulsion roofing

SC07.07

The rates for bitumen felt built-up and bituminous emulsion roofing shall further include for : -

- (a) Roofing to flat, sloping or curved roofs.
- (b) Allowing for all laps, cutting and waste on felts and glass fibre membrane where applicable.
- (c) Dressing to sides or ends of upstands, gutters, flashings, skirtings, edge coverings, steps in roof level and the like, including angles, junctions, turn-in edges, welted drips and the like.
- (d) Making good surfaces including filling cracks with bitumen or emulsion.
- (e) Checking the felt roofing works with infra-red thermo-scanning equipment or other testing equipment on water tightness as the work proceeds.
- (f) Replacement of roofing installation if failing in the non-destructive test.

SPECIAL CONDITIONS

MASTIC ASPHALT (ROCK ASPHALT) ROOFING

Measurement of strip off existing mastic asphalt roofing

SC07.08

Measurement of strip off existing mastic asphalt roofing shall not be measured when the backing screed, sheet roofing or insulation layer is also taking down simultaneously unless it is specifically ordered by the Maintenance Surveyor in writing.

PROPRIETARY ROOFING SYSTEM AND FLOOR WATERPROOFING SYSTEM

Measurement of proprietary roofing system and floor waterproofing system

SC07.09

Proprietary roofing system and floor waterproofing system shall be measured net over the whole exposed finished top surface, additional girth of vertical or sloping faces and sides or ends of upstands, gutters, flashings, skirtings, edge coverings, steps in roof level and the like. No deduction shall be made for openings not exceeding 0.50 m².

Drip flashing, fascia flashing, eave flashing, toothed plate, fascia corner flashing, ridge flashing, verge flashing, fascia capping, gutters and the like for the proprietary roofing system shall be measured the net length as fixed.

Proprietary roofing system or floor waterproofing system referred hereinafter shall mean the waterproof covering materials approved by the Maintenance Surveyor.

For avoidance of doubt, all rates in this sub-section shall deem to apply to works executed by the specialist contractors or applicators approved by the Maintenance Surveyor.

Measurement of strip off existing proprietary roofing system and floor waterproofing system

SC07.10

Measurement of strip off existing proprietary roofing system and floor waterproofing system shall not be measured when the backing screed, sheet roofing or insulation layer is also being taken down simultaneously unless it is specifically ordered by the Maintenance Surveyor in writing.

SPECIAL CONDITIONS**PROPRIETARY ROOFING SYSTEM AND FLOOR WATERPROOFING SYSTEM**

**Rates for
proprietary
roofing system
and floor
waterproofing
system**

SC07.11

The rates for proprietary roofing system and floor waterproofing system shall further include for : -

- (a) Laying on flat, sloping or curved roofs or floors.
- (b) Inspection, preparing, cleaning and drying surfaces including removing all grease, contaminants, dust, loose stones, debris and the like.
- (c) Applying the proprietary roofing system or floor waterproofing system using spray, trowel or brush application all in accordance with the manufacturer's instructions.
- (d) Dressing to sides or ends of upstands, gutters, flashings, skirtings, edge coverings, steps in roof, floor and the like, including angles, junctions, turn-in edges, welted drips and the like all in accordance with the manufacturer's instructions.
- (e) Forming fillets with cement mortar at junction between slabs and walls.
- (f) Making good surfaces of substrate including filling cracks with bitumen emulsion or any other materials recommended by the manufacturer's recommendations.
- (g) Replacement of roofing or floor waterproofing installation if failing in the non-destructive test.
- (h) Providing protective boarding in accordance with the manufacturer's instructions, if required.
- (i) Submission of catalogues, technical literature and other documentation covering the materials supplied.
- (j) Providing all reports and maintenance manuals.
- (k) Providing deeds of warranty in compliance with the Contract requirements.

SPECIAL CONDITIONS

CORRUGATED OR PROFILED SHEET ROOFING

Measurement of corrugated or profiled sheet roofing

SC07.12

Corrugated or profiled sheet roofing shall be measured flat over the net area covered (girth of corrugations not measured) including ridges, hips, valleys, channels, gutters and the like. In the case of sloping roof, it shall be measured flat over the exposed surfaces (girth of corrugations not measured). No deduction shall be made for openings not exceeding 0.50 m².

Rates for corrugated or profiled sheet roofing

SC07.13

The rates for corrugated or profiled sheet roofing shall further include for : -

- (a) Allowing all notching and fitting edges of sheets and mitring corners as required, and all mitred angles, junctions and ends on ridges and hips.
- (b) Allowing all eaves, jambs, lintel filling pieces, barges boards, corner pieces and the like.
- (c) Spot, fillet or seam welding, brazing or soldering.
- (d) Drilling holes for and providing all drive screws, self-tapping screws, rivets, bolts, hook bolts, nuts, metal and rubber washers, and plastic caps for fixing to purlins or framing spaced at any interval.
- (e) Drilling holes to existing or new purlins or framing spaced at any interval for the fixing of corrugated or profiled sheet roofing as required.
- (f) Forming and including holes for pipes or articles.
- (g) Recommended fixing method in accordance with the manufacturer's instructions.
- (h) Forming movement joints.
- (i) Forming sheets to required curvature on curved roofs.
- (j) All necessary testing to ensure integrity and water-tightness of the whole roofing system.

PROPRIETARY STEEL/ALUMINIUM SHEET ROOFING

Measurement of proprietary steel/aluminium sheet roofing

SC07.14

Proprietary steel/aluminium sheet roofing shall be measured flat over the net area covered. No deduction shall be made for openings not exceeding 0.50 m². No measurement for additional materials required for bending, rolling edges, returns, etc. and the like shall be made.

SPECIAL CONDITIONS

PROPRIETARY STEEL/ALUMINIUM SHEET ROOFING

**Rate for
proprietary
steel/aluminium
sheet roofing**

SC07.15

Further to SC07.04 and SC07.13, the rates for proprietary steel/aluminium sheet roofing shall include for : -

- (a) In case of partial replacement of the existing proprietary steel/aluminium sheet roofing, design, supply, fabrication and installation of proprietary steel/aluminium sheet roofing in conformity to Class 0 according to BS476 Part 7; or Class B or above according to BS EN 13501-1; or other equivalent fire classification standards.
- (b) In case of new proprietary steel/aluminium sheet roofing, design, supply, fabrication and installation of proprietary steel/aluminium sheet roofing in conformity to BS476 Part 4; or Class A1 according to BS EN 13501-1; or other equivalent fire classification standards.
- (c) Submission of structural design, calculations and drawings endorsed by a Registered Structural Engineer.
- (d) Submission of design drawings, working details and shop drawings for the Maintenance Surveyor's approval prior to commencement of installation.
- (e) Submission of samples and carrying out of mock-up erection and testing including all necessary tests required to ensure the integrity and safety of the cladding and associated support and fixing system.
- (f) Submission of method statements related to jointing of components, programme for the work, erection and any remedial works.
- (g) Concealed and exposed flashings, edge trims and the like.
- (h) Protection and cleaning.

PROPRIETARY GREEN ROOFING SYSTEM

**Measurement
of proprietary
green roofing
system including
green turf
system**

SC07.16

Supply and installation of proprietary green roofing system including green turf system shall be measured as the net surface area of the face to be covered. No deduction shall be made for voids not exceeding 0.50 m².

**Rates for
proprietary
green roofing
system including
green turf
system**

SC07.17

The rates for proprietary green roofing system including green turf system shall further include for : -

- (a) Preparation and making good existing roof.
- (b) Condition and structural survey to existing roof including preparation and submission of records and reports.

SPECIAL CONDITIONS

PROPRIETARY GREEN ROOFING SYSTEM

Rates for proprietary green roofing system including green turf system (Cont'd)

SC07.17 (Cont'd)

- (c) Engagement of a Registered Structural Engineer for checking and verifying the imposed loading of the proprietary green roof system onto the existing structure including preparation and certification of all required structural submissions.
- (d) Including, but not limited to, roof barrier system, moisture retention layer, drainage layer, drainage inspection chamber, filter layer and light weight growing medium.
- (e) Ground covers of approved species and spacing including necessary fertilizers for green roofing system.
- (f) Green turf of approved species and density including necessary fertilizers for green turf system.
- (g) Submission of shop drawings, working drawings and as-built drawings.
- (h) Submission of samples with composition report for growing mediums and groundcovers.
- (i) Provision of irrigation system by licensed plumber.
- (j) Submission of photographic records.
- (k) Establishment works after completion for a period of 12 months including replacement of vegetation upon failure of vegetation for becoming established.
- (l) Provision of warranty as specified in the Contract.
- (m) Submission of working programme.
- (n) Submission of maintenance and operation manual.

ROOF TILING AND INSULATION BOARD

Measurement of roof tiling and insulation board generally

SC07.18

Roof tiling and insulation board shall generally be measured as the net area covered when fixed or laid. No deduction shall be made for voids not exceeding 0.50 m².

Rates for roof tiling and insulation board generally

SC07.19

The rates for roof tiling and insulation board shall generally include for : -

- (a) Working at any height and locations.
- (b) Working to new or existing surfaces in repairs.
- (c) All straight or raking cutting and waste.
- (d) Narrow widths and small quantities.

SPECIAL CONDITIONS

ROOF TILING AND INSULATION BOARD

Rates for roof tiling and insulation board generally (Cont'd)

SC07.19 (Cont'd)

- (e) Forming and including all joints between new and existing materials.
- (f) Laying level or to slopes and finishing to falls and currents.
- (g) Mitred edges to external corners and the like.
- (h) Covering up and protecting where necessary.

Rates for roofing tiles

SC07.20

The rates for roofing tiles including "Canton" tiles, concrete tiles, insulating tiles and foam board tiles shall further include for forming expansion joints and fill with cold bitumen or all other approved non-acidic and anti-mould sealants to roofing tiles as provided in G.S. Items 6.61, 6.62 and 18.120.

Screeds to roofing or tiling

SC07.21

Screeds to roofing, flooring or tiling can be found in Section 11 - Plastering and Finishes of this Schedule.

NON-DESTRUCTIVE TEST

Rates for non-destructive test

SC07.22

The rates for non-destructive test shall include for : -

- (a) Constructing temporary dams to compartmentalize large roofs if required and subsequent removal.
- (b) Temporary blocking to all outlets flooding the roof, releasing water and subsequent removal of blockages.
- (c) Carrying out test of infra-red scanning by an approved independent specialist in accordance with the Specification as adopted in the Contract including providing all necessary labour, supervisory staff and equipment.
- (d) In the case of new roofing system, re-testing up to the satisfaction of the Maintenance Surveyor.
- (e) Submission of reports.

SPECIFICATION FOR ROOFING

G.S. clauses

SC07.23

G.S. clauses for "Canton" tiles and concrete roof tiles can be found in the Finishes Section of the General Specification for Building.

Item							Item					
BITUMEN FELT BUILT-UP ROOFING												
						Nominal weight						
						1.8 kg/m ²	2.5 kg/m ²					
						A	B					
						\$	\$					
<i>Per square metre</i>												
07001	Underlayer of bitumen felt fixed to timber roof including nails.....					45.00	62.40	07001				
07002	Ditto but laid on screed or concrete roof including primer and bonding.....					56.20	78.10	07002				
07003	Subsequent underlayer of bitumen bonded to underlayer including bonding compound.....					56.20	78.10	07003				
07004	Top layer bonded to underlayers with bonding compound.....					-	78.10	07004				
						A						
						\$						
<i>Per square metre</i>												
07005	Surface dressing with stone chippings on and including base coat of bitumen compound.....					112.40		07005				
REPAIRS TO EXISTING BITUMEN FELT BUILT UP ROOFING												
						A						
						\$						
<i>Per square metre</i>												
07006	Strip off existing bitumen felt built-up roofing (any number of layers) fixed on timber battens.....					11.40		07006				
07007	Ditto but laid on screed or concrete surfaces.....					15.70		07007				
BITUMINOUS EMULSION ROOFING												
						Concrete						
						Concrete, Canton tiled roof surface	Corrugated steel roof surface	Profiled particle sheet roof surface	Bitumen felt built- up roof surface			
						roof surface	vertical surface					
						A	B	C	D	E	F	
						\$	\$	\$	\$	\$	\$	
<i>Per square metre</i>												
07008	Apply wash coat, priming coat, two coats of approved bitumen emulsion.....					43.20	54.60	63.60	-	63.60	-	07008
07009	Ditto but with three coats of approved bitumen emulsion.....					59.20	68.20	77.30	-	77.30	-	07009
07010	Apply wash coat, priming coat, one coat of approved bitumen emulsion, one layer of glass fibre membrane and two coats of approved bitumen emulsion as G.S. Item 12.32.....					81.90	91.00	109.10	-	109.10	-	07010
07011	Ditto but with three coats of approved bitumen emulsion to last as G.S. Item 12.32.....					91.00	109.10	118.20	-	118.20	-	07011
07012	Apply wash coat and primer to grooves, filling grooves with approved bitumen emulsion and sand (1:3) by volume, apply one coat of approved cover coating and two coats of approved bitumen emulsion including cutting out cracks exceeding 5 mm wide as G.S. Item 12.33.....					-	-	-	-	-	81.90	07012
07013	Apply one coat of approved cover coating, one coat of approved bitumen emulsion, one layer of glass fibre membrane and two coats of approved bitumen emulsion as G.S. Item 12.34.....					-	-	-	91.00	-	-	07013

Item	Thickness of base coat		Item
	3 mm	5 mm	
BITUMINOUS EMULSION ROOFING (CONT'D)			
	A \$	B \$	
<i>Per square metre</i>			
07014	25.40	30.30	07014
07015	45.50	50.60	07015
07016	50.60	55.60	07016
REPAIRS TO EXISTING BITUMINOUS EMULSION ROOFING			
		A \$	
<i>Per square metre</i>			
07017		10.10	07017
07018		14.10	07018
<i>Per linear metre</i>			
07019		30.30	07019
SOLAR PROTECTION			
		A \$	
<i>Per square metre</i>			
07020		35.40	07020
07021		30.30	07021
07022		30.30	07022
REPAIRS TO EXISTING MASTIC ASPHALT ROOFING			
		A \$	
<i>Per square metre</i>			
07023		37.90	07023
<i>Each</i>			
07024		67.30	07024
07025		16.40	07025

Item		Sheet material		Liquid applied material		Item
		requiring protection	self finished	requiring protection	self finished	
		A	B	C	D	
		\$	\$	\$	\$	
<p>SHEET MEMBRANE OR LIQUID APPLIED PROPRIETARY ROOFING SYSTEM AND FLOOR WATERPROOFING SYSTEM</p> <p>Apply sheet membrane or liquid applied proprietary roofing system or floor waterproofing system ordered to the following new or existing surfaces, all in accordance with the manufacturer's instructions :-</p> <p><i>Per square metre</i></p>						
07026	Concrete, screed, asphalt/felt membrane roofing system or floor waterproofing system.....	129.70	159.90	142.70	172.90	07026
07027	Corrugated steel/compressed particle sheet covering roof.....	-	-	190.30	230.10	07027
07028	Chinese tiled roof (measured flat over tiles).....	-	-	190.30	230.10	07028
07029	Strip off and clean existing waterproofing roof coverings and associated skirtings, flashings, etc., and the like, remove from Site including making good surfaces to receive new surfacing if required.....	43.30	43.30	43.30	43.30	07029
					A	
					\$	
07030	Proprietary spray applied waterproofing membrane system to required thickness including all primer and top coat(s), to existing or new surfaces, including all necessary preparation and protection required, all in accordance with the manufacturer's instructions.....				618.30	07030
<p>PROFILED UNREINFORCED RIGID PVC SHEET ROOFING</p> <p><i>Per square metre</i></p>						
		Supply and fix		Fix only		
		A	B			
		\$	\$			
07031	0.80 mm Profiled unreinforced rigid PVC roofing sheet in any profile, colour and transparency fixed to timber or steel framing (measured separately).....	87.20	31.70			07031

Item	Item				
PROFILED GLASS-FIBRE REINFORCED PLASTIC (GRP) SHEET ROOFING					
	<table border="1"> <thead> <tr> <th style="text-align: center;">Supply and fix</th> <th style="text-align: center;">Fix only</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A \$</td> <td style="text-align: center;">B \$</td> </tr> </tbody> </table>	Supply and fix	Fix only	A \$	B \$
Supply and fix	Fix only				
A \$	B \$				
	<i>Per square metre</i>				
07032	6 mm Profiled glass-fibre reinforced plastic (GRP) sheet roofing in any profile, colour and transparency fixed to timber or steel framing (measured separately)..... 164.70 67.10 07032				
07033	Ditto but 8 mm thick..... 212.10 70.50 07033				
07034	Ditto but 10 mm thick..... 259.40 73.80 07034				
07035	Ditto but 12 mm thick..... 306.90 77.20 07035				
CORRUGATED GALVANISED STEEL SHEET ROOFING					
	<table border="1"> <thead> <tr> <th style="text-align: center;">Supply and fix</th> <th style="text-align: center;">Fix only</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A \$</td> <td style="text-align: center;">B \$</td> </tr> </tbody> </table>	Supply and fix	Fix only	A \$	B \$
Supply and fix	Fix only				
A \$	B \$				
	Steel sheet roofing as G.S. Item 12.72 : -				
	<i>Per square metre</i>				
07036	Corrugated galvanised steel sheet roofing n.e. 0.60 mm thick in any corrugation fixed to timber or steel framing (measured separately)..... 92.70 25.20 07036				
07037	Ditto but 0.60 - 0.80 mm thick..... 98.50 26.00 07037				
07038	Ditto but 0.80 - 1.00 mm thick..... 114.50 27.50 07038				

Item				Item
	PROPRIETARY GALVANISED STEEL PROFILED SHEET ROOFING			
	Proprietary galvanised steel profiled sheet cladding in concave or convex shapes, maximum length of sheet that can be curved is 12 m, to Australian Standard AS1397-1993 and Malaysian Standard MS1196, 0.42 mm BMT with minimum yield strength of 550 MPA, sheets coating shall comprise alloy of zinc, aluminium and silicon applied by hot dip process, thickness 0.05 mm thick to AS1397 for coating class AZ150, paint coating to AS2728 :-			
	<i>Per square metre</i>			
07039	0.47 mm Thick galvanised steel profiled sheeting fixed to timber or steel framing.....	488.40	66.00	07039
	Proprietary galvanised steel profiled sheet cladding with concealed fastening, available in two thickness (0.48 mm & 0.6 mm BMT) with minimum yield strength of 550 MPA, metallic hot dip coated with alloy of zinc, aluminium and silicon, coating mass to be 150 g/m2 coated both sides, to Australian Standard AS1397-1993 and Malaysian Standard MS1196, wind pressure capacities to AS1562.1-1992 and AS4040.2-1992 :-			
	<i>Per square metre</i>			
07040	0.53 mm Thick galvanised steel profiled sheeting fixed to timber or steel framing.....	545.50	67.90	07040
07041	Ditto but 0.65 mm thick.....	603.50	69.20	07041
	PROPRIETARY GALVANISED STEEL FLASHING, CAPPING, ETC.			
	Proprietary galvanised steel profiled sheeting with XRW colourbond finish matching with proprietary steel sheet roofing as described in items 07039 to 07041 fixing in fasteners or screws in accordance with the manufacturer's recommendations :-			
	<i>Per linear metre</i>			
07042	0.60 mm Thick galvanised steel flashing or capping n.e. 200 mm girth.....	133.90	34.50	07042
07043	Ditto 200 - 400 mm girth.....	180.80	51.80	07043
07044	Ditto 400 - 600 mm girth.....	246.40	59.00	07044
07045	Ditto 600 - 800 mm girth.....	307.90	64.90	07045
07046	Ditto 800 - 1000 mm girth.....	351.90	69.00	07046
	PROPRIETARY GALVANISED STEEL SHEET RIDGING, GUTTERS, ETC.			
	1 mm Thick galvanised steel profiled sheeting (painting measured separately) as described in items 07039 to 07041 :-			
	<i>Per linear metre</i>			
07047	Ridge or hip plain capping of approximately 450 mm girth with 75 mm roll, lapped 150 mm at end joints (measured net).....	83.30	22.00	07047
07048	Ditto but both edges corrugated, cut and scribed as necessary to suit sheet roofing (measured net).....	93.60	27.40	07048
07049	Half-octagonal shaped valley gutter of approximately 300 x 175 mm deep, lapped 150 mm at end joints (measured net).....	140.10	25.20	07049

Item				Item
	CORRUGATED ALUMINIUM SHEET ROOFING			
		Supply and fix	Fix only	
	<i>Per square metre</i>	A \$	B \$	
07050	Corrugated aluminium sheet roofing n.e. 0.60 mm thick in any corrugation and colour fixed to timber or steel framing (measured separately).....	152.60	19.80	07050
07051	Ditto but 0.60 - 0.80 mm thick.....	161.70	20.50	07051
07052	Ditto but 0.80 - 1.00 mm thick.....	188.20	21.60	07052
	ALUMINIUM SHEET FLASHING OR CAPPINGS			
	0.60 mm Thick aluminium sheet flashing or cappings with colorbond finish matching with aluminium sheet roofing as described in items 07050 to 07052 fixing in fasteners or screws : -	Supply and fix	Fix only	
	<i>Per linear metre</i>	A \$	B \$	
07053	0.60 mm Thick steel flashing or capping n.e. 200 mm girth.....	35.70	5.50	07053
07054	Ditto 200 - 400 mm girth.....	54.00	16.50	07054
07055	Ditto 400 - 600 mm girth.....	80.50	25.20	07055
07056	Ditto 600 - 800 mm girth.....	108.60	35.10	07056
07057	Ditto 800 - 1000 mm girth.....	135.70	43.90	07057
	ALUMINIUM SHEET RIDGING, CAPPING OR GUTTERS			
	1.00 mm Thick aluminium sheet ridging, capping or gutters with colorbond finish matching with aluminium sheet roofing as described in items 07050 to 07052 fixing in fasteners or screws : -	Supply and fix	Fix only	
	<i>Per linear metre</i>	A \$	B \$	
07058	Ridge or hip plain capping of approximately 450 mm girth with 75 mm roll, lapped 150 mm at end joints (measured net).....	132.50	22.00	07058
07059	Ditto but both edges corrugated, cut and scribed as necessary to suit sheet roofing (measured net).....	154.60	27.40	07059
07060	Half-octagonal shaped valley gutter of approximately 300 x 175 mm deep, lapped 150 mm at end joints (measured net).....	182.70	29.70	07060

Item	Item
PROPRIETARY PROFILED STEEL SHEET ROOFING	
Proprietary sheet roofing system comprising 0.75 mm thick trapezoidal profiled steel shell with specialist coating 25 microns thick on visible sides and protective layer (RSL) 10 microns thick on the reverse side to DIN 18807 in any colour including subgrit, purlins and fixing with approved stainless steel fasteners to level or sloping framing all in accordance with the manufacturer's recommendations :-	Supply and fix
(Note :- Item 07061 shall only be measured when they are required for replacement of the existing proprietary steel sheet roofing as stipulated in Special Conditions Clauses SC07.14 and SC07.15(a).)	Fix only
<i>Per square metre</i>	A B \$ \$
07061 Roofing system.....	484.20 29.70
0.75 mm Thick proprietary trapezoidal profiled steel shell with specialist coating 25 microns thick on visible sides and protective layer (RSL) 10 microns thick on the reverse side to DIN 18807 in any colour as described in item 07061 including subgrit, purlins and fixing with approved stainless steel fasteners to level or sloping framing all in accordance with the manufacturer's recommendations :-	
(Note :- Item 07062 to 07067 inclusive shall only be measured when they are required for replacement of the existing proprietary steel sheet roofing as stipulated in Special Conditions Clauses SC07.14 and SC07.15(a).)	
<i>Per linear metre</i>	
07062 Drip flashing.....	46.10 10.90
07063 Fascia flashing.....	61.80 11.60
07064 Eave flashing.....	40.50 9.80
07065 Toothed plate complete with foam filler at ridge.....	42.70 11.60
07066 Fascia corner flashing, ridge flashing, verge flashing and the like.....	51.60 11.60
07067 Fascia capping, ridge capping and the like.....	39.40 11.60
Proprietary sandwich roofing system, comprising 0.75 mm thick trapezoidal profiled steel outer shell and 0.55 mm thick slightly profiled inner shell with specialist coating 25 microns thick on visible sides and protective layer (RSL) 10 microns thick on the reverse side in any colour enclosing a continuous core of polyurethane rigid foam (HCFC -free), thermal resistance to 1.74 m ² K/W heat transfer coefficient 0.52 W/m ² K to EN ISO6946, including subgrit, purlins and concealed fixing with integral roof clamps in the longitudinal joint and approved stainless steel fasteners to level or sloping framing all in accordance with the manufacturer's recommendations :-	
(Note :- Item 07068 shall only be measured when they are required for replacement of the existing proprietary steel sheet roofing as stipulated in Special Conditions Clauses SC07.14 and SC07.15(a).)	
<i>Per square metre</i>	
07068 Roofing system.....	3,726.30 91.20

Item		Supply and fix	Fix only	Item
	PROPRIETARY PROFILED STEEL SHEET ROOFING (CONT'D)			
	0.75 mm Thick proprietary steel sheeting with proprietary coating (25 microns thick) on visible sides and proprietary protective layer on the reverse side (10 microns thick) in matching colour to the sandwich roofing system as described in items 07068, including forming into any component shape and required girth including subgrit, purlins and fixing with all necessary clamps and approved stainless steel fasteners all in accordance with the manufacturer's recommendations :-			
	(Note :- Items 07069 to 07074 inclusive shall only be measured when they are required for replacement of the existing proprietary steel sheet roofing as stipulated in Special Conditions Clauses SC07.14 and SC07.15(a).)			
	Per linear metre			
07069	Drip flashing.....	354.50	32.90	07069
07070	Fascia flashing.....	475.60	35.10	07070
07071	Eave flashing.....	311.30	29.70	07071
07072	Toothed plate complete with foam filler at ridge.....	328.50	35.10	07072
07073	Fascia corner flashing, ridge flashing, verge flashing and the like.....	396.90	35.10	07073
07074	Fascia capping, ridge capping and the like.....	302.70	35.10	07074
	Proprietary profiled sheet roofing system comprising of galvanized and plastic coated steel sheet, processed in roll to form trapezoidal profiles, comprising 0.75 mm thick steel (S280/S320 GD to EN 10326) with zinc galvanizing (Z275), with 25 microns polyester coating on the exterior surface and 10 microns reverse side coating (RSL) on the interior surface including subgrit, purlins and fixing with stainless steel self-tapping screws with stainless steel washer (with vulcanized EDPM layer) to level or sloping framing all in accordance with the manufacturer's recommendations :-			
	(Note :- Item 07075 shall only be measured when they are required for replacement of the existing proprietary steel sheet roofing as stipulated in Special Conditions Clauses SC07.14 and SC07.15(a).)			
	Per square metre			
07075	Roofing system.....	501.40	29.70	07075
	0.75 mm Thick proprietary steel (S350 GD to EN 10326) flashing with zinc galvanizing (55% AlZn AZ 185 to EN 10326), with 25 microns polyester coating on the exterior surface with matching colour to cladding profile and 10 microns reverse side coating (RSL) on the interior surface as described in item 07075 including press-forming to the shape and girth including subgrit, purlins and fixing with all necessary stainless steel self-tapping screws all in accordance with the manufacturer's recommendations :-			
	(Note :- Items 07076 to 07081 inclusive shall only be measured when they are required for replacement of the existing proprietary steel sheet roofing as stipulated in Special Conditions Clauses SC07.14 and SC07.15(a).)			
	Per linear metre			
07076	Drip flashing.....	46.10	10.90	07076
07077	Fascia flashing.....	61.80	11.60	07077
07078	Eave flashing.....	40.50	9.80	07078
07079	Toothed plate complete with foam filler at ridge.....	42.70	11.60	07079
07080	Fascia corner flashing, ridge flashing, verge flashing and the like.....	51.60	11.60	07080
07081	Fascia capping, ridge capping and the like.....	39.40	11.60	07081

Item			Item	
PROPRIETARY PROFILED STEEL SHEET ROOFING (CONT'D)				
<p>Proprietary sandwich roofing panel (concealed fixing type) comprising 0.75 mm thick coil-galvanized (S350 GD+Z275 to EN 10326) trapezoidal profile steel outer shell with 25 microns PVF2 coating, continuous core of rigid CFC- and HCFC-free polyurethane foam, 0.55 mm thick coil-galvanized slightly profiled steel inner shell with 10 microns polyester coating (RSL), proprietary factory-applied EDPM sealing profile along longitudinal joint including subgrit, purlins and fixing with all necessary stainless steel self-tapping screws with spherical cap, proprietary roll-formed steel concealed fixing capping with matching colour on every pitch of sandwich panel all in accordance with the manufacturer's recommendations : -</p>				
<p>(Note : - Item 07082 shall only be measured when they are required for replacement of the existing proprietary steel sheet roofing as stipulated in Special Conditions Clauses SC07.14 and SC07.15(a).)</p>				
Per square metre				
07082	Roofing panels.....	3,342.50	87.90	07082
<p>0.75 mm Thick proprietary coil-galvanized (S350 GD+Z275 to EN 10326) steel flashing with 25 microns PVF2 coating on weather side with matching colour to sandwich roof panel and 10 microns protective coating (RSL) on the other side as described in item 07082, including press-forming to the shape and girth including subgrit, purlins and all necessary stainless steel self-tapping screws all in accordance with the manufacturer's recommendations : -</p>				
<p>(Note : - Items 07083 to 07088 inclusive shall only be measured when they are required for replacement of the existing proprietary steel sheet roofing as stipulated in Special Conditions Clauses SC07.14 and SC07.15(a).)</p>				
Per linear metre				
07083	Drip flashing.....	307.40	48.90	07083
07084	Fascia flashing.....	413.00	35.10	07084
07085	Eave flashing.....	268.90	29.70	07085
07086	Toothed plate complete with foam filler at ridge.....	328.50	35.10	07086
07087	Fascia corner flashing, ridge flashing, verge flashing and the like.....	383.20	35.10	07087
07088	Fascia capping, ridge capping and the like.....	302.70	35.10	07088

Item		Supply and fix	Fix only	Item
	PROPRIETARY PROFILED STEEL SHEET ROOFING (CONT'D)			
	Proprietary galvanized steel roofing system comprising 0.75 mm thick RAL6001 galvanized steel with one-side precoating based on silicone resins and in 25 microns vinylidene polifluoride (PVDF) coating as the outer liner in one single sheet for the whole roof run (no end laps allowed) and 0.55 mm thick RAL9002 galvanized steel with one-side precoating based on silicone resins and 10 microns vinylidene polifluoride (PVDF) coating as the inner liner infilled evenly with 50 mm thick mineral wool at a density of 100 kg/m3 with vapour barrier including purlins and fixing with approved self-tapping screws, on site fabricated system to achieve a maximum thermal insulation U-value of 0.76 W/m2K and the compliance with BS 476 Part 4; or Class A1 according to BS EN 13501-1; or other equivalent fire classification standards and all in accordance with manufacturer's recommendations :-			
	(Note : - Items 07089 to 07096 inclusive shall only be measured when they are required for new works as stipulated in Special Conditions Clauses SC07.14 and SC07.15(b).)			
	<i>Per square metre</i>			
07089	Proprietary series insulated roofing system.....	1,812.80	102.80	07089
	<i>Per linear metre</i>			
07090	Flashing to fascia.....	206.10	33.00	07090
07091	Flashing to drip.....	244.80	17.60	07091
07092	Flashing to eave.....	206.10	15.40	07092
07093	Flashing to corner flashing, ridge flashing and verge flashing, etc.....	270.50	33.00	07093
07094	Flashing to capping, ridge capping and the like.....	231.99	33.00	07094
07095	Toothed plate complete with foam filler n.e. 1.00 m high.....	219.00	33.00	07095
07096	Gutter in any size.....	203.80	9.30	07096

Item		Supply and fix	Fix only	Item
	PROPRIETARY ALUMINIUM SHEET ROOFING			
	Proprietary aluminium roofing system comprising 1.00 mm thick in 65/400 profile with PVDF 2 coats finish (23-25microns) on weather side for outer liner in one single sheet for the whole roof run (no end laps allowed) and 0.80 mm thick Kaibau TR 35/200 of the same material as the outer liner with polyester coating on underside as the inner liner infilled evenly with 100 mm thick mineral wool with fire performance complying BS476 Part 7 compressed to 85 mm at a density of 40 kg/m3 with vapour barrier including subgirt, purlins and fixing with necessary ST-Clips and approved self-tapping screws, on site fabricated system to achieve a maximum thermal insulation U-value of 0.4W/m2K and minimum Weighted Sound Reduction Index of 31dB compliance with BS 5821 Part 3:1984 and all in accordance with manufacturer's recommendations :-			
	(Note :- Items 07097 to 07104 inclusive shall only be measured when they are required for replacement of the existing proprietary steel sheet roofing as stipulated in Special Conditions Clauses SC07.14 and SC07.15(a).)			
	<i>Per square metre</i>			
07097	Proprietary series insulated roofing system.....	2,373.00	109.90	07097
	<i>Per linear metre</i>			
07098	Flashing to fascia.....	271.20	35.10	07098
07099	Flashing to drip.....	322.10	31.90	07099
07100	Flashing to eave.....	271.20	29.70	07100
07101	Flashing to corner flashing, ridge flashing and verge flashing, etc.....	356.00	35.10	07101
07102	Flashing to capping, ridge capping and the like.....	305.10	35.10	07102
07103	Toothed plate complete with foam filler n.e. 1.00 m high.....	288.20	35.10	07103
07104	Gutter in any size.....	268.10	9.90	07104
	Proprietary aluminium roofing system comprising 1.0 mm thick aluminium standing seam profile with one-side 25 microns PVF2 coating as the outer liner in one single sheet for the whole roof run (no end laps allowed) and 1.0 mm thick aluminium trapezoidal profile with one-side 10 microns polyester coating as the inner liner infilled evenly with 100 mm thick mineral wool at a density of 60 kg/m3 with vapour barrier including purlins, thermal pad and fixing with necessary aluminum halter and approved self-tapping screws, on site fabricated system to achieve a maximum thermal insulation U-value of 0.35 W/m2K and the compliance with BS 476 Part 4; or Class A1 according to BS EN 13501-1; or other equivalent fire classification standards and all in accordance with manufacturer's recommendations :-			
	(Note :- Items 07105 to 07112 inclusive shall only be measured when they are required for new works as stipulated in Special Conditions Clauses SC07.14 and SC07.15(b).)			
	<i>Per square metre</i>			
07105	Proprietary series insulated roofing system.....	3,892.90	220.40	07105
	<i>Per linear metre</i>			
07106	Flashing to fascia.....	444.80	36.70	07106
07107	Flashing to drip.....	528.10	36.70	07107
07108	Flashing to eave.....	444.80	36.70	07108
07109	Flashing to corner flashing, ridge flashing and verge flashing, etc.....	583.80	36.70	07109
07110	Flashing to capping, ridge capping and the like.....	500.40	36.70	07110
07111	Toothed plate complete with foam filler n.e. 1.00 m high.....	472.60	36.70	07111
07112	Gutter in any size.....	439.70	36.70	07112

Item			Item																
REPAIRS TO EXISTING ROOFING																			
<i>Per square metre</i>		A \$																	
07113	Take down and clear away corrugated or profiled sheet roofing in any shape up to 6 mm thick.....	5.70	07113																
07114	Ditto but exceeding 6 mm thick.....	10.00	07114																
07115	Take down and clear away proprietary roofing system including sandwich and insulated roofing system in any shape.....	14.20	07115																
07116	Take down and set aside for re-use corrugated or profiled sheet roofing in any shape up to 6 mm thick.....	7.10	07116																
07117	Ditto but exceeding 6 mm thick.....	12.80	07117																
07118	Take down and set aside for re-use proprietary roofing system including sandwich and insulated roofing system in any shape.....	15.60	07118																
<i>Per linear metre</i>		A \$																	
07119	Take down and clear away ridging, flashing, capping, toothed plate complete with foam filler, or gutter and the like of any type, size and shape.....	7.10	07119																
07120	Take down and set aside for re-use ridging, flashing, capping, toothed plate complete with foam filler, or gutter and the like of any type, size and shape.....	10.00	07120																
<i>Each</i>																			
07121	Cut hole through existing sheet roofing for pipes or articles in any size and thickness.....	16.30	07121																
PROPRIETARY GREEN ROOFING SYSTEM																			
Proprietary green roofing system comprising root barrier, moisture retention layer, drainage layer, drainage inspection chamber, filter layer, light weight growing medium, groundcovers of approved species and spacing, and including provision of irrigation system by licensed plumber, all in accordance with the manufacturer's recommendation : -																			
<i>Per square metre</i>		A \$																	
07122	Proprietary green roofing system.....	1,390.30	07122																
Proprietary green turf system comprising polyethylene protective sheet, 40 mm thick natural pumice and natural inorganic hardener BG powder, geo-fabric, 5-10 mm thick sand bedding, lawn or groundcovers of approved species and spacing, and including provision of irrigation system by licensed plumber, all in accordance with the manufacturer's recommendation : -																			
Proprietary natural pumice and natural inorganic hardener BG powder complying with the following : -																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Density</td> <td>905 kg/m³ (dry), 1,220 kg/m³ (wet)</td> </tr> <tr> <td>Weight (40 mm thick)</td> <td>356 N/m² (dry), 478 N/m² (wet)</td> </tr> <tr> <td>Water retention capacity</td> <td>30% dry weight</td> </tr> <tr> <td>Percolation rate</td> <td>1 mm/sec</td> </tr> <tr> <td>Bending strength</td> <td>JIS A 1106 1.54 N/mm²</td> </tr> <tr> <td>Compressive strength</td> <td>JIS A 1108 2.84 N/mm²</td> </tr> <tr> <td>Thermal conductivity</td> <td>ASTM C 518:04 0.300 W/m^oK</td> </tr> <tr> <td>R-value</td> <td>0.184m^{2o}K/W</td> </tr> </table>				Density	905 kg/m ³ (dry), 1,220 kg/m ³ (wet)	Weight (40 mm thick)	356 N/m ² (dry), 478 N/m ² (wet)	Water retention capacity	30% dry weight	Percolation rate	1 mm/sec	Bending strength	JIS A 1106 1.54 N/mm ²	Compressive strength	JIS A 1108 2.84 N/mm ²	Thermal conductivity	ASTM C 518:04 0.300 W/m ^o K	R-value	0.184m ^{2o} K/W
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R-value	0.184m ^{2o} K/W																		
<i>Per square metre</i>		A \$																	
07123	Proprietary green turf system.....	1,277.70	07123																

Item						Item
	ROOF TILING AND INSULATION BOARD					
	CANTON TILES AND CONCRETE ROOFING TILES					
	Canton tiles and concrete roofing tiles and fitting as BS EN 490 and BS EN 491 :-					
	<i>Per square metre</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
07124	Tiling laid with 15 mm wide open joints and bedded solid and pointed in cement mortar (1:4) on screed or roof covering (measured separately) size 300 x 300 x 30 mm thick.....	107.00	8.30	9.10	16.50	07124
07125	Ditto but bedded, jointed and pointed in hot bitumen.....	127.20	9.10	10.00	19.00	07125
07126	Tiling laid with 15 mm wide open joints and bedded solid and pointed in cement mortar (1:4) on screed or roof covering (measured separately) size 400 x 400 x 35 mm thick.....	116.70	8.30	9.10	15.20	07126
07127	Ditto but bedded, jointed and pointed in hot bitumen.....	136.80	8.30	9.10	16.50	07127
	INSULATING ROOFING TILES					
	Insulating roofing tiles 300 or 400 mm square and 40 mm thick :-					
	<i>Per square metre</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
07128	Tiling laid with 15 mm wide open joints and bedded solid and pointed in cement mortar (1:4) on screed or roof covering (measured separately).....	173.10	8.30	9.10	16.50	07128
07129	Ditto but bedded, jointed and pointed in hot bitumen.....	186.90	9.10	10.00	19.00	07129
	FOAM BOARD ROOFING TILES					
	Approved concrete foam board roofing tiles of any size and minimum embedded with extruded cellular polystyrene foam which is free from halogenated hydrocarbon, CFCs, HCFCs or HFCs Burning behaviour is to be Class B1, non readily ignitable. Maximum compressive load shall not be less than 300 kN m ⁻² . Temperature difference between both sides when tile is heated on one side for 1 hour shall be greater than 15°C :-					
	<i>Per square metre</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
07130	Tiling laid with 15 mm wide open joints and bedded solid and pointed in cement mortar (1:4) on screed or roof covering (measured separately).....	228.20	8.30	9.10	25.40	07130
07131	Ditto but bedded, jointed and pointed in hot bitumen.....	245.30	9.10	10.00	44.40	07131
	EXTRUDED POLYSTYRENE FOAM BOARD					
	Extruded cellular polystyrene foam board shall be free from halogenated hydrocarbon, CFCs, HCFCs or HFCs Burning behaviour is to be Class B1, non readily ignitable. Density is not less than 33 kg/m ³ . Thermal conductivities are 28, 27 and 27mW.m ⁻¹ .k ⁻¹ for 25 mm, 40 mm and 50 mm thick respectively :-					
	<i>Per square metre</i>					
		Thickness (mm)				
		25	40	50		
		A \$	B \$	C \$		
07132	Extruded cellular polystyrene foam board laid on screed or concrete (measured separately).....	62.70	100.40	119.30		07132

Item		Item
NON-DESTRUCTIVE TEST		
(Note : - The following items 07133 to 07134 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)		
<i>Each</i>		A \$
07133	Flooding test including infra-red scan in accordance with G.S. Item 12.117.....	07133
07134	Ditto for inspection of existing roofing system.....	07134

Section 08

CARPENTRY AND JOINERY

SECTION 08

CARPENTRY AND JOINERY

SPECIAL CONDITIONS

TEMPORARY BARRIERS

Temporary barriers

SC08.01

Throughout this Schedule, rates for all trades shall include for all temporary preventive and protective measures necessary for the execution of the work, such as to protect new or existing works, and to protect the public from harm, dust or nuisance. No payment shall be made for temporary barriers under any circumstance, with the following exception : -

- (a) Temporary barriers specifically ordered by the Maintenance Surveyor in writing and specifically stating that the temporary barriers are for the exclusive use of the Employer and other contractor employed directly by the Employer within the Works Order period.

In the event that the temporary barriers mentioned in sub-clause (a) above are subsequently used as preventive and protective measures by the Contractor themselves, no payment shall be made.

The temporary barriers shall be measured the length on plan as fixed.

No measurement shall be made for anchor bolts.

Rates for temporary barriers

SC08.02

The rates for temporary barriers shall include for : -

- (a) Delivering to and erecting on Site, repairing and maintaining throughout the period of use in first or subsequent positions, and taking down and setting aside for re-erection or clearing away.
- (b) Providing all materials including poles, struts, cover boarding and the like.
- (c) Preparing and applying or touching up paint to all surfaces including writings and logos in single or multi-colour paints.
- (d) Providing and fixing anchor bolts, nuts and washers.
- (e) Providing adequate lighting and warning lights and payment of all charges incurred.
- (f) Making good any damage caused to pavings and other surfaces during use, erection and taking down.

Measurement generally

SC08.03

All sizes and thicknesses shall be finished sizes and thicknesses.

SPECIAL CONDITIONS

CARPENTRY AND JOINERY WORK

Measurement of carpentry and joinery timber	SC08.04	<p>Furniture and joinery fittings which are composite items that are fabricated off Site, in whole or substantially in whole, delivered and assembled on Site, shall be measured and paid for under Section 20 - Fixtures and Fittings of this Schedule; and shall not be broken down and measured as constituent components. The Schedule rates in this Section of the Schedule shall not be applied to furniture and joinery fittings, unless otherwise specifically confirmed by the Maintenance Surveyor in writing.</p> <p>Carpentry and joinery timber shall be measured as the net length or area fixed, of the smallest finished square or rectangular section from which the piece can be cut. Timber members shall be measured flush over joints, no allowance shall be made for tenon and housing, tongue and groove, and the like at joints.</p> <p>Fillets, shelving, lining and the like exceeding 150 mm wide and not exceeding 50 mm thick shall be measured as boarding.</p>
Measurement of boarding, flooring, plywood, etc.	SC08.05	<p>Boarding, weather boarding, floor boarding, wood block, bamboo and parquet flooring, plywood and all other building boards, wood wool slabs, wood panels and the like shall all be measured as the net area covered when fixed or laid. No deduction shall be made for openings not exceeding 0.50 m².</p> <p>Plywood, plasterboard, fibre insulation board, blockboard, medium density fibreboard, wood chipboard, laminated plastic decorative sheeting and/or other building boards as constituent components forming part of a composite item of joinery furniture and fittings shall not be measured separately.</p> <p>When stated, the width of boarding shall mean the exposed face width when fixed.</p> <p>Timber members shall be measured flush over joints, no allowance shall be made for tenon and housing, tongue and groove, and the like at joints.</p> <p>Timber boarding shall be measured and rounded up to the nearest 5 mm.</p> <p>Supply and installation of teak shall only be paid when specifically ordered by the Maintenance Surveyor in writing.</p>
Measurement of fibreglass quilts	SC08.06	<p>Fibreglass insulating quilts shall be measured as the net area covered. No deduction shall be made for openings not exceeding 0.50 m².</p>
Measurement of folding doors, etc.	SC08.07	<p>Each leaf of doors hung folding or in two heights shall be measured separately.</p> <p>Plastic folding doors shall be measured as the net area of the clear opening with reference to drawing or reference to manufacturer's catalogue excluding any linings, tracks, rails and the like.</p>

SPECIAL CONDITIONS

Ironmongery items	SC08.08	Ironmongery items can be found in Section 09 - Ironmongery of this Schedule.
Measurement of circular, semi-circular or segmental heads to doors and windows	SC08.09	Circular windows shall be measured square, semi-circular or segmental portion of windows and doors with semi-circular or segmental heads shall be measured rectangular, i.e. net width by net height from springing.
Measurement of screen fabric and synthetic leather covering	SC08.10	Measurement of screen fabric and synthetic leather covering shall be the net covered areas as fixed.
Measurement of proprietary compact laminate panel	SC08.11	Proprietary compact laminate panel as constituent components forming part of a composite item like toilet cubicles, changing room benches, lockers, laboratory benches, fume cupboards and the like shall not be measured separately, unless otherwise specifically ordered by the Maintenance Surveyor in writing.
Measurement of proprietary solid surfacing material	SC08.12	<p>Proprietary solid surfacing materials shall be measured as the net plane area inclusive of fittings, bull nose, inlay and the like. The area of backsplash and front apron shall be measured separately. No deduction shall be made for openings not exceeding 0.50 m².</p> <p>Integral wash basin or sink bowls and the like shall be measured as "Extra over" solid surfacing material in which they occur. The rates for such items shall include the labour and material and other costs necessary for the items.</p>
Rates generally	SC08.13	<p>The rates shall generally include for any or all of the following as applicable : -</p> <ol style="list-style-type: none"> (a) Setting out, framing up and straight, raking or circular cutting and waste. (b) Fixing items complete, true and level including scribing to new or existing work in any position, fixing in clips or to cramps, embedding in concrete, screeds and the like, or screwing or bolting to steel. (Special clips, bolts, cutting rebates in concrete or other surfaces and drilling steel, etc., all measured separately.) (c) Fixing items in piecing out and replacing existing defective material which has been cut out and removed. (Cutting out of defective material measured separately.) (d) Providing all nails, pins, tacks, screws, cups and screws, adhesive, mastics, white lead and any other fixing and jointing materials. (e) Notching, cutting and fitting, drilling for screws and boring for bolts including counter-sinking screw, bolt heads and nuts, and pelleting when required.

SPECIAL CONDITIONS

Rates generally (Cont'd)	SC08.13 (Cont'd)	<p>(f) Executing all plugging required for fixing to new or existing concrete, brick, stone or other surfaces, with rawplugs or other approved proprietary plugs including all drilling and cutting mortices or alternatively using "Ramset" or other similar approved power operated fixing system.</p> <p>(g) Narrow widths and small quantities.</p> <p>(h) Gluing, forming splayed or rounded edges, holes, housing ends, ship-lap joints, mitres, ends and shaped ends, angles, junctions, heading joints, short lengths and the like.</p> <p>(i) Forming tongued angles, chamfers, rebates, grooves and the like.</p> <p>(j) Forming all mortices and tenons, housed, dovetailed and other framed joints and providing hardwood or teak pins, wedges, keys and the like when required.</p> <p>(k) Submission of an authenticated certificate from the Forest Stewardship Council (FSC) or other approved authority to substantiate the source of supply from a sustainable forest or plantation.</p>
Rates for wrot timber	SC08.14	<p>The rates for wrot timber shall further include for :-</p> <p>(a) Punching nail heads, counter sinking screws and the like.</p> <p>(b) Stopping and sanding to exposed surfaces.</p> <p>(c) Preparing surfaces for painting or polishing.</p> <p>(d) In the case of wrot softwood, notwithstanding the botanical classification, it shall include beech, birch, cherry, chestnut, maple, ash, oak, pine, zen, teak, mahogany, walnut, anigre, citron, sapele or sycamore facing unless otherwise stated.</p>
Rates for boarding and flooring	SC08.15	<p>The rates for boarding and flooring shall further include for :-</p> <p>(a) Providing and fixing boards in matching widths of any face width required.</p> <p>(b) Cramping and wedging up if required.</p> <p>(c) Forming cross-tongued in lieu of tongued and grooved boarding if required.</p> <p>(d) In the case of tongued and grooved or cross-tongued boarding, ripping off tongue, cutting back grooves and planing edges flat and square exposed surfaces.</p>
Rates for opening sashes, jalousies and doors	SC08.16	<p>The rates for opening sashes, jalousies and doors shall further include for :-</p> <p>(a) Hanging on hinges, rising butts, sliding track, pivots and the like (ironmongery measured separately).</p> <p>(b) Glazing and glazing beads to framed, panelled and glazed doors.</p>

SPECIAL CONDITIONS

Rates for forming observation or vent openings in timber doors	SC08.17	<p>The rates for forming observation or vent openings in timber doors shall further include for : -</p> <p>(a) Hardwood or teak frames, lippings, fillets, glazing beads and louvre blades, glass and glazing, etc.</p>
Rates for flush doors	SC08.18	<p>The rates for flush doors shall further include for : -</p> <p>(a) The use of plywood shall be luan faced internal quality.</p> <p>(b) The use of beech, birch, cherry, chestnut, maple, ash, oak, pine, zen, teak, mahogany, walnut, anigre, citron, sapele or sycamore facing, to flush doors where hardwood facing is specified.</p> <p>(c) The use of any thickness of laminated plastic sheet to flush doors where laminated plastic sheet is specified.</p>
Rates for proprietary fire resisting doors	SC08.19	<p>The rates for proprietary fire resisting doors shall further include for : -</p> <p>(a) Supply and installation in accordance with the manufacturer's instructions.</p> <p>(b) Doors with insulation property to match with the FRR of the doors.</p> <p>(c) Providing and fixing all accessories, ironmongeries (except emergency panic device with alarm system and digital locking device), intumescent materials for protection, etc. recommended by the manufacturer.</p> <p>(d) Providing and fixing door frames where required.</p> <p>(e) Sealing edges with door seals.</p> <p>(f) Cutting mortice or drilling in concrete, brick, stone or other surfaces as required.</p> <p>(g) Grouting into new or existing mortice or holes.</p> <p>(h) Finishing all surfaces.</p> <p>(i) Making good disturbed surfaces.</p> <p>(j) Providing test certificate, operation manual and manufacturer's guarantee as required by the Maintenance Surveyor for approval or as stated in the Contract.</p>
Rates for acoustic doors	SC08.20	<p>The rates for acoustic doors shall further include for : -</p> <p>(a) Supply and installation in accordance with the manufacturer's instructions.</p> <p>(b) Providing and fixing all accessories, ironmongeries, sound proof/absorbing materials, etc. recommended by the manufacturer.</p> <p>(c) Providing and fixing door frames where required.</p>

SPECIAL CONDITIONS

Rates for acoustic doors (Cont'd)

SC08.20 (Cont'd)

- (d) Sealing door edges with acoustic door seals.
- (e) Cutting mortice or drilling in concrete, brick, stone or other surfaces as required.
- (f) Grouting into new or existing mortice or holes.
- (g) Finishing all surfaces.
- (h) Making good disturbed surfaces.
- (i) Providing laboratory and field test certificates in compliance with G.S. Item 13.63, operation manual and manufacturer's guarantee as required by the Maintenance Surveyor for approval or as stated in the Contract.

Rates for plastic folding doors

SC08.21

The rates for plastic folding doors shall further include for : -

- (a) Cutting mortice, sinking or drilling in concrete, brick, stone or other surfaces as required.
- (b) Grouting into new or existing mortice or holes.
- (c) Providing and fixing with nuts and washers.
- (d) Providing and fixing rail, locking device, lock and all necessary ironmongeries.
- (e) Making good disturbed surfaces.

Rates for screen fabric and synthetic leather covering

SC08.22

The rates for screen fabric and synthetic leather covering shall further include for : -

- (a) Compliance with flammability standard to BS 7176.
- (b) All straight or raking cutting and waste, holes and fittings.
- (c) Executing work in any position, at any height and on new or existing surfaces.
- (d) All staples, adhesive and the like.
- (e) Covering up and protecting.

Rates for proprietary compact laminate panels

SC08.23

The rates for proprietary compact laminate panels shall further include for : -

- (a) Supply, fabrication and installation of a compact laminate panel complying with BS EN438 (all relevant parts) formed homogeneously under high pressure and high temperature with cellulose fibres or multiple layers of kraft paper of various colours and patterns, all in accordance with the manufacturer's instructions, to form wall panels, partitions, cladding or other usage to be approved by the Maintenance Surveyor in writing.
- (b) Assembling and erection work either carried out on Site or off-Site.

SPECIAL CONDITIONS

Rates for proprietary compact laminate panels (Cont'd)	SC08.23 (Cont'd)	<ul style="list-style-type: none"> (c) Submission of certificates of origin, catalogues, technical literature and test certificates of the compact laminate panel. (d) Submission of the documentary proof from the manufacturer that the compact laminate panel to be constructed exhibits acceptable properties of fire resistance complying with BS 476, moisture resistance and/or damage resistance against scratches, graffiti and/or general wear and tear. (e) All necessary supporting framework and fixing accessories for completing the installation of the wall panels, partitions and cladding. (f) Pointing, jointing and sealing edges with approved non-acidic and anti-mould sealant, where required. (g) Submission of samples. (h) Submission of the manufacturer's warranty of not less than 3 years.
Rates for proprietary acoustic panels	SC08.24	<p>The rates for proprietary acoustic panels shall further include for : -</p> <ul style="list-style-type: none"> (a) Fabric of any thickness complying with flame spread test to BS 476 Part 7 : Class 1. (b) Submission of shop drawings, certificates of origin, catalogues, technical literature and test certificates. (c) Provision of samples of acoustic panels showing complete range of colours and all components. (d) Preparing mock up as required by and to the approval of the Maintenance Surveyor. (e) Providing operation and maintenance manuals, manufacturer's guarantee and supplier's warranty.
Rates for proprietary sport flooring system	SC08.25	<p>The rates for proprietary sport flooring system shall further include for : -</p> <ul style="list-style-type: none"> (a) Submission of shop drawings, certificates of origin, catalogues, technical literature and test certificates. (b) Provision of samples of flooring showing complete range of colours and all components. (c) Preparing mock up as required by and to the approval of the Maintenance Surveyor. (d) Provision of operation and maintenance manuals, manufacturer's guarantee and supplier's warranty. (e) Applying and obtaining accreditation/certification from recognized international sports organizations when required.

SPECIAL CONDITIONS

Rates for recycled plastic lumbers

SC08.26

The rates for recycled plastic lumbers shall further include for : -

- (a) Recycled plastic materials which do not contain in its finished state any substance which is known to be toxic or carcinogenic when in contact with skin, and that no such substances will be released as a vapour or dust during normal use.

Rates for proprietary solid surfacing material

SC08.27

The rates for proprietary solid surfacing materials shall further include for : -

- (a) All accessories necessary for the works.
- (b) Bullnose and inlay.
- (c) Pointing, jointing and sealing edges with approved non-acidic and anti-mould sealant.
- (d) Forming holes for pipes, water taps, building services installations, basin, sink and the like.
- (e) Providing and fixing all necessary brackets for sinks, basins and the like.
- (f) Submission of catalogues, technical literature, samples, shop drawings and supplier's warranty of not less than 5 years.

Rates for proprietary anti-ricochet surfaces

SC08.28

The rates for proprietary anti-ricochet surfaces shall further include for : -

- (a) Supply and installation including all necessary fixing accessories all in accordance with the manufacturer's instructions.
- (b) Provision of samples.
- (c) Provision of technical literature, test certificates, reports, maintenance manuals, manufacturer's guarantee and supplier's warranty.

Rates for take down and clear away, take down and set aside for re-use and fix only

SC08.29

Unless otherwise provided, the rates for take down and clear away, take down and set aside for re-use and fix only shall include the work to an existing or new article, fitting or material in all types of timber and finishes and in all thicknesses.

Item							Item																																																				
TEMPORARY BARRIERS																																																											
(Note : - The following Items 08001 to 08002 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)						Erect, maintain, take down and clear away	Erect, maintain and left-in position	Take down and clear away																																																			
<i>Per cubic metre</i>						A \$	B \$	C \$																																																			
08001	Sawn hardwood in scantlings and boarding in temporary barriers.....					6,251.80	6,044.40	207.50	08001																																																		
<i>Per square metre</i>																																																											
08002	25 mm Plywood covering.....					169.90	163.30	6.60	08002																																																		
SCANTLINGS																																																											
(Note : - Timber not exceeding 50 mm thick and exceeding 150 mm wide shall be measured as boarding.)																																																											
Scantlings fixed in grounds, fillets, rafters, trusses, purlins, floor joists, unexposed wall and partition studs, frames, louvre blades, skirtings, architraves, beads, stops and the like : -																																																											
Sectional area (m²)																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 12.5%;"></th> <th style="width: 12.5%;">n.e. 0.0005</th> <th style="width: 12.5%;">0.0005 - 0.001</th> <th style="width: 12.5%;">0.001 - 0.002</th> <th style="width: 12.5%;">0.002 - 0.004</th> <th style="width: 12.5%;">0.004 - 0.008</th> <th style="width: 12.5%;">0.008 - 0.016</th> <th style="width: 12.5%;">Add to 0.016 m² for each additional 0.008 m² or part thereof in sectional area</th> </tr> <tr> <th>A \$</th> <th>B \$</th> <th>C \$</th> <th>D \$</th> <th>E \$</th> <th>F \$</th> <th>G \$</th> <th></th> </tr> </thead> <tbody> <tr> <td>08003</td> <td>6.10</td> <td>7.80</td> <td>9.80</td> <td>14.10</td> <td>18.40</td> <td>28.30</td> <td>8.20</td> <td>08003</td> </tr> <tr> <td>08004</td> <td>10.10</td> <td>15.50</td> <td>21.80</td> <td>34.40</td> <td>48.00</td> <td>79.20</td> <td>26.00</td> <td>08004</td> </tr> <tr> <td>08005</td> <td>10.60</td> <td>16.70</td> <td>23.70</td> <td>37.30</td> <td>52.20</td> <td>85.90</td> <td>28.10</td> <td>08005</td> </tr> <tr> <td>08006</td> <td>25.40</td> <td>35.20</td> <td>44.50</td> <td>50.80</td> <td>57.20</td> <td>95.30</td> <td>40.00</td> <td>08006</td> </tr> </tbody> </table>									n.e. 0.0005	0.0005 - 0.001	0.001 - 0.002	0.002 - 0.004	0.004 - 0.008	0.008 - 0.016	Add to 0.016 m ² for each additional 0.008 m ² or part thereof in sectional area	A \$	B \$	C \$	D \$	E \$	F \$	G \$		08003	6.10	7.80	9.80	14.10	18.40	28.30	8.20	08003	08004	10.10	15.50	21.80	34.40	48.00	79.20	26.00	08004	08005	10.60	16.70	23.70	37.30	52.20	85.90	28.10	08005	08006	25.40	35.20	44.50	50.80	57.20	95.30	40.00	08006
	n.e. 0.0005	0.0005 - 0.001	0.001 - 0.002	0.002 - 0.004	0.004 - 0.008	0.008 - 0.016	Add to 0.016 m ² for each additional 0.008 m ² or part thereof in sectional area																																																				
A \$	B \$	C \$	D \$	E \$	F \$	G \$																																																					
08003	6.10	7.80	9.80	14.10	18.40	28.30	8.20	08003																																																			
08004	10.10	15.50	21.80	34.40	48.00	79.20	26.00	08004																																																			
08005	10.60	16.70	23.70	37.30	52.20	85.90	28.10	08005																																																			
08006	25.40	35.20	44.50	50.80	57.20	95.30	40.00	08006																																																			
<i>Per linear metre</i>																																																											
08003	Sawn hardwood scantlings.....					6.10	7.80	9.80	14.10	18.40	28.30	8.20	08003																																														
08004	Wrot hardwood scantlings.....					10.10	15.50	21.80	34.40	48.00	79.20	26.00	08004																																														
08005	Wrot softwood scantlings.....					10.60	16.70	23.70	37.30	52.20	85.90	28.10	08005																																														
08006	Wrot teak scantlings.....					25.40	35.20	44.50	50.80	57.20	95.30	40.00	08006																																														
Extra over either of Items 08003 to 08006 inclusive for scantlings bent to curve to radius n.e. 15.00 m during fixing by means of saw cuts, steam bending, etc.....								5%																																																			
Ditto for scantlings for cutting solid timber to form curve including dowelling and keying sections together.....								10%																																																			

Item		Sectional area (m ²)				Item			
		n.e. 0.004	0.004 - 0.008	0.008 - 0.016	Exc. 0.016				
		A \$	B \$	C \$	D \$				
SCANTLINGS (CONT'D)									
	<i>Per linear metre</i>								
08007	Take down and clear away timber scantlings.....	3.90	6.60	10.80	13.30	08007			
08008	Take down and set aside for re-use ditto.....	4.20	7.40	12.50	15.70	08008			
08009	Fix only ditto including making all joints.....	8.20	13.20	24.70	32.90	08009			
	<i>Per square metre</i>								
08010	Plane and sand down surface of existing scantlings in position to produce wrot face including punching nail heads as necessary.....		59.30	61.00	95.70	08010			
BOARDING									
	Boarding in coverings, linings, window reveals and similar positions, including weather boarding, exceeding 150 mm in width and not exceeding 50 mm thick : -								
	<i>Per square metre</i>								
		Thickness (mm)							
		15	20	25	30	40	45	50	
		A \$	B \$	C \$	D \$	E \$	F \$	G \$	
08011	Sawn hardwood boarding.....	56.90	65.40	75.20	88.20	109.50	124.40	129.80	08011
08012	Wrot hardwood boarding.....	153.10	172.30	201.20	222.40	281.10	315.20	338.70	08012
08013	Ditto tongued and grooved.....	199.20	219.30	238.50	257.80	296.30	321.90	343.30	08013
08014	Ditto tongued, grooved and "V" or bead jointed one face.....	214.50	234.80	254.00	273.20	311.80	331.10	350.40	08014
08015	Ditto tongued, grooved and "V" or bead jointed both faces.....	217.40	238.40	258.60	278.80	319.20	339.20	359.60	08015

Item

Item

BOARDING (CONT'D)

Boarding in coverings, linings, window reveals and similar positions, including weather boarding, exceeding 150 mm in width and not exceeding 50 mm thick : - (Cont'd)

Thickness (mm)									
15	20	25	30	40	45	50			
A	B	C	D	E	F	G			
\$	\$	\$	\$	\$	\$	\$			
08016	Wrot softwood boarding.....	164.80	185.70	213.40	234.90	293.60	328.20	346.80	08016
08017	Ditto tongued and grooved.....	212.00	230.10	251.70	271.10	311.10	335.20	356.50	08017
08018	Ditto tongued, grooved and 'V' or bead jointed one face.....	225.90	247.70	267.30	286.40	326.50	345.90	365.70	08018
08019	Ditto tongued, grooved and 'V' or bead jointed both faces.....	231.00	251.90	272.30	292.60	334.60	353.80	375.80	08019
08020	Wrot teak boarding.....	290.60	355.50	420.50	485.60	615.50	680.50	745.40	08020
08021	Ditto tongued and grooved.....	341.50	409.70	478.00	546.20	682.70	750.90	819.20	08021
08022	Ditto tongued, grooved and "V" or bead jointed one face.....	356.30	424.50	492.90	561.00	697.60	765.70	834.00	08022
08023	Ditto tongued, grooved and "V" or bead jointed both faces.....	366.00	437.60	508.90	580.50	723.40	795.00	866.50	08023

Per square metre

Extra over either of Items 08011 to 08023 inclusive for boarding bent to curve to radius n.e. 15.00 m during fixing by means of saw cuts, steam bending, etc.....

5%

Ditto for boarding for cutting solid timber to form curve including dowelling and keying sections together.....

10%

Sawn hard-wood	Wrot hard-wood	Wrot teak
A	B	C
\$	\$	\$
61.00	42.80	67.60

Per square metre

08024 Plane and sand down surface of existing boarding in position to produce wrot face including punching nail heads as necessary.....

08024

Item			Item						
	BOARDING (CONT'D)								
	Boarding in coverings, linings, window reveals and similar positions, including weather boarding, exceeding 150 mm in width and not exceeding 50 mm thick : - (Cont'd)	<table border="1"> <thead> <tr> <th>Square edge boarding</th> <th>Tongued and grooved boarding</th> </tr> <tr> <th>A \$</th> <th>B \$</th> </tr> </thead> </table>	Square edge boarding	Tongued and grooved boarding	A \$	B \$			
Square edge boarding	Tongued and grooved boarding								
A \$	B \$								
	<i>Per square metre</i>								
08025	Take down and clear away existing sawn hardwood/sawn softwood/sawn teak /wrot hardwood/wrot softwood/wrot teak boarding of any thickness.....	19.10	19.90						
08026	Take down and set aside for re-use ditto.....	23.30	37.30						
08027	Fix only ditto.....	90.70	131.70						
		<table border="1"> <thead> <tr> <th>Hard-wood</th> <th>Soft-wood</th> <th>Teak</th> </tr> <tr> <th>A \$</th> <th>B \$</th> <th>C \$</th> </tr> </thead> </table>	Hard-wood	Soft-wood	Teak	A \$	B \$	C \$	
Hard-wood	Soft-wood	Teak							
A \$	B \$	C \$							
	<i>Per linear metre</i>								
08028	Forming rebate, groove, splay, chamfer, bead, rounded angle, tongue, flute, cove, moulding or similar labour on existing boarding in position.....	8.20	11.60						
08029	Ditto but circular to radius n.e. 15.00 m.....	13.20	21.50						
	STRIP FLOORING								
		<table border="1"> <thead> <tr> <th>Hard-wood</th> <th>Soft-wood</th> <th>Teak</th> </tr> <tr> <th>A \$</th> <th>B \$</th> <th>C \$</th> </tr> </thead> </table>	Hard-wood	Soft-wood	Teak	A \$	B \$	C \$	
Hard-wood	Soft-wood	Teak							
A \$	B \$	C \$							
	<i>Per square metre</i>								
08030	Flooring of not less than 18 mm thick in any size wood strips matched for colour, tongued, grooved and "V" jointed all round and laid in basket or herringbone pattern with straight borders as ordered, laid on bitumen/rubber latex waterproofing emulsion coated screed or blockboard backing (paint, screed and blockboard backing measured separately), including preparing surface for polishing.....	544.00	587.40						
			<table border="1"> <thead> <tr> <th>A \$</th> </tr> </thead> </table>	A \$					
A \$									
08031	Take up and clear away wood strip flooring (blockboard backing measured separately).....		17.10						
08032	Take up and set aside for re-use wood strip flooring (ditto).....		25.60						
08033	Lay only wood strip flooring (ditto).....		90.30						

Item		Thickness (mm)				Item
		20	25	20	25	
		Softwood		Teak		
		A	B	C	D	
		\$	\$	\$	\$	
WOOD BLOCK FLOORING						
	<i>Per square metre</i>					
08034	Flooring of the stated thickness in any size wood blocks matched for colour, tongued and grooved all round and laid in basket or herringbone pattern with straight borders as ordered, fixed with cold bitumen/rubber emulsion adhesive to screeds, including preparing surfaces for polishing.....	190.20	225.00	223.70	270.10	08034
	<i>Per square metre</i>				A \$	
08035	Take up and clear away wood block flooring.....				16.60	08035
08036	Take up and set aside for re-use wood block flooring.....				23.30	08036
08037	Lay only wood block flooring.....				90.30	08037
PARQUET FLOORING						
	<i>Per square metre</i>					
		Hard-wood	Soft-wood	Teak		
		A	B	C		
		\$	\$	\$		
08038	Parquet flooring of 8 mm thick in any size wood blocks matched for colour, tongued and groove and laid in pattern as ordered, fixed with cold bitumen/rubber emulsion adhesive to screeds, including preparing surfaces for polishing.....	124.10	133.20	139.50		08038
	<i>Per square metre</i>				A \$	
08039	Take up and clear away parquet flooring.....				14.20	08039
08040	Take up and set aside for re-use parquet flooring.....				20.80	08040
08041	Lay only parquet flooring.....				57.70	08041
	<i>Per square metre</i>				A \$	
08042	Plane as necessary, sand down, clean off existing wood block or parquet flooring of any type and prepare surface for polishing.....				21.50	08042

Item

Item

BAMBOO FLOORING

Bamboo flooring of not less than 14 mm thick in any size carbonized strand woven bamboo nature strips with factory applied finish matched for colour, tongued and grooved and laid in pattern as ordered, laid on and including 12 mm plywood, gum paper and asphalt paper with adhesive and complying with the following :-

Reaction to Fire classification	EN13501-1:2007 : Cfl – s1
Impact	114.7kg/cm ³
Abrasion Resistance	ASTM D 4060, CS-17 Taber abrasive wheels: Final wear-through: Minimum 16,000 cycles.
Moisture Content	10%+/-2%
Slip Resistance	In accordance with DIN 51130:2004 Testing of floor coverings, R9.

*Per square metre*A
\$

08043	Bamboo flooring.....	515.70	08043
08044	Take up and clear away bamboo flooring (plywood backing measured separately).....	16.60	08044
08045	Take up and set aside for re-use bamboo flooring (ditto).....	23.30	08045
08046	Lay only bamboo flooring (ditto).....	90.30	08046

LAMINATED FLOORING

Laminated flooring of various series comprising laminated planks, pre-finished, tongued and grooved and laid in the required pattern including sub-floor with approved bitumen/rubber latex waterproofing emulsion, fibreglass or polyethylene backing as required all in accordance with the manufacturer's recommendations :-

Per square metre

Boarding thickness (mm)	
n.e. 10	exc. 10
A	B
\$	\$
304.30	346.80

08047	Laminated flooring.....	304.30	346.80	08047
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*Per square metre*A
\$

08048	Take up and clear away laminated flooring complete with sub-flooring.....	21.30	08048
08049	Take up and set aside for re-use ditto.....	23.70	08049
08050	Fix only ditto.....	59.30	08050

*Per linear metre*A
\$

08051	Aluminium T-strip cover for expansion joint.....	126.10	08051
08052	Aluminium end edging strip.....	83.00	08052
08053	Laminated skirting n.e. 100 mm high.....	115.70	08053

Item		Thickness (mm)					Item
		40	45	50	55	65	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
SASHES							
Sashes for solid or cased frames, fanlights, lanterns and skylights, etc., with styles, head and bottom rails of required widths, divided into squares of any size with glazing bars including all rebates, splays, throats, mouldings and similar labours (solid or cased frames, glass, glazing beads and ironmongery all measured separately) : -							
<i>Per square metre</i>							
08054	Fixed wrot hardwood sash including screwing to frame and bedding in white lead if required.....	501.80	522.40	542.70	564.00	604.50	08054
08055	Ditto but wrot softwood.....	671.30	715.00	746.00	778.70	840.30	08055
08056	Ditto but wrot teak.....	701.80	738.20	775.20	813.40	886.80	08056
08057	Opening wrot hardwood sash including hanging or hanging folding on hinges, pivots or to slides vertically or horizontally, providing and fixing parting beads and stops as required.....	560.10	581.40	604.00	625.50	670.50	08057
08058	Ditto but wrot softwood.....	711.60	742.30	774.70	804.90	869.10	08058
08059	Ditto but wrot teak.....	778.60	817.40	858.20	896.70	977.70	08059
JALOUSIES							
<i>Per square metre</i>							
08060	Wrot hardwood jalousie with fixed wood louvre blades at angle of 45 degrees rounded or splayed on edges and spaced at about 40 mm centres, framed up in panels with styles, head and bottom rails of required widths including all rebates, splays, throats, mouldings and similar labours, louvre blades notched and housed into styles and secured with small fillet around back edges of styles, and hanging or hanging folding (ironmongery measured separately).....	631.80	648.40	664.10	678.80	709.40	08060
08061	Ditto but wrot softwood.....	808.20	827.60	849.20	870.20	913.10	08061
08062	Ditto but wrot teak.....	887.10	911.70	938.50	965.10	1,018.70	08062
08063	Wrot hardwood jalousie with wood louvre blades movable and spaced at about 65 mm centres pivoted into styles and movable operating bar secured to louvres with pairs of eyes, framed up in panels with styles, head and bottom rails of required widths including all rebates, splays, throats, mouldings and similar labours, louvre blades notched and housed into styles and secured with small fillet around back edges of styles, and hanging or hanging folding (ironmongery measured separately).....	821.90	841.20	857.40	873.80	906.10	08063
08064	Ditto but wrot softwood.....	1,028.30	1,051.50	1,073.80	1,085.60	1,142.40	08064
08065	Ditto but wrot teak.....	1,102.90	1,131.40	1,159.70	1,173.00	1,245.50	08065
Extra over either of Items 08054 to 08065 inclusive for semi-circular, segmental or elliptical head to rectangular sash or jalousie (circular sash measured square, semi-circular, segmental or elliptical portion only measured rectangular net width by net height from springing).....						15%	

Item

Item

FRAMED, PANELLED AND GLAZED DOORS

Framed, panelled and glazed doors with styles, muntin, head, intermediate and bottom rails of required widths and 20 mm thick panels, wholly or partly glazed, including semi-circular, segmental, or elliptical head etc, and hanging (ironmongery measured separately) :-

Per square metre

08066 Door square and flat both sides.....

Wrot hardwood				
Overall door thickness (mm)				
40	45	50	55	65
A	B	C	D	E
\$	\$	\$	\$	\$
588.60	620.90	647.10	666.10	721.80

08066

SOLID DOORS*Per square metre*

08067 Solid door of tongued and grooved boarding clamped with and including three 16 mm diameter horizontal mild steel rods each 15 mm shorter than door width and threaded and fitted with nuts and washers both ends, drilling boarding for rods, countersinking for nuts, pelleting, "V" or bead jointed to one or both sides and hanging (ironmongery measured separately).....

Wrot hardwood				
Overall door thickness (mm)				
40	45	50	55	65
A	B	C	D	E
\$	\$	\$	\$	\$
623.60	677.70	729.60	769.40	871.00

08067

FLUSH DOORS

Flush doors lipped all round with 12 mm selected hardwood lipping and lipped meeting edge with 25 mm selected hardwood lipping (ironmongery measured separately) :-

Per square metre

08068 Hollow core flush door covered both sides with 3.2 mm standard hardboard.....

08069 Solid core flush door covered both sides with 3.2 mm standard hardboard.....

08070 Add to either of Items 08066 to 08069 inclusive if door hung folding or in two heights including rebates, beads and additional thickness of edge fillet as required.....

Overall door thickness (mm)				
25	30	40	45	50
A	B	C	D	E
\$	\$	\$	\$	\$
206.50	226.00	247.20	294.20	326.40
256.50	280.70	307.10	321.50	359.60
25.40	27.40	30.80	32.50	34.80

08068

08069

08070

Item

Item

FLUSH DOORS (CONT'D)

Flush doors lipped all round with 12 mm selected hardwood lipping and lipped meeting edge with 25 mm selected hardwood lipping (ironmongery measured separately) : - (Cont'd)

Per square metre

08071	Extra over either of Items 08068 to 08069 inclusive for door covered one side with 5 mm plywood.....	A \$ 64.40	08071
08072	Ditto but with 5 mm hardwood faced plywood.....	72.60	08072
08073	Ditto but with laminated plastic sheet.....	84.30	08073

Overall door thickness (mm)				
25	30	40	45	50
A	B	C	D	E
\$	\$	\$	\$	\$
88.00	98.10	105.00	115.00	119.00
129.00	143.00	157.00	171.00	180.00

Each

08074	Extra over either of Items 08068 to 08069 inclusive for forming observation or vent panel opening n.e. 0.20 m ² (net opening size) through hollow or solid core flush door.....	88.00	98.10	105.00	115.00	119.00	08074
08075	Ditto but opening 0.20 - 0.40 m ²	129.00	143.00	157.00	171.00	180.00	08075

PROPRIETARY FIRE RESISTING DOORS

Supply and fix proprietary fire resisting timber doors tested in accordance with BS 476 : Pt. 20-23 including any finish :-

(Note :- The following Items 08076 to 08082 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Per square metre
(door panel size measured net)

		FRR			
		½ hour	1 hour	2 hours	
		A	B	C	
		\$	\$	\$	
08076	Single leaf fire resisting door without door frames.....	1,404.10	1,871.30	2,472.60	08076
08077	Ditto but with door frames.....	1,654.20	2,444.90	3,423.60	08077
08078	Double leaf fire resisting door without door frames.....	1,017.30	1,486.30	2,126.40	08078
08079	Ditto but with door frames.....	1,306.30	1,922.50	3,177.00	08079

Per linear metre

08080	Smoke and intumescent seals, tested in accordance with BS 476 : Pt. 20 - 23.....	153.30	153.30	153.30	08080
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Each

08081	Extra over either of Items 08076 to 08079 inclusive for forming observation panel opening n.e. 0.20 m ² (net opening size) through fire resisting door.....	88.00	98.10	115.00	08081
08082	Ditto but opening 0.20 - 0.40 m ²	129.00	143.00	171.00	08082

Item

Item

PROPRIETARY FIRE RESISTING DOORS (CONT'D)

Supply and fix proprietary fire resisting timber doors tested in accordance with BS 476 : Pt. 20-23 including any finish : - (Cont'd)

(Note : - The following Items 08083 to 08088 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Each or per leaf

		A \$	
08083	Take down and clear away fire resisting door without door frames.....	19.10	08083
08084	Take down and clear away fire resisting door with and including door frames.....	28.20	08084
08085	Take down and set aside for re-use fire resisting door without door frames.....	43.90	08085
08086	Take down and set aside for re-use fire resisting door with and including door frames.....	77.10	08086
08087	Fix only fire resisting door without door frames.....	529.00	08087
08088	Fix only fire resisting door with and including door frames.....	919.10	08088

ACOUSTIC DOORS

Approved acoustic doors including any finish : -

(Note : - The following Items 08089 to 08093 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Per square metre

(door panel size measured net)

		Door		
		with frames	without frames	
		A \$	B \$	
08089	Single leaf acoustic door complete with acoustic seal assembly.....	5,902.00	5,400.40	08089
08090	Double leaf acoustic door complete with ditto.....	4,916.40	4,450.10	08090
08091	Take down and clear away acoustic door.....	32.90	21.50	08091
08092	Take down and set aside for re-use acoustic door.....	87.20	52.70	08092
08093	Fix only acoustic door.....	919.10	551.50	08093

Item					Item	
REPAIRS, ETC., TO SASHES, JALOUSIES AND DOORS						
Execute the following to hardwood, softwood or teak sashes, jalousies, drawers and doors of any size and thickness, single or folding (any new ironmongery measured separately) :-						
<i>Each or per leaf</i>						
		Fixed or opening sash	Jalousie with fixed or movable louvres	Door	Cup- board door	
		A \$	B \$	C \$	D \$	
08094	Take down (complete with ironmongery, sash cords, etc., required) and clear away.....	23.30	26.50	34.80	19.10	08094
08095	Take down and set aside for re-use.....	24.80	30.70	43.90	28.20	08095
08096	Fix only including screwing to frame and bedding in white lead if required.....	29.70	-	-	-	08096
08097	Hang only including fixing any sash cord, etc.....	24.30	30.30	48.30	30.00	08097
08098	Ease and adjust in position including re-securing, tightening existing or providing new screws to hinges, pivots, sliding gear, etc., cleaning and oiling the same, and planning, sanding down, painting one coat of hard gloss paint and polishing edges as required.....	15.50	19.20	24.30	19.20	08098
08099	Ditto but including taking down and afterwards re-fixing.....	75.20	94.20	139.00	89.00	08099
08100	Repair angle or junction of framing with and including 150 x 150 x 25 x 5 mm galvanized steel flat tee or angle, let in flush and screwed (per angle or tee).....	33.80	33.80	33.80	-	08100
08101	Clamp up and repair or re-make joint with glue or white lead including re-wedging or re-pinning with new wedges or pins if required (taking down and re-hanging measured separately).....	49.80	96.30	26.40	-	08101
08102	Ditto but including taking down, removing or cutting out defective parts and preparing to receive new parts (new parts measured separately as boarding, fillets, plywood, etc., supplied and fixed under the appropriate schedule items).....	161.00	266.00	165.00	-	08102
<i>Per linear metre</i>						
08103	Provide and fix new 16, 22 or 29 mm circumference white Manila or other approved sash cord.....				10.50	08103
<i>Each</i>						
08104	Small hardwood pieces let in or plug holes for making good where door fitting has been removed from sash or door frames, doors, sashes, etc. including painting patch to match existing..... (Note :- This item shall not be paid for, if removal of door fitting and making good have been measured elsewhere.)				17.10	08104

Item

Item

TIMBER FRAMES TO WINDOWS, DOORS, PARTITIONS AND PANELS

Timber frames to windows, doors, exposed partition or panel frames, transoms, mullions, styles, rails or cills, etc., framed up and fixed complete including rebates, grooves, throats, rounded angles, chamfers, splays, mouldings on solid and similar labours and all framed joints : -

Wrot hardwood						Wrot softwood								
Thickness (mm)						Thickness (mm)								
30	50	65	75	90	100	30	50	65	75	90	100			
A	B	C	D	E	F	G	H	I	J	K	L			
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$			
08105	Width n.e. 50 mm.....	-	28.20	31.90	34.50	38.90	42.00	-	39.90	44.10	47.00	59.70	60.40	08105
08106	Width 50 - 100 mm.....	27.70	38.10	45.70	51.40	58.80	64.00	38.70	54.00	65.40	73.60	83.40	92.70	08106
08107	Width 100 - 150 mm.....	39.80	57.70	69.60	78.80	90.90	98.50	57.80	82.20	98.40	116.10	130.40	144.20	08107
08108	Width 150 - 200 mm.....	54.40	76.90	96.30	108.40	122.30	134.80	77.40	115.90	142.20	160.80	184.70	206.00	08108

Timber frames to windows, doors, exposed partition or panel frames, transoms, mullions, styles, rails or cills, etc., framed up and fixed complete including rebates, grooves, throats, rounded angles, chamfers, splays, mouldings on solid and similar labours and all framed joints : -

Wrot teak								
Thickness (mm)								
30	50	65	75	90	100			
A	B	C	D	E	F			
\$	\$	\$	\$	\$	\$			
08109	Width n.e. 50 mm.....	-	47.00	54.60	59.00	68.00	73.40	08109
08110	Width 50 - 100 mm.....	45.90	66.20	81.30	93.00	108.70	117.50	08110
08111	Width 100 - 150 mm.....	69.50	106.80	133.50	148.90	173.80	193.90	08111
08112	Width 150 - 200 mm.....	100.80	150.70	193.40	216.50	244.80	274.00	08112

Extra over either of Items 08105 to 08112 inclusive for frames, etc., bent to curve to radius n.e. 15.00 m during fixing by means of saw cuts, steam bending, etc.....

5%

Ditto for frames, etc., for cutting solid timber to form curve including dowelling and keying sections together.....

10%

Per linear metre

A
\$

08113 Take down and clear away wrot timber frames to windows, doors, exposed partition or panel frames, transoms, mullions, styles, rails or cills, etc., of any size.....

13.30

08113

08114 Take down and set aside for re-use ditto.....

21.50

08114

08115 Fix only ditto.....

23.70

08115

Item		Item		
	TIMBER FRAMES TO WINDOWS, DOORS, PARTITIONS AND PANELS (CONT'D)			
	Timber frames to windows, doors, exposed partition or panel frames, transoms, mullions, styles, rails or cills, etc., framed up and fixed complete including rebates, grooves, throats, rounded angles, chamfers, splays, mouldings on solid and similar labours and all framed joints : - (Cont'd)			
	<i>Each</i>	A \$		
08116	Repair angle or junction of frames, etc., with and including 150 x 150 x 25 x 5 mm galvanized steel flat tee or angle, let in flush and screwed (per angle or tee).....	31.90	08116	
08117	Clamp up and repair or re-make joint with glue or white lead including re-wedging or re-pinning with new wedges or pins if required (taking down and re-fixing measured separately).....	33.00	08117	
	PLASTIC FOLDING DOORS			
	Plastic folding doors in any colour and series including door frames and all necessary accessories, screwed to wood or plugged and screwed to concrete, brickwork and the like in accordance with the manufacturer's recommendations : -			
	<i>Per square metre</i>	A \$		
08118	Plastic folding door.....	284.40	08118	
	SCREEN FABRIC			
	Screen fabric of minimum 3 mm thick in any colours for replacement of existing screen fabric covered to panel or backing : -			
	<i>Per square metre</i>	Supply and fix A \$ B \$	Take down and clear away	
08119	Screen fabric.....	48.80	40.80	08119
	SYNTHETIC LEATHER			
	Synthetic leather of n.e. 3 mm thick in any colours covered to panel or backing (panel or backing measured separately) : -			
	<i>Per square metre</i>	Supply and fix A \$ B \$	Take down and clear away	
08120	Synthetic leather covering with 5 mm foam.....	408.80	28.90	08120
08121	Synthetic leather covering without 5 mm foam.....	355.40	21.60	08121

Item											Item
	STAIRCASES										
	Wrot hardwood					Wrot teak					
	Thickness (mm)					Thickness (mm)					
	20	25	30	40	50	20	25	30	40	50	
	A	B	C	D	E	F	G	H	I	J	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
	<i>Per square metre</i>										
08122	Tread (including winder tread) with rounded nosing, grooved for risers and wedged, glued, blocked and fixed complete (exposed top surface area measured).....										08122
	-	-	302.80	396.00	466.60	-	-	527.00	697.30	829.30	
08123	Riser (including winder riser) with rebated or tongued edges, and wedged, glued and fixed complete (exposed face area measured).....										08123
	219.10	257.40	288.20	-	-	377.10	457.40	512.70	-	-	
	<i>Per linear metre</i>										
									Wrot hard - wood	Wrot teak	
									A \$	B \$	
08124	Rounded or "mopstick" handrail n.e. 0.004 m ² sectional area, framed and fixed level or raking, housed for balusters or rung for metal core rail, tenoned to newel posts, and jointed with and including double nut handrail screws, including splayed or rounded ends.....										08124
									76.80	115.90	
08125	Ditto ramped or circular.....										08125
									78.90	119.30	
08126	Ditto wreathed.....										08126
									81.00	121.80	
08127	Add to either of Items 08124 to 08126 inclusive for each additional 0.001 m ² or part thereof in sectional area.....										08127
									19.00	28.20	
08128	Handrail n.e. 0.004 m ² sectional area all as described in Item 08124 but moulded to detail.....										08128
									80.50	123.30	
08129	Ditto ramped or circular.....										08129
									83.00	126.30	
08130	Ditto wreathed.....										08130
									88.60	140.60	
08131	Add to either of Items 08128 to 08130 inclusive for each additional 0.001 m ² or part thereof in sectional area.....										08131
									21.60	33.00	
08132	75 x 30 or 40 mm Rounded nosing fixed to edge of landing to match stair tread nosing, rebated to match thickness of flooring, and tongued and grooved to the same.....										08132
									80.50	112.50	

Item

Item

REPAIRS TO STAIRCASES

Execute the following to hardwood or teak staircase parts of any size and thickness :-

Take down and clear away	Take down and set aside for re-use	Fix only
A \$	B \$	C \$
29.90	43.90	116.90
26.50	41.50	130.20
14.10	26.50	46.20
19.90	20.70	31.40
21.60	21.60	37.90

Per square metre

08133 Treads and risers complete with wedges and blocks if required..... 08133

Per linear metre

08134 String of any type, straight or to any sweep..... 08134

08135 Handrail ditto..... 08135

Each

08136 Baluster..... 08136

08137 Newel post complete with cap or pendant if any..... 08137

Wrot hardwood			Wrot teak		
Thickness (mm)			Thickness (mm)		
30	40	50	30	40	50
A \$	B \$	C \$	D \$	E \$	F \$
79.90	96.90	108.50	107.30	138.00	157.50

Per linear metre

08138 Cut out tread nosing for width of about 125 mm and clear away and provide and fix new nosing glued and dowedled to existing tread..... 08138

Item			Wrot hard- wood	Wrot teak	Item	
	SUNDRY ITEMS		A \$	B \$		
	<i>Per linear metre</i>					
08139	Curtain pole 40 mm to 50 mm diameter with ends turned to 65 mm diameter and fixing.....		90.30	134.90	08139	
	<i>Each</i>					
08140	Turned caps and knobs 25 mm diameter and fixing.....		19.90	24.30	08140	
08141	Ditto but 50 mm diameter.....		25.40	32.40	08141	
08142	Ditto but 75 mm diameter.....		36.30	48.80	08142	
08143	Hatpegs of any length or size, square, shaped or turned.....		15.80	19.20	08143	
08144	Square or rectangular blocks with chamfered edges n.e. 40 mm thick for latches, bell pushes, door stops and the like, and fixing.....		22.80	28.00	08144	
08145	Circular ditto.....		27.70	37.10	08145	
08146	25 mm Thick backboard to cistern n.e. 450 x 300 mm chamfered all round and fixing.....		65.40	-	08146	
	SUNDRY LABOURS		Diameter or average length of side (mm)			
			n.e. 50	50 - 100	Each additional 100 mm or part thereof	
	<i>Each</i>		A \$	B \$	C \$	
08147	Bore or cut round hole through hardwood or teak n.e. 25 mm thick.....		5.80	10.00	6.60	08147
08148	Add to Item 08147 for each additional 25 mm or part thereof in thickness.....		4.20	8.30	4.90	08148
08149	Cut square or rectangular hole through hardwood or teak n.e. 25 mm thick.....		6.60	10.00	7.40	08149
08150	Add to Item 08149 for each additional 25 mm or part thereof in thickness.....		4.90	6.60	5.80	08150
	<i>Each</i>				A \$	
08151	Cut oval shaped hole with rounded edges through timber or plywood for latrine seat.....				24.70	08151
08152	Cut dishes housing in timber for rifle butt and the like.....				12.50	08152
08153	Cut rounded notch in timber for rifle, revolver barrel and the like.....				4.90	08153
08154	Cut pointed or rounded head to fencing post.....				4.90	08154

Item		Item
	BUILDING BOARDS AND SUNDRY ITEMS	
	PLYWOOD	
	<i>Per square metre</i>	
08155	Grade 2 plywood, internal quality, luan faced, finished for painting or polishing if required, and fixed with nails, panel pins, screws or adhesive as ordered, in wall or ceiling lining, doors, or any other position.....	08155
08156	Grade 2 plywood, external quality, luan faced, finished for painting or polishing if required, and fixed with nails, panel pins, screws or adhesive as ordered, in wall or ceiling lining, doors, or any other position.....	08156
	<i>Per square metre</i>	
08157	Extra over either of Items 08155 to 08156 inclusive for hardwood facing including teak, beech, maple, oak, zen wood, anigre wood, sycamore wood and similar facing of natural finish or screen fabric minimum 3 mm thick in any colour to one side of plywood.....	08157
	<i>Per square metre</i>	
08158	Marine plywood as G.S. Item 13.13 bonded with W.B.P. adhesive between plys, finished for painting or polishing if required, and fixed with nails, panel pins, screws or adhesive as ordered, in wall or ceiling lining, doors, or any other position.....	08158
	PLASTERBOARD	
	<i>Per square metre</i>	
08159	Plasterboard of "gypsum base board" or "gypsum lath", fixed with nails, panel pins, screws or adhesive as ordered, in walls or any other vertical position.....	08159
08160	Ditto in soffits, or any other sloping or horizontal position.....	08160
	<i>Per square metre</i>	
08161	Extra over either of Items 08159 to 08160 inclusive for screen fabric minimum 3 mm thick in any colour to one side of plasterboard.....	08161

Thickness (mm)				
n.e. 6	9	12	15	18
A	B	C	D	E
\$	\$	\$	\$	\$
76.70	87.10	101.50	109.90	128.80
90.60	107.60	125.20	135.70	159.00

A
\$
48.80

Thickness (mm)	
9	18
A	B
\$	\$
120.20	167.70

Thickness (mm)	
9.50	12.50
A	B
\$	\$
83.40	89.70
91.70	97.70

A
\$
48.80

Item			Item																								
	FIBRE INSULATION BOARD	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Thickness (mm)</th> </tr> <tr> <th>9</th> <th>12</th> <th>19</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>		Thickness (mm)			9	12	19	A	B	C	\$	\$	\$												
Thickness (mm)																											
9	12	19																									
A	B	C																									
\$	\$	\$																									
	<i>Per square metre</i>																										
08162	Natural finish fibre insulating board fixed with nails, screws or adhesive as ordered, in wall or ceiling lining, position, including chamfered edges to boards and fixing in symmetrical patterns if required.....	69.20 73.80 89.60	08162																								
	BLOCKBOARD AND MEDIUM DENSITY FIBREBOARD (MDF)	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Blockboard</th> <th colspan="2">MDF</th> </tr> </thead> <tbody> <tr> <td colspan="2">Grade 2 veneer bonded with Type M.R. 13.14 with luan faced both sides</td> <td colspan="2">Moisture resistant grade as G.S. 13.17.1 including plain or melamine faced boarding</td> </tr> <tr> <th colspan="2">Thickness (mm)</th> <th colspan="2">Thickness (mm)</th> </tr> <tr> <td>15</td> <td>18</td> <td>15</td> <td>18</td> </tr> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>		Blockboard		MDF		Grade 2 veneer bonded with Type M.R. 13.14 with luan faced both sides		Moisture resistant grade as G.S. 13.17.1 including plain or melamine faced boarding		Thickness (mm)		Thickness (mm)		15	18	15	18	A	B	C	D	\$	\$	\$	\$
Blockboard		MDF																									
Grade 2 veneer bonded with Type M.R. 13.14 with luan faced both sides		Moisture resistant grade as G.S. 13.17.1 including plain or melamine faced boarding																									
Thickness (mm)		Thickness (mm)																									
15	18	15	18																								
A	B	C	D																								
\$	\$	\$	\$																								
	<i>Per square metre</i>																										
08163	Boarding in coverings, linings and similar position.....	109.90 115.70 87.60 100.70	08163																								
	<i>Per square metre</i>																										
08164	Extra over Item 08163 for screen fabric minimum 3 mm thick in any colour to one side of boarding.....		48.80 08164																								
	WOOD CHIPBOARD	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4">Thickness (mm)</th> </tr> <tr> <th>9</th> <th>12</th> <th>18</th> <th>32</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>		Thickness (mm)				9	12	18	32	A	B	C	D	\$	\$	\$	\$								
Thickness (mm)																											
9	12	18	32																								
A	B	C	D																								
\$	\$	\$	\$																								
	<i>Per square metre</i>																										
08165	Wood chipboard fixed with nails, screws, or adhesive as ordered, in wall or ceiling lining, doors, or any other position.....	59.80 67.40 78.00 105.90	08165																								
08166	Ditto but faced for painting one side.....	- 95.70 110.80 -	08166																								
08167	Ditto but faced for painting both sides.....	- 109.50 135.10 -	08167																								
08168	Ditto but faced one side with and including laminated decorative plastic sheeting (Class VG or HG as specified).....	- 163.90 181.90 -	08168																								

Item

Item

LAMINATED PLASTIC DECORATIVE SHEETING

Laminated plastic decorative sheeting fixed with adhesive to bench tops, doors or any other position :-

Thickness (mm)		
0.7	1.0	1.3
A	B	C
\$	\$	\$
99.60	143.80	176.90

Per square metre

08169 Standard laminated plastic decorative sheeting (Class HG or VG as specified)..... 08169

Per square metre

A
\$
167.80
203.40
253.80
198.80
339.40
346.20

08170 1.3 mm Thick laminated plastic decorative sheeting cigarette proof or chemical resistance..... 167.80 08170

08171 0.7 mm (Overall) thick laminated plastic decorative sheeting (raw finished wood grains series)..... 203.40 08171

08172 Ditto (PU finished wood grains series)..... 253.80 08172

08173 0.8 mm Thick laminated decorative sheeting faced with polished finish aluminium sheet fixed with adhesive to bench tops, doors or any position..... 198.80 08173

08174 1.3 mm (Overall) thick laminated plastic in aluminium sheet with engraved pattern, in stainless steel or copper finish fixed with adhesive to bench tops, doors or any position..... 339.40 08174

08175 Ditto brushed aluminium finish ditto..... 346.20 08175

PROPRIETARY COMPACT LAMINATE PANELS

(Note :- The following Item 08176 shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Per square metre

Thickness (mm)				
3	6	8	9	12
A	B	C	D	E
\$	\$	\$	\$	\$
423.70	622.80	762.50	1,110.10	1,413.00

08176 Proprietary compact laminate panels complying with BS EN 438 in any colours and finishes to form wall panels, partitions and cladding fixed in any position..... 08176

Item			Item		
	PROPRIETARY ACOUSTIC PANELS				
	Proprietary acoustic panel fixed to timber or steel framing (framing measured separately) to wall or ceiling in any colours and finishes complete with all backing and fixing accessories in accordance with the manufacturer's recommendation : -				
	<i>Per square metre</i>	A \$			
08177	Acoustic panel system comprising 25 mm thick acoustic panel of high density rigid composite panel fibreglass of density no less than 48kg/m ³ and covered with fabric of any thickness.....	718.90	08177		
08178	Acoustic wooden panel with melamine finish, tile type, grooved or perforation panel in n.e. 20 mm thick MDF, back sides laminated with acoustic inlay.....	1,209.10	08178		
08179	Acoustic wooden panel with melamine finish, plank type, grooved or perforation panel in n.e. 20 mm thick MDF, back sides laminated with acoustic inlay.....	1,029.20	08179		
08180	25 mm thick acoustic underlay.....	198.70	08180		
08181	50 mm thick acoustic underlay.....	340.80	08181		
	<i>Per linear metre</i>	A \$			
08182	Concealed friction fit or interlock PVC track system to wall or ceiling complete with all fixing accessories.....	142.10	08182		
	FLAT FIBROUS REINFORCED CEMENT SHEETING				
		Thickness (mm)			
		5	6	12	
	<i>Per square metre</i>	A \$	B \$	C \$	
08183	Sheeting butt jointed and fixed to vertical or horizontal timber framing (measured separately) with 30 mm galvanized nails at 300 mm centres around all edges.....	137.20	141.70	193.90	08183
08184	Ditto but fixed to flat or sloping soffits.....	145.00	150.40	202.20	08184
08185	Extra over either of Items 08183 to 08184 inclusive if fixed with screws in lieu of nails.....	16.00	16.00	16.00	08185
08186	Ditto if fixed to steel framing (measured separately) with screws, or bolts, nuts and washers, including drilling steel and tapping if required.....	7.50	7.60	8.20	08186
	<i>Per linear metre</i>				
08187	6 mm Thick fibrous reinforced cement cover strip 75 mm wide fixed at joints.....	12.60	13.20	17.50	08187

Item			Item																														
	GLAZED FIBROUS REINFORCED CEMENT COLOURED SHEETING																																
	<i>Per square metre</i>	A \$																															
08188	4 mm Thick glazed fibrous reinforced cement coloured sheeting fixed with screws or adhesive in wall or ceiling lining, fittings, doors, or any other position.....	141.30	08188																														
	WOOD WOOL SLABS																																
	<i>Per square metre</i>																																
08189	Slabs set on edge or end, and jointed in cement/lime mortar if required in partition including building in panels between timber or other framing if necessary.....		08189																														
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	(Note : - The following Items 08190 to 08191 inclusive shall not be paid for, if working on new works item.)																																
	<i>Each</i>																																
08190	Bore or cut round hole through any type of boarding or sheeting in any thickness.....		08190																														
08191	Cut square or rectangular hole through any type of boarding or sheeting in any thickness.....		08191																														
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	GLASS FIBRE INSULATION																																
	<i>Per square metre</i>																																
08192	Glass fibre mat in rolls laid butt jointed on slab.....		08192																														
08193	Ditto but fixed to timber floor joists, timber wall battening or partitions, or soffits of ceiling joists or bearers, with clout headed nails or fixing fillets (measured separately).....		08193																														
08194	Extra over either of Items 08192 to 08193 inclusive for facing on one side with aluminium foil.....		08194																														
08195	Glass fibre resin bonded slabs laid butt jointed on slab under screed (measured separately).....		08195																														
08196	Ditto but fixed with approved adhesive to slabs, face of walls, ducts, etc.....		08196																														
08197	Extra over either of Items 08195 to 08196 inclusive for facing on one side with aluminium foil.....		08197																														
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Uncompressed thickness (mm)</th> </tr> <tr> <th>12</th> <th>25</th> <th>50</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">-</td> <td style="text-align: center;">19.30</td> <td style="text-align: center;">27.50</td> </tr> <tr> <td style="text-align: center;">-</td> <td style="text-align: center;">24.10</td> <td style="text-align: center;">32.80</td> </tr> <tr> <td style="text-align: center;">-</td> <td style="text-align: center;">21.80</td> <td style="text-align: center;">21.80</td> </tr> <tr> <td style="text-align: center;">33.90</td> <td style="text-align: center;">51.90</td> <td style="text-align: center;">78.00</td> </tr> <tr> <td style="text-align: center;">52.20</td> <td style="text-align: center;">70.30</td> <td style="text-align: center;">95.70</td> </tr> <tr> <td style="text-align: center;">21.80</td> <td style="text-align: center;">21.80</td> <td style="text-align: center;">21.80</td> </tr> </tbody> </table>	Uncompressed thickness (mm)			12	25	50	A	B	C	\$	\$	\$	-	19.30	27.50	-	24.10	32.80	-	21.80	21.80	33.90	51.90	78.00	52.20	70.30	95.70	21.80	21.80	21.80	
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33.90	51.90	78.00																															
52.20	70.30	95.70																															
21.80	21.80	21.80																															

Item

Item

FIRE RESISTING INSULATION BOARD

Fire resisting insulation board fixed to position (horizontally or vertically) in any form :-

		45 kg/m ³	60 kg/m ³	80 kg/m ³	100 kg/m ³	125 kg/m ³	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
08198	30 mm thick.....	38.80	44.70	49.80	51.10	59.30	08198
08199	50 mm thick.....	80.40	89.70	97.90	107.80	122.50	08199
08200	75 mm thick.....	136.80	149.70	160.60	175.30	197.10	08200
08201	100 mm thick.....	189.20	206.80	221.20	239.90	268.00	08201

*Per square metre***REPAIRS TO BUILDING BOARDS AND SUNDRY ITEMS**

		Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	
		\$	\$	\$	
08202	Detached solid or slat shelving complete with bearers and wood or steel brackets (top surface area of shelving measured).....	20.80	21.60	65.30	08202
08203	Plywood, plasterboard, insulating board, blockboard, wood chipboard, laminated plastic decorative sheeting, fibrous reinforced cement sheeting or wood wool slabs of any type or thickness, and in any position.....	15.70	16.60	63.60	08203
08204	Baize or fine felt fixed to any boarding in any position.....	8.30	9.10	46.10	08204
08205	Glass fibre insulation of any type and thickness laid on or fixed to any component.....	7.40	8.30	8.50	08205
08206	Notice and directory boards, pin board and the like fixed to or hung on wall or column.....	23.30	24.10	72.20	08206

Per square metre

Item	Item	
PROPRIETARY SPORT FLOORING SYSTEMS		
	Supply and fix	
	Take down and clear away	
	A \$ B \$	
08207	Proprietary sports flooring with 174 x 57 x 10 mm nominal thickness wood-composition flooring blocks on a consolidated yard broom finished concrete levelled subfloor, total thickness of cement sand fixing bed and timber flooring blocks to be 20 mm, to EN 14904, grout all joints with mid-grey compound from the same manufacturer, machine sand the whole floor and apply polyurethane seal, all as recommended by the manufacturer.....	951.00 35.50 08207
08208	Proprietary cushioned sleeper sports floor system enhanced with 12 mm exterior grade plywood subfloor, on 50 x 75 x 100 mm (nominal) spruce sleepers at 300 mm centres, pine or fir (SPF), CCA pressure treated, cushion pad by the same manufacturer for increased shock absorption and added resiliency, finished with hard maple flooring 20 x 57 mm, tongued and grooved joints, supplied by the same manufacturer, with 6 mil polyethylene vapour barrier laid on floor, to DIN 18032 Part 2, including machine sanding and applying seal and finish and applying wood preservative on wood before fixing, all as recommended by the manufacturer.....	1,141.20 24.20 08208
08209	Proprietary two-layer plywood subfloor sports floor system with 2 layers of 12 mm exterior grade plywood nailed together, low profile system for blending with existing floor levels, fixed on 10 mm thick cushion pad by the same manufacturer for increased shock absorption and added resiliency, finished with hard maple flooring 20 x 57 mm, tongued and grooved joints, supplied by the same manufacturer, with 6 mil polyethylene vapour barrier laid on floor, to DIN 18032 Part 2, including machine sanding and applying seal and finish and applying wood preservative on wood before fixing, all as recommended by the manufacturer.....	1,046.10 24.20 08209
08210	Proprietary sports flooring system with first grade maple strip flooring of 20 x 57 mm, random length on two layers of 12 mm exterior grade plywood fixed on 19 mm thick conical natural rubber pads affixed to the bottom, with 6 mil polyethylene film laid on sub-floor, including machine sanding and applying seal and finish, all as recommended by the manufacturer.....	1,378.10 24.20 08210
08211	Proprietary sports flooring system with 22 x 129 x 1830/3700 mm floorboards in prefinished 22 mm 2-strip solid hardwood parquet with outer and inner strips differing in density and performance, to EN 14904, tongued and grooved joints, factory finished with hard-wearing polyurethane lacquer, single layer batten system with battens 28 x 50 x 3600 mm at 336 mm or 411 mm centres from the same manufacturer including resilient rubber strips, with polythene moisture barrier laid on sub-floor, all as recommended by the manufacturer.....	1,315.90 24.20 08211
08212	Proprietary sports flooring system with 22 x 129 x 1830/3700 mm floorboards in prefinished 22 mm 2-strip solid hardwood parquet, to EN 14904, tongued and grooved joints, factory finished with hard-wearing polyurethane lacquer, held together by clips by the same manufacturer on the underside, supported by an intermediate layer of 10 mm foam from the same manufacturer, with polythene moisture barrier laid on sub-floor, all as recommended by the manufacturer.....	1,227.00 24.20 08212
	Supply and fix	
	A \$	
08213	100 x 75 x 10 mm Thick 'L' shape vent cove rubber wall base skirting.....	190.10 08213
08214	12 x 100 mm Maple wood skirting with two coats of polyurethane paint.....	69.90 08214

Item				Item
	GLUE - LAMINATED TIMBER			
	Glue - laminated timber shall be manufactured from plantation grown Radiata Pine, CCA (Copper Chromium Arsenate) treated to Hazard Class as described in accordance with NZMP 3640. Glue laminated timber shall comply with NZS3603, NZS3606 and NZS3616. All glue shall be Resorcinol or Phenol, Resorcinol used to manufacturer's instructions. Moisture content at the time of lamination shall be 12-16% :-			
	<i>Per linear metre</i>		A \$	
08215	90 x 65 mm.....	183.10		08215
08216	135 x 65 mm.....	263.00		08216
08217	180 x 65 mm.....	343.00		08217
08218	230 x 65 mm.....	430.60		08218
08219	180 x 90 mm.....	464.20		08219
08220	230 x 90 mm.....	577.40		08220
08221	280 x 90 mm.....	676.30		08221
08222	230 x 113 mm.....	762.60		08222
08223	280 x 113 mm.....	914.50		08223
	Extra over either of Items 08215 to 08223 inclusive for members bent to curve to radius n.e. 15.00 m during fixing by means of saw cuts, steaming bending, etc.....	5%		
	Ditto for members for cutting solid timber to form curve including dowelling and keying sections together.....	10%		
	Ditto for members cut rounded or mopstick from solid timber including dowelling and keying sections together.....	10%		
	<i>Per linear metre</i>		A \$	
08224	Take down and clear away glue laminated timber in any size.....	5.80		08224
08225	Take down and set aside for re-use ditto.....	6.60		08225
08226	Fix only ditto.....	62.60		08226

Item					Item	
	LANDSCAPE TIMBER	Structural Select Grade CCA - H3	Structural Select Grade CCA - H4	No. 2 Framing Grade CCA - H3	No. 2 Framing Grade CCA - H4	
	<i>Per cubic metre</i>	A \$	B \$	C \$	D \$	
08227	Wrot landscape timber scantling n.e. 0.02 m ² sectional area.....	23,081.00	29,972.10	19,922.00	21,074.40	08227
08228	Ditto exceeding 0.02 m ² sectional area.....	17,752.90	18,781.70	15,313.90	16,243.50	08228
	Extra over either of Items 08227 to 08228 inclusive for members bent to curve to radius n.e. 15.00 m during fixing by means of saw cuts, steaming bending, etc.....				5%	
	Ditto for members for cutting solid timber to form curve including dowelling and keying sections together.....				10%	
	Ditto for members cut rounded or mopstick from solid timber including dowelling and keying sections together.....				10%	
	<i>Per cubic metre</i>	Sectional area (m ²)				
		n.e. 0.02	exc. 0.02			
		A \$	B \$			
08229	Take down and clear away landscape timber in any size.....		284.60	240.60		08229
08230	Take down and set aside for re-use ditto.....		478.60	397.30		08230
08231	Fix only ditto.....		1,654.20	1,377.50		08231
	RECYCLED PLASTIC LUMBER	Square/rectangular sectional area (m ²)				
	Recycled plastic lumber, resistant to UV, vandal, impact, algae, moss and corrosion; and rot, splinter and crack proof : -	n.e. 0.02	exc. 0.02			
	<i>Per cubic metre</i>	A \$	B \$			
08232	Recycled plastic lumber (if the total quantity measured in a single Works Order exceed 0.05 m ³).....		21,241.90	22,436.50		08232
	<i>Per linear metre</i>					
08233	Recycled plastic lumber (if the total quantity measured in a single Works Order n.e. 0.05 m ³).....		212.40	448.70		08233
	Extra over either of Items 08232 to 08233 inclusive for recycled plastic lumber of specific quality.....				50%	
	<i>Per cubic metre</i>	Square/rectangular sectional area (m ²)				
		n.e. 0.02	exc. 0.02			
		A \$	B \$			
08234	Take down and clear away recycled plastic lumber in any size.....		284.60	240.60		08234
08235	Take down and set aside for re-use ditto.....		478.60	397.30		08235
08236	Fix only ditto including making all joints.....		1,654.20	1,377.50		08236

Item	Item
PROPRIETARY SOLID SURFACING MATERIALS	
Counter top of proprietary solid surfacing material; non-porous homogeneous surfacing material composed of 55-56% Premium aluminum hydroxide, 40-45% MMA and 4-5% Optimizers & Colours (Tensile elongation : ASTM-D-638: 0.40%-0.50%; Tensile strength : ASTM-D-638: 6,000-6,200 psi; Flexural strength : ASTM-D-790: 8,000-11,000 psi; Hardness (Barcol) : ASTM-D-2583: 56-65) : -	
<i>Per square metre</i>	
08237	12 mm Thick counter top..... 2,270.80 08237
<i>Per linear metre</i>	
08238	Backsplash n.e. 50 mm high..... 152.20 08238
08239	Ditto 50 to 100 mm high..... 208.80 08239
08240	Front apron n.e. 100 mm high..... 212.90 08240
08241	Ditto 100 to 200 mm high..... 365.90 08241
08242	Ditto 200 to 300 mm high..... 504.60 08242
<i>Each</i>	
08243	Extra over Item 08237 for integral single bowl sink; external size : 469 mm (L) x 382 mm (W) x 183 mm (D); internal size : 418 mm (L) x 331 mm (W) x 134 mm (D)..... 955.00 08243
08244	Ditto for integral single bowl sink; external size : 445 mm (L) x 445 mm (W) x 223 mm (D); internal size : 401 mm (L) x 401 mm (W) x 206 mm (D)..... 1,763.00 08244
08245	Ditto for integral single bowl sink; external size : 583 mm (L) x 450 mm (W) x 201 mm (D); internal size : 533 mm (L) x 400 mm (W) x 187 mm (D)..... 2,057.00 08245
Proprietary solid surfacing material; non-porous homogeneous surfacing material composed of 55-56% Premium aluminum hydroxide, 40-45% MMA and 4-5% Optimizers & Colours (Tensile elongation : ASTM-D-638: 0.40%-0.50%; Tensile strength : ASTM-D-638: 6,000-6,200 psi; Flexural strength : ASTM-D-790: 8,000-11,000 psi; Hardness (Barcol) : ASTM-D-2583: 56-65) : -	
<i>Per square metre</i>	
08246	12 mm Thick walling..... 2,270.80 08246

Item		Item
PROPRIETARY SOLID SURFACING MATERIALS (CONT'D)		
Counter top of proprietary solid surfacing material; non-porous homogeneous surfacing material with fungi & bacterial resistance : ASTM-G-21, G-22: No growth, composed of 55-56% Premium aluminum hydroxide, 40-45% MMA and 4-5% Optimizers & Colours (Tensile elongation : ASTM-D-638: 0.40%-0.50%; Tensile strength : ASTM-D-638: 6,000-6,200 psi; Flexural strength : ASTM-D-790: 8,000-11,000 psi; Hardness (Barcol) : ASTM-D-2583: 56-65; Density/Specific gravity : ASTM D792-13 (method A): 1.68-1.78 g/cm ³ at 23°C or DIN ISO 1183: 1.68-1.78 g/cm ³ for 12 mm sheet) :-		
<i>Per square metre</i>		Supply and fix A S
08247	12 mm Thick counter top.....	2,525.20
<i>Per linear metre</i>		
08248	Backsplash n.e. 50 mm high.....	156.10
08249	Ditto 50 to 100 mm high.....	209.80
08250	Front apron n.e. 100 mm high.....	218.40
08251	Ditto 100 to 200 mm high.....	381.30
08252	Ditto 200 to 300 mm high.....	510.70
<i>Each</i>		
08253	Extra over Item 08247 for integral single bowl sink; external size : 469 mm (L) x 382 mm (W) x 183 mm (D); internal size : 418 mm (L) x 331 mm (W) x 134 mm (D).....	984.00
08254	Ditto for integral single bowl sink; external size : 445 mm (L) x 445 mm (W) x 223 mm (D); internal size : 401 mm (L) x 401 mm (W) x 206 mm (D).....	1,816.00
08255	Ditto for integral single bowl sink; external size : 583 mm (L) x 450 mm (W) x 201 mm (D); internal size : 533 mm (L) x 400 mm (W) x 187 mm (D).....	2,118.00
Proprietary solid surfacing material; non-porous homogeneous surfacing material with fungi & bacterial resistance : ASTM-G-21, G-22: No growth, composed of 55-56% Premium aluminum hydroxide, 40-45% MMA and 4-5% Optimizers & Colours (Tensile elongation : ASTM-D-638: 0.40%-0.50%; Tensile strength : ASTM-D-638: 6,000-6,200 psi; Flexural strength : ASTM-D-790: 8,000-11,000 psi; Hardness (Barcol) : ASTM-D-2583: 56-65; Density/Specific gravity : ASTM D792-13 (method A): 1.68-1.78 g/cm ³ at 23°C or DIN ISO 1183: 1.68-1.78 g/cm ³ for 12 mm sheet) :-		
<i>Per square metre</i>		
08256	12 mm Thick walling.....	2,525.20

Item

Item

PROPRIETARY ANTI-RICOCHET SURFACES

Proprietary anti-ricochet tiles for flooring, walling and ceiling, size of 500 x 500 mm (+/- 1%) / 1000 mm x 500 mm (+/- 1%), thickness at minimum 40 mm, weight approximately 27 kg/m² or above; can be fixed or loose laid, with 2-component polyurethane adhesive or with stainless steel screws to ceiling; tensile strength of approximately 0.75 N/mm² or above and the elongation at break is approximately 75% according to DIN 53 571 or minimum 50% according to EN ISO 1798; with heat resistance up to 80°C can meet the fire resistance standard according to DIN 4102 Class B2 or EN13501-1 Class B2 :-

Per square metre

	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	A \$	B \$	C \$	D \$	
08257 Proprietary anti-ricochet tile.....	1,028.50	16.60	60.60	109.50	08257
Each					
08258 Proprietary anti-ricochet tile, total area not exceeding 0.50 m ² of each Works Order.....	569.00	8.30	30.70	54.70	08258

Section 09

IRONMONGERY

SECTION 09

IRONMONGERY

SPECIAL CONDITIONS

Specification	SC09.01	This Section shall generally be read and used in conjunction with the Specification adopted in the Contract.	
Measurement of "supply and fix" and "fix only" of ironmongery	SC09.02	The "supply and fix" and "fix only" of various items of ironmongery shall be measured as follows : -	
		(a) Butt, rising or falling butt, backflap, counter or Parliament hinge	- Length along joint
		(b) Cross garnet, tee or hook and ride hinge	- Length from joint or knuckle to point
		(c) Spring hinge	- Length along spring
		(d) Tower or barrel bolt	- Length of shoot
		(e) Monkey tail bolt	- Length overall
		(f) Flush bolt and lever flush bolt	- Length of plate
		(g) Casement stay	- Length from hinge to point
		(h) Cabin hook	- Length of hook
		(i) Hasp and staple	- Length from hinge to point
		(j) Sliding door gear track and channel, curtain track and valance rail	- Net length fixed

SPECIAL CONDITIONS

**Measurement
of labour for
ironmongery**

SC09.03

Measurement of labour for taking down and clearing away or setting aside for re-use of ironmongery shall be based on the following classification : -

- (a) Group I : Articles of ironmongery or related fittings generally which involve only minor labour, including but not be limited to the following : -
- Hinges generally
 - Bolts generally except for panic bolts
 - Door furniture generally
 - Door seals generally
 - Door holders and stoppers
 - Fittings for sashes and fanlights
 - Fittings for sliding sashes
 - Fittings for jalousies and typhoon bars
 - Fittings for doors and cupboards generally
 - Similar articles or fittings
- (b) Group II : Articles of ironmongery or related fittings generally which involve more labour when compared with Group I, including but not be limited to the following : -
- Activating bar of panic bolts or panic exit devices (emergency panic bolt and alarm system and rim exit device and alarm system are measured separately)
 - Key-in the knob type of lock and latch sets
 - Locks and latches generally
 - Digital lock sets
 - Door closers generally
 - Sliding door gear
 - Similar articles or fittings
- (c) Group III : Articles of ironmongery or related fittings generally which involve more extensive labour when compared with Groups I and II, including but not be limited to the following : -
- Floor springs, both concealed and exposed types
 - Similar articles or fittings

Labour for taking down and clearing away of ironmongery shall not be measured separately where the same is taken down together with the removal of doors, windows and/or frames.

SC09.04

Unless otherwise stated herein, all articles of ironmongery shall be measured per unit of article of ironmongery irrespective of sizes and materials, except for the following : -

- (a) Door seals shall be measured based on each number of single door.
- (b) Curtain tracks shall be measured based on each number of window.
- (c) Tracks and/or channel guides related to the sliding door gear shall be measured together and measured once only based on each number of sliding door, and are inclusive of brackets and accessories.

SPECIAL CONDITIONS

Measurement of repairs to ironmongery	SC09.05	<p>Repairs to ironmongery shall be measured based on the same classification as described in Clause SC09.03 herein.</p> <p>No measurement for oiling, easing, adjusting and re-securing of ironmongery shall be made if repairs of ironmongery are measured as a separate item.</p>
Measurement of signage generally	SC09.06	<p>Circular or irregular shaped signs shall be measured as the smallest square or rectangle from which the sign can be cut.</p> <p>Cutting plastic sign shall be measured as a single cut and is only applicable to cutting shapes, features and the like other than for letters and characters.</p> <p>Cutting out letters, numbers or Chinese characters shall include for all full stops and commas. No separate payment shall be made. All punctuations other than full stops and commas shall be treated as letters. Logos, graphics and the like shall be measured as Chinese characters of the same size.</p>
Finishes to ironmongery	SC09.07	<p>Unless otherwise stated, the material for articles of ironmongery is classified into the following types :-</p> <p>Type A : aluminium, stainless steel or brass</p> <p>Type B : steel, galvanized steel or wrought iron</p> <p>The rates for Type A materials shall further include for any of the following surface finishes as required :-</p> <p>(a) Electroplated coatings on nickel, chromium, bronze, brass, cadmium or zinc to form satin, bright, polished or similar plated finishes.</p> <p>(b) Anodic oxidation coating on aluminium to form milled finish, rough or soft texture finish, polished, satin anodized or similar finish.</p> <p>(c) Coating on stainless steel to form polished or satin finish.</p> <p>(d) Protection of all concealed components by the manufacturer's standard finish.</p> <p>The rates for Type B materials shall further include for protection by galvanizing, zinc or cadmium plated finish.</p>
Rates for ironmongery generally	SC09.08	<p>The rates for ironmongery shall generally include for :-</p> <p>(a) Submission of samples, catalogues and certificates, and obtaining approval from the Maintenance Surveyor as required.</p> <p>(b) Provision of ironmongery schedule as G.S. Item 14.09.</p>

SPECIAL CONDITIONS

Rates for ironmongery generally (Cont'd)	SC09.08 (Cont'd)	<ul style="list-style-type: none"> (c) Provision of key-alike or master-keying, if required, except for key-alike or master-keying to existing group of door locks. (d) Fixing to any type of timber or building board or other surfaces. (e) Provision of all necessary screws to match the ironmongery and all bolts, nuts, washers, nails, pins and the like. (f) Protecting with approved intumescent sheets or intumescent paint where required. (g) All housing, sinking, drilling and similar labours required to timber or other surface to which the article is being fixed. (h) All plugging in concrete, brick, stone or other floors, walls, columns, soffits and the like. (i) Cutting and grouting all mortices, pockets, etc., for bolts, bolt sockets, floor spring boxes and the like. (j) Oiling, easing and adjusting, and leaving the ironmongery in perfect working order. (k) Making good disturbed surfaces.
Rates for bolts	SC09.09	<p>The rates for bolts shall further include for : -</p> <ul style="list-style-type: none"> (a) All sockets, staples plates, thimbles, etc. and all necessary accessories. (b) Square or circular, straight or necked shoot.
Rates for locks	SC09.10	<p>The rates for locks shall further include for : -</p> <ul style="list-style-type: none"> (a) Provision of knob with or without rose, lever handles with cover plates, and the like. (b) Provision of key hole escutcheon. (c) Provision of keys and identification discs. (d) Stamping number on lock face.
Rates for labour for ironmongery	SC09.11	<p>The rates for taking down and clearing away or setting aside for re-use of ironmongery, shall include for : -</p> <ul style="list-style-type: none"> (a) Piecing out and filling all old housing, sinking, screw holes, mortices and the like. (b) Finishing surface fair and spot painting, polishing or making good.

SPECIAL CONDITIONS

Rates for repairs to ironmongery

SC09.12

The rates for repairs to ironmongery shall include for : -

- (a) Replacement of any compatible parts, fittings and fixing accessories, if required.
- (b) Provision of any ancillary works as may be necessary.
- (c) Carrying out oiling, easing, adjusting and re-securing of ironmongery on completion of repairs and leaving the ironmongery in perfect working order.

Rates for plastic or metal signs, silkscreen printing and translucent film signage generally

SC09.13

The rates for plastic or metal signs, silkscreen printing and translucent film signage shall generally include for : -

- (a) Setting out, cutting to size, bevelling and polishing edges, and anodizing after manufactured as required.
- (b) Drilling, plugging and screwing with brass, chromium plated or stainless steel screws, or fixing with approved adhesive or fixing on a special suspension system (measured separately).
- (c) Providing backing plate with colour coating, powder coating, anodized or polished finish on all exposed surfaces before silkscreen printing or after cut out or cut through signage.
- (d) Temporary protection with mask as required.
- (e) Making good disturbed surfaces.
- (f) Design, submission of shop drawings, samples and the like.
- (g) Compliance with Design Manual - Barrier Free Access issued by Buildings Department including all current amendments issued thereto.

Rates for silkscreen printing and translucent film signage to existing surfaces

SC09.14

The rates for silkscreen printing and translucent film signage to existing surfaces shall further include for : -

- (a) Preparing substrate surface to receive silkscreen printing or translucent film.

Rates for plastic signs with cut through letters, Chinese characters and the like

SC09.15

The rates for plastic signs with cut through letters, Chinese characters and the like shall further include for : -

- (a) Cutting through for letters, numbers, Chinese characters, graphics, punctuations and the like.
- (b) Plastic sign plate of any colour or finishes.
- (c) Finishing with polished edges.

SPECIAL CONDITIONS

Rates for letter or number signs cut from plastic or metal sheet	SC09.16	The rates for letter or number signs cut from plastic or metal sheet shall further include for : - (a) Cutting out from sheets. (b) In the case of plastic signs, any colour or finishes. (c) Finishing with polished edges. (d) Fixing with moulded metal/plastic pegs or projecting plastic. (e) In the case of anodized aluminium signs, re-anodize after fabrication.
Rates for engraved plastic sign face	SC09.17	The rates for engraved plastic sign face shall further include for : - (a) Picking out with paint either in single or multi-colour for engraved letters, number, Chinese characters, graphics, punctuations and the like. (b) Provision of plastic backing plate. (c) Finishing with mirror face when engraved on the back of the plastic.
Rates for acid etched stainless steel sign face	SC09.18	The rates for acid etched stainless steel sign face shall further include for : - (a) Picking out with paint either in single or multi-colour for acid etched letters, number, Chinese characters, graphics, punctuations and the like. (b) Provision of stainless steel backing plate. (c) Finishing with polished face.
Government stores or other designated suppliers	SC09.19	Where ironmongery is obtained from Government stores or other designated suppliers, the rates for "Fix only" shall be paid.

Item	HINGES	Supply and fix			Item
		Type A	Type B	Fix only	
		A \$	B \$	C \$	
	<i>Per pair</i>				
09001	Butt hinges with or without nylon bushes n.e. 75 mm long.....	38.10	28.70	15.20	09001
09002	Ditto 75 - 125 mm long.....	57.70	43.30	19.00	09002
09003	Rising or falling butt hinges n.e. 75 mm long.....	63.30	-	19.00	09003
09004	Ditto 75 - 100 mm long.....	75.50	-	22.90	09004
09005	Backflap hinges n.e. 75 mm long.....	41.10	30.90	15.20	09005
09006	Counter hinges n.e. 75 mm long.....	55.90	-	9.40	09006
09007	Parliament hinges n.e. 75 mm long.....	89.00	-	22.90	09007
09008	Ditto 75 - 150 mm long.....	105.00	-	34.20	09008
09009	Cranked or semi-concealed cupboard hinges.....	66.20	49.70	11.50	09009
09010	Fully concealed cupboard hinges.....	27.40	20.60	11.50	09010
09011	Cross garnet or tee hinges n.e. 150 mm long.....	-	13.70	9.40	09011
09012	Ditto 150 - 300 mm long.....	-	28.10	13.30	09012
09013	Ditto 300 - 450 mm long.....	-	38.60	17.20	09013
09014	Ditto 450 - 600 mm long.....	-	46.00	22.90	09014
09015	Hook and ride hinges, local made heavy pattern, with hook riveted to plate n.e. 300 mm long.....	44.50	33.40	13.30	09015
09016	Ditto 300 - 600 mm long.....	63.50	47.70	19.00	09016
09017	Ditto 600 - 900 mm long.....	88.00	65.60	34.20	09017
09018	Add to either of Items 09015 to 09017 inclusive if hook plate is flanged for and cast into concrete, brick or stone wall including cutting mortice and grouting.....	7.40	7.40	7.40	09018
09019	Single action spring hinges n.e. 75 mm long.....	46.20	34.70	15.20	09019
09020	Ditto 75 - 150 mm long.....	63.10	47.30	19.00	09020
09021	Double action spring hinges n.e. 75 mm long.....	70.60	53.10	19.00	09021
09022	Ditto 75 - 150 mm long.....	95.50	71.90	19.40	09022
09023	Safety hinges n.e. 75 mm long.....	-	32.90	9.40	09023
09024	Ditto 75 - 150 mm long.....	-	46.30	13.30	09024
	<i>Per linear metre</i>				
09025	Piano hinge.....	35.10	-	19.00	09025

Item		Supply and fix			Item
		Type A	Type B	Fix only	
		A	B	C	
		\$	\$	\$	
BOLTS					
<i>Each</i>					
09026	Tower or barrel bolt n.e. 75 mm long.....	32.10	24.20	7.60	09026
09027	Ditto 75 - 150 mm long.....	33.70	25.20	9.40	09027
09028	Ditto 150 - 225 mm long.....	37.10	27.90	11.50	09028
09029	Ditto 225 - 300 mm long.....	50.80	38.00	13.30	09029
09030	Ditto 300 - 450 mm long.....	62.80	47.10	15.20	09030
09031	Ditto 450 - 600 mm long.....	72.30	56.20	22.90	09031
09032	Ditto 600 - 750 mm long.....	82.40	65.20	28.40	09032
09033	Ditto 750 - 900 mm long.....	92.50	73.70	30.50	09033
09034	Ditto 900 - 1,050 mm long.....	102.00	83.50	32.40	09034
09035	Ditto 1,050 - 1,200 mm long.....	112.00	93.50	34.20	09035
09036	Monkey tail bolt n.e. 500 mm long.....	79.50	59.60	19.00	09036
09037	Ditto 500 - 1,200 mm long.....	109.00	82.10	28.40	09037
09038	Flush bolt with sunk slide n.e. 75 mm long.....	51.60	-	22.90	09038
09039	Ditto 75 - 150 mm long.....	58.20	-	26.60	09039
09040	Ditto 150 - 300 mm long.....	84.30	-	34.20	09040
09041	Lever flush bolt n.e. 75 mm long.....	60.40	-	28.40	09041
09042	Ditto 75 - 150 mm long.....	69.90	-	28.40	09042
09043	Ditto 150 - 300 mm long.....	101.00	-	34.20	09043
09044	Ditto 300 - 600 mm long.....	146.00	-	47.70	09044
09045	Indicating bolt.....	57.50	-	32.40	09045
09046	Mortise dead bolt with indicator and long lever turn for handicap.....	270.00	-	32.40	09046

Item		Supply and fix			Item		
		Type A	Type B	Fix only			
		A	B	C			
		\$	\$	\$			
BOLTS (CONT'D)							
	<i>Each</i>						
09047	Flat bolt plate for any size shoot.....	12.70	-	9.40	09047		
09048	Bolt socket of any size for surface fixing.....	20.80	-	9.40	09048		
09049	Bolt socket of any size for letting into and including cutting mortice in concrete, brick, stone or similar surface and grouting in and making good.....	22.30	-	13.30	09049		
	<i>Per set</i>						
09050	Handicap indicator bolts with long lever operated, specially designed for use by the physically disabled and visually impaired with range of colour available for contrast purpose.....	478.00	359.00	34.20	09050		
09051	Toilet door lock enables one handed operation with flip-up locking/opening function for handicapped use, also with outside level handle to operate latch bolt and inside level handle to operate both the latch and deadbolt ; featuring outside colour indicator showing locked or unlocked condition ; outside override function in case of emergency, and provided with option of right hand or left hand side installation to door.....	849.00	637.00	34.20	09051		
PANIC BOLTS							
		Supply and fix		Take down and clear away	Take down and set aside for re-use	Fix only	
		Type A	Type B	C	D	E	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
09052	Panic exit device with type A bar operation (push-bar) as BS EN 1125 comprising horizontal activating bar and vertical shoots to suit single door.....	997.00	-	-	-	72.30	09052
09053	Ditto but to suit double leaf door.....	1,671.00	-	-	-	110.00	09053
09054	Panic exit device with type B bar operation (touch-bar) as BS EN 1125 comprising horizontal activating bar vertical shoots to suit single door.....	945.00	-	-	-	68.60	09054
09055	Ditto but to suit double leaf door.....	1,537.00	-	-	-	103.00	09055
09056	Add to either of Items 09054 to 09055 inclusive for cylinder locking device from outside.....	611.00	-	-	-	53.30	09056
09057	Emergency panic bolt featuring with push bar, alarm system operated by 9-volt battery with back up device at sound level approximately 100 dB piezo alarm ; tamper resistant housing, saw-resistant deadbolt, corrosion-resistant alloy lock body, optional two-point locking device, can resist at least 2,000 lbs. outside pull force, signages available in different languages, different colour option, with provision of ten year warranty, and complies with standard of "U.L .Listed panic hardware exceeds all Life Safety, ADA, California Title 19, ANSI/BHMA for all building codes".....	2,006.00	1,504.00	52.60	119.00	228.00	09057
09058	Rim exit device for single doors or pairs of doors constructed of metal, wood or composite materials; non-handed; with deadlocking latch bolt engages roller strike; coupled with battery operated and completely self-contained audible alarm with sounds continuously UL/cUL Listed: FVSR/FVSR7-Panic hardware GXHX/FXHX7-Fire exit hardware.....	3,757.00	2,818.00	52.60	119.00	228.00	09058

Item	Supply and fix			Item
	Type A	Type B	Fix only	
	A \$	B \$	C \$	
	LOCKS AND LATCHES			
	<i>Each</i>			
09059	-	74.70	28.40	09059
09060	277.00	208.00	34.20	09060
09061	183.00	137.00	45.60	09061
09062	190.00	143.00	45.60	09062
09063	64.70	-	34.20	09063
09064	70.30	-	38.10	09064
09065	71.60	-	38.10	09065
09066	187.00	-	60.90	09066
09067	92.20	69.00	34.20	09067
09068	92.20	69.00	34.20	09068
09069	147.00	110.00	53.30	09069
09070	167.00	126.00	58.90	09070
09071	163.00	123.00	58.90	09071
09072	239.00	180.00	76.10	09072
09073	163.00	123.00	58.90	09073
09074	239.00	180.00	76.10	09074
09075	179.00	134.00	57.10	09075
09076	285.00	215.00	76.10	09076
09077	-	38.40	30.50	09077
09078	48.40	36.30	30.50	09078
09079	52.70	39.60	30.50	09079
09080	34.20	25.70	3.80	09080
09081	40.60	30.50	3.80	09081
09082	39.20	-	3.80	09082
09083	62.30	-	3.80	09083

Item				Item
	LOCKS AND LATCHES (CONT'D)			
		Supply and fix	Fix only	
		A \$	B \$	
09084	Approved Grade 2 key-in-lever lockset with chassis constructed of heavy gauge steel and cast components, plated to protect against rust and corrosion ; locksets shall be adjustable for different door thickness ; non-handed ; with separate anti-rotation through bolts ; no exposed mounting screws ; in solid one piece ; cast levers without plastic inserts ; independent operated lever ; inside and outside lever return springs ; vandal resistant lever and be free wheeling in the locked condition ; stainless steel latch bolt ; optional and complies with certifications of ANSI A156.2 Series 4000, Grade 2, UL 3 Hour Fire Rating.....	264.00	37.00	09084
09085	Mechanical digital lock.....	464.00	51.80	09085
09086	Approved mechanical push button heavy-duty lock with heavy-duty cylindrical and mortise locksets ; optional mechanical key override, passage allows access, lockout (privacy) to disable the lock and access by key override only ; and different finish options ; and conform to ANSI specifications.....	795.00	53.30	09086
	DOOR FURNITURE			
	Replacement parts only : -	Supply and fix		
		Type A	Type B	Fix only
		A \$	B \$	C \$
09087	Key hole escutcheon.....	14.10	-	3.80
09088	Ditto with cover.....	16.70	-	3.80
09089	Single knob with rose if required.....	24.30	18.20	5.70
09090	Single lever handle with cover plate if required.....	44.10	33.00	6.60
09091	Set of knob furniture complete with roses or cover plates and spindle.....	28.80	21.60	11.50
09092	Set of lever handles ditto.....	114.00	85.20	11.50
	DOOR SEALS			
		Supply and fix	Fix only	
		A \$	B \$	
09093	Aluminium door seal with neoprene inserts.....	93.30	8.90	09093
09094	PVC door seal with neoprene inserts.....	84.40	8.90	09094

Item		Supply and fix			Item
		Type A	Type B	Fix only	
		A	B	C	
		\$	\$	\$	
DOOR SPRINGS AND HOLDERS					
	<i>Each</i>				
09095	Single action floor spring and top pivot with or without check.....	1,142.00	-	115.00	09095
09096	Double action ditto.....	1,323.00	-	115.00	09096
09097	Spring action type floor door holder with rubber door stop.....	90.70	-	7.60	09097
09098	Door holder, clip pattern.....	-	46.40	7.60	09098
09099	40 mm Diameter rubber door stop.....	8.50	6.40	3.80	09099
09100	40 mm Ditto but with plate fixing.....	6.60	4.90	3.80	09100
09101	Door stopper, dome shape with rubber buffer, chrome plated.....	19.00	-	7.60	09101
09102	Overhead door closer, light duty non-hold open.....	205.00	154.00	47.70	09102
09103	Overhead door closer, heavy duty non-hold open.....	266.00	200.00	47.70	09103
09104	Extra over either of Items 09102 to 09103 inclusive for overhead door closer with delayed action.....	89.00	66.80	-	09104
09105	Concealed door closer, light duty non-hold open.....	229.00	172.00	76.10	09105
09106	Concealed door closer, heavy duty non-hold open.....	301.00	226.00	76.10	09106
09107	Extra over either of Items 09105 to 09106 inclusive for concealed door closer with delayed action.....	102.00	76.80	-	09107
FITTINGS FOR SASHES AND FANLIGHTS, ETC.					
	<i>Each</i>				
09108	75 mm Cleat hook.....	19.10	-	3.80	09108
09109	Spring catch with projecting ring and strike plate or staple.....	52.40	-	9.40	09109
09110	Staple only for spring catch.....	24.60	-	3.80	09110
09111	15 mm Internal diameter screw eye.....	12.30	-	3.80	09111
09112	Casement fastener with 115 mm handle and hook or mortice plate.....	49.00	36.60	9.40	09112
09113	200 mm Casement stay with two stud pins.....	38.10	28.70	13.30	09113
09114	250 mm Ditto.....	39.60	29.70	13.30	09114
09115	300 mm Ditto.....	40.80	30.70	13.30	09115
09116	Single stud pins.....	10.10	7.50	5.70	09116
09117	Sliding bar type casement stay n.e. 300 mm long.....	69.50	36.80	13.30	09117
09118	Ditto 300 - 600 mm long.....	92.40	69.20	20.90	09118
09119	Fanlight opener with 300 mm long rack and pinion, worm wheel, pulley and endless cord.....	228.00	-	19.00	09119
09120	Set of two sash pivots and sockets.....	106.00	-	24.70	09120

Item					Item	
	FITTINGS FOR SLIDING SASHES, ETC.			Supply and fix		
		Type A	Type B	Fix only		
		A \$	B \$	C \$		
	<i>Each</i>					
09121	15 mm Diameter sash rollers with frame and face plate.....	40.20	-	13.30	09121	
09122	20 mm Diameter ditto.....	45.00	-	13.30	09122	
09123	Sash axle pulley with brass face, galvanized steel frame and 40 mm diameter brass wheel.....	42.20	-	15.20	09123	
09124	Ditto but with 50 mm diameter brass wheel.....	65.40	-	17.20	09124	
09125	25 mm Internal diameter sash eye on plate.....	42.50	-	5.70	09125	
09126	Sash hook pattern lift on 50 mm plate.....	50.20	-	5.70	09126	
09127	Sash flush pattern lift size 75 x 40 mm overall.....	72.80	-	11.50	09127	
09128	Iron sash weight with hook or plate for cord attachment weighing 1.50 kg including providing and fixing cord.....	-	65.30	17.20	09128	
09129	Add to Item 09128 for each additional 0.50 kg or part thereof in weight.....	-	17.20	3.80	09129	
09130	Pair of spiral rods and tension spring sash balances for sash weighing n.e. 13 kg and height of run n.e. 2 m.....	-	325.00	39.90	09130	
09131	Ditto but for sash weighing 13 kg - 20 kg.....	-	370.00	43.70	09131	
09132	Ditto but for sash weighing 20 kg - 27 kg.....	-	375.00	49.50	09132	
	WINDOW OPENERS					
	Approved mechanical systems for the window remote control comprising all necessary fixing accessories all in accordance with the manufacturer's instructions :-	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Each</i>	A \$	B \$	C \$	D \$	
09133	Window opener for 1 sash high level window.....	1,166.00	13.80	18.00	19.00	09133
09134	Ditto but 2 sashes.....	1,725.00	24.80	35.90	41.90	09134
09135	Ditto but 3 sashes.....	2,178.00	40.00	53.80	62.80	09135
09136	Ditto but 4 sashes.....	2,683.00	53.80	71.80	81.80	09136
09137	Add to Item 09136 for each additional sash.....	555.00	13.80	18.00	19.00	09137
	Approved electrically operated systems for the window remote control comprising all necessary fixing accessories all in accordance with the manufacturer's instructions and connection to nearest power point by a registered electrical worker :-					
	<i>Each</i>					
09138	Window opener for 1 sash high level window.....	2,801.00	16.60	20.70	45.60	09138
09139	Ditto but 2 sashes.....	3,242.00	30.50	41.50	91.30	09139
09140	Ditto but 3 sashes.....	3,681.00	47.00	66.30	137.00	09140
09141	Ditto but 4 sashes.....	4,110.00	62.20	82.80	171.00	09141
09142	Add to Item 09141 for each additional sash.....	687.00	16.60	20.70	45.60	09142

Item		Supply and fix			Item
		Type A	Type B	Fix only	
		A	B	C	
		\$	\$	\$	
FITTINGS FOR JALOUSIES AND TYPHOON BARS					
	<i>Each</i>				
09143	Turn buckle comprising 150 x 25 x 5 mm plate flanged one end with 15 x 15 mm pin 75 mm long filed circular for half the length and fitted with 75 x 25 x 5 mm turn buckle splayed one end and holed for 15 x 15 mm pin.....	-	72.70	13.30	09143
09144	Bar clip 150 x 40 x 5 mm twice bent and three times holed for screws.....	104.00	78.10	7.60	09144
09145	Eye for movable louvre.....	18.30	13.80	3.80	09145
09146	8 mm Diameter butterfly headed thumb screw 150 mm long.....	33.80	-	3.80	09146
09147	Ditto but 200 mm long.....	42.00	-	5.70	09147
09148	50 x 50 x 3 mm Plate holed for thumb screw and four fixing screws.....	33.80	-	7.60	09148
09149	Ditto with tapped shoulder to receive 8 mm diameter screw.....	45.90	-	7.60	09149
FITTINGS FOR DOORS AND CUPBOARDS					
	<i>Per square metre</i>				
09150	1.60 mm Kicking plate with bevelled edges if required and holed for screws.....	759.80	-	100.80	09150
	<i>Per linear metre</i>				
09151	Corner guard.....	370.60	278.00	57.10	09151
	<i>Each</i>				
09152	Local pattern "Magic Eye" observation eyehole fitting.....	61.10	-	7.60	09152
09153	Cupboard door pull knob.....	15.60	11.70	3.80	09153
09154	Ditto with 50 mm diameter back plate.....	22.60	-	3.80	09154
09155	Bales catch with plate size 28 x 10 mm.....	26.30	-	7.60	09155
09156	Ditto but plate size 40 x 15 mm.....	27.30	-	7.60	09156
09157	Ditto but plate size 50 x 20 mm.....	28.30	-	7.60	09157
09158	Magnetic door catch.....	30.60	23.00	7.60	09158
09159	Drawer, wardrobe or cupboard pull handle 100 mm long.....	41.90	31.50	9.40	09159
09160	Ditto but 150 mm long.....	48.90	36.60	9.40	09160
09161	Door pull handle 225 mm long.....	42.90	-	11.50	09161
09162	Ditto but 300 mm long.....	53.10	-	11.50	09162

Item	Item											
FITTINGS FOR DOORS AND CUPBOARDS (CONT'D)												
<i>Each</i>												
	<table border="1"> <thead> <tr> <th colspan="2">Supply and fix</th> <th rowspan="2">Fix only</th> </tr> <tr> <th>Type A</th> <th>Type B</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>	Supply and fix		Fix only	Type A	Type B	A	B	C	\$	\$	\$
Supply and fix		Fix only										
Type A	Type B											
A	B	C										
\$	\$	\$										
09163	300 x 75 mm Finger plate..... 39.90 - 9.40 09163											
09164	75 x 45 mm Flush pattern drop drawer handle..... 40.40 - 19.00 09164											
09165	75 x 40 mm Flush pull handle..... 39.20 29.60 17.20 09165											
09166	100 x 50 mm Ditto..... 40.50 30.30 17.20 09166											
09167	75 x 40 mm Card holder frame..... 26.20 19.70 5.70 09167											
09168	100 x 75 mm Ditto..... 30.10 22.60 5.70 09168											
09169	150 x 100 mm Ditto..... 40.80 30.70 5.70 09169											
09170	25 x 1.60 mm Hanging plate..... 45.40 - 3.80 09170											
09171	40 x 1.60 mm Ditto..... 50.60 - 3.80 09171											
09172	50 x 1.60 mm Ditto..... 55.60 - 3.80 09172											
09173	50 mm Coat hook..... 16.10 - 3.80 09173											
09174	100 mm Hat and coat hook..... 23.40 - 3.80 09174											
09175	75 mm Combined hook and rubber door stop..... 35.00 - 3.80 09175											
09176	25 mm Cup hook..... 10.10 - 3.80 09176											
09177	50 mm Hook..... 24.20 18.10 3.80 09177											
09178	100 x 75 mm Shelf bracket..... - 17.90 11.50 09178											
09179	150 x 125 mm Ditto..... - 22.10 13.30 09179											
09180	225 x 175 mm Ditto..... - 26.30 15.20 09180											
09181	300 x 250 mm Ditto..... - 31.50 17.20 09181											
09182	Cabin hook and eye n.e. 150 mm..... 46.40 34.70 15.20 09182											
09183	Ditto but 150 - 300 mm..... 71.50 54.00 24.70 09183											
09184	150 mm Double hinged cabin hook and eye..... - 39.70 17.20 09184											
09185	Eye for cabin hook..... 16.40 12.40 5.70 09185											
09186	Hasp and staple n.e. 75 mm..... - 12.30 9.40 09186											
09187	Ditto but exceeding 75 mm..... - 14.90 11.50 09187											
09188	Solid drawn flat bar type hasp and staple n.e. 75 mm..... 15.10 11.40 9.40 09188											
09189	Ditto but exceeding 75 mm..... - 14.20 11.50 09189											
09190	450 mm Hinged swing locking bar with pivot and plate, two hook plates and staple plate..... 107.00 - 34.20 09190											
09191	600 mm Ditto..... 127.00 - 43.70 09191											
09192	900 mm Ditto..... 152.00 - 47.70 09192											

Item	Supply and fix			Item	
	Type A	Type B	Fix only		
FITTINGS FOR DOORS AND CUPBOARDS (CONT'D)					
<i>Each</i>					
09193	Door chain complete with slider and 100 x 40 mm plate.....	54.90	41.30	17.20	09193
09194	Ditto but with 150 x 40 mm plate.....	64.40	48.20	17.20	09194
09195	Slide or upright single pulley (screw or frame and plate) with wheel n.e. 25 mm diameter.....	27.50	20.70	7.60	09195
09196	Ditto with wheel 25 - 50 mm diameter.....	30.80	23.20	7.60	09196
09197	Slide or upright double pulley (screw or frame and plate) with wheel n.e. 25 mm diameter.....	34.20	25.60	7.60	09197
09198	Ditto with wheel 25 - 50 mm diameter.....	40.80	30.60	7.60	09198
09199	Ash tray in any size, surface mounted.....	224.00	-	5.70	09199
09200	Litter bin, 250 x 250 x 350 mm high, surface mounted.....	398.00	-	19.00	09200
09201	Ditto, 400 x 400 x 550 mm high, surface mounted.....	847.00	-	22.90	09201
09202	Socket for shelves.....	6.30	4.70	2.10	09202
09203	Stud pin with socket for shelves.....	9.10	6.90	2.80	09203
<i>Per set</i>					
09204	Approved ball bearing slides n.e. 500 mm long inset/horizontal type and soft closing mechanism flipper to cupboard door complete with slides, pivoted arms and all necessary fittings and furniture.....	452.00	-	76.10	09204
<i>Per pair</i>					
09205	Set of drawer slider 300 mm long.....	55.80	41.90	9.40	09205
09206	Add to Item 09205 for each additional 50 mm long or part thereof in length.....	6.10	4.90	3.80	09206
FIBRE TRACK, SLIDERS, ETC., FOR SMALL CUPBOARD AND GLASS SLIDING DOORS					
<i>Per linear metre</i>					
09207	"Grooving-in" type track including cutting groove.....	38.90	29.20	13.30	09207
09208	"T" shaped track for surface fixing.....	39.20	29.40	9.40	09208
09209	Single channel including cutting groove if required.....	69.00	51.80	19.00	09209
09210	Double channel including ditto.....	73.10	54.90	19.00	09210
09211	Triple channel including ditto.....	83.50	62.60	19.00	09211
<i>Each</i>					
09212	Slider of various sizes.....	15.10	11.40	3.80	09212

Item		Supply and fix			Item	
	Sliding door gear as BS EN 1527 :-	Type A	Type B	Fix only		
		A	B	C		
		\$	\$	\$		
	Per linear metre					
09213	Track and fixed in bracket (bracket measured separately).....	486.70	365.10	19.00	09213	
09214	Add to Item 09213 for plugging and screwing direct to wall, beam, lintol and the like.....	37.30	28.00	24.60	09214	
09215	Channel guide and fix in and including cutting or forming groove or mortice in concrete or paved floor, grouting and making good; or in wood, wood block floor or edge of door and any necessary plugging.....	263.40	197.50	55.20	09215	
	Each					
09216	Closed or open end track bracket for face fixing or soffit fixing, screwed to wood or plugged and screwed to wall, beam, lintol and the like.....	229.00	172.00	43.70	09216	
09217	Add to Item 09216 for fixing with 8 mm rawbolt including drilling hole in concrete, brick, stone or other surface and make good.....	23.30	17.40	11.50	09217	
09218	Ditto but with 12 mm rawbolt.....	31.80	23.80	14.80	09218	
09219	Four wheel hanger and adjustable split sprons.....	223.00	167.00	30.50	09219	
09220	Two wheel swivel hanger with nylon wheels concealed fixing.....	292.00	219.00	27.60	09220	
09221	Four wheel swivel hanger with nylon wheels concealed fixing.....	320.00	241.00	32.40	09221	
09222	Two wheel swivel end hanger face fixing.....	290.00	217.00	32.40	09222	
09223	Two wheel swivel intermediate hanger face fixing.....	372.00	279.00	41.90	09223	
09224	Brass roller guide light duty.....	52.40	39.30	11.50	09224	
09225	Ditto face fixed heavy duty.....	154.00	116.00	17.20	09225	
09226	Flush fold guide.....	83.50	62.60	18.10	09226	
09227	Face fixed end fold guide.....	110.00	82.30	11.50	09227	
09228	Face fixed intermediate fold guide.....	167.00	125.00	22.90	09228	
	PROPRIETARY AUTOMATIC SWING AND SLIDING DOOR OPERATOR					
	Proprietary electrical door operator for the automatic swing and sliding door to comply with BS 7036 including all necessary fixing accessories all in accordance with the manufacturer's instructions and provision of connection to nearest power point by registered electrical workers to existing timber or metal door :-	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
09229	Door operator for automatic swing door; single leaf door.....	13,852.00	44.00	88.00	362.00	09229
09230	Ditto but double leaf door.....	22,863.00	88.00	133.00	543.00	09230
09231	Door operator for automatic sliding door; single leaf door.....	16,318.00	44.00	88.00	362.00	09231
09232	Ditto but double leaf door.....	24,897.00	88.00	354.00	543.00	09232

Item	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
	A \$	B \$	C \$	D \$	
CURTAIN TRACKS					
<i>Per linear metre</i>					
09233	66.50	2.70	5.60	9.40	09233
09234	39.00	2.10	4.20	7.60	09234
09235	431.70	4.20	6.90	57.10	09235
Replacement parts only : -					
<i>Each</i>					
09236	16.90	1.50	2.70	3.80	09236
09237	21.00	1.50	2.70	5.70	09237
09238	5.10	1.50	1.50	3.80	09238
09239	8.50	1.50	2.70	5.70	09239
09240	16.90	1.50	2.70	3.80	09240
09241	5.20	1.50	1.50	3.80	09241
<i>Per linear metre</i>					
09242	70.40	2.70	5.60	11.50	09242
09243	73.50	2.40	4.70	11.50	09243
Replacement parts only : -					
<i>Each</i>					
09244	20.60	1.50	2.70	5.70	09244
09245	6.70	1.50	2.70	3.80	09245
09246	5.30	1.50	1.50	3.80	09246
09247	5.70	1.50	1.50	3.80	09247
09248	30.80	1.50	2.70	5.70	09248

Item					Item	
MOSQUITOES/FLY SCREENS						
Mosquitoes or fly screens of approved gauge and mesh size in any colour coating or finish :-						
<i>Per square metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
09249	Plastic coated glass fibre mosquitoes or fly screens fixed to wood or metal frames with or without beads (beads measured separately).....	98.70	5.60	11.00	22.90	09249
09250	Brass mosquitoes or fly screens ditto.....	222.60	5.60	11.00	22.90	09250
09251	Aluminium mosquitoes or fly screens ditto.....	203.30	5.60	11.00	22.90	09251
09252	Stainless steel mosquitoes or fly screens ditto.....	298.70	5.60	11.00	22.90	09252
(Note :- The above Item 09252A shall only be paid for, if ordered by the Maintenance Surveyor in writing.)						
ROLLER TYPE MOSQUITOES/FLY SCREENS						
Roller type mosquitoes or fly screens of approved gauge and mesh size in any colour coating or finish :-						
<i>Per square metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
09253	Aluminium vertical sliding roller retractable fly screen comprising a roller cassette and side channels with aluminium pull down bar on heavy duty fiberglass fly screen mesh including catch and all necessary ironmongery.....	627.20	5.60	11.00	22.90	09253
09254	Ditto but horizontal sliding roller type.....	621.60	4.70	9.30	22.90	09254
SUNDRIES						
<i>Per linear metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
09255	12.70 mm Wide x 6.40 mm thick plastic foam self-adhesive draught excluder strip fixed to door edge, window edge or similar position.....	8.10	1.50	-	5.70	09255
09256	Plastic foam self adhesive strip size 15 x 3 mm fixed to window or door edge.....	22.30	1.50	-	5.70	09256
09257	Vinyl plastic handrail capping to 50 mm core rail.....	49.10	5.60	12.50	22.90	09257
09258	Rubber speed reduction ramp including end caps and anchor bolts.....	822.50	16.60	27.70	53.30	09258

Item			Take down and clear away	Take down and set aside for re-use	Item
	REPAIRS TO IRONMONGERY				
	<i>Each</i>		A \$	B \$	
09259	Group I type of article of ironmongery.....		6.10	9.20	09259
09260	Group II ditto.....		9.20	18.40	09260
09261	Group III ditto.....		30.60	67.40	09261
	<i>Each</i>			A \$	
09262	Oil, ease, adjust and re-secure of article of ironmongery of any types..... (Note : - Item 09262 shall not be measured when either of Items 09263 to 09265 inclusive is ordered.)			3.80	09262
09263	Repair Group I article of ironmongery of any types including providing any parts and fittings as required and including re-fixing upon repair (taking down article of ironmongery shall be measured separately if required).....			47.40	09263
09264	Ditto but Group II article of ironmongery.....			72.20	09264
09265	Ditto but Group III article of ironmongery.....			210.00	09265
09266	Provide two new keys to lock each complete with chromium plated stamped label and split ring and including re-fixing upon repair (taking down lock measured separately if required).....			24.70	09266
09267	Provide two new keys to cylinder lock from pattern of old complete with ditto (ditto).....			17.10	09267

Item						Item	
	TRANSLUCENT FILM SIGNAGE						
	Signage comprising graphics, logos, letters, numbers, Chinese characters, full stops, commas, and the like, cut from self adhesive translucent films and fixed on metal, plastic, or glass surfaces : -						
		Size (m ²)					
		n.e. 0.25	0.25 - 0.50	0.50 - 1.00	1.00 - 1.50	Add to 1.50m ² for each additional 0.50m ² or part thereof in size	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
09268	<i>Each</i> Translucent film signage to existing plastic, glass and metal surfaces.....	64.10	74.20	117.00	173.00	43.20	09268
	SILKSCREEN SIGNS						
	Silkscreen printed signs comprising graphics, logos, letters, numbers, Chinese characters, full stops, commas, and the like : -						
	<i>Each</i>						
09269	Silkscreen printing to existing plastic, glass and metal surfaces.....	63.50	83.20	133.00	200.00	56.20	09269
09270	Silkscreen printing with 3 mm thick white or coloured plastic sheet.....	94.60	157.00	239.00	371.00	109.00	09270
09271	Ditto but with 6 mm thick white or coloured plastic sheet.....	120.00	210.00	308.00	487.00	148.00	09271
09272	Ditto but with 10 mm thick white or coloured plastic sheet.....	147.00	271.00	406.00	653.00	181.00	09272
09273	Ditto but with 12.5 mm thick white or coloured plastic sheet.....	164.00	303.00	447.00	724.00	201.00	09273
09274	Silkscreen printing with 1.5 mm thick hairline/mirror finished stainless steel plate.....	141.00	238.00	361.00	568.00	166.00	09274
09275	Ditto but with 3 mm thick hairline/mirror finished stainless steel plate.....	214.00	369.00	563.00	876.00	248.00	09275
09276	Silkscreen printing with 1.5 mm thick aluminium plate.....	95.90	157.00	255.00	384.00	116.00	09276
09277	Ditto but with 3 mm thick aluminium plate.....	126.00	212.00	319.00	507.00	152.00	09277

Item		Thickness (mm)					Item
	PLASTIC SIGNS	n.e. 3	3 - 6	6 - 9	9 - 12	Add to 12mm for each additional 3mm or part thereof in thickness	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$	
09278	Clear, white or coloured acrylic sheet.....	147.20	272.50	306.10	408.80	92.40	09278
09279	Ditto but with matt finish.....	239.00	298.70	328.30	439.00	110.80	09279
09280	Clear, white or coloured acrylic sheet fixed with adhesive as laminated cover or backing sheet.....	220.30	339.00	354.90	455.60	100.70	09280
09281	Ditto but with matt finish.....	245.00	377.30	394.20	516.60	122.40	09281
	<i>Per linear metre</i>						
09282	Cutting only acrylic sheet for features, graphics, etc. other than those measured elsewhere.....	4.50	4.50	5.60	5.60	4.50	09282
		Size (m ²)					
		n.e. 0.25	0.25 - 0.50	0.50 - 1.00	1.00 - 1.50	Add to 1.50m ² for each additional 0.50m ² or part thereof in size	
	<i>Each</i>	A \$	B \$	C \$	D \$	E \$	
09283	Engraved plastic sign face complete with letters, numbers, characters, graphics, punctuations and the like, 3 mm thick.....	144.00	299.00	430.00	645.00	179.00	09283
09284	Ditto but 6 mm thick.....	170.00	354.00	510.00	751.00	201.00	09284
09285	Plastic sign complete with cut through letters, numbers, characters, graphics, punctuations and the like, 3 mm thick sheet.....	216.00	361.00	516.00	731.00	163.00	09285
09286	Ditto but through 4.5 mm thick sheet.....	234.00	393.00	565.00	791.00	170.00	09286
09287	Ditto but through 6 mm thick sheet.....	253.00	424.00	613.00	850.00	176.00	09287
09288	Ditto but through 10 mm thick sheet.....	280.00	469.00	678.00	940.00	193.00	09288
09289	Ditto but through 12.5 mm thick sheet.....	308.00	518.00	749.00	1,039.00	215.00	09289

Item		Height (mm)					Item
PLASTIC SIGNS (CONT'D)							
Plastic signs in letter, number or Chinese character : -							
		n.e. 25	25 - 50	50 - 100	100 - 150	Add to 150mm for each additional 50mm or part thereof in height	
<i>Each</i>		A \$	B \$	C \$	D \$	E \$	
09290	Letter or number cut from 3 mm thick plastic sheet and fixed with adhesive.....	9.10	15.40	24.50	38.70	8.20	09290
09291	Ditto but from 4.5 mm thick sheet.....	11.00	22.10	30.80	46.30	9.80	09291
09292	Ditto but from 6 mm thick sheet.....	12.80	25.60	36.10	57.10	14.10	09292
09293	Ditto but from 10 mm thick sheet.....	17.60	35.30	49.50	78.00	18.10	09293
09294	Ditto but from 12.5 mm thick sheet.....	20.70	41.40	61.80	98.90	23.50	09294
09295	Chinese character cut from 3 mm thick plastic sheet and fixed with adhesive.....	10.60	17.40	27.30	42.00	12.90	09295
09296	Ditto but from 4.5 mm thick sheet.....	12.70	25.40	37.30	61.00	19.90	09296
09297	Ditto but from 6 mm thick sheet.....	14.80	29.70	43.20	72.00	24.40	09297
09298	Ditto but from 10 mm thick sheet.....	20.50	40.90	55.10	93.30	29.60	09298
09299	Ditto but from 12.5 mm thick sheet.....	23.90	48.30	70.80	110.00	36.10	09299
		n.e. 500	500 - 750	750 - 1000	Add to 1000mm for each additional 250mm or part thereof in height		
<i>Each</i>		A \$	B \$	C \$	D \$		
09300	Letter or number cut from 8 mm thick plastic sheet with studs.....	133.00	201.00	270.00	69.70		09300
09301	Ditto but from 10 mm thick sheet.....	170.00	257.00	345.00	74.20		09301
09302	Ditto but from 12.5 mm thick sheet.....	205.00	296.00	379.00	75.30		09302
09303	Chinese characters cut from 8 mm thick plastic sheet with studs.....	198.00	292.00	388.00	78.70		09303
09304	Ditto but from 10 mm thick sheet.....	218.00	323.00	427.00	87.70		09304
09305	Ditto but from 12.5 mm thick sheet.....	280.00	410.00	531.00	105.00		09305

Item

Item

PLASTIC SIGNS (CONT'D)

Plastic signs in letter, number or Chinese character : - (Cont'd)

Size (m ²)				
n.e. 0.25	0.25 - 0.50	0.50 - 1.00	1.00 - 1.50	Add to 1.50m ² for each additional 0.50m ² or part thereof in size
A \$	B \$	C \$	D \$	E \$
2.40	3.60	7.10	9.50	1.00
4.80	5.90	11.90	14.20	1.20
8.30	11.90	23.70	26.10	1.20

Each

09306	Take down and clear away plastic sheet sign from any position.....	2.40	3.60	7.10	9.50	1.00	09306
09307	Take down and set aside for re-use ditto.....	4.80	5.90	11.90	14.20	1.20	09307
09308	Fix only ditto.....	8.30	11.90	23.70	26.10	1.20	09308

Each

		A \$	
09309	Take down and clear away letters, numbers or Chinese characters of any size cut from plastic sheet from any position.....	4.40	09309
09310	Take down and set aside for re-use ditto.....	10.90	09310
09311	Fix only ditto.....	18.10	09311

METAL SIGNS

Metal signs in letter, number or Chinese character : -

Height (mm)							
n.e. 25	25 - 50	50 - 100	100 - 150	150 - 200	200 - 250	250 - 300	Add to 300mm for each additional 50mm or part thereof in height
A \$	B \$	C \$	D \$	E \$	F \$	G \$	H \$
27.30	38.20	54.60	81.90	109.00	136.00	164.00	22.80
39.60	55.40	79.10	107.00	133.00	158.00	190.00	26.40
34.60	48.40	76.20	104.00	130.00	156.00	187.00	25.90
48.40	67.80	96.90	125.00	155.00	193.00	227.00	27.40
39.60	55.40	79.10	107.00	136.00	166.00	194.00	23.60
55.40	77.60	106.00	125.00	155.00	183.00	212.00	24.70
63.20	88.50	114.00	141.00	172.00	202.00	235.00	27.00
88.80	118.00	146.00	175.00	207.00	234.00	272.00	32.60

Each

09312	Letter or number cut from 3 mm thick anodized aluminium sheet fixed with adhesive or screws.....	27.30	38.20	54.60	81.90	109.00	136.00	164.00	22.80	09312
09313	Ditto but from 6 mm thick sheet.....	39.60	55.40	79.10	107.00	133.00	158.00	190.00	26.40	09313
09314	Chinese character cut from 3 mm thick anodized aluminium sheet fixed with adhesive or screws.....	34.60	48.40	76.20	104.00	130.00	156.00	187.00	25.90	09314
09315	Ditto but from 6 mm thick sheet.....	48.40	67.80	96.90	125.00	155.00	193.00	227.00	27.40	09315
09316	Letter or number cut from 3 mm thick brass sheet fixed with adhesive or screws.....	39.60	55.40	79.10	107.00	136.00	166.00	194.00	23.60	09316
09317	Ditto but from 6 mm thick sheet.....	55.40	77.60	106.00	125.00	155.00	183.00	212.00	24.70	09317
09318	Chinese character cut from 3 mm thick brass sheet fixed with adhesive or screws.....	63.20	88.50	114.00	141.00	172.00	202.00	235.00	27.00	09318
09319	Ditto but from 6 mm thick sheet.....	88.80	118.00	146.00	175.00	207.00	234.00	272.00	32.60	09319

Item		Height (mm)				Item	
	METAL SIGNS (CONT'D)						
	Metal signs in letter, number or Chinese character : - (Cont'd)						
		n.e. 500	500 - 750	750 - 1000	Add to 1000mm for each additional 250mm or part thereof in height		
	<i>Each</i>	A \$	B \$	C \$	D \$		
09320	Letter or number cut from 8 mm thick aluminium sheet with studs including baked paint finish and screws.....	379.00	439.00	516.00	60.70	09320	
09321	Ditto but from 10 mm thick sheet.....	475.00	552.00	647.00	76.40	09321	
09322	Ditto but from 12 mm thick sheet.....	570.00	661.00	776.00	91.00	09322	
09323	Chinese characters cut from 8 mm thick aluminium sheet with studs including baked paint finish and screws.....	453.00	553.00	643.00	71.90	09323	
09324	Ditto but from 10 mm thick sheet.....	569.00	734.00	859.00	100.00	09324	
09325	Ditto but from 12 mm thick sheet.....	681.00	879.00	1,028.00	120.00	09325	
		Size (m ²)					
		n.e. 0.25	0.25 - 0.50	0.50 - 1.00	1.00 - 1.50	Add to 1.50m ² for each additional 0.50m ² or part thereof in size	
	<i>Each</i>	A \$	B \$	C \$	D \$	E \$	
09326	Acid etched stainless steel sign face, 1.5 mm thick.....	290.00	434.00	723.00	1,084.00	388.00	09326
09327	Take down and clear away metal signs from any position.....	2.70	4.20	8.30	9.70	1.10	09327
09328	Take down and set aside for re-use ditto.....	5.60	6.90	13.80	15.20	1.30	09328
09329	Fix only ditto.....	9.30	13.80	25.60	27.40	1.50	09329
	<i>Each</i>					A \$	
09330	Take down and clear away letters, numbers or Chinese characters of any size cut from metal sheet from any position.....					6.90	09330
09331	Take down and set aside for re-use ditto.....					11.00	09331
09332	Fix only ditto.....					22.00	09332

Item			Item				
	HOLLOW METAL SIGNS	Height (mm)					
	Hollow metal signs in letter, number or Chinese character : -	n.e. 500	500 - 750	750 - 1000	Add to 1000mm for each additional 250mm or part thereof in height		
	<i>Each</i>	A \$	B \$	C \$	D \$		
09333	Letter or number cut and formed from stainless steel sheet not less than 1.2 mm thick with covered edge, fixed at any height including all necessary fixing accessories.....	364.00	510.00	703.00	165.00	09333	
09334	Ditto but Chinese character.....	431.00	635.00	893.00	204.00	09334	
09335	Letter or number cut and formed from anodized aluminium sheet not less than 2 mm thick with covered edge, fixed at any height including all necessary fixing accessories.....	294.00	453.00	612.00	140.00	09335	
09336	Ditto but Chinese character.....	374.00	583.00	761.00	178.00	09336	
		Size (m²)					
		n.e. 0.50	0.50 - 1.00	1.00 - 1.50	1.50 - 2.00	Add to 2.00m ² for each additional 0.50m ² or part thereof in size	
	<i>Each</i>	A \$	B \$	C \$	D \$	E \$	
09337	Logo or signage cut and formed from stainless steel sheet not less than 1.2 mm thick with covered edge, including moulding, graphic finish, fixed at any height including all necessary fixing accessories.....	1,911.00	3,026.00	3,583.00	4,141.00	415.00	09337
09338	Ditto but cut and formed from anodized aluminium sheet not less than 2 mm thick.....	1,638.00	2,593.00	3,071.00	3,548.00	355.00	09338
	Add to either of Items 09333 to 09338 inclusive for the supply of powder coated and baked paint finish.....					20%	

Section 10

STEEL AND METAL WORK

SECTION 10

STEEL AND METAL WORK

SPECIAL CONDITIONS

Drawings for hoardings and walkways	SC10.01	<p>The drawings for hoardings and walkways referred to in this Section and listed in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule can be viewed on the internet website via the pathway referred therein. Refer to Section 00 - General Regulations Clause GR.08 for the requirements of the drawings.</p>
Drawings for internal metal/aluminium hoardings	SC10.02	<p>The drawings for internal metal/aluminium hoardings referred to in this Section are listed and attached in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule.</p>
Particular Specification for maintenance of proprietary fall arrest system	SC10.03	<p>The maintenance of proprietary fall arrest system shall be read and used in conjunction with the Particular Specification for Examination, Testing and Provision of Operation Training for Fall Arrest System adopted in the Contract.</p> <p>Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the Specification and Employer's Requirements adopted in the Contract for the maintenance of proprietary fall arrest system.</p>
Measurement of hoardings and walkways including internal metal/aluminium hoardings	SC10.04	<p>Throughout this Schedule, rates for all trades shall include for all temporary preventive and protective measures necessary for the execution of the work, such as to protect new work or existing surfaces, and to protect the public from harm, dust or nuisance. No payment shall be made for hoardings and walkways including internal metal/aluminium hoardings under any circumstances, with the following exceptions : -</p> <p>(a) Hoardings and walkways including internal metal/aluminium hoardings are specifically ordered by the Maintenance Surveyor in writing and stating that the hoarding and walkways including internal metal/aluminium hoardings are for the exclusive use of the Employer and other contractor employed by the Employer within the Works Order period.</p> <p>In the event that the hoardings and walkways including internal metal/aluminium hoardings mentioned in sub-clause (a) above are subsequently used as preventive and protective measures by the Contractor himself, no payment shall be made.</p> <p>The hoardings and walkways including internal metal/aluminium hoardings shall be measured the length on plan as fixed.</p> <p>No measurement or adjustment shall be made for anchor bolts and footings including concrete footings.</p>

SPECIAL CONDITIONS

Measurement of enhanced treatment to hoardings	SC10.05	Enhanced treatment to hoardings including graphic design proprietary graphical use film, plastic sheeting, painting and "green" features shall be measured the net area as covered. No deduction shall be made for openings not exceeding 0.50 m ² .
Measurement of temporary work - fire protection enclosure materials	SC10.06	Throughout this Schedule, rates for all trades shall include for all temporary preventive and protective measures necessary for the execution of the work such as to protect new work or existing surfaces, and to protect the public from harm, dust or nuisance. No payment shall be made for such work except additional requirement of fire protection enclosure materials are specifically ordered by the Maintenance Surveyor in writing.
Measurement of steel shoring	SC10.07	<p>Steel strutting, shoring, supporting and protective measures for the face of excavation have been allowed in the rates of Section 03 - Excavation in this Schedule. No payment shall be made for these measures under any circumstance, with the following exception : -</p> <p>(a) Steel strutting, shoring, bracings, supporting and the like in respect of the steel sheet piling. Steel sheet piling must be specifically ordered by the Maintenance Surveyor in writing.</p> <p>Steel sections shall be measured the total weight as fixed. No deduction shall be made for bolt holes, splays, notches and the like. The weight of the bolts and nuts shall be added.</p>
Measurement by weight	SC10.08	<p>Structural steel work and metal work shall normally be measured by weight and shall be calculated in the following order of preference : -</p> <p>(1) Measurements of the structural steel sections and metal sections and reference to</p> <p style="margin-left: 40px;">(a) Annex 'C' - Tables of Metal Weights, etc. in this Schedule.</p> <p style="margin-left: 40px;">(b) Tables in British Standards or other International Standards.</p> <p style="margin-left: 40px;">(c) Tables in manufacturer's catalogues or similar documents.</p> <p style="margin-left: 40px;">(d) Unit weights calculated from the mass per cubic metre given in Annex 'C' - Tables of Metal Weights, etc. in this Schedule.</p> <p style="margin-left: 40px;">or</p> <p>(2) Weighed by the Contractor in the presence of the Maintenance Surveyor before fixing, and in default of this, shall be taken out, weighed and re-fixed by the Contractor at his own expense.</p>
Measurement of structural steel work	SC10.09	Structural steel work shall only be paid when it is specifically ordered by the Maintenance Surveyor in writing. Surface protection to structural steel shall be measured separately in Section 15 - Painting of this Schedule.

SPECIAL CONDITIONS

Measurement of metal sections	SC10.10	<p>Metal sections shall generally be measured the length as fixed with square ends and the weight calculated unless otherwise provided.</p> <p>No deduction shall be made for rivet, screw and bolt holes, and notches or slots.</p>
Measurement of sheet, flat bar or plate	SC10.11	<p>Mild steel (plain or galvanized) plate, stainless steel plate and aluminium plate, when exceeding 300 mm wide and not exceeding 3 mm thick shall be measured as sheet metal. When exceeding 3 mm thick, the same shall be measured as “flat bar” or “plate”.</p>
Measurement of sheet metal	SC10.12	<p>Sheet metal work shall be measured the area as fixed and the weight calculated. No deduction shall be made for openings not exceeding 0.50 m². No addition shall be made for rivets, screws, nuts, bolts and the like.</p> <p>Perforated sheet metal work shall be measured the area as fixed. No deduction shall be made in weight for factory-formed perforations of the sheet metal. No deduction shall be made for openings cut on Site not exceeding 0.50 m².</p> <p>Sheet or perforated sheet metal work shall include all sheet metal formed in any shape, pattern, graphics, etc. and the like.</p>
Measurement of bolts and anchor bolts for isolated repairs	SC10.13	<p>Except for holding down bolts for structural steelwork as stated in Special Conditions Clause SC10.34(d) and for bolts/anchor bolts required for replacement in isolated repair items, of which the specified bolts shall be measured separately; all other types of bolts/anchor bolts shall not be measured separately but shall deem to be included in the work items in this Section.</p>
Measurement of collapsible gate	SC10.14	<p>Collapsible gate shall be measured the net weight calculated. No deduction shall be made for bolt holes, splays, notches and the like. The weight of bolts, nuts, rivets, spacers, fixing lugs and the like, except ironmongeries, shall be added.</p>
Measurement of sundry repairs	SC10.15	<p>Items for sundry repairs in this Section of the Schedule shall not be measured except under the following special circumstances : -</p> <p>(a) Where the material and/or the labour of the work item to be repaired is not measured and paid for separately under any other Schedule rates.</p> <p>(b) Where the work item to be repaired requires labour, welding and fixing of the work item at its existing position.</p>
Measurement of corrugated and profiled sheet cladding	SC10.16	<p>Corrugated and profiled sheet cladding (other than corrugated or profiled sheet roofing under Section 07 - Roofing and Waterproofing of this Schedule) shall be measured flat (not girth on corrugations or profiles) over the net area covered with no allowance for laps. No deduction shall be made for openings not exceeding 0.50 m². Cladding to a radius not exceeding 15.00 m along the corrugation or profile shall be measured as “curved work”.</p>

SPECIAL CONDITIONS

Measurement of shutters	SC10.17	Shutters shall be measured the net area of the opening to which the shutter is to be installed irrespective of the position of the hood. "Extra over shutters" for wicket door shall be measured the overall size of door.
Measurement of "Take down and set aside for re-use" of shutters for repairs	SC10.18	"Take down and set aside for re-use" of existing shutters for repairs shall generally be measured as net affected area. The affected area means the damaged area including the individual module of each affected slat or panel.
Measurement of cast iron, brass and copper	SC10.19	Cast iron, brass and copper articles shall be measured the net weight as cast and finished ready for fixing.
Measurement of metal windows and doors generally	SC10.20	Metal windows and doors shall generally be measured the net area of the opening in which the windows and doors are fixed. "Extra over windows or doors" for openable portions shall be measured the overall size of the opening sashes or doors. Glazing to metal windows and doors shall be measured separately in Section 14 - Glazing of this Schedule.
Measurement of "Take down and clear away" or "Take down and set aside for re-use" metal window or door	SC10.21	"Take down and clear away" or "Take down and set aside for re-use" of existing window and door shall generally be measured the net area of the opening in which the window and door are fixed. No separate measurement shall be made for openable sash, ironmongery, fixing lugs, dowels, etc. and the like.
Measurement of galvanized steel works	SC10.22	Measurement of galvanized mild steel works shall include all processes of galvanizing in accordance with G.S. Items 15.63 and 17.02 for all raw materials and factory manufactured products.
Measurement of galvanizing, electro-plating and chromium plating	SC10.23	Galvanizing, electro-plating and chromium plating shall be measured when the work has been fabricated on Site or off Site with further processing on Site required and is specifically ordered by the Maintenance Surveyor in writing. No payment shall be made for proprietary or factory manufactured products.

SPECIAL CONDITIONS

Measurement of “Zinc sprayed” or “Hot dipped” galvanizing	SC10.24	“Zinc sprayed” or “hot dipped” galvanizing shall only be measured when the mild steel work has been fabricated (not factory manufactured products) and it is specifically ordered by the Maintenance Surveyor in writing.
Measurement of composite aluminium cladding/panel linings	SC10.25	Composite aluminium cladding/panel linings shall be measured the net area covered. No deduction shall be made for opening not exceeding 0.50 m ² . No measurement for additional materials required for bending, rolling edges, returns, etc. and the like shall be made.
Measurement of curtain walls	SC10.26	Curtain walls shall be measured the plane area of the curtain wall as fixed. No deduction shall be made for opening not exceeding 0.50 m ² .
Measurement of proprietary automatic swing and sliding doors	SC10.27	Proprietary automatic swing and sliding doors shall be measured the plane area of the door panel.
Measurement of slotted angle, tubing and wire rope	SC10.28	Slotted angle, galvanized steel tubing and wire rope shall be measured the net length as fixed.
Measurement of fire resisting door set	SC10.29	Fire resisting door set shall be measured the plane area of the door panel.
Measurement of proprietary fire resisting partitions	SC10.30	Proprietary fire resisting partitions shall generally be measured the plane area of panels. No deduction shall be made for voids or openings not exceeding 0.50 m ² .
Measurement of wire netting, wire mesh, welded wire mesh, expanded metal and chain link fencing	SC10.31	<p>Wire netting, wire mesh, welded wire mesh, expanded metal and chain link fencing shall be measured the net area covered with no allowance for laps. No deduction shall be made for openings not exceeding 0.50 m².</p> <p>Irregular areas shall be measured the smallest square or rectangle size from which they can be cut.</p> <p>Various meshes sizes shall be measured in accordance with the British Standard unless otherwise specified.</p>

SPECIAL CONDITIONS

Measurement of fibreglass house	SC10.32	The volume of fibreglass house shall be measured from the external dimensions of fibreglass house as fixed, excluding any supporting plinths, structures and the like.
Measurement of periodic or ad-hoc examination of existing proprietary fall arrest system	SC10.33	<p>Periodic or ad-hoc examination of existing proprietary fall arrest system of upto a total of 5 sets shall be measured per item and shall be measured once for each Works Order to be carried out irrespective of number of buildings, number of locations and number of visits until the completion of the Works Order.</p> <p>Subsequent number of sets exceeding 5 shall be measured each based on number of sets of the system examined.</p> <p>Each set of fall arrest system shall be measured as the span between two end anchors and over intermediate brackets, and is irrespective of the distance between the two end anchors and the number of intermediate brackets.</p>
Rates generally	SC10.34	<p>The rates shall generally include for any or all of the following as applicable : -</p> <ul style="list-style-type: none"> (a) All straight, raking or circular cutting and waste. (b) Lowering or hoisting to any depth or height and supporting, fitting and fixing various items to new or existing work in any position including the provision of all temporary supports and fastening, and grouting as required. (c) All fabrication, assembling and erection work including riveting, drilling, welding, brazing, either off Site or on Site as required. (d) Providing throughout all ancillary materials for jointing and fixing, such as welding rods, solders, screws, all types of bolts (except holding down bolts for structural steelwork or otherwise specified), nuts and the like. (e) Executing all work to true detail, filing all edges, welds, etc., smoothing, filing off burrs around drilled holes, countersinking all screws, rivet heads and the like when required and finishing work to the satisfaction of the Maintenance Surveyor. (f) Drilling and tapping holes, cutting all mortices and the like. (g) Preparing new or existing surface for connection. (h) Allowance for rolling margin. (i) Building in, grouting and bedding, casting in and the application of bonding agents, fillers and sealing materials. (j) Sampling and testing of materials including submission of records.

SPECIAL CONDITIONS

Rates generally (Cont'd)	SC10.34 (Cont'd)	<ul style="list-style-type: none"> (k) In the case of structural steel, sampling and testing of materials shall further include all necessary security handling of samples, stock management on Site and removal of non-compliant steel sections. (l) Allowance for laps or seams. (m) Providing prototypes as G.S. Item 17.14. (n) Protecting decorative finishes to metalwork. (o) Allowing all provisions of suitable connection point for equipotential bonding as required by the I.E.E. Wiring Regulations.
Rates for hoardings and walkways including internal metal/aluminium hoardings	SC10.35	<p>The rates for hoardings and walkways including internal metal/aluminium hoardings shall further include for :-</p> <ul style="list-style-type: none"> (a) Delivering to and erecting on Site, repairing and maintaining throughout the period of use in first or subsequent positions, and taking down and setting aside for re-erection or clearing away. (b) Providing all materials including poles, posts, rails, struts, wedges, plates, sheeting, bolts and the like, and providing dust-proof covers and sand bags in the case of internal metal/aluminium hoardings. (c) Preparing and applying or touching up paint to all surfaces including writings and logos in single or multi-colour paints. (d) Providing and fixing anchor bolts, nuts and washers. (e) Provision of concrete footing including associated earthwork, formwork and reinforcement, if required. (f) Providing adequate lightings and warning lights, associated power supply and electrical work and payment of all charges incurred. (g) Making good any damage caused to pavings and other surfaces during use, erection and taking down. (h) Payment for resurfacing of the pavings, roads, drainage system or any other utilities in the event that making good is not allowed to be executed by the Contractor.
Rates for temporary work - fire protection enclosure materials	SC10.36	<p>The rates for temporary work - fire protection enclosure materials shall further include for :-</p> <ul style="list-style-type: none"> (a) Working at any level, floor and locations. (b) All steel sections adequate for the specified fire resistance rating. (c) Finishing all fire protective boarding, metal plates, steel sections, etc. and the like with intumescent paint, painting and colour coating.

SPECIAL CONDITIONS

Rates for temporary work - fire protection enclosure materials (Cont'd)

SC10.36 (Cont'd)

- (d) All footings including concrete footings, base plate and anchor bolts including nuts and washers.
- (e) Delivering to and erecting on Site, adjusting and maintaining throughout the period of uses, and taking down and setting aside for re-use or removal from Site.
- (f) Providing and forming temporary access door, ironmongeries and door seals.
- (g) Providing, maintaining and clearing away after use adequate lighting and warning lights, associated power supply and electrical work and payment of all charges incurred.
- (h) Cutting mortice or drilling in concrete, brick, stone or other surfaces as required.
- (i) Sealing around edges with intumescent materials.
- (j) Grouting into new or existing mortice or holes.
- (k) Protecting and making good disturbed surfaces.
- (l) Providing test certificate.

Rates for steel shoring

SC10.37

The rates for steel shoring shall further include for : -

- (a) Working at any depth, height and locations.
- (b) All steel sections such as round bars, squares, flats, plates, angles, tees, channels, "I" joists, hollow sections and the like.
- (c) All anchor bolts and high friction grip bolts including nuts and washers.
- (d) Any wedges as required.
- (e) Delivering to and erecting on Site, adjusting and maintaining throughout the period of uses, and taking down and setting aside for re-use or removal from Site.
- (f) Design and submission of calculation and working drawings of lateral support including details of connections of walings, strutting, shoring, bracing, posts and splicing of members and sequence of construction and sequence of subsequent removal including endorsement by Registered Structural Engineer.
- (g) Preparing and submitting method statement.
- (h) Cleaning the interface of members to be jointed.
- (i) Carrying out welding as G.S. Items 15.43 to 15.58.
- (j) Grouting to joints as required.
- (k) Protecting and making good existing surfaces disturbed.

SPECIAL CONDITIONS

Rates for structural steel works	SC10.38	<p>The rates for structural steel works shall further include for : -</p> <ul style="list-style-type: none"> (a) Qualification tests for welders as G.S. Item 15.44 and submission of welding record as G.S. Item 15.45. (b) Approval tests of welding as G.S. Item 15.47. (c) Test welded joints by non-destructive testing methods, and employing the PWL/AL to carry out and interpret these tests all as G.S. Item 15.58. (d) Making good damaged galvanized surfaces as G.S. Items 15.53 and 15.64. (e) Providing manufacturers' certificates as G.S. Item 15.13. (f) Marking for identification on all materials as G.S. Item 15.14, protection from damage and delivery in matching sequence.
Rates for mild steel	SC10.39	<p>The rates for mild steel shall further include for : -</p> <ul style="list-style-type: none"> (a) Forging, notching, framing and bending. (b) Pointed, forged, fanged and threaded ends. (c) Mitres angles, ramps and wreaths. (d) Spot, fillet and seam welding.
Rates for sheet metal work	SC10.40	<p>The rates for sheet metal work shall further include for : -</p> <ul style="list-style-type: none"> (a) Notching, dressing, bending and rolled edges. (b) Punching holes. (c) Plugging or drilling existing surfaces. (d) Fixing with an approved adhesive.
Rates for lining, ducting, gutters, ventilator and the like	SC10.41	<p>The rates for lining, ducting, gutters, ventilator and the like shall further include for : -</p> <ul style="list-style-type: none"> (a) Notching, dressing, bending and rolled edges. (b) Punching holes. (c) Plugging or drilling existing surfaces. (d) Fixing with an approved adhesive.

SPECIAL CONDITIONS

Rates for lining, ducting, gutters, ventilator and the like (Cont'd)	SC10.41 (Cont'd)	<ul style="list-style-type: none"> (e) All bends, ends, inlets, outlets, junctions, connections, flanged joints and the like. (f) Forming perforations (gross weight measured). (g) Fixing to wood or metal framing with or without brackets (framing and brackets measured separately). Fixing to wood or metal framing with or without brackets (framing and brackets
Rates for collapsible gates	SC10.42	<p>The rates for collapsible gates shall further include for : -</p> <ul style="list-style-type: none"> (a) Framing to head, jambs, top and bottom guides. (b) Fixing blocks, pickets, diagonal folding item bars and fixing lugs. (c) Riveted pivot points with brass washers and spacers. (d) Supply and fixing of ball bearing rollers, retaining catches, catch hook, brass pull handles, lock and all necessary ironmongeries. (e) Forming pockets in existing structure, grouting in with cement mortar and making good.
Rates for bolts and anchor bolts for isolated repairs	SC10.43	<p>The rates for bolts and anchor bolts for isolated repairs shall further include for : -</p> <ul style="list-style-type: none"> (a) Cutting mortice or drilling in concrete, brick, stone or other surfaces as required. (b) Grouting into new or existing mortice or holes. (c) Providing and fixing with nuts and washers. (d) Making good disturbed surfaces. (e) Components and devices for grouping and tying anchor bolts to form assemblies of bolts.
Rates for corrugated and profiled sheet cladding	SC10.44	<p>The rates for corrugated and profiled sheet cladding shall further include for : -</p> <ul style="list-style-type: none"> (a) Works at any height and locations. (b) Works to new or existing surfaces in repairs. (c) All curved works when fixing cladding to timber or steel framing (measured separately). (d) Provision of sub-frames, backing frames and purlin system including design and submission of RSE structural calculations and shop drawings.

SPECIAL CONDITIONS

**Rates for
corrugated
and profiled
sheet cladding
(Cont'd)**

**SC10.44
(Cont'd)**

- (e) Forming and including joints and allowing for laps including side and end laps when required.
- (f) Allowing for cutting, waste and breakage.
- (g) Sealing at edges, joints and around intersections and projections with approved non-acidic and anti-mould sealant as required.
- (h) All narrow widths and small areas.
- (i) Providing shop drawings as necessary for the works.
- (j) Making good affected areas to match existing.
- (k) Allowing all notching and fitting edges of sheets and mitring corners as required, and all mitred angles, junctions and ends.
- (l) Drilling holes for and providing all drive screws, self-tapping screws, rivets, bolts, hook bolts, nuts, metal and rubber washers, and plastic caps for fixing to purlins or framing spaced at any interval.
- (m) Drilling holes to existing or new purlins of framing spaced at any interval for the fixing of corrugated and profiled sheet cladding.
- (n) Forming holes for pipes or articles.
- (o) Recommended fixing method in accordance with the manufacturer's instructions.
- (p) Forming and including movement joints as required.
- (q) Forming sheets to required curvature.

**Rates for
tubular metal
work**

SC10.45

The rates for tubular metal work shall further include for :-

- (a) Framing and bending.
- (b) Cut and welded junctions, angles, tees and cross joints.
- (c) Flanged or screw fitting connectors.
- (d) Screw fitting bends, tees, crosses and flanges.
- (e) Ramps, wreaths and fanged, fair and capped ends.

SPECIAL CONDITIONS

Rates for stainless steel

SC10.46

The rates for stainless steel shall further include for : -

- (a) Polished with fine grit or hair line finish and mirror finish.
- (b) Items described as trim or cover strip shall include for cutting to length and mitred angles.
- (c) Finishing all welds, etc. to match the finish specified.
- (d) Treatment on surfaces in contact with concrete or dissimilar metals with one coat of bituminous paint on stainless steel surfaces or using an approved tape.

Rates for aluminium

SC10.47

The rates for aluminium shall further include for : -

- (a) Clear, bronze or black anodized finish, and powder coated or fluorocarbon coated finish.
- (b) Items described as trim or cover strip shall include for cutting to length and mitred angles.
- (c) Ramps, wreaths and flanged, fair and capped ends.
- (d) Treatment on surfaces in contact with concrete or dissimilar metals with one coat of bituminous paint on aluminium surfaces or using an approved tape.

Rates for wire netting, wire mesh, welded wire mesh, expanded metal and chain link fencing

SC10.48

The rates for wire netting, wire mesh, welded wire mesh, expanded metal and chain link fencing shall further include for : -

- (a) All bending and notching required.
- (b) Allowance for side and end laps.
- (c) Allowance for spot weld, staples, tying wire, strained wire and the like as required.

Rates for steel windows and doors

SC10.49

The rates for steel windows and doors shall further include for : -

- (a) Providing steel clamps to all opening lights of casements as G.S. Item 17.32 (o).
- (b) Providing and fixing galvanized mild steel glazing beads and drips, if required.
- (c) Providing and fixing galvanized mild steel fixing lugs or anchor bolts as required.
- (d) Providing and fixing all necessary ironmongeries of any types of surface finish and materials except torque arm control system.

SPECIAL CONDITIONS

**Rates for
steel windows
and doors
(Cont'd)**

**SC10.49
(Cont'd)**

- (e) Providing drawings as G.S. Item 17.34.
- (f) Providing sample as G.S. Item 17.35.
- (g) Raking joints, pointing, masking, cleaning as G.S. Item 17.36 (i).
- (h) Pointing joints with approved non-acidic and anti-mould sealant.
- (i) Making good disturbed surfaces.
- (j) Protecting and cleaning.

**Rates for
repairs to
metal
windows and
doors**

SC10.50

The rates for repairs to metal windows and doors shall further include for :-

- (a) Providing ironmongery of matching materials and finishes.
- (b) Cutting at all means.
- (c) Drilling and tapping to existing framing including riveting and welding.
- (d) Providing and fixing screws, rivets, etc. and the like.
- (e) Cutting mortices and grouting in cement mortar and making good disturbed surfaces.
- (f) Making good disturbed surfaces.
- (g) Protecting and cleaning.

**Rates for
aluminium
windows
and doors**

SC10.51

The rates for aluminium windows and doors shall further include for :-

- (a) Providing all necessary galvanized steel fixing lugs and the like as G.S. Item 17.33 (e).
- (b) Providing galvanized steel water bars as G.S. Item 17.33 (f).
- (c) Providing and fixing all necessary ironmongeries, fittings and furniture as G.S. Items 17.33 (k) to 17.33 (m) except remote control system.
- (d) Providing and fixing all necessary weather strip as G.S. Item 17.33 (h).
- (e) Providing drawings as G.S. Item 17.34.
- (f) Providing sample as G.S. Item 17.35.
- (g) Bedding frames as G.S. Item 17.36 (h).
- (h) Raking joints, pointing, masking, cleaning as G.S. Item 17.36 (j).

SPECIAL CONDITIONS

Rates for aluminium windows and doors (Cont'd)	SC10.51 (Cont'd)	<ul style="list-style-type: none"> (i) Pointing joints with approved non-acidic and anti-mould sealant. (j) Treatment on surfaces in contact with concrete or dissimilar metals with one coat of bituminous paint on aluminium surfaces or using an approved tape.
Rates for fire resisting windows	SC10.52	<p>The rates for fire resisting windows shall further include for : -</p> <ul style="list-style-type: none"> (a) Supply and installation in accordance with the manufacturer's instructions, and in compliance with the fire resisting properties as specified in the Code of Practice for Fire Safety in Buildings and all related statutory requirements. (b) Finishing all surfaces as required. (c) Providing test certificate, operation and maintenance manuals and supplier's warranty.
Rates for curtain walls	SC10.53	<p>The rates for curtain walls shall further include for : -</p> <ul style="list-style-type: none"> (a) The design of the curtain walls to comply with the maximum Overall Thermal Transfer Values (OTTV) for building (including walls and roof) of 23 w/m² or less. (b) All submissions of information as required in G.S. Section 16. (c) Requirements pursuant to codes and standards as G.S. Item 16.05 and an itemized list of deviations from the Specification and Drawings for the works. (d) Submission of drawings and calculations as G.S. Item 16.09. (e) Submission of samples, mock-up erection and tests. (f) Method statement related to jointing of components, fire barriers between perimeters of floors and curtain wall, programme for the works, erection and any remedial works. (g) In the case of aluminium curtain walls, all types of anodized finishes, powder coated, organic coating fluorocarbon coated or PVF2 finishes. (h) In the case of stainless steel curtain walls, all types of polished finishes. (i) Reinforcing members, sub-frames and the like of any material. (j) Fixing, connections and provision of anchorages. (k) Openable windows and doors, integral louvres and associated ironmongeries and fittings. (l) Spandrels, stone panels and their supporting systems.

SPECIAL CONDITIONS

Rates for curtain walls (Cont'd)	SC10.53 (Cont'd)	<ul style="list-style-type: none"> (m) Cills, copings, water bars, flashings, seals and other attachments including dressing to roofs/abutments. (n) Isolation of dissimilar metals and moving parts. (o) Support fire-saving insulation on galvanized steel support clips spaced at a maximum of 450 mm centres. (p) Preparation work to adjoining structure for attachment of curtain wall. (q) All glass and glazing work. (r) All tests, at field or in laboratories, and report work. (s) Forming and including movement joints as required. (t) Sealing joints within curtain wall and joints to existing with approved non-acidic and anti-mould sealant. (u) Provision of test reports, manufacturer's guarantee, maintenance manuals and deed of warranty. (v) Provision of anchors for gondola. (w) Provision of lightning protection. (x) Provision of Field or Site mock-up. (y) Provision of closure panel for venetian blind/shutter. (z) Provision of waterproofing/water-tightness. (aa) Protection and cleaning.
Rates for ironmongery	SC10.54	The Special Conditions for Section 09 - Ironmongery in this Schedule shall apply equally to all items of ironmongery in this Section.
Rates for proprietary composite aluminium cladding	SC10.55	<p>The rates for proprietary composite aluminium cladding shall further include for : -</p> <ul style="list-style-type: none"> (a) In case of partial replacement of the existing proprietary composite aluminium cladding, design, supply, fabrication and installation of composite aluminium cladding in conformity to BS476 Part 7; or Class B or above according to BS EN 13501-1; or other equivalent fire classification standards. (b) In case of new proprietary composite aluminium cladding, design, supply, fabrication and installation of composite aluminium cladding in conformity to BS476 Part 4; or Class A1 according to BS EN 13501-1; or other equivalent fire classification standards.

SPECIAL CONDITIONS

**Rates for
proprietary
composite
aluminium
cladding
(Cont'd)**

**SC10.55
(Cont'd)**

- (c) Applying and installation of composite aluminium cladding panels to walls, bulkheads, ceiling soffits or any other locations.
- (d) Submission of structural design, calculations and drawings endorsed by a Registered Structural Engineer.
- (e) Submission of details related to quality, coating finish, thickness and standard of aluminium and galvanized mild steel reinforcement together with the manufacturer's certification, for the Maintenance Surveyor's approval.
- (f) Submission of design drawings, working details and shop drawings for the Maintenance Surveyor's approval prior to commencement of installation.
- (g) Submission of samples and carrying out of mock-up erection and testing including all necessary tests required to ensure the integrity and safety of the cladding and associated support and fixing system.
- (h) Submission of method statements related to jointing of components, programme for the work, erection and any remedial works.
- (i) All types of finishes to the cladding panels and bending to suit all shapes and configurations.
- (j) Support framework constructed of reinforcing members, backing materials, framing, stiffeners and the like of any materials.
- (k) Fixing, connections, angle brackets and provision of all types of anchorages including bolts, nuts and the like.
- (l) Openable access doors, louvres and openings for building services installation.
- (m) Ironmongeries and fittings.
- (n) Forming opening around door and/or window.
- (o) Provision of anchorage for gondolas, where required.
- (p) Provision of waterproofing and water-tightness.
- (q) Provision of lightning protection.
- (r) Isolation of dissimilar metals, moving parts and provision of lubrication.
- (s) Support fire-saving insulation on galvanized steel support clips spaced at a maximum of 450 mm centres.
- (t) Preparation work to adjoining structure for attachment of cladding.
- (u) Forming and including movement joints as required.

SPECIAL CONDITIONS

Rates for proprietary composite aluminium cladding (Cont'd)	SC10.55 (Cont'd)	<ul style="list-style-type: none"> (v) Sealing joints within cladding and joints to existing with approved non-acidic and anti-mould sealant. (w) Concealed and exposed flashings, edge trims and the like. (x) Provision of all necessary test reports, maintenance manuals and manufacturer's guarantee. (y) Protection and cleaning.
Rates for proprietary composite aluminium cladding to ceiling	SC10.56	<p>Where the proprietary composite aluminium cladding as stipulated in SC10.55 is applied/ installed at ceiling soffits, the rates for proprietary composite aluminium cladding shall further include for : -</p> <ul style="list-style-type: none"> (a) Design, supply, fabrication and installation of the whole suspension system (i.e. suspension framing, edge trims, runners, hangers and the like and fixing to concrete soffits). (b) Edge trims at junction with bulkheads. (c) All cutting and narrow widths. (d) Unless otherwise stated, any drop length from soffits. (e) Forming openings and trimming around pipes, conduits, power points and the like including extra supports and trimmers for the same. (f) Trimming around sprinkler and detector heads, air grilles, light fittings, access panels and the like including extra supports and trimmers for the same. (g) Additional framing and supports, etc. to bridge across ducts and the like.
Rates for composite aluminium lining	SC10.57	<p>The rates for composite aluminium lining shall further include for : -</p> <ul style="list-style-type: none"> (a) Design, supply, fabrication and installation of aluminium lining for internal use; in conformity to BS476 Part 7; or Class B or above according to BS EN 13501-1; or other equivalent fire classification standards. (b) Submission of details related to quality, coating finish, thickness and standard of aluminium and galvanized mild steel reinforcement together with the manufacturer's certification, for the Maintenance Surveyor's approval. (c) Submission of design drawings, working details and shop drawings for the Maintenance Surveyor's approval prior to commencement of installation. (d) Submission of samples and carrying out of mock-up erection.

SPECIAL CONDITIONS

Rates for composite aluminium lining (Cont'd)

SC10.57 (Cont'd)

- (e) Submission of method statements related to jointing of components, programme for the work, erection and any remedial works.
- (f) All types of finishes to the panel lining and bending to suit all shapes and configurations.
- (g) Support framework constructed of reinforcing members, backing materials, framing, stiffeners and the like of any materials.
- (h) Fixing, connections, angle brackets and provision of all types of anchorages including bolts, nuts and the like.
- (i) Openable access doors, louvres and openings for building services installation.
- (j) Ironmongeries and fittings.
- (k) Forming opening around door and/or window.
- (l) Provision of lightning protection.
- (m) Isolation of dissimilar metals, moving parts and provision of lubrication.
- (n) Preparation work to adjoining structure for attachment of cladding.
- (o) Forming and including movement joints as required.
- (p) Sealing joints within panels of linings and joints to existing with approved non-acidic and anti-mould sealant.
- (q) Provision of all necessary test reports, maintenance manuals and manufacturer's guarantee.
- (r) Protection and cleaning.

Rates for shutters

SC10.58

The rates for shutters shall further include for : -

- (a) Cutting mortice, sinking or drilling in concrete, brick, stone or other surfaces as required.
- (b) Grouting into new or existing mortice or holes.
- (c) Providing and fixing with nuts and washers.
- (d) Providing and fixing hinges, locking device, lock and all necessary ironmongeries.
- (e) Making good disturbed surfaces.
- (f) Provision of connection to nearest power point by registered electrical workers for any electrically operated shutters.

SPECIAL CONDITIONS

**Rates for
fire resisting
roller shutters**

SC10.59

The rates for fire resisting roller shutters shall further include for : -

- (a) Supply and installation in accordance with the manufacturer's instructions, Particular Specification and in compliance with the fire resisting properties as specified in the Code of Practice for Fire Safety in Buildings and all related statutory requirements.
- (b) Providing and fixing self closing mechanism activated by smoke detector(s) and manual control device(s) on both side of the wall openings for automatic and manual operation compliance with the current General Specification for Fire Service Installation of Government Buildings of the HKSAR issued by the Architectural Services Department, and all accessories, ironmongeries and the like recommended by the manufacturer.
- (c) Cutting mortice, sinking or drilling in concrete, brick, stone or other surfaces as required.
- (d) Grouting into new or existing mortice or holes.
- (e) Providing back up power supply.
- (f) Connecting to fire alarm system when required.
- (g) Finishing all surfaces as required.
- (h) Providing test certificate, operation and maintenance manuals and supplier's warranty.
- (i) Provision of connection to nearest power point by registered electrical workers for any electrically operated fire resisting roller shutters.
- (j) Coordination with and providing all necessary documents to a separate Specialist Contractor for obtaining certification in compliance with fire services statutory requirements.

**Rates for
transparent
shutters**

SC10.60

The rates for transparent shutters shall further include for : -

- (a) Supply and installation in accordance with the manufacturer's instructions.
- (b) Cutting mortice, sinking or drilling in concrete, brick, stone or other surfaces as required.
- (c) Grouting into new or existing mortice or holes.
- (d) Providing and fixing with nuts and washers.
- (e) Providing and fixing typhoon shutter guide with locking device.
- (f) Providing and fixing hinges, locking device, lock and all necessary ironmongeries.
- (g) Making good disturbed surfaces.
- (h) Providing test certificate, operation and maintenance manuals and supplier's warranty.

SPECIAL CONDITIONS**Rates for fire resisting doors****SC10.61**

The rates for fire resisting doors shall further include for :-

- (a) Supply and installation in accordance with the manufacturer's instructions and in compliance with the fire resisting properties as specified in the Code of Practice for Fire Safety in Buildings and all related statutory requirements.
- (b) Providing and fixing door frames, all accessories, ironmongeries and the like recommended by the manufacturer (panic bolt, emergency panic device and digital locking device measured separately).
- (c) Providing back up power supply when required.
- (d) Cutting mortice or drilling in concrete, brick, stone or other surfaces as required.
- (e) Grouting into new or existing mortice or holes.
- (f) Finishing all surfaces as required.
- (g) Pointing joints with approved non-acidic and anti-mould sealant as required.
- (h) Making good disturbed surfaces.
- (i) Providing test certificate, operation and maintenance manuals and supplier's warranty.

Rates for proprietary automatic swing and sliding doors**SC10.62**

The rates for proprietary automatic swing and sliding doors shall further include for :-

- (a) Supply and installation in accordance with the manufacturer's instructions.
- (b) Providing and fixing door frames, door operator, automatic mechanism, interlocking devices and all necessary accessories, ironmongeries and the like recommended by the manufacturer.
- (c) Providing clear tempered glass door panel or observation panel.
- (d) Providing back up power supply.
- (e) Cutting mortice or drilling in concrete, brick, stone or other surfaces as required.
- (f) Grouting into new or existing mortice or holes.
- (g) Pointing joints with approved non-acidic and anti-mould sealant as required.
- (h) Finishing all surfaces as required.
- (i) Making good disturbed surfaces.
- (j) Testing and commissioning on completion.

SPECIAL CONDITIONS

Rates for proprietary automatic swing and sliding doors (Cont'd)	SC10.62 (Cont'd)	<ul style="list-style-type: none"> (k) Submission of catalogues, technical literature and shop drawings for the Maintenance Surveyor's approval. (l) Submission of the supplier's warranty. (m) Submission of operation and maintenance manuals. (n) Provision of connection to nearest power point by registered electrical workers.
Rates for approved fire resisting glazed partitions and proprietary fire resisting partitions	SC10.63	<p>The rates for approved fire resisting glazed partitions and proprietary fire resisting partitions shall further include for :-</p> <ul style="list-style-type: none"> (a) Supply and installation in accordance with the manufacturer's instructions and in compliance with the fire resisting properties as specified in the Code of Practice for Fire Safety in Buildings and all related statutory requirements. (b) Providing and fixing all framings, bracings, supports, fixing accessories and the like as recommended by the manufacturer. (c) Cutting mortice or drilling in concrete, brick, stone or other surfaces as required. (d) Grouting into new or existing mortice or holes. (e) Finishing both sides of partition with fire resisting boarding/material. (f) Making good disturbed surfaces. (g) Providing test certificate, operation and maintenance manuals and supplier's warranty.
Rates for fibreglass house	SC10.64	<p>The rates for fibreglass house shall further include for :-</p> <ul style="list-style-type: none"> (a) Compliance with BS 3396, BS 3479 and BS 4549: Part 1. (b) All mechanical parts, fixings, anchor bolts and screws in AISI Type 316 stainless steel. (c) Fire retardant gratings in compliance with BS 476 Part 3, Part 6 and Part 7. (d) Fire retardant in compliance with BS 476 Part 7 class 1 and class 2. (e) All necessary accessories recommended by the manufacturer. (f) Fixing to concrete base or steel support (measured separately) including anchor bolts. (g) Provision of windows and doors in any type and number. (h) Fulfilling the Impact Test based on BS 6206.

SPECIAL CONDITIONS

Rates for periodic or ad-hoc examination of existing proprietary fall arrest system generally

SC10.65

The rates for periodic or ad-hoc examination of existing proprietary fall arrest system shall generally include for : -

- (a) Provision of a competent person as defined in the Particular Specification for Examination, Testing and Provision of Operation Training for Fall Arrest Systems including all expenses and reimbursement in connection with employment of the competent person.
- (b) Where applicable, planning, programming, co-ordination, liaising and seeking approval from the concerned authorities, departments/venue representatives, building management committees or property management agents for site access, temporary works, temporary site traffic arrangements and/or site occupation and phasing of works in existing and/or occupied buildings and premises.
- (c) Obtaining and providing all licenses and/or permits necessary for periodic or ad-hoc examination of the fall arrest system.
- (d) Temporary works, working platform or scaffolding, labour, materials, plant, equipment, personal protective equipment and the like required for access and for examination of the fall arrest systems in existing and/or occupied buildings or premises to suit users and/or building management requirements.
- (e) Carrying out inspection of the fall arrest system and sub-systems in accordance with BS7883 and the requirements, recommendations and instructions issued by the manufacturers of the fall arrest system.
- (f) All necessary cleaning and application of lubricants for proper upkeep during periodical examination of the fall arrest system.
- (g) Update the existing site labels or provision of new labels, if necessary.
- (h) Warning tags.
- (i) Submission of examination report which is prepared and endorsed by the competent person who carried out the examination, including : -
 - (i) attendance records of the competent person who carried out the examination;
 - (ii) drawings showing the location and extent of the fall arrest systems;
 - (iii) details and results of the examination carried out including recommendations on any necessary remedial action, if required;
 - (iv) photographic records including photos for necessary cleaning and application of lubricants applied, where applicable;

SPECIAL CONDITIONS

Rates for periodic or ad-hoc examination of existing proprietary fall arrest system generally (Cont'd)

SC10.65 (Cont'd)

- (v) provision of a certificate signed by the competent person certifying that the fall arrest system has been subject to periodic or ad-hoc examination in accordance with BS7883 and the requirements, recommendations and instructions issued by the manufacturers of the fall arrest systems, and is in order; and
- (vi) Validity of the certificate and the next due date for re-examination and re-certification.
- (j) Compliance with alternative nationally or internationally recognised standards other than BS7883 as recommended by the manufacturers and approved by the Maintenance Surveyor.

Rates for periodic or ad-hoc examination and load test on Class A1 anchor device

SC10.66

The rates for periodic or ad-hoc examination and load test on Class A1 anchor device of existing proprietary fall arrest system shall further include for : -

- (a) Carrying out the periodic or ad-hoc examination and load test under the supervision of a Registered Professional Engineer (RPE) (Structural) including all expenses and reimbursement in connection with employment of the RPE (Structural).
- (b) Carrying out of load test on Class A1 anchor devices of the fall arrest system in accordance with the requirements of BS7883 and the results shall be endorsed by a RPE (Structural).
- (c) Submission of examination reports for load test on Class A1 anchor devices as described in Special Conditions SC10.65(i) which are prepared by the competent person who carried out the examination and endorsed by the RPE (Structural).

Rates for operation training of proprietary fall arrest system

SC10.67

The rates for operation training of proprietary fall arrest system shall include for : -

- (a) Provision of a competent trainer as defined in the Particular Specification for Examination, Testing and Provision of Operation Training for Fall Arrest System including all expenses and reimbursement in connection with employment of the competent trainer.
- (b) Maintaining and submission of attendance records.
- (c) Personal protective equipment to all trainees.
- (d) Provision of operation training at the Government building where the FAS was installed, and its associated facilities and training materials.
- (e) Provision of training certificates to trainees who successfully complete the operation training.

SPECIAL CONDITIONS**G.S. clauses****SC10.68**

G.S. clauses for the following items can be found in the respective sections of the General Specification for Building as listed below : -

- (a) Steel sheet cladding - Section 12 - Roofing.
- (b) Fencing and gates - Section 24 - External Works.
- (c) Structural steel work - Section 15 - Structural Steel Work.
- (d) Curtain walls - Section 16 - Curtain Walls.
- (e) Corrugated and profiled sheeting cladding - Section 12 - Roofing.
- (f) Strongroom doors - Section 22 - Internal Fittings and Fixtures.

Item									Item	
STEEL SHORING										
Note : - The following Items 10001 to 10002 inclusive shall only be paid in accordance with Special Conditions Clause SC10.07 : -		Erect, maintain, take down and clear away	Erect, maintain, and left-in position							
<i>Per kg</i>		A \$	B \$							
10001	Steel shoring to support surface of excavation.....	10.50	9.20							10001
10002	Steel shoring to support existing building or structure.....	12.70	11.00							10002
HOARDINGS AND WALKWAYS										
Note : - The drawings referred to in this Section and listed in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule can be viewed on the internet website via the pathway referred therein.		Erect, maintain, take down and clear away	Erect, maintain, and left-in position							
The following Items 10003 to 10009 inclusive shall only be paid in accordance with Special Conditions Clause SC10.04 : -										
<i>Per linear metre</i>		A \$	B \$							
10003	Type A hoarding – corrugated steel fence as detailed on drawings 9711/A/A01 to 9711/A/A05 and 9711/A/S01 to 9711/A/S04.....	1,367.00	1,298.20							10003
10004	Type E hoarding – corrugated steel fence (surface-mounted footing) as detailed on drawings 9711/E/A01 to 9711/E/A05 and 9711/E/S01 to 9711/E/S04.....	1,622.60	1,541.60							10004
<i>Each</i>										
10005	Gateway for Type A hoarding – corrugated steel fence as detailed on drawings 9711/A/A01 to 9711/A/A05 and 9711/A/S01 to 9711/A/S04.....	16,277.00	15,463.00							10005
10006	Gateway for Type E hoarding – corrugated steel fence (surface-mounted footing) as detailed on drawings 9711/E/A01 to 9711/E/A05 and 9711/E/S01 to 9711/E/S04.....	18,286.00	17,373.00							10006
<i>Per linear metre</i>										
		Erect, maintain, take down and clear away			Erect, maintain and left-in position					
		with walkway of minimum clear width			with walkway of minimum clear width					
		1.10 m	1.40 m	2.00 m	1.10 m	1.40 m	2.00 m			
		A \$	B \$	C \$	D \$	E \$	F \$			
10007	Type B hoarding – covered walkway as detailed on drawings 9711/B/A01 to 9711/B/A07 and 9711/B/S01 to 9711/B/S05.....	3,617.10	3,797.90	4,340.60	3,436.20	3,608.00	4,123.50	10007		
10008	Type C hoarding – covered walkway with single deck catch platform as detailed on drawings 9711/C/A01 to 9711/C/A07 and 9711/C/S01 to 9711/C/S05.....	5,551.20	5,828.80	6,661.50	5,273.70	5,537.30	6,328.30	10008		
10009	Type D hoarding – covered walkway with double deck catch platform as detailed on drawings 9711/D/A01 to 9711/D/A07 and 9711/D/S01 to 9711/D/S05.....	7,384.90	7,754.00	8,861.80	7,015.70	7,366.40	8,418.90	10009		

Item

Item

HOARDINGS AND WALKWAYS (CONT'D)

Note : - The drawings referred to in this Section and listed in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule can be viewed on the internet website via the pathway referred therein.

The following Items 10010 to 10014 inclusive shall only be paid in accordance with Special Conditions Clause SC10.04 :-

		Erect, maintain, take down and clear away			Erect, maintain and left-in position			
		with walkway of minimum clear width			with walkway of minimum clear width			
		1.10 m	1.40 m	2.00 m	1.10 m	1.40 m	2.00 m	
		A \$	B \$	C \$	D \$	E \$	F \$	
10010	Type F hoarding – covered walkway (surface-mounted footing) as detailed on drawings 9711/F/A01 to 9711/F/A07 and 9711/F/S01 to 9711/F/S05.....	3,868.20	4,061.70	4,641.90	3,674.80	3,858.50	4,409.90	10010
	<i>Per linear metre</i>							
		Erect, maintain, take down and clear away			Erect, maintain and left-in position			
		with walkway of minimum clear width			with walkway of minimum clear width			
		1.35 m	1.60 m	1.85 m	1.35 m	1.60 m	1.85 m	
		A \$	B \$	C \$	D \$	E \$	F \$	
10011	Type G1 hoarding – covered walkway with single deck catch platform (surface-mounted footing) as detailed on drawings 9711/G1/A01 to 9711/G1/A09 and 9711/G1/S01 to 9711/G1/S05.....	5,802.40	6,317.00	6,498.60	5,512.30	6,001.10	6,173.70	10011
10012	Type H1 hoarding – covered walkway with double deck catch platform (surface-mounted footing) as detailed on drawings 9711/H1/A01 to 9711/H1/A09 and 9711/H1/S01 to 9711/H1/S05.....	7,771.10	8,477.50	8,703.60	7,382.40	8,053.70	8,268.40	10012
	<i>Per linear metre</i>							
		Erect, maintain, take down and clear away			Erect, maintain and left-in position			
		with walkway of minimum clear width			with walkway of minimum clear width			
		1.85 m	2.43 m	3.00 m	1.85 m	2.43 m	3.00 m	
		A \$	B \$	C \$	D \$	E \$	F \$	
10013	Type G2 hoarding – covered walkway with single deck catch platform (surface-mounted footing) as detailed on drawings 9711/G2/A01 to 9711/G2/A08 and 9711/G2/S01 to 9711/G2/S05.....	6,498.60	7,477.60	8,439.90	6,173.70	7,103.90	8,017.80	10013
10014	Type H2 hoarding – covered walkway with double deck catch platform (surface-mounted footing) as detailed on drawings 9711/H2/A01 to 9711/H2/A08 and 9711/H2/S01 to 9711/H2/S05.....	8,703.60	10,014.80	11,303.40	8,268.40	9,514.20	10,738.20	10014
	<i>Per linear metre</i>							

Item

Item

HOARDINGS AND WALKWAYS (CONT'D)

Note :- The drawings referred to in this Section and listed in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule can be viewed on the internet website via the pathway referred therein.

The following Items 10015 to 10022 inclusive shall only be paid in accordance with Special Conditions Clause SC10.04 :-

		Erect, maintain, take down and clear away			Erect, maintain and left-in position			
		with walkway of minimum clear width			with walkway of minimum clear width			
		1.10 m	1.40 m	2.00 m	1.10 m	1.40 m	2.00 m	
<i>Each</i>	A \$	B \$	C \$	D \$	E \$	F \$		
10015	Gateway for Type B hoarding – covered walkway as detailed on drawings 9711/B/A01 to 9711/B/A07 and 9711/B/S01 to 9711/B/S05.....	31,398.00	32,968.00	37,678.00	29,833.00	31,320.00	35,794.00	10015
10016	Gateway for Type C hoarding – covered walkway with single deck catch platform as detailed on drawings 9711/C/A01 to 9711/C/A07 and 9711/C/S01 to 9711/C/S05.....	39,788.00	41,777.00	47,745.00	37,799.00	39,696.00	45,358.00	10016
10017	Gateway for Type D hoarding – covered walkway with double deck catch platform as detailed on drawings 9711/D/A01 to 9711/D/A07 and 9711/D/S01 to 9711/D/S05.....	39,788.00	41,777.00	47,745.00	37,799.00	39,696.00	45,358.00	10017
10018	Gateway for Type F hoarding – covered walkway (surface-mounted footing) as detailed on drawings 9711/F/A01 to 9711/F/A07 and 9711/F/S01 to 9711/F/S05.....	30,142.00	31,650.00	36,170.00	28,635.00	30,067.00	34,362.00	10018
		Erect, maintain, take down and clear away			Erect, maintain and left-in position			
		with walkway of minimum clear width			with walkway of minimum clear width			
		1.35 m	1.60 m	1.85 m	1.35 m	1.60 m	1.85 m	
<i>Each</i>	A \$	B \$	C \$	D \$	E \$	F \$		
10019	Gateway for Type G1 hoarding – covered walkway with single deck catch platform (surface-mounted footing) as detailed on drawings 9711/G1/A01 to 9711/G1/A09 and 9711/G1/S01 to 9711/G1/S05.....	39,788.00	41,777.00	47,745.00	37,799.00	39,696.00	45,358.00	10019
10020	Gateway for Type H1 hoarding – covered walkway with double deck catch platform (surface-mounted footing) as detailed on drawings 9711/H1/A01 to 9711/H1/A09 and 9711/H1/S01 to 9711/H1/S05.....	39,788.00	41,777.00	47,745.00	37,799.00	39,696.00	45,358.00	10020
		Erect, maintain, take down and clear away			Erect, maintain and left-in position			
		with walkway of minimum clear width			with walkway of minimum clear width			
		1.85 m	2.43 m	3.00 m	1.85 m	2.43 m	3.00 m	
<i>Each</i>	A \$	B \$	C \$	D \$	E \$	F \$		
10021	Gateway for Type G2 hoarding – covered walkway with single deck catch platform (surface-mounted footing) as detailed on drawings 9711/G2/A01 to 9711/G2/A08 and 9711/G2/S01 to 9711/G2/S05.....	39,788.00	41,777.00	47,745.00	37,799.00	39,696.00	45,358.00	10021
10022	Gateway for Type H2 hoarding – covered walkway with double deck catch platform (surface-mounted footing) as detailed on drawings 9711/H2/A01 to 9711/H2/A08 and 9711/H2/S01 to 9711/H2/S05.....	39,788.00	41,777.00	47,745.00	37,799.00	39,696.00	45,358.00	10022

Item				Item				
	<p>HOARDINGS AND WALKWAYS (CONT'D)</p> <p>Note : - The drawings referred to in this Section and listed in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule can be viewed on the internet website via the pathway referred therein.</p> <p>The following Item 10023 shall only be paid in accordance with Special Conditions Clause SC10.04 :-</p>							
	<p><i>Per linear metre</i></p>		<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">Erect, maintain, take down and clear away</td> <td style="width: 50%; text-align: center;">Erect, maintain, and left-in position</td> </tr> <tr> <td style="text-align: center;">A \$</td> <td style="text-align: center;">B \$</td> </tr> </table>	Erect, maintain, take down and clear away	Erect, maintain, and left-in position	A \$	B \$	
Erect, maintain, take down and clear away	Erect, maintain, and left-in position							
A \$	B \$							
10023	Extra over either of Items 10003 to 10004, 10007 to 10014 inclusive for toe sheet as detailed on drawings 9711/A/A03, 9711/B/A03, 9711/C/A03, 9711/D/A03, 9711/E/A03, 9711/F/A03, 9711/G1/A08, 9711/G2/A08, 9711/H1/A08 and 9711/H2/A08.....	18.20	15.60	10023				
	<p>INTERNAL METAL/ALUMINIUM HOARDINGS</p> <p>Note : - The drawings referred to in this Section are listed and attached in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule.</p> <p>The following Items 10024 to 10026 inclusive shall only be paid in accordance with Special Conditions Clause SC10.04 :-</p>							
	<p><i>Per linear metre</i></p>		<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">Erect, maintain, take down and clear away</td> <td style="width: 50%; text-align: center;">Erect, maintain, and left-in position</td> </tr> <tr> <td style="text-align: center;">A \$</td> <td style="text-align: center;">B \$</td> </tr> </table>	Erect, maintain, take down and clear away	Erect, maintain, and left-in position	A \$	B \$	
Erect, maintain, take down and clear away	Erect, maintain, and left-in position							
A \$	B \$							
10024	Hoarding as detailed on drawings PB(S)/97904/15B347/D3/FP001, PB(S)/97904/15B347/D3/FP002 and PB(S)/97904/15B347/D3/SW001 to PB(S)/97904/15B347/D3/SW007.....	509.20	450.00	10024				
	<p><i>Each</i></p>							
10025	Extra over Item 10024 for corner post with bullet hinges as detailed on drawings PB(S)/97904/15B347/D3/FP001, PB(S)/97904/15B347/D3/FP002, PB(S)/97904/15B347/D3/SW001 and PB(S)/97904/15B347/D3/SW002.....	233.00	197.00	10025				
10026	Extra over Item 10024 for door with door frames 1200 x 2000 mm high (overall) complete with ironmongery and all accessories (door lock measured separately) as detailed on drawings PB(S)/97904/15B347/D3/SW006 and PB(S)/97904/15B347/D3/SW007.....	269.00	192.00	10026				
	<p>ENHANCED TREATMENT TO HOARDINGS</p> <p>(Note : - The following Items 10027 to 10030 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)</p>							
	<p><i>Per square metre</i></p>		A \$					
10027	Apply graphic design proprietary graphical use film, plastic sheeting or painting to hoarding surface.....		327.80	10027				
10028	Apply "green" feature including suitable climbing plants and mesh to hoarding surface.....		163.90	10028				
	<p><i>Per linear metre</i></p>							
10029	Transparent polycarbonate sheet hoarding 2 m high.....		2,941.50	10029				
10030	Hang flower pot at approximately 2 m intervals including support hanging brackets to hoarding.....		81.90	10030				

Item								Item		
	TEMPORARY WORK - FIRE PROTECTION ENCLOSURE									
	Note :- The following Items 10031 to 10032 inclusive shall only be paid in accordance with Special Conditions Clause SC10.06 :-									
	<i>Per square metre</i>									
10031	Temporary enclosure with fire protection material of 1 hour FRR.....					Erect, maintain, take down and clear away	Erect, maintain, and left-in position	10031		
						A \$	B \$			
10032	Ditto but 2 hour FRR.....					373.30	457.80	10032		
						887.10	1,018.50			
	STRUCTURAL STEEL WORK									
	Note :- The following Items 10033 to 10044 inclusive shall only be paid in accordance with Special Conditions Clause SC 10.09 :-									
	HOT ROLLED STEEL									
	<i>Per kg</i>									
10033	Round rods, square rods, flat bars, plates, angle sections, tee sections, universal beams, columns, channels or "I" joists.....					Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
						Grade S275	Grade S355			
						A \$	B \$	C \$	D \$	E \$
10033						26.50	26.80	5.80	6.60	15.70
10034	Rectangular, square or circular hollow sections.....					28.10	28.10	5.80	6.60	17.30
10035	Fabricated small items n.e. 2 kg each.....					29.60	29.90	5.80	8.30	20.50
	COLD ROLLED STEEL TO BS EN 10162									
	<i>Per kg</i>									
10036	Angle or tee sections, channels, lipped channels or lipped "Z" sections, non-standard purlin sections or other similar sections.....					Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
						A \$	B \$	C \$	D \$	
10036						35.30	5.80	6.60	15.70	
10037	Rectangular, square or circular hollow sections.....					43.30	5.80	6.60	17.30	
10038	Fabricated small items n.e. 2 kg each.....					45.20	5.80	8.30	20.50	
	HOLDING DOWN BOLTS									
	<i>Each</i>									
10039	Holding down bolt, Grade 4.6 to BS 7419, n.e. 300 mm long complete with nuts and washers.....									
10039						M16	M20	M24		
						A \$	B \$	C \$		
10040	Ditto but 300 - 450 mm long.....					149.00	165.00	187.00	10039	
10040	Ditto but 300 - 450 mm long.....					196.00	209.00	233.00	10040	
10041	Ditto but 450 - 600 mm long.....					227.00	239.00	265.00	10041	
10042	Holding down bolt, Grade 8.8 to BS 7419, n.e. 300 mm long complete with nuts and washers.....					163.00	184.00	214.00	10042	
10043	Ditto but 300 - 450 mm long.....					211.00	229.00	264.00	10043	
10044	Ditto but 450 - 600 mm long.....					246.00	262.00	300.00	10044	

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
	MILD STEEL					
	ROLLED SECTIONS AND PLATE					
	<i>Per kg</i>	A \$	B \$	C \$	D \$	
10045	Round rods, square rods, flat bars, plates, chequer plates, angle sections, tee sections, universal beams, columns, channels or "I" joists.....	18.80	5.80	6.60	10.90	10045
10046	Rectangular, square or circular hollow sections.....	20.50	5.80	6.60	10.90	10046
	SHEET METAL WORK					
	<i>Per kg</i>	A \$	B \$	C \$	D \$	
10047	Flat or formed sheet covering.....	27.30	4.20	4.90	9.90	10047
10048	Sheet lining to brick or concrete duct, sheet covering to roofs, domes, etc., including all rolls, welts, flashings and the like, sheet as ducting, sheet as pipes, gutters, funnels, hoods, chimney cowls, roof plates and the like, sheet in square or rectangular tanks, storage cisterns and the like, and including angle stiffeners, corner plates and cover.....	35.00	4.90	7.40	14.30	10048
10049	Ventilator formed to detail (gross weight measured).....	38.20	4.90	8.30	14.30	10049
	COLLAPSIBLE GATES					
	<i>Per kg</i>	A \$	B \$	C \$	D \$	
10050	Mild steel collapsible gates, diamond pattern, welded and riveted connections.....	31.20	4.20	5.80	12.10	10050
10051	Ditto but galvanized.....	35.10	4.20	6.60	13.20	10051
10052	Ditto but stainless steel AISI Type 304.....	121.10	5.80	7.10	14.20	10052

Item					Item																						
	SUNDRY REPAIRS	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4">Thickness of metal (mm)</th> </tr> <tr> <th>N.e. 3</th> <th>3 - 6</th> <th>6 - 12</th> <th>12 - 20</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> <tr> <td>2.70</td> <td>3.50</td> <td>6.30</td> <td>9.90</td> </tr> </tbody> </table>				Thickness of metal (mm)				N.e. 3	3 - 6	6 - 12	12 - 20	A	B	C	D	\$	\$	\$	\$	2.70	3.50	6.30	9.90		
Thickness of metal (mm)																											
N.e. 3	3 - 6	6 - 12	12 - 20																								
A	B	C	D																								
\$	\$	\$	\$																								
2.70	3.50	6.30	9.90																								
	<i>Per linear metre</i>																										
10053	Straight, raking or circular cutting on any type of metal including filing edges clean.....	2.70	3.50	6.30	9.90	10053																					
	<i>Each</i>				A \$																						
10054	Cut screw thread on end of steel or iron rod or tube for length upto twice the girth of the steel rod or tube upto 50 mm in thread length.....				15.40	10054																					
10055	Add to Item 10054 for each additional 25 mm thread length or part thereof in length.....				1.90	10055																					
10056	Cut off end of bolt or rod of upto 50 mm diameter for threading or re-threading.....				5.50	10056																					
10057	Drill hole of upto 50 mm diameter in metal n.e. 50 mm deep including countersinking if required.....				5.50	10057																					
10058	Add to Item 10057 for each additional 25 mm or part thereof in depth.....				1.00	10058																					
10059	Drill and tap hole in metal n.e. 50 mm deep.....				8.90	10059																					
10060	Add to Item 10059 for each additional 25 mm or part thereof in depth.....				3.30	10060																					
	<i>Each</i>																										
10061	Punch small hole for nail, screw and the like through any type of sheet metal not thicker than 3 mm.....				1.00	10061																					
	Execute the following welding including providing all plant, welding rods, etc., filing weld on completion and preparing and chamfering ends, edges and surfaces to be welded as required : -																										
	<i>Per linear metre</i>																										
10062	Fillet weld in lengths n.e. 300 mm at connections (net length of fillet measured - allowance made for angles, etc.).....				124.40	10062																					
10063	Fillet seam weld in lengths n.e. 300 mm at lapped joints (ditto).....				103.70	10063																					
10064	Single butt weld in lengths exceeding 300 mm at butt joints and connections (net length of joint measured on one face only).....				124.40	10064																					
10065	Double butt weld in lengths exceeding 300 mm when ordered at butt joints and connections where metal exceeds 6 mm thick (net length of joint measured on both faces).....				103.70	10065																					
	<i>Each</i>																										
10066	Spot weld end of wire or rod n.e. 12 mm diameter, or bar n.e. 50 mm girth, and the like.....				6.30	10066																					

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
		A \$	B \$	C \$	D \$	
GALVANIZED MILD STEEL						
	<i>Per kg</i>					
10067	Round rods, square rods, flat bars, plates, chequer plates, angle sections, tee sections, universal beams, columns, channels or "I" joists.....	22.60	5.80	6.60	10.90	10067
10068	Rectangular, square or circular hollow sections excluding galvanized mild steel tubing.....	23.70	5.80	6.60	10.90	10068
10069	Water bar.....	26.20	4.20	5.80	12.10	10069
10070	Wall tie, frame holdfast, single piece ceiling hanger or bracket, and the like.....	31.00	6.60	9.10	15.40	10070
10071	Composite ceiling hanger, bracket and the like of two or more pieces including assembling, supplying and fixing nuts, bolts and washers, or welding.....	29.70	4.90	6.60	14.30	10071
10072	Chains, including hooks, rings, shackles, etc., complete.....	33.30	4.20	5.80	4.40	10072
10073	Flat/formed sheet covering.....	29.70	4.20	5.80	12.10	10073
10074	Perforated flat or formed sheet covering.....	22.60	4.20	5.80	12.10	10074
10075	Sheet lining to brick or concrete duct, sheet covering to roofs, domes, etc., including all rolls, welts, flashings and the like, sheet as ducting, sheet as pipes, gutters, funnels, hoods, chimney cowls, roof plates and the like, sheet in square or rectangular tanks, storage cisterns and the like, and including angle stiffeners, corner plates and cover.....	40.40	4.90	8.30	14.30	10075
10076	Ventilator formed to detail (gross weight measured).....	43.90	4.90	8.30	13.80	10076
10077	Stopcock or meter box and the like with hinged or loose lid to detail (ironmongery measured separately).....	26.20	4.90	8.30	15.40	10077
	<i>Each</i>				A \$	
10078	16 mm Diameter dowel 75 mm long including letting 40 mm in a frame, cutting mortice in concrete floor or paving if required, and grouting in and making good.....				11.50	10078
		Diameter (mm)				
		40	50	65	75	
	Thickness (mm)	1.00	1.00	1.26	1.26	
	<i>Each</i>	A \$	B \$	C \$	D \$	
10079	Single sided round toothed timber connector plate holed for bolt (measured separately) and fixing.....	8.40	8.90	9.30	9.70	10079
10080	Double sided ditto.....	11.90	12.40	12.90	13.40	10080

Item					Item	
GALVANIZED STEEL WINDOWS AND GLAZED DOORS						
Galvanized steel windows and glazed doors (all glazing measured separately) : -						
<i>Per square metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10081	Galvanised steel window medium sections.....	854.20	31.50	33.20	61.50	10081
10082	Extra over Item 10081 for openable portions.....	449.30	-	-	-	10082
10083	Galvanised steel window large (38 mm) sections.....	1,020.40	37.30	39.80	73.60	10083
10084	Extra over Item 10083 for openable portions.....	533.70	-	-	-	10084
10085	Galvanised steel door medium sections.....	735.80	29.00	29.90	54.90	10085
10086	Extra over Item 10085 for openable portions.....	381.30	-	-	-	10086
10087	Galvanised steel door large (38 mm) sections.....	875.40	33.90	35.60	66.00	10087
10088	Extra over Item 10087 for openable portions.....	453.20	-	-	-	10088
FIRE RESISTING GALVANIZED STEEL WINDOWS						
Approved fire resisting galvanised steel windows and glazed with and including clear tempered glass panels tested in accordance with BS 476: Part 20-24 including any finish : -						
<i>Per square metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10089	Galvanised steel window with 1 hour FRR.....	2,743.50	58.30	61.10	108.70	10089
10090	Ditto with 2 hour FRR.....	3,200.70	58.30	61.10	108.70	10090
REPAIRS TO GALVANIZED STEEL WINDOWS AND DOORS						
<i>Per linear metre</i>						
					A \$	
10091	Coupling mullion for window complete with mastic for assembly.....				54.90	10091
10092	Coupling mullion for door or side light ditto.....				54.90	10092
10093	Coupling transom for window ditto.....				58.20	10093
10094	Coupling transom for door or side light with ventilator over ditto.....				61.70	10094
<i>Per square metre</i>						
10095	Take down and clear away openable sash, ventilator, window or door of any size or section including cutting hinges away from frame.....				13.20	10095
10096	Take down and set aside for re-use ditto.....				10.80	10096
10097	Fix only openable sash, ventilator, window or door of any size or section to existing frame including welding or riveting hinges.....				22.40	10097

Item						Item
REPAIRS TO GALVANIZED STEEL WINDOWS AND DOORS (CONT'D)						
	<i>Each</i>				A \$	
10098	Oil only hinges and fittings to openable sash, ventilator, window or door.....				4.20	10098
10099	Weld joint, corner, etc., of sash, ventilator, window, door or frame.....				16.60	10099
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
	<i>Per kg</i>					
10100	Galvanized steel glazing bar of any diameters.....	24.30	4.20	5.80	13.20	10100
10101	Galvanized steel channel bead fixed to existing window and door.....	28.10	4.30	7.00	16.50	10101
	<i>Each</i>					
10102	Pair of butt hinges n.e. 75 mm long.....	40.80	10.00	-	22.00	10102
10103	Pair of projecting hinges (for metal casement).....	68.60	11.00	-	27.40	10103
10104	Barrel bolt n.e. 150 mm long with socket.....	45.60	10.00	-	24.20	10104
10105	Ditto but 150 - 300 mm long ditto.....	71.30	10.00	-	25.20	10105
10106	Mortice lock with staple including labelling keys.....	217.00	24.10	32.40	73.60	10106
10107	Set of lever handle furniture.....	119.00	7.90	10.00	22.00	10107
10108	75 mm Cleat hook.....	19.00	2.50	-	5.50	10108
10109	Spring catch with ring and staple.....	46.90	4.20	5.80	9.90	10109
10110	Staple only.....	18.90	1.70	-	4.40	10110
10111	Screw eye.....	11.70	1.70	-	3.30	10111
10112	Casement fastener with 115 mm handle and two point nose.....	49.10	4.20	4.90	22.00	10112
10113	Two throw casement fastener with 115 mm handle and steel connecting rod.....	129.00	8.30	10.10	43.90	10113
10114	Casement stay of sliding bar type n.e. 300 mm long.....	69.40	5.80	7.40	13.20	10114
10115	Casement stay with two stud pins n.e. 300 mm long.....	37.80	5.80	6.60	12.10	10115
10116	Single stud pin only.....	10.10	1.70	-	3.30	10116
10117	Set of sliding shoes, pivots and friction side arms for projecting casement.....	123.00	5.80	6.60	13.20	10117
10118	Pair of fanlight roller stays.....	57.70	3.40	4.20	5.50	10118
10119	Through-the-frame type fanlight stay.....	79.70	2.50	2.50	4.40	10119
10120	Roto-operator opening and closing mechanism with handle.....	173.00	2.50	3.40	5.50	10120
10121	Fanlight opener with 300 mm rack and pinion, worm wheel, pulley and endless cord.....	128.00	16.60	19.90	29.70	10121
10122	Ditto but with 375 mm long rack and pinion.....	202.00	17.40	20.80	30.70	10122

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
GALVANIZED STEEL SHEET CLADDING (FACE WORK OTHER THAN ROOFING)						
<i>Per square metre</i>		A \$	B \$	C \$	D \$	
10123	Corrugated steel sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to timber or steel framing (measured separately).....	96.10	5.80	14.90	26.40	10123
10124	Ditto but 0.60 - 0.80 mm thick.....	101.30	5.80	15.70	27.40	10124
10125	Ditto but 0.80 - 1.00 mm thick.....	116.60	6.60	16.60	30.70	10125
<i>Per linear metre</i>						
10126	Drip or flashing n.e. 0.60 mm thick and up to 150 mm girth fixed over door or window head, lapped 150 mm at end laps (measured net).....	20.10	1.70	4.20	7.60	10126
10127	Ditto but 0.60 - 0.80 mm thick.....	22.00	1.70	4.20	7.60	10127
10128	Ditto but 0.80 - 1.00 mm thick.....	25.50	2.50	4.90	8.90	10128
PROPRIETARY PROFILED STEEL SHEET CLADDING (FACE WORK OTHER THAN ROOFING)						
Proprietary profiled steel sheet cladding, trapezoidal ribbed, roll-formed walling profile; has bold, widely spaced ribs and is formed from steel; minimum base metal thickness is 0.42 mm (BMT), grade of steel G550 (550 N/mm yield strength); coating class AZ150, total coated thickness in 0.47 mm (TCT); and available in a range of steel paint systems and colours :-		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
<i>Per square metre</i>		A \$	B \$	C \$	D \$	
10129	0.47 mm Thick proprietary profiled steel sheet cladding fixed to timber or steel framing (measured separately).....	448.50	4.90	10.80	20.90	10129
Proprietary profiled steel sheet cladding, roll-formed from steel, lock-action rib for positive concealed clip fixing; profile with an effective cover width of 406 mm and a rib height of 41 mm; minimum base metal thickness is 0.48 mm (BMT), grade of steel G550 (550 N/mm yield strength); coating class AZ150, total coated thickness in 0.53 mm (TCT); and available in a range of steel paint systems and colours :-						
<i>Per square metre</i>						
10130	0.53 mm Thick proprietary profiled steel sheet cladding fixed to timber or steel framing (measured separately).....	541.80	4.90	10.80	22.00	10130
10131	Ditto but 0.65 mm thick.....	608.90	5.80	11.60	23.00	10131
<i>Each</i>					A \$	
10132	Cut hole through existing sheet cladding for pipes or articles in any size and thickness.....				22.30	10132

Item					Item	
GALVANIZED MILD STEEL TUBING						
<i>Per linear metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10133	15 mm Bore medium series galvanized mild steel tubing.....	35.70	2.50	3.40	8.90	10133
10134	20 mm Ditto.....	46.50	3.40	4.20	11.00	10134
10135	25 mm Ditto.....	65.50	4.20	4.90	14.30	10135
10136	32 mm Ditto.....	82.60	4.90	5.80	17.50	10136
10137	40 mm Ditto.....	97.30	6.60	7.40	23.00	10137
10138	50 mm Ditto.....	142.10	9.10	11.60	29.70	10138
10139	80 mm Ditto.....	236.90	12.50	14.90	38.60	10139
10140	100 mm Ditto.....	309.70	14.20	17.40	43.90	10140
10141	150 mm Ditto.....	453.80	16.60	19.90	51.60	10141
	Add to either of Items 10133 to 10141 inclusive for bending to radius n.e. 15.00 m.....	5%	-	-	-	
GALVANIZED STEEL WIRE ROPE, ETC.						
<i>Per linear metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10142	3 mm Diameter flexible galvanized steel wire rope in flagstaff guys and the like including all binding and splicing, and splicing to existing rope.....	12.40	1.70	2.50	4.40	10142
10143	4 mm Ditto.....	12.70	1.70	2.50	4.40	10143
10144	6 mm Ditto.....	13.90	1.70	2.50	4.40	10144
10145	8 mm Ditto.....	14.90	2.50	2.50	5.50	10145
10146	10 mm Ditto.....	15.70	2.50	2.50	5.50	10146
<i>Each</i>						
10147	Galvanized steel sail thimble for rope n.e. 6 mm diameter.....	8.20	-	-	-	10147
10148	Ditto but 6 to 10 mm diameter.....	9.10	-	-	-	10148
10149	Galvanized wrought iron "D" shaped shackle with 6 mm diameter metal rod or bolt at centre of bow.....	18.10	1.70	2.50	5.50	10149
10150	Ditto but with 8 mm diameter metal rod or bolt at centre of bow.....	21.50	1.70	2.50	5.50	10150
10151	Ditto but with 10 mm diameter metal rod or bolt at centre of bow.....	21.50	2.50	2.50	5.50	10151
10152	Heavy duty galvanized steel rope strainer with central body, screw hook on one end and screw eye on the other end, 375 mm long overall to take load of 1 tonne.....	52.20	4.90	5.80	11.00	10152
10153	Ditto but 475 mm long overall to take load of 2 tonnes.....	90.40	8.30	10.00	14.30	10153

Item			Take down and clear away	Fix only	Item	
REPAIRS TO GRATES, RANGES, ETC.						
			A	B		
			\$	\$		
10154	Oven or side boiler.....		72.20	223.00	10154	
10155	Set of front bars, bottom grating, pair of iron fire cheeks, oven door, damper rod, soot door, smoke box, register plane, falling door, etc.....		9.10	27.40	10155	
STAINLESS STEEL						
(Note : - The following Items 10156 to 10162 inclusive for stainless steel in grade AISI 316 shall only be paid for, if ordered by the Maintenance Surveyor in writing.)						
SHEET METAL WORK						
		Supply and fix		Take down and clear away	Take down and set aside for re-use	Fix only
		AISI 304	AISI 316	C	D	E
		\$	\$	\$	\$	\$
10156	Chequer plate.....	81.60	-	8.30	9.10	20.90
10157	Flat or formed sheet covering.....	80.70	93.50	9.10	10.80	17.50
10158	Perforated flat or formed sheet covering.....	59.80	69.20	7.40	10.80	17.50
10159	Sheet lining to brick or concrete duct, sheet covering to roofs, domes, etc., including all rolls, welts, flashings and the like, sheet as ducting, sheet as pipes, gutters, funnels, hoods, chimney cowls, roof plates and the like, sheet in square or rectangular tanks, storage cisterns and the like, and including angle stiffeners, corner plates and cover.....	100.30	139.50	10.80	13.30	26.40
10160	Ventilator formed to detail (gross weight measured).....	94.30	131.20	10.80	11.60	22.00
METAL SECTIONS						
		Supply and fix			Fix only	
		AISI 304	AISI 316			
		A	B		C	
		\$	\$		\$	
10161	Round rods, square rods, flat bars, plates, angle sections, tees sections, channels and other similar sections.....			85.20	92.50	17.50
10162	Rectangular, square or circular hollow sections.....			91.30	97.50	18.80
						A
						\$
10163	Take down and clear away any of the above sections (Items 10161 to 10162 inclusive).....					5.80
10164	Take down and set aside for re-use (ditto).....					7.40

Item

Item

STAINLESS STEEL (CONT'D)

(Note : - The following Items 10165 to 10168 inclusive for stainless steel in grade AISI 316 shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

METAL SECTIONS (CONT'D)

Each

	Supply and fix		Take down and clear away	Take down and set aside for re-use	Fix only	
	AISI 304	AISI 316				
	A \$	B \$	C \$	D \$	E \$	
10165 Flange plate to 25 mm diameter tubing.....	27.70	30.10	1.70	2.50	5.50	10165
10166 Ditto but to 38 mm diameter tubing.....	37.30	40.50	2.50	3.40	6.60	10166
10167 Ditto but to 50 mm diameter tubing.....	45.20	49.10	2.50	3.40	7.60	10167
10168 Ditto but to 75 mm diameter tubing.....	57.30	62.20	3.40	4.20	8.90	10168

FIRE RESISTING STAINLESS STEEL WINDOWS

Approved fire resisting stainless steel Grade 316 windows and glazed with and including clear tempered glass panels tested in accordance with BS 476 : Part 20-24 :-

Per square metre

	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	A \$	B \$	C \$	D \$	
10169 Stainless steel window with 1 hour FRR.....	5,080.50	58.30	61.10	108.70	10169
10170 Ditto with 2 hour FRR.....	6,350.60	58.30	61.10	108.70	10170

BOLTS AND ANCHOR BOLTS FOR ISOLATED REPAIRS

(Note : - The following Item 10171 inclusive shall only be measured when they are required for replacement in isolated repair items as stipulated in Special Conditions Clauses SC10.13 and SC10.43.)

Per kg

	Supply and fix		
	Stainless steel	Mild steel	
	AISI 304		
	A \$	B \$	
10171 Bolt with nut and washer.....	73.60	22.60	10171

Item							Item	
BOLTS AND ANCHOR BOLTS FOR ISOLATED REPAIRS (CONT'D)								
(Note : - The following Items 10172 to 10177 inclusive shall only be measured when they are required for replacement in isolated repair items as stipulated in Special Conditions Clauses SC10.13 and SC10.43.)								
<i>Each</i>								
		Nominal diameter of shank (mm)						
		6	8	10	12	16	20	
		A	B	C	D	E	F	
		\$	\$	\$	\$	\$	\$	
10172	Steel ragbolt n.e 150 mm long overall.....	8.90	10.90	13.00	14.90	18.80	24.30	10172
10173	Ditto but 150 - 300 mm long overall.....	9.40	11.80	14.10	15.60	19.80	25.60	10173
10174	Steel ragbolt (loose bolt or bolt projecting type) n.e. 150 mm long overall.....	7.50	9.20	11.00	16.00	30.80	45.30	10174
10175	Ditto but 150 - 300 mm long overall.....	10.80	13.30	15.70	19.60	33.70	55.40	10175
10176	Non-drilling or self drilling anchor bolt of any length.....	7.40	8.30	10.10	11.90	17.10	23.30	10176
10177	Stud anchor bolt of any length.....	9.10	9.30	10.00	13.40	20.90	33.40	10177
ALUMINIUM SHEET CLADDING (FACE WORK OTHER THAN ROOFING)								
				Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
				A	B	C	D	
				\$	\$	\$	\$	
	<i>Per square metre</i>							
10178	Corrugated aluminium sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to timber or steel framing (measured separately).....			407.60	5.50	11.00	19.80	10178
10179	Ditto but 0.60 - 0.80 mm thick.....			487.00	5.80	11.60	23.00	10179
10180	Ditto but 0.80 - 1.00 mm thick.....			616.20	6.60	12.50	25.20	10180
	<i>Per linear metre</i>							
10181	Drip or flashing n.e. 0.60 mm thick and up to 150 mm girth fixed over door or window head, lapped 150 mm at end laps (measured net).....			43.50	1.70	4.20	7.60	10181
10182	Ditto but 0.60 - 0.80 mm thick.....			49.90	2.50	4.20	7.60	10182
10183	Ditto but 0.80 - 1.00 mm thick.....			62.40	2.50	4.20	8.90	10183

Item					Item	
ALUMINIUM						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10184	Chequer plate.....	58.90	7.40	9.10	22.00	10184
10185	Flat or formed sheet covering.....	61.60	12.80	10.00	19.80	10185
10186	Perforated flat or formed sheet covering.....	45.60	7.40	10.00	19.80	10186
10187	Sheet as pipes, gutters, funnels, hoods, chimney cowls, roof plates and the like.....	71.30	11.60	14.90	36.30	10187
10188	Ventilator formed to detail (gross weight measured).....	76.10	10.00	12.50	29.70	10188
10189	Round rods, square rods, flat bars, plates, angle sections, tees sections, channels or similar sections.....	79.20	7.40	10.00	18.10	10189
10190	Rectangular, square or circular hollow sections.....	84.90	7.40	10.00	19.90	10190
10191	Segmental or moulded edge trim in any thickness.....	62.50	10.00	12.50	25.20	10191
ALUMINIUM WINDOWS AND GLAZED DOORS						
Aluminium windows and glazed doors (all glazing measured separately) : -						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10192	Aluminium window.....	1,645.50	24.80	25.70	66.00	10192
10193	Extra over Item 10192 for openable portions.....	296.30	-	-	-	10193
10194	Aluminium door.....	1,513.20	22.40	23.30	58.20	10194
10195	Extra over Item 10194 for openable portions.....	241.00	-	-	-	10195

Item						
	FIRE RESISTING ALUMINIUM WINDOWS					
	Approved fire resisting aluminium windows and glazed with and including clear tempered glass panels tested in accordance with BS 476 : Part 20-24 : -					
	<i>Per square metre</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10196	Aluminium window with 1 hour FRR.....	3,657.90	58.30	61.10	108.70	10196
10197	Ditto with 2 hour FRR.....	3,962.80	58.30	61.10	108.70	10197
	REPAIRS TO ALUMINIUM WINDOWS AND DOORS					
	<i>Per linear metre</i>				A \$	
10198	Coupling mullion for window complete with mastic for assembly.....				54.90	10198
10199	Coupling mullion for door or side light ditto.....				54.90	10199
10200	Coupling transom for window ditto.....				58.20	10200
10201	Coupling transom for door or side light with ventilator over ditto.....				61.70	10201
10202	Positive pressure neoprene gasket seal.....				10.80	10202
10203	Neoprene wiping primary seal.....				16.70	10203
10204	Glazing gasket for fixing.....				8.20	10204
	<i>Per square metre</i>					
10205	Take down and clear away openable sash, ventilator, window or door of any size or section including cutting hinges away from frame.....				13.20	10205
10206	Take down and set aside for re-use ditto.....				10.80	10206
10207	Fix only openable sash, ventilator, window or door of any size or section to existing frame including welding or riveting hinges.....				22.40	10207
	<i>Each</i>					
10208	Oil only hinges and fittings to openable sash, ventilator, window or door.....				4.20	10208
10209	Weld joint, corner, etc., of sash, ventilator, window, door or frame.....				16.60	10209

Item					Item	
REPAIRS TO ALUMINIUM WINDOWS AND DOORS (CONT'D)						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
	<i>Per linear metre</i>					
10210	Aluminium glazing bar of any diameters.....	24.30	4.20	5.80	13.20	10210
10211	Aluminium channel bead fixed to existing window and door.....	28.10	4.30	7.00	16.50	10211
	<i>Each</i>					
10212	Pair of butt hinges n.e. 75 mm long.....	40.80	9.10	11.60	13.20	10212
10213	Pair of locally manufactured sliding shoes 200 to 400mm long, pivots and friction side arms for projecting windows.....	174.00	28.20	34.80	40.70	10213
10214	Ditto but 400 - 600 mm long.....	298.00	48.10	59.70	67.00	10214
10215	Pair of patent sliding shoes 200 to 400 mm long, pivots and friction side arms for projecting windows.....	288.00	22.40	27.40	40.70	10215
10216	Ditto but 400 - 600 mm long.....	490.00	38.10	47.30	67.00	10216
10217	Barrel bolt n.e. 150 mm long.....	45.60	7.40	10.00	14.30	10217
10218	Ditto but 150 - 300 mm long.....	71.30	7.40	10.00	15.40	10218
10219	Flush bolt n.e. 150 mm long.....	63.10	7.40	9.10	15.40	10219
10220	Ditto but 150 - 300 mm long.....	76.40	7.40	10.00	14.30	10220
10221	Cam catch.....	53.50	3.40	4.20	9.90	10221
10222	Mortice lock with brass dead bolt and spring bolt, striking plate and four lever mechanism including labelling keys.....	170.00	24.10	31.50	74.60	10222
10223	Set of lever handle furniture.....	108.00	6.60	9.10	23.00	10223
10224	Mortice lock with brass expanding claw bolt for sliding door and flush furniture.....	190.00	23.30	30.70	74.60	10224
10225	Casement fastener with 115 mm handle and standard wedge plate.....	49.10	9.10	11.60	23.00	10225

Item					Item	
REPAIRS TO ALUMINIUM WINDOWS AND DOORS (CONT'D)						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
10226	Two throw ditto with steel connecting rod.....	103.00	18.20	23.30	45.00	10226
10227	Through-the-frame type casement fastener.....	69.70	12.50	15.70	29.70	10227
10228	Two throw ditto with steel connecting rod.....	152.00	18.20	24.10	45.00	10228
10229	Casement stay of sliding bar type n.e. 300 mm long.....	69.50	5.80	6.60	13.20	10229
10230	Casement stay with two stud pins n.e. 300 mm long.....	41.10	6.60	7.40	13.20	10230
10231	Set of adjustable rollers to suit sliding windows including all necessary guide, etc.....	126.00	15.70	21.60	51.60	10231
10232	Ditto but for sliding door.....	152.00	15.70	22.40	53.80	10232
10233	100 mm Pull handle.....	33.80	4.20	4.90	8.90	10233
10234	100 mm Flush pull handle.....	51.90	4.20	4.90	9.90	10234
BRASS						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
	<i>Per kg</i>					
10235	Casting, trimmed from mould, rough filed, drilled and countersunk as required.....	106.10	5.80	6.60	14.30	10235
10236	Ditto but fine filed, buffed and polished, drilled and countersunk, turned, threaded and brazed as required.....	119.80	5.80	6.60	14.30	10236
10237	Strip set in screed or paving as dividing strip.....	116.60	5.80	6.60	12.10	10237
10238	Ditto but bent in addition at expansion joints.....	138.40	5.80	6.60	13.20	10238
10239	Flat or formed sheet covering.....	120.50	5.80	6.60	12.10	10239
10240	Sheet covering to roofs, domes, etc., including all rolls, welts, flashings and the like, sheet as pipes, gutters, hoods, chimney cowls, roof plates and the like and sheet as square or rectangular tanks, storage cisterns, etc., including all stiffeners, corner plates and covers.....	140.80	12.50	15.70	30.70	10240
10241	Ventilator formed to detail (gross weight measured).....	137.00	11.60	14.90	27.40	10241

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
	COPPER	A	B	C	D	
	<i>Per kg</i>	\$	\$	\$	\$	
10242	Casting, trimmed from mould, rough filed, drilled and countersunk as required, including making pattern and preparing mould.....	143.10	5.80	6.60	14.30	10242
10243	Ditto but fine filed, buffed and polished, drilled and countersunk, turned, threaded and brazed as required.....	148.30	5.80	6.60	14.30	10243
10244	Flat or formed sheet covering.....	163.50	5.80	6.60	12.10	10244
10245	Sheet covering to roofs, domes, etc., including all rolls, welts, flashings and the like, sheet as pipes, gutters, hoods, chimney cowls, roof plates and the like and sheet as square or rectangular tanks, storage cisterns, etc., including all stiffeners, corner plates and covers.....	184.00	12.50	15.70	31.90	10245
10246	Ventilator formed to detail (gross weight measured).....	178.80	11.60	14.90	28.70	10246
	ROLLER SHUTTERS					
	Supply and fix manually operated roller shutters to suit any opening by an approved roller shutter manufacturer : -					
	<i>Per square metre</i>	A	B	C	D	
		\$	\$	\$	\$	
10247	Galvanised mild steel rolling shutter.....	1,206.60	206.60	265.50	521.80	10247
10248	Extra over Item 10247 for wicket door.....	434.40	-	-	-	10248
10249	Stainless steel rolling shutter with hair line finish or mirror finish.....	2,143.40	206.60	265.50	521.80	10249
10250	Extra over Item 10249 for wicket door.....	695.20	-	-	-	10250
10251	Stainless steel link grilles shutters.....	1,857.50	206.60	265.50	521.80	10251
10252	Stainless steel semi-grilles shutters with hair line finish or mirror finish.....	2,784.90	206.60	265.50	521.80	10252
10253	Aluminium rolling shutters.....	1,257.40	206.60	265.50	521.80	10253
10254	Extra over Item 10253 for wicket door.....	452.60	-	-	-	10254

Item						
	ROLLER SHUTTERS (CONT'D)					
	Supply and fix manually operated roller shutters to suit any opening by an approved roller shutter manufacturer : - (Cont'd)					
	<i>Per square metre</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
10255	Aluminium link grilles shutters.....	1,729.20	206.60	265.50	521.80	10255
10256	Aluminium semi-grilles shutters.....	1,936.30	206.60	265.50	521.80	10256
	Supply and fix electrically operated roller shutters to suit any opening by an approved roller shutter manufacturer including provision of connection to nearest power point by a registered electrical worker : -					
	<i>Per square metre</i>					
10257	Galvanised mild steel rolling shutter.....	1,600.40	257.20	331.80	659.10	10257
10258	Extra over Item 10257 for wicket door.....	576.20	-	-	-	10258
10259	Stainless steel rolling shutter with hair line finish or mirror finish.....	2,600.60	257.20	331.80	659.10	10259
10260	Extra over Item 10259 for wicket door.....	843.50	-	-	-	10260
10261	Stainless steel link grilles shutters.....	2,457.70	257.20	331.80	659.10	10261
10262	Stainless steel semi-grilles shutters with hair line finish or mirror finish.....	3,915.10	257.20	331.80	659.10	10262
10263	Aluminium rolling shutters.....	1,909.00	257.20	331.80	659.10	10263
10264	Extra over Item 10263 for wicket door.....	687.20	-	-	-	10264
10265	Aluminium link grilles shutters.....	2,026.00	257.20	331.80	659.10	10265
10266	Aluminium semi-grilles shutters.....	2,181.80	257.20	331.80	659.10	10266

Item						Item
	TRANSPARENT SHUTTERS					
	Supply and fix transparent security roller shutter manually operated constructed with UV-resistant and top grade polycarbonate panels, aluminium extruded frame and support, complete with housing, track mechanism and accessories, by an approved roller shutter manufacturer : -					
	<i>Per square metre</i>					
10267	Transparent security roller shutter.....	2,772.00	273.80	381.60	626.10	10267
10268	Extra over Item 10267 for wicket door.....	998.90	-	-	-	10268
	SUNDRIES FOR SHUTTERS					
	<i>Per linear metre</i>					
10269	Shutter hood, galvanized mild steel including access door and all necessary ironmongery.....	1,361.60	273.80	381.60	615.10	10269
10270	Ditto but stainless steel, hair line finish or mirror finish.....	2,418.60	273.80	381.60	615.10	10270
10271	Ditto but aluminium.....	1,981.50	273.80	381.60	615.10	10271
10272	Typhoon shutter guide with locking device.....	478.10	55.50	77.10	124.10	10272
	Replacement parts only : -					
	<i>Per set</i>					
10273	Lock and malleable iron shoot bolts.....	334.80	15.70	19.10	46.20	10273
10274	Coil spring with barrel, shutter n.e. 2.4 m width.....	1,753.30	47.30	60.90	75.90	10274
10275	Add to Item 10274 for each additional 600 mm width of shutter or part thereof in width.....	469.40	11.60	14.90	18.80	10275
10276	Pair of aluminium guide rail, shutter n.e. 2.4 m height.....	1,753.30	55.50	77.10	124.10	10276
10277	Add to Item 10276 for each additional 600 mm height of shutter or part thereof in height.....	468.30	14.20	19.10	30.70	10277

Item						
	SUNDRIES FOR SHUTTERS (CONT'D)					
	Replacement parts only : - (Cont'd)					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
	<i>Per set</i>					
10278	Pair of stainless steel guide rail, shutter n.e. 2.4 m height.....	3,900.20	55.50	77.10	124.10	10278
10279	Add to Item 10278 for each additional 600 mm height of shutter or part thereof in height.....	975.00	14.20	19.10	30.70	10279
10280	Pair of galvanized mild steel guide rail, shutter n.e. 2.4 m height.....	1,083.90	55.50	77.10	124.10	10280
10281	Add to Item 10280 for each additional 600 mm height of shutter or part thereof in height.....	263.00	14.20	19.10	30.70	10281
	<i>Per square metre</i>					
10282	Slat for galvanised mild steel rolling shutter.....	572.80	132.90	174.10	346.00	10282
10283	Slat for stainless steel rolling shutter with hair line finish or mirror finish.....	796.90	132.90	174.10	346.00	10283
10284	Slat for stainless steel link grilles shutter.....	946.40	132.90	174.10	346.00	10284
10285	Slat for stainless steel semi-grilles shutter with hair line finish or mirror finish.....	996.20	132.90	174.10	346.00	10285
10286	Slat for aluminium rolling shutter.....	772.10	132.90	174.10	346.00	10286
10287	Slat for aluminium link grilles shutter.....	861.00	132.90	174.10	346.00	10287
10288	Slat for aluminium semi-grilles shutter.....	896.60	132.90	174.10	346.00	10288

Item		Supply and fix		Item	
	METAL LOUVRE FRAMES	Galvanized steel with aluminium lacquer or stove baked enamel finish	Plain or anodized aluminium		
	Metal adjustable louvre frames complete with clips, operating handle, etc., and all necessary mullion coupling clips and spacers for 100, 150 or 225 mm glass blades (measured separately), including any assembling, screwing to wood, plugging and screwing to concrete, brick, stone or other jamb or coupled to form mullion, and bedding with and including providing mastic in accordance with the manufacturer's instructions : -				
	Set of two metal adjustable louvre frames complete with clips for glass, operating handle, etc., and any necessary mullion coupling clips and spacers : -				
	<i>Per set</i>	A \$	B \$		
10289	Set of two frames with clips for three 100 mm wide glass blades (285 mm overall height).....	212.00	291.00	10289	
10290	Add to Item 10289 for each additional clip (each additional 90 mm in overall height) or part thereof in height.....	40.60	65.30	10290	
10291	Set of two frames with clips for two 150 mm wide glass blades (300 mm overall height).....	233.00	319.00	10291	
10292	Add to Item 10291 for each additional clip (each additional 140 mm in overall height) or part thereof in height.....	71.00	112.00	10292	
10293	Set of two frames with clips for two 225 mm wide glass blades (440 mm overall height).....	294.00	444.00	10293	
10294	Add to Item 10293 for each additional clip (each additional 200 mm in overall height) or part thereof in height.....	97.70	167.00	10294	
	<i>Per linear metre</i>				
10295	Top weather strip to louvres.....	95.90	129.30	10295	
10296	Bottom ditto.....	99.90	129.30	10296	
		Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Per linear metre</i>	A \$	B \$	C \$	
10297	Set of two frames with clips as above described (net height of each set of two frames measured).....	16.60	34.10	82.40	10297
10298	Top or bottom weather strip.....	4.20	7.40	18.80	10298

Item											Item						
SLOTTED ANGLES																	
Slotted steel angle, rust protected and stove enamelled, fixed complete and including all cutting, fitting, supplying and fixing screws, bolts, nuts, washers, corner stiffeners and rubber pads, plugging to concrete, brick, stone or other surfaces and making good :-							Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only							
<i>Per linear metre</i>							A \$	B \$	C \$	D \$							
10299	36 x 36 x 1.80 mm Slotted angle section in brackets, shelving racks, stands and the like.....						49.90	4.90	10.00	24.20	10299						
10300	40 x 40 x 2.00 mm Ditto.....						55.20	4.90	10.00	24.20	10300						
10301	62 x 41 x 2.00 mm Ditto.....						57.90	4.90	10.00	24.20	10301						
10302	66 x 45 x 2.50 mm Ditto.....						69.00	4.90	10.00	24.20	10302						
STEEL NETTING, MESH AND EXPANDED METAL																	
				Supply and fix					Take down and clear away	Take down and set aside for re-use	Fix only						
Wire (mm)		0.80	1.00	1.00	1.00	1.12											
Mesh (mm)		15	25	30	40	50											
<i>Per square metre</i>				A \$	B \$	C \$	D \$	E \$	F \$	G \$	H \$						
10303	Galvanized iron wire netting lapped 75 mm at joints and bedded in floor screeds, paving, etc.....						11.90	11.70	10.90	10.50	10.10	-	-	6.60	10303		
10304	Ditto but fixed to walls, wall lining or other vertical surfaces as key for plaster or screeds.....						14.20	13.90	13.20	12.60	12.30	-	-	8.90	10304		
10305	Ditto but fixed to soffits, or sides and soffits of beams as key for plaster or screeds.....						16.40	16.00	15.40	14.80	14.40	-	-	11.00	10305		
10306	Ditto but fixed to timber, concrete or steel posts or framing (measured separately) in fencing, gates, shelving, grilles, panels and the like.....						18.50	18.20	17.50	17.10	16.60	3.40	5.80	12.10	10306		
				Supply and fix					Take down and clear away	Take down and set aside for re-use	Fix only						
		Straight lattice mesh			Diamond mesh												
Wire (mm)		1.40	1.80	2.24	2.50	1.60	2.00	2.50									
Mesh (mm)		5	10	13	16	25	30	40									
<i>Per square metre</i>				A \$	B \$	C \$	D \$	E \$	F \$	G \$	H \$	I \$	J \$				
10307	Galvanized steel wire woven mesh fixed to timber, concrete or steel posts or framing (measured separately) in fencing, gates, shelving, grilles, panels and the like.....						68.60	64.60	69.80	70.50	45.70	47.20	49.10	4.20	8.30	17.50	10307

Item											Item										
10308	STEEL NETTING, MESH AND EXPANDED METAL (CONT'D)										10308										
					Supply and fix				Take down and clear away	Take down and set aside for re-use		Fix only									
					Wire (mm)	1.20	1.20	1.20					1.50								
					Mesh (mm)	12 x 12	12 x 25	25 x 25	50 x 50	A		B	C	D	E	F	G				
<i>Per square metre</i>											\$	\$	\$	\$	\$	\$	\$				
Galvanized steel welded wire mesh fixed to timber, concrete or steel posts or framing (measured separately) in fencing, gates, shelving, racks, screens, window guards, etc., including all galvanized staples, screws, typing wire and the like (measured net).....											44.20	41.90	39.00	38.00	3.40	5.80	12.10				
10309	Supply and fix										Take down and clear away	Take down and set aside for re-use	Fix only								
	AISI 304				AISI 316																
	Wire (mm)		2	3	3	4	2	3	3	4	I	J	K								
	Mesh (mm)		12 x 12	15 x 15	40 x 40	40 x 40	12 x 12	15 x 15	40 x 40	40 x 40				\$	\$	\$					
<i>Per square metre</i>											\$	\$	\$	\$	\$	\$	\$				
Stainless steel welded wire mesh fixed to timber, concrete or steel posts or framing (measured separately) in fencing, gates, shelving, racks, screens, window guards, etc., including all galvanized staples, screws, typing wire and the like (measured net).....											383.60	514.30	197.60	344.20	635.50	787.70	302.60	527.30	3.40	5.80	12.10
10310	Supply and fix										Take down and clear away	Take down and set aside for re-use	Fix only								
					Wire (mm)	2.50	3.15	5.30	4.00												
					Mesh (mm)	25 x 75	25 x 75	25 x 75	75 x 75	A	B	C	D	E	F	G					
	<i>Per square metre</i>											\$	\$	\$	\$	\$	\$	\$			
Steel wire mesh fixed to timber, concrete or steel posts or framing (measured separately) in fencing, gates, shelving, grilles, panels and the like (measured net).....											54.10	57.00	50.80	51.60	3.40	5.80	12.10				
Ditto but galvanized (ditto).....											57.00	59.50	53.10	70.50	4.20	6.60	13.20				

Item	STEEL NETTING, MESH AND EXPANDED METAL (CONT'D)										Item						
	<i>Per square metre</i>							Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only						
							A	B	C	D							
							\$	\$	\$	\$							
10312	Plastic dipped metal netting fixed to timber, concrete or steel posts or framing (measured separately) in fencing, gates, shelving, grilles, panels and the like (measured net).....							71.10	3.40	5.80	12.10	10312					
							<i>Per square metre</i>										
							<i>Supply and fix</i>										
							Take down and clear away	Take down and set aside for re-use	Fix only								
							Mesh (mm)	10	22	25	34	50	76				
							Weight (kg/m ²)	1.60	1.95	2.22	2.00	3.11	3.80				
							A	B	C	D	E	F	G	H	I		
							\$	\$	\$	\$	\$	\$	\$	\$	\$		
10313	Expanded metal fixed to timber, concrete, or steel posts or framing (measured separately) in fencing gates, shelving, grilles, panels and the like (measured net).....							58.20	71.00	80.90	72.80	113.30	138.40	4.20	6.60	16.50	10313
10314	Ditto but galvanised (ditto).....							73.80	90.00	102.40	92.20	143.40	175.30	4.20	6.60	16.50	10314
							<i>Per square metre</i>										
							<i>Supply and fix</i>										
							Take down and clear away	Take down and set aside for re-use	Fix only								
							Mesh (mm)	77	30.48	38.10							
								x	x	x							
								34	13	16.93							
							Weight (kg/m ²)	5.91	7.38	12							
							A	B	C	D	E	F					
							\$	\$	\$	\$	\$	\$					
10315	Proprietary expanded metal mesh for security fencing with hot dip galvanized finish complied to BS EN ISO 1461.....							280.30	285.30	364.00	4.20	7.40	16.50	10315			

Item									Item	
CHAIN LINK FENCING										
		Supply and fix				Take down and clear away	Take down and set aside for re-use	Fix only		
		Wire (mm)	2.50	3.00	3.00				3.00	4.00
		Mesh (mm)	40	75	50	40	50			
		A	B	C	D	E	F	G	H	
		\$	\$	\$	\$	\$	\$	\$	\$	
10316	Galvanized steel chain link fencing fixed to timber, concrete or steel posts or framing (measured separately) in fencing, gates and the like.....	33.70	34.10	43.70	56.30	74.20	3.40	5.80	12.10	10316
10317	Stainless steel chain link fencing ditto.....	135.60	133.80	144.90	174.90	200.30	3.40	5.80	12.10	10317
Per square metre										
		Supply and fix				Take down and clear away	Take down and set aside for re-use	Fix only		
		Wire (mm)	3.00	3.00	2.50				2.50	
		Mesh (mm)	75	50	40	25				
		A	B	C	D	E	F	G		
		\$	\$	\$	\$	\$	\$	\$		
10318	P.V.C. coated galvanised steel chain link fencing fixed to timber, concrete or steel posts or framing (measured separately) in fencing, gates and the like.....	45.30	54.00	42.70	72.70	72.70	3.40	5.80	12.10	10318
BARBED WIRE OR TAPE										
						Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
						A	B	C	D	
						\$	\$	\$	\$	
10319	Galvanised barbed wire formed from 2 strands of 2.5 mm mild steel line wires and 2 mm mild steel pointed wires with set of two barbs at 125 mm centres, strained tight and fixed to fence top and steel posts including all necessary tying wire, staples and the like (measured straight).....					4.60	0.80	1.70	4.40	10319
10320	Ditto but with sets of four barbs at 75 mm centre (measured straight).....					5.80	0.80	1.70	4.40	10320
10321	Extra over either of Items 10319 to 10320 inclusive for forming into coils of any diameter.....					5.80	-	-	5.50	10321
10322	Extra over either of Items 10319 to 10320 inclusive for hand weaving into woven mat.....					5.80	-	-	5.50	10322
10323	Proprietary stainless steel razor barbed wire fence top and steel posts with any diameter coils including all necessary stainless steel wire (measured straight).....					23.20	3.40	5.80	13.20	10323
10324	Proprietary stainless steel barbed wire fence top and steel posts with any diameter coils including all necessary stainless steel wire (measured straight).....					23.20	3.40	5.80	13.20	10324

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
FIXING BOLTS FOR ISOLATED REPAIRS TO SECURITY FENCING						
(Note :- The following Items 10325 to 10330 inclusive shall only be measured when they are required for replacement in isolated repair to security fencing as stipulated in Special Conditions Clauses SC10.13 and SC10.43.)						
<i>Each</i>		A \$	B \$	C \$	D \$	
10325	Fixing bolt with shear nuts and washers 6 mm diameter.....	10.10	2.50	3.40	5.50	10325
10326	Ditto but 8 mm diameter.....	11.90	2.50	3.40	5.50	10326
10327	Ditto but 10 mm diameter.....	14.60	3.40	2.50	6.60	10327
10328	Ditto but 12 mm diameter.....	16.90	3.40	2.50	6.60	10328
10329	Ditto but 16 mm diameter.....	23.30	3.40	4.20	7.60	10329
10330	U-bolt, hot dip galvanized with clamp plate and security shear nut.....	49.50	3.40	4.20	7.60	10330
GALVANIZING, ELECTRO-PLATING AND CHROMIUM PLATING						
(Note :- The following Items 10331 to 10334 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)						
<i>Each</i>		A \$	B \$	C \$	D \$	
10331	Steel or cast iron articles complete with nuts, bolts or other fixing accessories, n.e. 1 kg (weight of composite items measured) each in total weight.....	8.90	9.90	11.20	25.20	10331
10332	Ditto but brass or copper articles.....	-	-	-	20.80	10332
<i>Per kg</i>						
10333	Steel or cast iron articles complete with nuts, bolts or other fixing accessories, 1 - 13 kg (weight of composite items measured) each in total weight.....	6.30	7.20	8.10	22.40	10333
10334	Ditto but exceeding 13 kg ditto.....	3.30	3.60	4.00	11.50	10334

Item		Supply and fix	Item
PROPRIETARY FIRE PROTECTION ENCLOSURE AND CEILING SYSTEM			
Proprietary fire protection enclosure and ceiling system complying with BS 476 : Parts 20-24 and statutory requirements, complete with fire resisting boarding/material to all exposed surfaces, steel framings, insulation, and all necessary accessories in accordance with the manufacturer's recommendations including providing test certificates : -		A	
<i>Per square metre</i>		\$	
10335	Proprietary fire protection enclosure of non-combustible matrix engineered mineral boards, 1 hour FRR (finishes measured separately).....	628.70	10335
10336	Ditto but 2 hour FRR (ditto).....	783.50	10336
10337	Ditto but 4 hour FRR (ditto).....	987.20	10337
10338	Proprietary fire protection enclosure of non-combustible calcium silicate board reinforced with selected fibres and fillers. The board has smooth surface on one face and a lightly textured sanded surface on the other, 1 hour FRR (finishes measured separately).....	813.60	10338
10339	Ditto but 2 hour FRR (ditto).....	915.30	10339
10340	Proprietary fire protection enclosure of non-combustible calcium silicate board reinforced with selected fibres and fillers. The board has smooth finish on both faces, 4 hour FRR (finishes measured separately).....	1,118.70	10340
10341	Proprietary fire protection enclosure of non-combustible composite panel of fibre reinforced cement, mechanically bonded to punched steel sheet on both surfaces, 1 hour FRR (finishes measured separately).....	915.30	10341
10342	Ditto but 2 hour FRR (ditto).....	1,220.40	10342
10343	Ditto but 4 hour FRR (ditto).....	1,525.50	10343
10344	Proprietary fire protection enclosure of non-combustible board manufactured with a fibre reinforced cement core with outer facing of perforated galvanized steel or other suitable materials mechanically bonded to each surface of the core, 1 hour FRR (finishes measured separately).....	1,627.20	10344
10345	Ditto but 2 hour FRR (ditto).....	1,727.60	10345
10346	Ditto but 4 hour FRR (ditto).....	1,844.30	10346
10347	Take down and clear away any type of fire protection enclosure or ceiling system.....	120.30	10347

Item

Item

FIRE RESISTING DOOR SETS

Approved galvanised mild steel fire resisting door and frame set of specified FRR tested in accordance with BS 476 : Parts 20-23 : -

Per square metre

(Door panel size measured net)

Supply and fix				Take down and clear away	Take down and set aside for re-use	Fix only
FRR						
1/2 hour	1 hour	2 hours	4 hours			
A	B	C	D	E	F	G
\$	\$	\$	\$	\$	\$	\$
3,263.20	3,314.30	3,366.30	4,409.80	37.30	46.40	90.00
2,301.10	2,339.80	2,379.40	3,173.10	29.90	37.30	72.50

10348 Fire resisting door, single leaf..... 10348

10349 Fire resisting door, double leaf..... 10349

FRR			
½ hour	1 hour	2 hours	4 hours
A	B	C	D
\$	\$	\$	\$
149.00	169.00	196.00	293.00
224.00	254.00	294.00	441.00
448.00	508.00	588.00	881.00
194.00	197.00	212.00	278.00
290.00	295.00	318.00	459.00
581.00	590.00	637.00	917.00

Each

10350 Extra over either of Items 10348 to 10349 inclusive for forming observation panel n.e. 0.10 m²..... 10350

10351 Ditto but 0.10 - 0.20 m²..... 10351

10352 Ditto but 0.20 - 0.40 m²..... 10352

10353 Extra over either of Items 10348 to 10349 inclusive for forming louvre n.e. 0.10 m²..... 10353

10354 Ditto but 0.10 - 0.20 m²..... 10354

10355 Ditto but 0.20 - 0.40 m²..... 10355

Approved stainless steel fire resisting door and frame set of specified FRR tested in accordance with BS 476 : Parts 20-23 : -

Per square metre

(Door panel size measured net)

Supply and fix				Take down and clear away	Take down and set aside for re-use	Fix only
FRR						
1/2 hour	1 hour	2 hours	4 hours			
A	B	C	D	E	F	G
\$	\$	\$	\$	\$	\$	\$
6,813.90	8,263.20	8,898.80	10,498.20	37.30	46.40	90.00
6,572.00	7,975.50	8,103.00	9,559.30	29.90	37.30	72.50

10356 Fire resisting door, single leaf..... 10356

10357 Fire resisting door, double leaf..... 10357

Item		FRR				Item
		½ hour	1 hour	2 hours	4 hours	
		A	B	C	D	
		\$	\$	\$	\$	
FIRE RESISTING DOOR SETS (CONT'D)						
Approved stainless steel fire resisting door and frame set of specified FRR tested in accordance with BS 476 : Parts 20-23 : - (Cont'd)						
	<i>Each</i>					
10358	Extra over either of Items 10356 to 10357 inclusive for forming observation panel n.e. 0.10 m².....	149.00	169.00	196.00	293.00	10358
10359	Ditto but 0.10 - 0.20 m².....	224.00	254.00	294.00	441.00	10359
10360	Ditto but 0.20 - 0.40 m².....	448.00	508.00	588.00	881.00	10360
10361	Extra over either of Items 10356 to 10357 inclusive for forming louvre n.e. 0.10 m².....	341.00	345.00	364.00	445.00	10361
10362	Ditto but 0.10 - 0.20 m².....	512.00	517.00	546.00	668.00	10362
10363	Ditto but 0.20 - 0.40 m².....	1,023.00	1,035.00	1,092.00	1,335.00	10363
Approved fire resisting glazed doors and frame set of specified FRR tested in accordance with BS 476 : Parts 20-23 comprising fire resisting clear tempered glass panels and mirror finished stainless steel door frames : -						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
	<i>Per square metre</i> (Door panel size measured net)					
10364	Single leaf door, 1 hour FRR with fire resisting clear tempered glass panels.....	7,561.50	24.10	24.10	46.20	10364
10365	Ditto but double leaf door.....	7,119.10	21.60	21.60	41.70	10365
10366	Single leaf door, 2 hour FRR with fire resisting clear tempered glass panels.....	10,602.20	25.70	25.70	50.60	10366
10367	Ditto but double leaf door.....	10,000.80	24.10	24.10	46.20	10367
	<i>Per linear metre</i>					
10368	Fire and smoke door seals, tested in accordance with BS 476 : Parts 20/22 and BS 476 - 31.1 including any finish	83.50	2.50	4.20	8.90	10368
APPROVED FIRE RESISTING GLAZED PARTITIONS						
Approved fire resisting glazed partition comprising fire resisting glass panels, galvanized mild steel frames, stainless steel beads and clad with stainless steel facing in any finish complying with BS 476 : Parts 20-24 : -						
	<i>Per square metre</i>					
10369	Approved glazed partition with 6 mm thick fire resisting clear tempered glass with 1 hour FRR.....	2,258.30	58.90	90.40	175.70	10369
10370	Ditto but with 12 mm thick fire resisting clear tempered glass with 1 hour FRR.....	2,635.00	68.80	105.30	203.20	10370

Item					Item	
PROPRIETARY FIRE RESISTING PARTITIONS						
Proprietary fire resisting partition wall system comprising steel framing with gypsum board and versatile lining board, composed of calcium silicate and cellulose reinforced fibre, on both sides. The works shall include sealing up head and bottom and joint with tape and compound in accordance with the manufacturer's instructions and complying with BS 476 : Parts 20-24 : -						
<i>Per square metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10371	Proprietary fire resisting partition wall, 1 hour FRR.....	399.60	43.90	58.00	109.80	10371
10372	Ditto, but 2 hour FRR.....	500.30	43.90	58.00	109.80	10372
Proprietary fire resisting partition system comprising steel framing, insulation, and all necessary accessories in accordance with the manufacturer's recommendations and complying with BS 476 : Parts 20-24 : -						
<i>Per square metre</i>						
10373	Proprietary fire resisting partition comprising non-combustible composite panel of fibre reinforced cement, mechanically bonded to punched steel sheet, 1 hour FRR.....	2,110.60	82.10	126.00	241.70	10373
10374	Ditto but 2 hour FRR.....	2,176.90	82.10	126.00	241.70	10374
10375	Ditto but 4 hour FRR.....	2,527.00	82.10	126.00	241.70	10375
10376	Proprietary fire resisting partition comprising non-combustible calcium silicate board reinforced with selected fibres and fillers. The board has smooth surface on one face and a lightly textured sanded surface on the other, 1 hour FRR.....	1,173.60	104.50	131.10	314.20	10376
10377	Ditto but 2 hour FRR.....	1,358.10	104.50	131.10	314.20	10377
10378	Ditto but 4 hour FRR.....	1,670.50	104.50	131.10	314.20	10378
10379	Proprietary fire resisting partition comprising non-combustible matrix engineered mineral boards, 1 hour FRR, with or without lining.....	1,063.40	104.50	131.10	274.60	10379
10380	Ditto but 2 hour FRR.....	1,219.90	104.50	131.10	274.60	10380
10381	Ditto but 4 hour FRR.....	1,473.10	104.50	131.10	274.60	10381
10382	Proprietary fire resisting partition comprising non-combustible board manufactured with fibre reinforced cement core with outer facing of perforated galvanized steel or other suitable materials mechanically bonded to each surface of the core, 1 hour FRR, with or without lining.....	2,181.60	104.50	131.10	274.60	10382
10383	Ditto but 2 hour FRR.....	2,271.50	104.50	131.10	274.60	10383
10384	Ditto but 4 hour FRR.....	2,621.70	104.50	131.10	274.60	10384

Item		Supply and fix				Take down and clear away	Take down and set aside for re-use	Fix only	Item
FIRE RESISTING ROLLER SHUTTERS									
Fire resisting roller shutters tested in accordance with BS EN 1634-1 to 3 or BS 476 : Parts 20 to 24 comprising framing and shutter hood : -									
		FRR							
		1 hour	2 hours						
		A	B	C	D	E			
		\$	\$	\$	\$	\$			
<i>Per square metre</i>									
10385	Fire resisting roller shutter, galvanized mild steel, electrically operated including provision of connection to nearest power point by registered electrical workers.....	2,272.50	2,425.40	258.10	339.30	659.10		10385	
10386	Fire resisting roller shutter, stainless steel, electrically operated including provision of connection to nearest power point by registered electrical workers.....	3,589.00	3,708.50	258.10	339.30	659.10		10386	
CURTAIN WALLS									
Design, supply, fabricate and install aluminium curtain wall including framing, glazing, infill panels, components and sub-frames : -									
<i>Per square metre</i>									
10387	Aluminium curtain wall.....	4,676.60		341.20	628.30	1,524.80		10387	
10388	Ditto but circular on plan.....	4,972.00		355.40	663.90	1,724.00		10388	
10389	Extra over either of Items 10387 to 10388 inclusive for openable portion.....	370.40		25.60	61.10	115.90		10389	
10390	Extra over either of Items 10387 to 10388 inclusive for louvres.....	711.20		51.20	127.90	235.40		10390	
Design, supply, fabricate and install stainless steel curtain wall including framing, glazing, infill panels, components and sub-frames : -									
<i>Per square metre</i>									
10391	Stainless steel curtain wall.....	5,880.40		341.20	628.30	1,524.80		10391	
10392	Ditto but circular on plan.....	6,251.80		355.40	663.90	1,724.00		10392	
10393	Extra over either of Items 10391 to 10392 inclusive for openable portion.....	469.80		25.60	61.10	115.90		10393	
10394	Extra over either of Items 10391 to 10392 inclusive for louvres.....	971.40		51.20	127.90	235.40		10394	

Item					Item	
PROPRIETARY COMPOSITE ALUMINIUM CLADDING						
Design, supply, fabricate and install proprietary composite aluminium cladding complying with BS476 Part 7; or Class B or above according to BS EN 13501-1; or other equivalent fire classification standards and all in accordance with the manufacturer's instructions :-		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
(Note :- Items 10395 to 10396 inclusive shall only be measured when they are required for replacement of the existing proprietary composite aluminium cladding as stipulated in Special Conditions Clauses SC10.25 and SC10.55(a).)						
<i>Per square metre</i>		A \$	B \$	C \$	D \$	
10395	Cladding minimum 3 mm thick.....	958.40	242.20	428.80	538.20	10395
10396	Ditto but circular on plan.....	1,006.30	254.70	468.60	582.00	10396
Design, supply, fabricate and install proprietary composite aluminium cladding with 70,000 N/mm ² elasticity and minimum 0.006 m ² K/W thermal resistance; complying with BS476 part 4; or Class A1 according to BS EN 13501-1; or other equivalent fire classification standards and all in accordance with the manufacturer's instructions :-						
(Note :- Items 10397 to 10398 inclusive shall only be measured when they are required for new works as stipulated in Special Conditions Clauses SC10.25 and SC10.55(b).)						
<i>Per square metre</i>						
10397	Cladding minimum 4 mm thick.....	1,314.00	242.20	428.80	579.50	10397
10398	Ditto but circular on plan.....	1,441.80	254.70	468.60	633.80	10398
COMPOSITE ALUMINIUM LINING						
Design, supply, fabricate and install composite aluminium lining complying with BS 476 Part 7; or Class B or above according to BS EN 13501-1; or other equivalent fire classification standards and all in accordance with the manufacturer's instructions :-		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
<i>Per square metre</i>		A \$	B \$	C \$	D \$	
10399	Lining minimum 3 mm thick as internal infill panelling.....	713.00	124.40	166.00	274.60	10399
10400	Ditto but circular on plan.....	738.60	130.60	174.10	288.40	10400
PROPRIETARY AUTOMATIC SWING AND SLIDING DOORS						
Proprietary automatic swing or sliding door system in accordance with the manufacturer's instructions comprising clear tempered glass panels and mirror finished or other finished stainless steel door frames. The works shall include door operator to comply with BS 7036, safety unit, locks and all necessary accessories and provision of connection to nearest power point by registered electrical workers :-					Supply and fix	
<i>Per square metre</i>					A \$	
10401	Proprietary automatic swing door; single leaf door.....				17,136.20	10401
10402	Ditto but double leaf door.....				16,488.50	10402
10403	Proprietary automatic sliding door; single leaf door.....				20,610.60	10403
10404	Ditto but double leaf door.....				18,301.70	10404

Item					Item	
	STRONGROOM DOORS AND FRAMES					
	(Note : - The following Items 10405 to 10407 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)					
	Supply and fix strongroom door and frame, complete with all boltwork, locking, anti-explosive protection and fire protection, in accordance with G.S. Item 22.50 : -					
	<i>Per square metre</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10405	Single leaf Treasury Grade "C" door.....	22,384.00	175.10	321.90	1,032.50	10405
10406	Ditto but Treasury Grade "D".....	19,904.90	147.60	272.10	878.60	10406
10407	Ditto but Treasury Grade "E".....	16,417.50	121.10	222.30	594.10	10407
	FIBREGLASS HOUSE					
	Fibreglass house equipped with windows, door, louvres and all necessary accessories in accordance with the manufacturer's instructions : -					
	<i>Per set</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
10408	Fibreglass house 3 – 4 m³ in volume.....	9,907.00	517.40	39.80	59.70	10408
10409	Ditto 4 - 5 m³ in volume.....	11,377.00	665.30	51.20	76.80	10409
10410	Ditto 5 - 6 m³ in volume.....	15,241.00	813.10	62.60	93.80	10410
10411	Ditto 6 - 8 m³ in volume.....	19,329.00	1,034.90	79.60	119.40	10411
10412	Ditto 8 - 10 m³ in volume.....	20,494.00	1,330.60	102.30	153.50	10412
10413	Add to Item 10412 for each additional 3 m³ or part thereof in volume.....	7,621.00	443.50	34.10	51.20	10413
10414	Add to either of Items 10408 to 10413 inclusive for 150 mm high sun cover n.e. 3 m² on plan.....	7,476.00	100.90	8.50	11.70	10414
10415	Ditto but 3 - 5 m².....	12,783.00	267.30	22.80	28.40	10415
10416	Ditto but 5 - 8 m².....	20,336.00	435.00	37.00	46.90	10416
10417	Ditto but 8 - 11 m².....	27,889.00	635.40	54.00	68.20	10417
10418	Ditto but 11 - 14 m².....	34,862.00	835.90	71.10	89.60	10418
10419	Ditto but 14 - 17 m².....	42,415.00	1,036.30	88.10	110.90	10419
10420	Ditto but 17 - 20 m².....	51,131.00	1,236.70	105.20	132.20	10420
10421	Add to Item 10420 for each additional 5 m² or part thereof in area.....	11,621.00	172.50	28.40	35.50	10421

Item		Total no. of sets			Item
		1 - 5	6 - 20	21 or above	
		A	B	C	
		\$	\$	\$	
MAINTENANCE OF PROPRIETARY FALL ARREST SYSTEM					
(Note : The following Items 10422 to 10426 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)					
<i>Per item per Works Order</i>					
10422	Carry out periodic or ad-hoc examination and certification of existing proprietary fall arrest system by a competent person.....	5,080.00	-	-	10422
10423	Carry out periodic or ad-hoc examination, load test and certification on Class A1 anchor device of existing proprietary fall arrest system by a competent person.....	7,621.00	-	-	10423
<i>Each</i>					
10424	Add to Item 10422 for periodic or ad-hoc examination of each extra set of existing proprietary fall arrest system by a competent person.....	-	1,016.00	915.00	10424
10425	Add to Item 10423 for periodic or ad-hoc examination and load test on each extra set of Class A1 anchor device of existing proprietary fall arrest system by a competent person.....	-	1,524.00	1,371.00	10425
<i>Per item</i>					
10426	Provide operation training of proprietary fall arrest system by a competent trainer for maximum 25 users.....			A \$ 4,128.00	10426
SUPPLY ONLY OF MATERIALS					
MILD STEEL					
<i>Per kg</i>					
10427	Square rods or flat bars, plates, angle sections, tee sections.....			A \$ 8.40	10427
GALVANIZED MILD STEEL					
<i>Per kg</i>					
10428	Flat bars, round rods, square rods, plates, angle sections, tee sections and chequer plates.....			A \$ 13.80	10428
STAINLESS STEEL					
<i>Per kg</i>					
10429	Square or flat bars, round bars, square or rectangular hollow tubes, hollow circular tubes, equal or unequal angle, tee or channel sections.....		AISI 304 A \$ 69.40	AISI 316 B \$ 72.90	10429

Item

Item

SUPPLY ONLY OF MATERIALS (CONT'D)

CAST IRON

Supply only the following cast iron items including making patterns for articles as required (fixing measured in Brickwork and Blockwork Section of this Schedule) :-

Per kg

10430	Combined gate, tree grilles, covers, fireplace surround, mantel, range, damper and frame, soot door, fire door, fireplace fret, fire bar and the like except manhole covers and frames n.e. 6.0 kg in weight each.....	12.20	A \$	10430
10431	Ditto but exceeding 6.0 kg in weight each.....	11.70		10431

NON FERROUS METAL

Per kg

10432	Extruded aluminium sections in square or flat bars, round bars, square or rectangular hollow tubes, hollow circular tubes, equal or unequal angle, tee or channel sections.....	53.30	A \$	10432
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Approved stove enamelled slotted steel angel section complete with fixing screws, bolts, nuts washers and corner stiffeners :-

Per linear metre

10433	36 x 36 x 1.80 mm Slotted angle section.....	29.20		10433
10434	40 x 40 x 2.00 mm Ditto.....	35.10		10434
10435	62 x 41 x 2.00 mm Ditto.....	38.80		10435
10436	66 x 45 x 2.50 mm Ditto.....	50.80		10436

EXPANDED METAL

Mesh (mm)	77 x 34	30.48 x 13	38.10 x 16.93	
Weight (kg/m ²)	5.91	7.38	12	
	A \$	B \$	C \$	
10437	Proprietary expanded metal mesh for security fencing with hot dip galvanized finish.....	224.20	228.20 291.20	10437

Per square metre

FENCING

Wire (mm)	2.50	3.00	3.00	3.00	4.00	
Mesh (mm)	40	75	50	40	50	
	A \$	B \$	C \$	D \$	E \$	
10438	Galvanized steel chain link fencing.....	24.40	24.80	35.70	50.00 70.20	10438

Per square metre

Wire (mm)	3.00	3.00	2.50	2.50	
Mesh (mm)	75	50	40	25	
	A \$	B \$	C \$	D \$	
10439	P.V.C. coated galvanized steel chain link fencing.....	37.40	47.40	34.60 68.50	10439

Per square metre

Section 11

PLASTERING AND FINISHES

SECTION 11

PLASTERING AND FINISHES

SPECIAL CONDITIONS

Specification and Drawings	SC11.01	<p>The standard drawings referred to in this Section and listed in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule can be viewed on the internet website via the pathway referred therein. Refer to Section 00 - General Regulations Clause GR.08 for the requirements of the drawings.</p> <p>This Section shall generally be read and used in conjunction with the Specification adopted in the Contract.</p>
Particular Preamble	SC11.02	<p>The term "sand" referred to in this Section shall mean manufactured sand which is defined as a crushed fine aggregate in the Particular Specification for Manufactured Sand for Local Production of Cement Mortar in Plastering, Rendering, Floor Screeding Works.</p> <p>Manufactured sand shall be adopted for local production of cement mortar to be used in plastering, rendering and floor screeding works of all public works contracts. The works related to the use of manufactured sand shall generally be read and used in conjunction with the Particular Specification for Manufactured Sand for Local Production of Cement Mortar in Plastering, Rendering, Floor Screeding Works.</p> <p>Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the said Particular Specification adopted in the Contract for the use of manufactured sand.</p>
Measurement generally	SC11.03	<p>All works shall be measured the net area covered. Unless otherwise stated, no deduction shall be made for voids or openings not exceeding 0.50 m², nor for unbracketed cornice, mouldings and the like of any width. Thickness shall be measured from the general face of the surface being covered and exclusive of any grooves, raked out joints or other irregularities.</p>
Measurement of ceramic tiling	SC11.04	<p>Notwithstanding definitions of ceramic floor and wall tiles in BS EN 14411 and BS EN ISO 10545 :-</p> <ul style="list-style-type: none"> (a) Measurement of ceramic tiles and quarry tiles shall include homogeneous ceramic, porcelain, stoneware or similar tiles. (b) Measurement of ceramic floor and wall tiles shall include glazed or unglazed tiles of engobed, matt, non-slip or similar properties.

SPECIAL CONDITIONS

Measurement of mouldings	SC11.05	Mouldings and moulded cornices shall be measured the net length on wall or beam face by the net visible girth.
Measurement of skirting	SC11.06	Skirting shall be measured the net height above finished floor or paving level. The thickness of skirting shall be measured at the centre point of the height.
Measurement of "Hack out and replace tiling in isolated patches"	SC11.07	Each isolated patch is defined as the isolated surface required for tile replacement up to an area not exceeding 0.50 m ² irrespective of size of tiles.
Measurement of suspended ceiling systems	SC11.08	<p>Suspended ceiling systems shall be measured over the net area covered including air grilles, light fittings, access panels and the like. Deduction shall be made for areas covered by columns.</p> <p>Bulkheads shall be measured separately and paid for at the appropriate rates under applicable Work Sections in this Schedule.</p>
Measurement of raised accessed flooring	SC11.09	Raised accessed flooring shall be measured over the net area covered including air grilles, access openings and the like.
Measurement of carpeting	SC11.10	All works shall be measured over the net area covered to horizontal or sloping surfaces and shall deem to include for vertical surfaces of upstands curbs, channels and the like.
Measurement of entrance matting	SC11.11	Entrance matting shall be measured the net area fixed. Forming matt well shall be measured separately under applicable Works Sections in this Schedule.
Rates generally	SC11.12	<p>The rates shall generally include for the following : -</p> <ul style="list-style-type: none"> (a) Narrow widths and small quantities. (b) Preparation of surfaces to receive the finishing and any necessary dubbing out of irregularities on the surface being covered. (c) Working into channels and recessed covers and working around pipes, metal sections and the like. (d) Laying or executing work in bays or between strips, circular or pattern. (e) Laying level or to slopes and finishing to falls or currents.

SPECIAL CONDITIONS

**Rates generally
(Cont'd)**

**SC11.12
(Cont'd)**

- (f) All temporary formwork or rules.
- (g) All cutting and wastes, holes, notches, cutting and fitting and making good.
- (h) Executing internally or externally, working in any position, at any height and on new or existing surfaces including any scaffolding and all temporary works.
- (i) All quoin points and other intersections of curved surfaces.
- (j) All making good up to existing finishes, door and window frames, around pipes, brackets and the like, and dishing to outlets.
- (k) All internal and external angles, fair ends, stopped ends and similar labours.
- (l) All joints (including forming movement joints, expansion joints and the like) as required between any types of materials and between any new and/or existing surfaces including wire netting as G.S. Item 18.14 and approved non-acidic and anti-mould joint sealants.
- (m) Any dressing around pipes passing through roofs as G.S. Item 18.82.
- (n) Covering up and protecting where necessary.
- (o) Construction and subsequent demolition of trial panels of finishings.
- (p) Provision of samples and tests including submission of records and reports for approval by the Maintenance Surveyor.
- (q) All necessary tests as specified under the Specification and provision of test certificates when required.
- (r) Submission of manufactured sand producer's or supplier's declaration verifying the grading of the manufactured sand and that the manufactured sand is clean and free of organic substances including submission of test certificates.

**Rates for
proprietary
plaster and
screeds**

SC11.13

The rates for proprietary plaster and screeds shall further include for :-

- (a) Supplying and laying in accordance with the manufacturer's instruction.
- (b) Cleaning existing surfaces by high pressure water jets.
- (c) Repairing cracks and applying floor primer or bonding agent.
- (d) Submission of catalogues and technical literature.
- (e) Submission of manufacturer's guarantee.

SPECIAL CONDITIONS**Rates for
metal lathing****SC11.14**

The rates for metal lathing shall further include for : -

- (a) Preparing and applying one coat of bituminous paint to cut ends.
- (b) Fixing to supports with staples or tying wire.
- (c) Allowing for bending and laps.
- (d) All cutting and waste including circular cutting.

**Rates for
screeds and
in-situ finishes****SC11.15**

The rates for screeds, rendering, plastering, granolithic and terrazzo works and any other in-situ finishes shall further include for : -

- (a) Spatterdashing, hacking, raking out joints, washing over with cement grout, brushing down, cleaning and all other preparation works required to new or existing surfaces to provide key or bonding.
- (b) All internal angles, arrises, quirks, throats, drips, rounded angles and coves and similar labours, and forming "V" or square edged grooves in surface when required.
- (c) Scratching undercoats, and steel trowel, wood float, trowelled stucco, brushed, or combed finish as ordered.
- (d) All metal beads as G.S. Items 18.25 and 18.53.
- (e) All premixed plaster as G.S. Items 18.57 and 18.70.

**Rates for
proprietary
waterproofing
floor screeds****SC11.16**

The rates for proprietary waterproofing floor screeds shall further include for : -

- (a) Supplying and laying in accordance with the manufacturer's instruction.
- (b) Cleaning existing surfaces by high pressure water jets.
- (c) Repairing cracks and applying floor primer or bonding agent.
- (d) Submission of catalogues and technical literature.
- (e) Submission of manufacturer's guarantee.

SPECIAL CONDITIONS

Rates for acoustic plaster or fire resisting cementitious fireproofing plaster	SC11.17	<p>The rates for acoustic plaster or cementitious fireproofing plaster shall further include for : -</p> <ul style="list-style-type: none"> (a) Application by special spray equipment. (b) Coloured top coat. (c) Supply and spraying in accordance with the manufacturer's recommendations. (d) Submission of catalogues and technical literature. (e) Submission of manufacturer's guarantee.
Rates for terrazzo	SC11.18	<p>The rates for terrazzo shall further include for : -</p> <ul style="list-style-type: none"> (a) Preparing and applying one coat of wax polish to wall and floor finishes in accordance with G.S. Item 18.97.
Rates for floor tiles generally	SC11.19	<p>Rates for floor tiles shall generally include slip resistant tiles and sheet finishes complying with all non-slip classifications in accordance with DIN 51130, and DIN 51097 where specifically stated.</p>
Rates for terrazzo tiles	SC11.20	<p>The rates for terrazzo tiles shall further include for : -</p> <ul style="list-style-type: none"> (a) Forming rounded, squared or splayed edges as required. (b) Pointing in natural or coloured cement slurry. (c) Preparing and applying one coat of wax polish to wall tiles or two coats non-slip, matt emulsion polish or other anti-slip coating on floor tiles.
Rates for tiling, slabs or paving blocks	SC11.21	<p>The rates for tiling, slabs or paving blocks shall further include for : -</p> <ul style="list-style-type: none"> (a) Special tiles or fittings. In the case of no special tiles or fittings, mitring edges to external corners and the like. (b) All slurry, grout, mortar and the like of approved type.

SPECIAL CONDITIONS

Rates for tiling, slabs or paving blocks (Cont'd)	SC11.21 (Cont'd)	<ul style="list-style-type: none"> (c) Tile adhesives of approved proprietary type to BS EN 12004. (d) Pointing joints with natural or coloured cement slurry or cement and sand grout to match colours of tiles. (e) Grouting up joints in approved grout or a proprietary grout to BS EN 13888. (f) Cutting and laying or fixing to patterns including graphics. (g) Unless otherwise stated, tiles of any configuration or dimension. (h) Unless otherwise stated, any type of finish.
Rates for “Extra over tiling” for rounded edge tiles, skirting tiles and the like	SC11.22	<p>The rates for “Extra over tiling” for rounded edge tiles, skirting tiles and the like shall further include for : -</p> <ul style="list-style-type: none"> (a) All internal and external corner tiles, corner end tiles and the like.
Rates for “Hack out and replace tiling in isolated patches”	SC11.23	<p>The rates for “Hack out and replace tiling in isolated patches” shall further include for : -</p> <ul style="list-style-type: none"> (a) Hacking up existing screeds, preparing surfaces, applying new backing screeds and making good to receive new tilings.
Rates for flexible tiles and sheet finishes, or rubber tiles and sheet finishes	SC11.24	<p>The rates for flexible tiles and sheet finishes, or rubber tiles and sheet finishes shall further include for : -</p> <ul style="list-style-type: none"> (a) Providing and laying tiles or sheets with adhesives in accordance with the manufacturer's instructions. (b) Laying tiles or sheets in plain or pattern including graphics. (c) Polyurethane reinforcement as required. (d) Preheating process with preheating tools as required. (e) Any welding joints between sheets including approved P.V.C. welding rods. (f) Treating surfaces of tiles or sheets as G.S. Item 18.140. (g) Execution by approved specialist contractor.

SPECIAL CONDITIONS

Rates for swimming pool tiles

SC11.25

The rates for swimming pool tiles shall further include for : -

- (a) Provision of tile adhesive that is able to withstand continual immersion in water and has acid resistant and hygiene properties.
- (b) Pointing and grouting joints with cement based, water repellent floor grouting with hard abrasion resistant finish, and resistant to dirt penetration.

Rates for pavers

SC11.26

The rates for pavers shall further include for : -

- (a) Excavation to reduced level or filling to make up levels, compacting bottom properly to receive granular sub-base.
- (b) Grading, measuring, mixing, transporting, depositing, spreading, levelling and compacting granular sub-base.
- (c) Sand filling, mortar bedding and the like.
- (d) Cutting and making good at boundaries, manholes, cable and draw pits and the like.
- (e) Laying at any designated pattern or design as specified by the Maintenance Surveyor using multi-coloured paving slabs and paving blocks as required.
- (f) Use of recycled aggregate as specified in G.S. Items 6.42.3 (xiii) and 8.22 for designed concrete mixes and prescribed concrete mixes respectively, when required.
- (g) In case of recycled glass pavers, compliance with the Part 7 : Precast Concrete Units for Paving under Section 11 of the General Specification for Civil Engineering Works.

Rates for stone or marble slabs/tiles

SC11.27

The rates for stone or marble slabs/tiles shall further include for : -

- (a) Forming rounded, squared or splayed edges as required.
- (b) Pointing in natural or coloured grout.
- (c) Preparing and applying one coat of wax polish to wall slabs or two coats non-slip, matt emulsion polish or other anti-slip coating on floor slabs.
- (d) Providing and fixing copper cramps and "S" hooks as G.S. Item 18.126 or stainless steel fixing as ordered.
- (e) Laying level or to slopes and finishing to falls, or falls and currents.
- (f) Preparing surfaces ready to receive cement and sand bedding or sand bedding to receive stone paving or slabs.
- (g) Flushing up around pipes, floor drains, outlets and the like.

SPECIAL CONDITIONS

Rates for stone or marble slabs/tiles (Cont'd)	SC11.27 (Cont'd)	<ul style="list-style-type: none"> (h) Anti-stain treatment including providing one coat of approved water repellent or sealer to all exposed surfaces and edges of stone slabs/tiles. (i) Submission of design and calculations endorsed by Registered Structural Engineer for fixing of stone or marble slabs to vertical or sloping surfaces. (j) Unless otherwise stated, natural stone or marble are of origin from China or Asian countries (other than Japan).
Rates for division strips	SC11.28	The rates for division strips, cover angles, strips at expansion joints etc. to finishes and pavings shall include for cutting to required lengths, splay cut ends, drilling, fixing with brass or stainless steel screws or the like and for countersinking the heads of all exposed screws.
Rates for suspended ceiling systems	SC11.29	<p>The rates for suspended ceiling systems shall include for : -</p> <ul style="list-style-type: none"> (a) Design, supply and install the suspended ceiling systems complete with necessary linings and including all types of metal suspension framing, edge trims, runners, hangers and the like, and fixing to concrete soffits and the like. (b) Metal ceiling panels or strips in all sizes. (c) All cutting and narrow widths, including cutting ceiling tiles, panels and strips to sizes accommodating light fittings, air grilles and the like. (d) Unless otherwise stated, any drop length from soffits. (e) Fixing acoustic ceiling tiles to soffits or walls, or to suspension system. (f) Forming all openings and trimming around sprinkler and detector heads, pipes, conduits, power points, air grilles, light fittings, access panels and the like and including extra supports and trimmers for the same. (g) Additional framing and supports etc. to bridge across ducts and the like. (h) Submission of catalogues, technical literature, data and the like on the suspended ceiling systems. (i) Submission of design drawings, working details and shop drawings for the Maintenance Surveyor's approval prior to commencement of installation. (j) Submission of test certificates and manufacturer's guarantee.
Rates for forming openings to existing suspended ceiling	SC11.30	<p>The rates for forming openings to existing suspended ceiling shall further include for : -</p> <ul style="list-style-type: none"> (a) Additional trimmer/suspension, stiffening plates, brackets, etc. (b) Sealing edges.

SPECIAL CONDITIONS

Rates for raised accessed flooring

SC11.31

The rates for raised accessed flooring shall further include for : -

- (a) Design, supply and installation in accordance with the manufacturer's instructions.
- (b) Additional supports and framing for cut panels.
- (c) All air grilles, skirting trims, integral fittings and the like.
- (d) Forming openings for power points, trunking and other building services installations including sealing edges.
- (e) Providing and laying insulation under floor as required.
- (f) All preparation works, cleaning and protection of completed works.
- (g) Submission of design drawings, working details and shop drawings for the Maintenance Surveyor's approval prior to commencement of installation.
- (h) Submission of test certificate, manual and manufacturer's guarantee.

Rates for carpeting or carpeting with underlays generally

SC11.32

The rates for carpeting (including carpet tiles) or carpeting with underlays shall generally include for : -

- (a) Working to narrow widths and small areas.
- (b) Working to flat or sloping surfaces.
- (c) New and existing surfaces.
- (d) All necessary cleaning and preparation of substrate prior to the laying of carpet, carpet tiles or underlays.
- (e) Unless otherwise stated, proprietary release bond agent, approved non-acidic and anti-mould sealants, tapes, adhesive, carpet grippers and seaming cement, where necessary.
- (f) Unless otherwise stated, providing underlays in accordance with G.S. Item 18.155 and fixing underlays in accordance with G.S. Item 18.160.
- (g) Laying of carpet including straight, raking or circular cutting and waste, seaming and jointing as G.S. Item 18.161, sewing and fixing all smooth edges and carpet trims.
- (h) Fixing and trimming, cutting and fitting carpets to floor mounted services outlets including electric power point, telephone box, recessed removable covers and the like including binding edges as required.
- (i) Bonding to match existing works.

SPECIAL CONDITIONS

Rates for carpeting or carpeting with underlays generally (Cont'd)

SC11.32 (Cont'd)

- (j) Protective treatment and cleaning.
- (k) Provision of test certificates and manufacturer's guarantee.
- (l) Provision of manufacturer's literature on maintenance and cleaning of carpets.

Rates for entrance matting

SC11.33

The rates for entrance matting shall include for : -

- (a) Working to narrow widths and small areas.
- (b) Working to flat or sloping surfaces.
- (c) New and existing surfaces.
- (d) All necessary framing and fixing accessories.
- (e) All necessary cleaning and preparation of substrate prior to the fixing of entrance matting.
- (f) Protection and cleaning.
- (g) Provision of samples, literature, test certificates and manufacturer's guarantee.

Rates for taking down existing finishes

SC11.34

The rates for taking down existing plaster, paving, tiling, etc., shall include for : -

- (a) Cutting back edges of the retaining work.
- (b) Cutting and clearing away metal lathing and wire netting as required.
- (c) Cutting by manual or mechanical means including saw cutting.
- (d) Making good adjoining surfaces disturbed in the taking down process.
- (e) Preparing joints for new work.
- (f) Preparing surfaces to receive new finish.

SPECIAL CONDITIONS

**Rates for
“Take up and
clear away
existing
carpet or
carpet tiles”
generally**

SC11.35

The rates for “Take up and clear away existing carpet or carpet tiles” shall generally include for : -

- (a) Taking up and clearing away existing carpet by hand or power tools or both.
- (b) Removal of associated adhesive and release bond agent.
- (c) Removal of associated underlays and carpet grippers.
- (d) Making good affected surfaces.

**G.S. clauses
for suspended
ceiling
systems**

SC11.36

G.S. clauses for suspended ceiling systems can be found in the Carpentry and Joinery Section of the General Specification for Building.

Item					Item
	METAL LATHING				
		Supply and fix			
		Plain expanded metal lathing type 1.6kg/m ²	Ribbed expanded metal lathing type 2.25kg/m ²		
		A \$	B \$		
11001	Vertical or horizontal surfaces.....	28.00	39.40		11001
11002	Soffits or sloping soffits including beams and the like.....	29.10	40.50		11002
		Thickness (mm)			
		25	50		
		A \$	B \$		
11003	Sand bedding to receive paving slab or block, pavers, etc.....	21.40	31.40		11003
		Thickness (mm)			
		40	50	65	75
		A \$	B \$	C \$	D \$
11004	Cement and vermiculite (1:8 by volume) roof screed.....	94.50	118.10	153.50	177.20
11005	Cement and vermiculite (1:6 by volume) floor screed.....	89.80	112.20	145.90	168.30
11006	Air entrained screed having a dry density of not more than 1,200 kg/m ³	122.80	153.50	199.60	230.30
		Cement and sand (1:3) or cement and granite fines (1:3)			
		Thickness (mm)			
		15	20	25	30
		A \$	B \$	C \$	D \$
11007	Paving or floor screeds.....	39.00	43.20	47.20	51.40
11008	Paving or screed to treads and risers, strings, sides and top of upstand kerbs, sides and bottom of channels and sinkings and the like.....	52.20	55.60	60.70	64.30
11009	Extra over either of Items 11007 to 11008 inclusive for approved admixture of hardener and/or dust proofer.....	22.50	27.30	31.70	36.20
11010	Extra over either of Items 11007 to 11008 inclusive for approved admixture of waterproofing.....	4.70	5.70	6.60	7.70
11011	Extra over either of Items 11007 to 11008 inclusive for approved colour cement or pigments.....	6.10	7.40	8.50	10.50
		12.90			

Item					Item				
	CEMENT PAVING, FLOORS SCREEDS, ETC. (CONT'D)								
		Cement, sand or granite fines and coarse aggregate Grade 10 (1:1.5:3)							
		Thickness (mm)							
		50	60						
		A	B						
		\$	\$						
11012	Paving or floor screeds.....	62.00	70.00		11012				
11013	Paving or screed to treads and risers, strings, sides and top of upstand kerbs, sides and bottom of channels and sinkings and the like.....	67.10	75.10		11013				
11014	Extra over either of Items 11012 to 11013 inclusive for approved admixture of hardener and/or dust proofer.....	38.90	50.60		11014				
11015	Extra over either of Items 11012 to 11013 inclusive for approved admixture of waterproofing.....	12.40	14.80		11015				
11016	Extra over either of Items 11012 to 11013 inclusive for approved coloured cement or pigments.....	13.40	16.00		11016				
		Cement and sand (1:4) or cement and granite fines (1:4)							
		Thickness (mm)							
		15	20	25	30	40	50	65	
		A	B	C	D	E	F	G	
		\$	\$	\$	\$	\$	\$	\$	
11017	Floor screeds.....	34.80	38.60	43.00	47.00	54.90	63.20	74.70	11017
11018	Screed to treads and risers, strings, sides and top of upstand kerbs, sides and bottom of channels and sinkings and the like.....	37.80	41.70	46.50	50.60	59.70	69.50	81.70	11018
	ROOF SCREEDS								
		Thickness (mm)							
		15	20	25	30	40	50	65	
		A	B	C	D	E	F	G	
		\$	\$	\$	\$	\$	\$	\$	
11019	Screed on roofs.....	37.80	41.60	46.50	50.60	59.70	69.50	81.70	11019
11020	Screed to treads and risers, strings, sides and top of upstand kerbs, sides and bottom of channels and sinkings and the like.....	41.00	45.20	46.50	54.60	64.10	74.40	87.40	11020
	LEVELLING SKIM COAT								
		Thickness (mm)							
		15	20	25	30	40	50	65	
		A	B	C	D	E	F	G	
		\$	\$	\$	\$	\$	\$	\$	
11021	Apply resin based gypsum and cement skim coat of any thickness to level up floor before receiving rubber and vinyl floor tiles, sheets or carpet (measured separately).....							26.50	11021

Item		Average thickness (mm)				Item
		3 - 5	5 - 8	8 - 10	10 - 12	
		A	B	C	D	
		\$	\$	\$	\$	
	PROPRIETARY FLOOR SCREED SYSTEM					
	Prepare and apply proprietary floor screed in accordance with manufacturer's instructions :-					
	<i>Per square metre</i>					
11022	Proprietary floor screed (with laying to fall property).....	84.50	96.70	104.50	112.30	11022
11023	Proprietary heavy duty floor screed (ditto).....	96.10	106.70	117.40	128.10	11023
11024	Proprietary self-levelling floor screed.....	108.00	131.10	149.10	169.80	11024
11025	Proprietary heavy duty self-levelling floor screed.....	129.40	173.40	211.60	245.20	11025
	<i>Per square metre</i>				A \$	
11026	Heavy duty mechanical scrubbling to existing surface..... (Note :- This item shall only be paid for, if ordered by the Maintenance Surveyor in writing.)				30.30	11026
	<i>Per linear metre</i>					
11027	Point existing movement joint with rubber granular based material and binder.....				19.90	11027
	PROPRIETARY WATERPROOFING FLOOR SCREEDS					
	(Note :- The following Items 11028 to 11035 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)					
	Proprietary waterproofing floor screeds including mixing of 1 part of proprietary waterproofing and bonding liquid additive, 1 part of water, 1 part of cement and 2 parts of sands including bond coat/primer all in strict accordance with manufacturer's instructions, and wood floated or steel trowelled :-				Supply and fix	
	<i>Per square metre</i>				A \$	
11028	20 mm Thick on floors.....				81.50	11028
11029	Add to Item 11028 for each additional 5 mm or part thereof in thickness.....				14.20	11029
11030	10 mm Thick on walls, columns, vertical surfaces or top of benchings.....				57.60	11030
11031	Add to Item 11030 for each additional 5 mm or part thereof in thickness.....				11.70	11031
11032	10 mm Thick on soffits or sloping soffits including beams and the like.....				64.60	11032
11033	Add to Item 11032 for each additional 5 mm or part thereof in thickness.....				11.70	11033
	Proprietary rapid hardening polymer modified waterproof concrete in a blend of non-shrink cement, rapid hardening fillers and waterproofing admixtures and including primer, all in strict accordance with manufacturer's instructions :-				Supply and fix	
	<i>Per square metre</i>				A \$	
11034	20 mm Thick on floors.....				412.10	11034
11035	Add to Item 11034 for each additional 5 mm or part thereof in thickness.....				96.20	11035

Item									Item
	RENDERING OR BACKING SCREEDS								
	20 mm Thick				25 mm Thick				
	Height (mm)				Height (mm)				
	n.e. 75	75 - 150	150 - 225	225 - 300	n.e. 75	75 - 150	150 - 225	225 - 300	
	A \$	B \$	C \$	D \$	E \$	F \$	G \$	H \$	
11036	Cement and sand (1:3) screed to :-								
	<i>Per linear metre</i>								
11036	28.70	31.20	33.90	36.50	29.50	32.80	36.10	39.10	11036
11037	30.10	33.30	36.30	39.20	32.20	37.50	41.30	44.80	11037
11038	0.60	1.60	2.20	3.00	0.70	1.60	2.60	3.40	11038
	Cement and sand (1:3) or cement and granite fines (1:3) rendering to :-								
	<i>Per square metre</i>								
					Thickness (mm)				
					10	15	20	25	
					A \$	B \$	C \$	D \$	
11039	Walls, columns, vertical surfaces, top of benchings or under cupboards.....				35.40	39.80	44.60	48.90	11039
11040	Soffits or sloping soffits including beams and the like.....				38.60	43.20	47.90	52.30	11040
11041	Extra over either of Items 11039 to 11040 inclusive for approved admixture of waterproofing.....				4.20	5.20	6.60	8.10	11041
11042	Extra over either of Items 11039 to 11040 inclusive for approved coloured cement or pigments.....				4.30	6.10	8.00	12.10	11042
	Cement and sand (1:4) or cement and granite fines (1:4) rendering to :-								
	<i>Per square metre</i>								
					Thickness (mm)				
					10	15	20	25	
					A \$	B \$	C \$	D \$	
11043	On surfaces between grounds to receive fitments (no deduction for grounds).....				31.10	34.60	38.10	41.60	11043
	INTERNAL LIME PLASTER								
	<i>Per square metre</i>								
					5 mm first coat	10 mm first coat	5 mm finish- ing coat	Two coats	
					A \$	B \$	C \$	D \$	
11044	On walls, columns or vertical surfaces.....				-	31.40	28.80	59.90	11044
11045	On soffits or sloping soffits including beams and the like.....				31.20	-	36.40	67.80	11045

Item

Item

GYPSUM PLASTER

Mix of first coat : Browning plaster and sand (1:2) or cement and sand (1:3). Finishing coat as G.S. Item 18.49 (ii) with smooth finish 5 mm maximum : -

Thickness (mm)		
5	10	13
A	B	C
\$	\$	\$
-	52.40	-
-	60.10	-
-	-	55.20
-	-	62.70
38.90	-	-
46.50	-	-

Per square metre

11046	On walls, columns or vertical surfaces.....	-	52.40	-	11046
11047	On soffits or sloping soffits including beams and the like surfaces.....	-	60.10	-	11047
11048	On walls, columns or vertical surfaces of expanded metal lathing (measured separately).....	-	-	55.20	11048
11049	On soffits or sloping soffits including beams and the like, surfaces of expanded metal lathing (measured separately).....	-	-	62.70	11049
11050	On walls, columns or vertical plasterboard surfaces.....	38.90	-	-	11050
11051	On soffits or sloping soffits including beams and the like, plasterboard surfaces.....	46.50	-	-	11051

MOULDING AND MOULDED CORNICES

Lime putty and paper pulp or Plaster of Paris (1:1) moulding and moulded cornices on and including rough plaster backing, all necessary bracketing, lathing, dubbing out, moulds, mitres, stops and the like, and finishing true to details : -

Girth (mm)			
n.e.	75 -	150 -	225 -
75	150	225	300
A	B	C	D
\$	\$	\$	\$
32.80	43.30	57.90	73.70
48.30	62.20	84.50	105.10
83.10	93.60	104.50	114.80
94.10	106.00	120.00	132.20

Per linear metre

11052	Moulding or moulded cornice.....	32.80	43.30	57.90	73.70	11052
11053	Ditto but circular on plan to radius n.e. 7.50 m.....	48.30	62.20	84.50	105.10	11053
11054	Preformed cornices.....	83.10	93.60	104.50	114.80	11054
11055	Ditto but circular on plan to radius n.e. 7.50 m.....	94.10	106.00	120.00	132.20	11055

ACOUSTIC AND CEMENTITIOUS FIREPROOFING PLASTER

(Note : - The following Items 11056 to 11059 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Prepare and apply acoustic plaster in accordance with G.S. Items 18.35 and 18.56 and the minimum thickness and coats as recommended by the manufacturer : -

Per square metre

11056	On walls, columns, vertical surfaces, soffits or sloping soffits including beams and the like.....	A	137.20	11056
		\$		

Prepare and spray cementitious fireproofing plaster on the following structural steel surfaces in accordance with manufacturer's recommendation : -

FRR		
1 hour	2 hours	4 hours
A	B	C
\$	\$	\$
133.40	200.10	400.10
197.30	232.40	453.50
255.60	361.20	470.10

Per square metre

11057	Interior concealed structural steel surfaces with spray-texture finish.....	133.40	200.10	400.10	11057
11058	Interior exposed structural steel surfaces with spray-texture or trowelled smooth finish.....	197.30	232.40	453.50	11058
11059	Exterior exposed structural steel surfaces with spray-texture or trowelled smooth finish.....	255.60	361.20	470.10	11059

Item			Item																				
	PROPRIETARY WALL PLASTER FOR SQUASH COURT																						
	Prepare and apply proprietary plaster for squash court in accordance with the manufacturer's instruction :-																						
	<i>Per square metre</i>	A \$																					
11060	On walls, columns, vertical surfaces, soffits or sloping soffits including beams and the like.....	794.30	11060																				
	EXTERNAL RENDERING																						
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>First coat</th> <th>Finish- ing coat</th> <th>Two coats render- ing</th> </tr> </thead> <tbody> <tr> <td>Thickness (mm)</td> <td>10</td> <td>10</td> <td>20</td> </tr> <tr> <td>A</td> <td></td> <td>B</td> <td>C</td> </tr> <tr> <td>\$</td> <td></td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>		First coat	Finish- ing coat	Two coats render- ing	Thickness (mm)	10	10	20	A		B	C	\$		\$	\$					
	First coat	Finish- ing coat	Two coats render- ing																				
Thickness (mm)	10	10	20																				
A		B	C																				
\$		\$	\$																				
	<i>Per square metre</i>																						
11061	On walls, columns or vertical surfaces.....	45.60 56.80 102.30	11061																				
11062	On soffits or sloping soffits including beams and the like.....	54.60 61.70 106.90	11062																				
	EXPOSED AGGREGATE RENDERING (SHANGHAI PLASTER)																						
	Exposed aggregate rendering applied in two coats as G.S. Item 18.55 :-																						
	<i>Per square metre</i>	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">20 mm Thick</th> </tr> <tr> <th colspan="3">Colour</th> </tr> <tr> <th>Dark</th> <th>Medium</th> <th>White</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>	20 mm Thick			Colour			Dark	Medium	White	A	B	C	\$	\$	\$						
20 mm Thick																							
Colour																							
Dark	Medium	White																					
A	B	C																					
\$	\$	\$																					
11063	On walls, columns or vertical surfaces.....	98.80 101.50 113.90	11063																				
11064	On soffits or sloping soffits including beams and the like.....	106.80 109.30 121.70	11064																				
	GRANOLITHIC FINISH																						
	Granolithic paving, etc., of the mix and finish required :-																						
	<i>Per square metre</i>	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Mix A (Trowelled)</th> <th colspan="2">Mix B (Trowelled)</th> </tr> <tr> <th colspan="2">Thickness (mm)</th> <th colspan="2">Thickness (mm)</th> </tr> <tr> <th>15</th> <th>20</th> <th>15</th> <th>20</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>	Mix A (Trowelled)		Mix B (Trowelled)		Thickness (mm)		Thickness (mm)		15	20	15	20	A	B	C	D	\$	\$	\$	\$	
Mix A (Trowelled)		Mix B (Trowelled)																					
Thickness (mm)		Thickness (mm)																					
15	20	15	20																				
A	B	C	D																				
\$	\$	\$	\$																				
11065	On floors.....	62.90 73.80 70.90 84.60	11065																				
11066	To treads and risers, ends of stairs, sides and top of upstand kerbs, sides and bottom of channels and sinkings, tops, sides, soffits and edges of shelves, working slabs and the like.....	70.80 81.90 78.60 91.60	11066																				
11067	On walls, columns or vertical surfaces.....	- 78.00 - 87.80	11067																				
11068	Add to either of Items 11065 to 11067 inclusive for rubbed finish.....	49.50 49.50 49.50 49.50	11068																				
11069	Extra over either of Items 11065 to 11067 inclusive for paving, etc., hardened with approved liquid hardener and/or dust proofer.....	14.10 18.20 14.10 18.20	11069																				
11070	Extra over either of Items 11065 to 11067 inclusive for approved coloured cement or pigments.....	7.50 9.80 7.50 9.80	11070																				

Item									Item					
GRANOLITHIC FINISH (CONT'D)														
Granolithic paving, etc., of the mix and finish required :- (Cont'd)						Mix C (Washed)		Mix D (Washed)						
						Thickness (mm)		Thickness (mm)						
						15	20	15	20					
						A	B	C	D					
						\$	\$	\$	\$					
<i>Per square metre</i>														
11071	On floors.....					82.60	95.40	91.30	106.60	11071				
11072	To treads and risers, ends of stairs, sides and top of upstand kerbs, sides and bottom of channels and sinkings, tops, sides, soffits and edges of shelves, working slabs and the like.....					92.70	106.10	102.40	118.00	11072				
11073	On walls, columns or vertical surfaces.....					-	100.90	-	112.40	11073				
11074	Extra over either of Items 11071 to 11073 inclusive for paving, etc., hardened with approved liquid hardener and/or dust proofer.....					13.80	18.20	13.80	18.20	11074				
11075	Extra over either of Items 11071 to 11073 inclusive for approved coloured cement or pigments.....					8.80	10.90	8.80	10.90	11075				
20 mm Thick				25 mm Thick										
Height (mm)				Height (mm)										
n.e. 75	75 - 150	150 - 225	225 - 300	n.e. 75	75 - 150	150 - 225	225 - 300							
A	B	C	D	E	F	G	H							
\$	\$	\$	\$	\$	\$	\$	\$							
<i>Per linear metre</i>														
11076	Granolithic Mix A skirting with splayed, rounded or rebated top edge, and square, splayed or coved bottom trowelled finish.....					9.80	20.10	29.90	40.20	10.50	21.50	33.70	46.10	11076
11077	Granolithic Mix B ditto.....					10.50	20.90	31.60	43.00	10.80	24.50	35.90	49.50	11077
11078	Add to either of Items 11076 to 11077 inclusive for rubbed finish.....					3.80	7.50	11.20	14.90	3.70	7.60	11.40	15.10	11078
11079	Granolithic Mix C skirting with splayed, rounded or rebated top edge, and square, splayed or coved bottom washed finish.....					12.70	27.10	40.20	55.60	13.70	29.90	45.00	62.20	11079
11080	Granolithic Mix D ditto.....					13.20	27.90	40.80	59.20	14.20	31.50	47.80	65.30	11080
11081	Add to either of Items 11076 to 11077 inclusive and Items 11079 to 11080 inclusive for labour forming open string or stepped wall string at side of stairs.....					1.50	2.60	3.50	5.10	1.60	2.80	3.60	5.20	11081
11082	Add to either of Items 11076 to 11077 inclusive and Items 11079 to 11080 inclusive for full thickness in coloured cement or pigments.....					0.70	1.80	2.70	3.80	0.90	1.80	3.10	4.30	11082
Mix A and B				Mix C and D										
Height (mm)				Height (mm)										
n.e. 75	75 - 150	150 - 225	225 - 300	n.e. 75	75 - 150	150 - 225	225 - 300							
A	B	C	D	E	F	G	H							
\$	\$	\$	\$	\$	\$	\$	\$							
<i>Per linear metre</i>														
11083	Add to either of Items 11076 to 11077 inclusive and Items 11079 to 11080 inclusive for skirting of any thickness if executed in two coats with finishing coat 10 mm thick mixed with coloured cement or pigments.....					0.60	1.00	1.60	2.20	0.60	1.00	1.70	2.50	11083

Item	Type A (white or coloured cement)	Type B (white or coloured cement)	Type C (white or coloured cement)	Item
TERRAZZO WORK				
<i>Per square metre</i>				
11084	A \$	B \$	C \$	11084
11085	134.80	134.30	134.10	11084
11085	140.50	140.50	140.50	11085
11086	142.50	142.40	142.10	11086
11087	165.30	164.80	164.40	11087
11088	145.70	145.30	144.90	11088
<i>Per linear metre</i>				
11089	14.70	14.70	14.70	11089
11090	31.90	31.70	31.70	11090
11091	55.30	55.30	55.20	11091
11092	76.10	76.10	75.90	11092
	15%	15%	15%	

Item	Thickness (mm)				Item	
	n.e. 9.5		exceeding 9.5			
	n.e. 0.36 m ²	Exceed- ing 0.36 m ²	n.e. 0.36 m ²	Exceed- ing 0.36 m ²		
CERAMIC AND QUARRY FLOOR TILES						
Ceramic floor tiles and quarry floor tiles in any colour : -						
	Tile size	A	B	C	D	
		\$	\$	\$	\$	
<i>Per square metre</i>						
11093	Tiling on floors.....	191.50	185.50	209.50	203.00	11093
11094	Ditto but to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like.....	196.10	188.70	214.10	198.80	11094
<i>Per linear metre</i>						
11095	Extra over Item 11094 for stair tread tile.....	8.30	8.30	8.30	8.30	11095
11096	Skirting 100 mm high with rounded top edges and coved bottom.....	36.10	-	40.20	-	11096
11097	Ditto but 150 mm high.....	45.20	-	50.70	-	11097
11098	Ditto but 200 mm high.....	58.30	-	64.60	-	11098
	Add to either of Items 11096 to 11098 inclusive for labour forming open string or stepped wall string at side of stairs.....	15%	-	15%	-	
<i>Per square metre</i>						
11099	Lay only tiling on floors.....	77.80	74.30	77.80	74.30	11099
11100	Lay only tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like.....	82.50	78.80	82.50	78.80	11100
11101	Rake out joints between tiles and point in natural or coloured cement and sand grout on existing tiled surface.....	38.30	36.60	38.30	36.60	11101
11102	Hack out and replace tiling on floor in isolated patches and point to match existing.....	224.60	214.60	244.20	233.40	11102
	Add to either of Items 11093 to 11094 inclusive, Items 11096 to 11098 inclusive and Item 11102 for ceramic and quarry floor tiles of specific quality.....					25%

Item					Item	
CONCRETE FLOOR TILES						
Concrete floor tiles to BS 1197 in any colour and size :-						
30 mm thick (maximum)						
Finish						
Concrete Granolithic						
Tile Size						
n.e. Exceed- n.e. Exceed- 0.05 m ² ing 0.05 m ² ing 0.05 m ² 0.05 m ²						
A B C D						
\$ \$ \$ \$						
11103	Tiling on floors.....	154.60	110.60	216.50	211.90	11103
11104	Tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like.....	163.70	117.30	218.80	216.80	11104
<i>Per linear metre</i>						
11105	Extra over either of Items 11103 to 11104 inclusive for tile with rounded edge.....	12.10	17.10	10.00	12.30	11105
11106	Skirting 100 mm high with rounded top edges and coved bottom.....	42.90	45.70	57.30	61.00	11106
11107	Ditto but 150 mm high.....	61.80	65.40	83.40	88.70	11107
11108	Ditto but 200 mm high.....	79.50	82.60	106.80	112.20	11108
Add to either of Items 11106 to 11108 inclusive for labour forming open string or stepped wall string at side of stairs.....						
15% 15% 15% 15%						
<i>Per square metre</i>						
11109	Lay only tiling on floors.....	56.90	40.40	56.90	40.40	11109
11110	Lay only tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like.....	64.40	45.40	64.40	45.40	11110

Item		Thickness (mm)		Item	
		20	30		
	TERRAZZO FLOOR TILES				
	Terrazzo floor tiles to BS EN 13748 in any size, colour and surface finish :-				
	<i>Per square metre</i>	A	B		
		\$	\$		
11111	Tiling on floors.....	191.40	216.00	11111	
11112	Tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like.....	200.40	228.30	11112	
	<i>Per linear metre</i>				
11113	Extra over Item 11112 for stair tread tile.....	27.10	28.40	11113	
11114	Skirting 100 mm high with rounded top edges and coved bottom.....	50.40	56.20	11114	
11115	Ditto but 150 mm high.....	65.10	72.20	11115	
11116	Ditto but 200 mm high.....	82.10	89.60	11116	
	Add to either of Items 11114 to 11116 inclusive for labour forming open string or stepped wall string at side of stairs.....	15%	15%		
	<i>Per square metre</i>				
11117	Lay only tiling on floors.....	56.10	63.70	11117	
11118	Lay only tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like.....	64.90	73.80	11118	
11119	Hack out and replace tiling on floor in isolated patches and point to match existing.....	197.90	226.80	11119	
	CORK TILING				
	Cork tiles of any size laid and fixed with adhesive including cleaning down and polishing with wax emulsion :-				
	<i>Per square metre</i>				
		A	B	C	
		\$	\$	\$	
11120	Tiling on floors.....	130.30	164.00	197.70	11120
11121	Tiling to walls, columns and vertical surfaces.....	141.40	192.10	235.80	11121
11122	Tiling to ceilings.....	143.30	194.30	238.00	11122
11123	Lay only tiling on floors.....	42.40	42.40	42.40	11123
11124	Ditto to walls, columns and vertical surfaces.....	43.70	43.70	43.70	11124
11125	Ditto to ceilings.....	46.30	46.30	46.30	11125

Item		Thickness (mm)			Item		
		2	2.5	3.2			
	FLEXIBLE TILES OR SHEET FINISHES						
	Supply and lay flexible tiles as G.S. Items 18.130, 18.131 and 18.134 in any colour and patterns :-	Unbacked flexible vinyl tiles	Semi-flexible P.V.C. tiles	Lino-leum tiles			
	<i>Per square metre</i>	A \$	B \$	C \$			
11126	Tiling on floors.....	132.70	159.90	224.80	11126		
11127	Tiling to treads and risers of stairs.....	142.40	171.60	236.60	11127		
11128	Lay only tiling on floors.....	43.20	43.20	43.20	11128		
11129	Lay only tiling to treads and risers of stairs.....	49.00	49.00	49.00	11129		
	Supply and lay flexible sheet as G.S. Items 18.132 to 18.134 in any colour and patterns :-	Overall thickness (mm)					
		1.2	2	3	3.2	4.5	
		Un-backed flexible vinyl sheet	Un-backed flexible vinyl sheet	Foam backed (1.5 mm thick) vinyl sheet	Lino-leum sheet	Lino-leum sheet	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$	
11130	Sheeting on floors.....	-	135.90	153.10	245.30	322.00	11130
11131	Sheeting to treads and risers of stairs.....	-	155.10	163.70	259.80	340.70	11131
11132	Sheeting to walls.....	136.20	-	-	-	-	11132
11133	Lay only sheeting on floors.....	-	45.30	45.30	48.80	55.90	11133
11134	Lay only sheeting to treads and risers of stairs.....	-	50.60	50.60	54.20	64.70	11134
11135	Lay only sheeting to walls.....	67.40	-	-	-	-	11135
	Supply and lay in any colour and patterns :-				Vinyl tiles or sheets 2 mm thick	Vinyl tiles or sheets 3.2 mm thick	
	(Note : - The following Items 11136 and 11137 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)				A \$	B \$	
	<i>Per square metre</i>						
11136	Proprietary vinyl flooring in tiles or sheets with chemical resistance property complying with ASTM F925.....				312.20	358.40	11136
11137	Ditto and with electrical resistance property complying with ASTM F150 including all necessary conductive media.....				350.10	416.20	11137

Item			Item
	FLEXIBLE TILES OR SHEET FINISHES (CONT'D)		
	<i>Per linear metre</i>	A \$	
11138	Preformed flexible P.V.C. skirting 100 mm high coved bottom and rounded or bevelled at top edge.....	47.30	11138
11139	'L' shape P.V.C. skirting of size 100 x 45 x 2 mm thick.....	63.10	11139
11140	Cove former and capping strip for vinyl roll-up skirting.....	101.70	11140
11141	Vinyl heavy duty safety roll-up skirting.....	90.00	11141
11142	P.V.C. stair nosing 75 x 34 mm.....	76.70	11142
	<i>Per square metre</i>		
11143	Take up loose tiles of any description and size, clean back of tiles, prepare bed for and re-lay tiles, in plain or in patterns, with approved mastic or adhesive to match existing and wax polish to an approved finish.....	56.10	11143
11144	Ditto but sheeting on floors.....	76.30	11144
11145	Ditto but sheeting to walls.....	113.10	11145
11146	Scrub, clean and apply two coats wax polish with machine buffed on floors.....	8.90	11146
11147	Scrub, clean and apply sealer and two coats machine applied polish on floors.....	11.40	11147
	<i>Per linear metre</i>		
11148	Take up loose skirting of any description and size, clean back of skirting, prepare bed for and re-fix skirting with approved mastic or adhesive to match existing and wax polish to an approved finish.....	6.60	11148
	RUBBER TILES AND SHEET		
	Supply and lay as G.S. Item 18.135 in any size, colour and patterns :-		
		Thickness (mm)	
		4 4	
		Tiles Sheet	
	<i>Per square metre</i>	A B \$ \$	
11149	Tiling/Sheeting on floors.....	459.00 533.10	11149
11150	Tiling/Sheeting to treads and risers of stairs.....	487.00 565.90	11150
11151	Lay only tiling/sheeting on floors.....	38.70 62.70	11151
11152	Lay only tiling/sheeting to treads and risers of stairs.....	45.00 72.80	11152

Item			A \$	Item	
	RUBBER TILES AND SHEET (CONT'D)				
	<i>Per square metre</i>				
11153	Take up loose tiles of any description and size, clean back of tiles, prepare bed for and re-lay tiles, in plain or in patterns, with approved mastic or adhesive to match existing and wax polish to an approved finish.....	47.20		11153	
11154	Ditto but sheeting on floors.....	63.60		11154	
11155	Scrub, clean and apply two coats wax polish with machine buffed on floors.....	8.90		11155	
11156	Scrub, clean and apply sealer and two coats machine applied polish on floors.....	9.80		11156	
	MOSAIC FLOOR AND WALL TILES				
	Supply and lay as G.S. Item 18.110 but of any colour, size and surface finish :-				
	<i>Per square metre</i>				
		Glass mosaic tile	Glazed ceramic mosaic tile	Unglazed vitreous mosaic tile	
		A \$	B \$	C \$	
11157	Tiling on floors.....	157.00	174.00	191.40	11157
11158	Tiling on walls or columns.....	157.10	182.90	197.10	11158
11159	Tiling to treads and risers, return ends, sides and top of upstand kerbs, sides and bottom of channels and sinkings, surfaces of fitments, working benches and the like.....	168.80	200.50	214.10	11159
	<i>Per linear metre</i>				
11160	Extra over either of Items 11157 to 11159 inclusive for setting one row of tiles on splay at internal angle or junction of floor and wall tiling and the like.....	4.20	4.20	4.20	11160
11161	Skirting n.e. 75 mm high, with square top edge and square or splay bottom edge.....	11.40	12.50	12.90	11161
11162	Ditto but 75 - 150 mm high.....	17.40	20.80	22.30	11162
11163	Ditto but 150 - 225 mm high.....	23.50	29.10	31.60	11163
11164	Ditto but 225 - 300 mm high.....	29.60	37.40	41.00	11164
	Add to either of Items 11161 to 11164 inclusive for labour forming open string or stepped wall string at side of stairs.....	15%	15%	15%	
	<i>Per square metre</i>				
11165	Lay only tiling on floors.....	52.30	52.30	52.30	11165
11166	Lay only tiling on walls or columns.....	56.10	56.10	56.10	11166
11167	Lay only tiling to treads and risers, end of stairs, sides and top of upstand kerbs, sides and bottom of channels and sinkings, surfaces of fitment, working slabs and the like.....	61.10	61.10	61.10	11167
11168	Rake out joints between tiles and point in natural or coloured cement and sand grout on existing tiled surface.....	52.70	52.70	52.70	11168

Item					Item	
CERAMIC WALL TILES						
Ceramic wall tiles in any colour and surface finish :-						
<i>Per square metre</i>						
		Thickness (mm)				
		n.e. 9.5		exceeding 9.5		
	Tile size	n.e. 0.05 m ²	Exceeding 0.05 m ²	n.e. 0.05 m ²	Exceeding 0.05 m ²	
		A	B	C	D	
		\$	\$	\$	\$	
11169	Tiling on walls, columns, cills, top and edges of slabs, surfaces of fitment and the like.....	171.50	168.90	197.60	189.10	11169
11170	Lay only tiling on walls, columns, cills, top edges of slabs and the like.....	67.40	60.50	67.40	60.50	11170
11171	Rake out joints between tiles and point in natural or coloured cement and sand grout on existing tiled surface.....	41.40	36.30	41.40	36.30	11171
11172	Hack out and replace tiling in isolated patches and point to match existing.....	207.60	200.00	231.30	223.60	11172
	Add to either of Items 11169 and 11172 inclusive for ceramic wall tiles of specific quality.....				30%	
SWIMMING POOL TILES						
Approved glazed ceramic swimming pool tiles of non-decaying and corrosion-proof, resistant to aggressive water treated with chlorine and ozone, cleaning agents and disinfectants and slip resistant complying with DIN 51097, in any size, colour, surface finish and thickness, all in accordance with the Specification :-						
<i>Per square metre</i>						
				Supply and fix	Fix only	
				A	B	
				\$	\$	
11173	Pool wall tiles; laid in pattern.....			310.40	85.20	11173
11174	Pool floor tiles.....			265.70	75.10	11174
11175	Ditto; sloping.....			269.20	77.60	11175
11176	Pool tiles to steps, reveal, sides and soffit of recess.....			327.50	96.70	11176
<i>Per linear metre</i>						
11177	Extra over Item 11173 for pool edging tile with safety marking.....			188.40	-	11177
11178	Extra over Item 11173 for pool edging tile with grooved and safety marking.....			300.40	-	11178
11179	Extra over Item 11173 for tile with coved bottom between sides and bottom of swimming pool.....			212.60	-	11179
11180	Extra over Item 11173 for tile with coved bottom between sides and bottom of overflow channel.....			176.30	-	11180

Item	Item				
SWIMMING POOL TILES (CONT'D)					
Approved glazed ceramic swimming pool tiles of non-decaying and corrosion-proof, resistant to aggressive water treated with chlorine and ozone, cleaning agents and disinfectants and slip resistant complying with DIN 51097, in any size, colour, surface finish and thickness, all in accordance with the Specification : - (Cont'd)					
	<table border="1"> <thead> <tr> <th style="text-align: center;">Supply and fix</th> <th style="text-align: center;">Fix only</th> </tr> <tr> <th style="text-align: center;">A \$</th> <th style="text-align: center;">B \$</th> </tr> </thead> </table>	Supply and fix	Fix only	A \$	B \$
Supply and fix	Fix only				
A \$	B \$				
<i>Per linear metre</i>					
11181	Extra over Item 11173 for corner tiles..... 264.80 - 11181				
11182	Extra over Item 11174 for lane marking tiles in any size, colour and thickness..... 7.10 - 11182				
11183	Coved skirting tiles in any size, colour and thickness..... 120.00 - 11183				
11184	Nosing tiles with embossed surface and finger grip in any size, colour and thickness..... 98.70 - 11184				
11185	Overflow channel in any size, colour and thickness..... 1,410.50 - 11185				
11186	P.V.C. channel grating of any size, colour and thickness..... 244.30 - 11186				
11187	Ditto but including stainless steel wire..... 320.30 - 11187				
<i>Each</i>					
11188	Extra over either of Items 11173 to 11174 inclusive for depth marker and message tiles in any size, colour and thickness..... 222.00 - 11188				
11189	Add to Item 11185 for overflow channel with drainage outlet of any size..... 654.00 - 11189				
<i>Per pair</i>					
11190	Overflow channel internal angle..... 271.00 - 11190				
11191	Pool edging tile internal angle with safety marking..... 329.30 - 11191				
<i>Per square metre</i>					
11192	Rake out joints between tiles and point in approved grouting material on existing tiled surfaces..... 54.60 11192				

Item

Item

PROPRIETARY SEALANT TO MOVEMENT JOINTS TO TILING ON SWIMMING POOL AND POOL DECK

Prepare and apply proprietary one part medium modulus non-acidic and anti-mould sealant based on hybrid silyl modified polyether technology to form a tough, highly durable and water resistant elastomer suitable for intermittent and permanent immersion in potable water complying with the following including priming surfaces with proprietary primer before applying sealant; all in strict compliance with the manufacturer's recommendations :-

Form	Neutral Cure Silicone
Colour	White / Grey
Movement capability	±25%
Skinning time at 23°C/50% r.h.	approx. 5 minutes
Cure rate at 23°C/50% r.h.	approx. 2.0 mm / 24 hours
Ambient air temperature	+5°C to +40°C
Service temperature	-40°C to +80°C
Shore A hardness	approx. 20 (after 28 days)
Chemical resistance	Resistant to occasional spillage of many chemicals subject to the following limitations : (a) should not be applied at temperatures below 5°C (b) not suitable for contact with bituminous materials (c) must be fully cured prior to immersion in water (d) the free chlorine remains less than 5 mg/l
Biological resistance	Resistant to fungal attack
UV resistance	Excellent

Joint size (mm)						
5 x 20	5 x 25	15 x 20	15 x 25	15 x 50	25 x 25	25 x 50
A	B	C	D	E	F	G
\$	\$	\$	\$	\$	\$	\$
19.10	22.30	41.70	47.30	96.80	81.80	156.30

Per linear metre

11193 Proprietary sealant to movement joints in tiling on swimming pool and pool deck including priming surfaces with proprietary primer before applying sealant.....

11193

PRECAST CONCRETE PAVING SLAB OR BLOCK

Precast concrete paving slabs (1:2:4) in any size, colour and surface finish, rectangular or irregular shape :-

Supply and lay	Lay only
A \$	B \$
130.80	28.20

Per square metre

11194 Slab 50 mm thick.....

11194

Item

Item

PRECAST CONCRETE PAVING SLAB OR BLOCK (CONT'D)

Precast concrete blocks laid in stretcher bond, basket weave, herring bone patterns or any mixed colour patterns including all necessary cutting and trimming edges with cement and pouring sand to joints : -

Supply and lay		Lay only
Block thickness (mm)		
60	80	
A	B	C
\$	\$	\$
148.70	169.80	53.60
150.40	172.90	53.60
97.10	118.10	53.60
102.80	116.00	53.60

Per square metre

11195	200 x 100 mm Natural grey colour rectangular blocks.....	148.70	169.80	53.60	11195
11196	200 x 100 mm Red, brown, yellow or charcoal colour rectangular blocks.....	150.40	172.90	53.60	11196
11197	225 x 112.50 mm Natural grey colour interlocking blocks.....	97.10	118.10	53.60	11197
11198	225 x 112.50 mm Red, brown, yellow or charcoal colour interlocking blocks.....	102.80	116.00	53.60	11198

RE-CONSTITUTED ARTIFICIAL GRANITE WALL AND FLOOR TILING

Re-constituted artificial granite tiles in any colour and surface finish : -

Tile size	Strip tile		Square/ rectangular tile	
	10 - 15 mm thick	12 - 18 mm thick	10 - 15 mm thick	12 - 18 mm thick
n.e. 0.01 m ²	Exceed- ing 0.01 m ²	n.e. 0.01 m ²	Exceed- ing 0.01 m ²	
A	B	C	D	
\$	\$	\$	\$	
231.70	210.30	243.30	216.70	11199
243.80	221.80	250.90	229.30	11200
232.70	219.20	255.90	225.60	11201
19.20	17.30	78.50	72.70	11202

Per square metre

11199	Tiling on floors.....	231.70	210.30	243.30	216.70	11199
11200	Tiling on walls or columns.....	243.80	221.80	250.90	229.30	11200
11201	Tiling to treads and risers, return ends, sides and top of upstand kerbs, sides and bottom of channels and sinkings, surface of fitment, working benches and the like.....	232.70	219.20	255.90	225.60	11201

Per linear metre

11202	Extra over either of Items 11199 to 11201 inclusive for corner tiles.....	19.20	17.30	78.50	72.70	11202
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Thickness (mm)		
n.e. 10	10-15	15-20
A	B	C
\$	\$	\$
108.50	130.20	151.70

Per linear metre

11203	Re-constituted artificial granite door threshold, n.e. 70 mm wide, with bevelled edges.....	108.50	130.20	151.70	11203
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Add to either of Items 11199 to 11201 inclusive and Item 11203 for re-constituted artificial granite tiles of specific quality.....

40%

Item

Item

RE-CONSTITUTED ARTIFICIAL GRANITE WALL AND FLOOR TILING (CONT'D)

Re-constituted artificial granite tiles in any colour and surface finish : - (Cont'd)

	Strip tile		Square/ rectangular tile		
	10 - 15 mm thick		12 - 18 mm thick		
	Tile Size	n.e. 0.01 m ²	Exceed- ing 0.01 m ²	n.e. 0.01 m ²	
<i>Per square metre</i>	A \$	B \$	C \$	D \$	
11204 Lay only tiling on floors.....	86.50	66.20	86.50	66.20	11204
11205 Lay only tiling on walls or columns.....	94.10	77.70	94.10	77.70	11205
11206 Lay only tiling to treads and risers, end of stairs, sides and top of upstand kerbs, sides and bottom of channels and sinkings, surfaces of fitment, working slabs and the like.....	99.10	75.10	99.10	75.10	11206
11207 Rake out joints between tiles and point in natural or coloured cement and sand grout on existing tiled surface.....	29.10	21.60	29.10	21.60	11207
11208 Hack out and replace tiling in isolated patches and point to match existing.....	274.40	229.40	268.70	233.10	11208

Add to Item 11208 for re-constituted artificial granite tiles of specific quality..... 40%

PAVERS

Pavers in any size and colour, laid in stretcher bond, basket weave or herringbone pattern: -

	Thickness (mm)							
	43	50	55	60	65	76	80	
	A \$	B \$	C \$	D \$	E \$	F \$	G \$	
11209 Clay/brick pavers on floors.....	122.00	131.20	142.80	153.20	163.50	185.80	-	11209
11210 Recycled glass pavers on floors.....	-	-	-	336.80	-	-	376.70	11210
11211 Lay only pavers on floors.....	45.90	48.60	49.70	51.00	52.30	53.60	55.00	11211
Add to either of Items 11209 and 11210 inclusive for one layer of geogrid reinforcement of 50 KN/m strength and grid size of 25.4 x 25.4 mm underneath sand/sand and cement bedding of paver as detailed on Drawing Nos. H5136 and H5137 (This item shall only be paid, if ordered by the Maintenance Surveyor in writing.).....	10%	9%	8%	8%	7%	6%	3%	

Per linear metre

11212 232 x 115 x 76 mm Kerb brick on sand bed.....	A \$	59.70	11212
11213 232 x 115 x 76 mm Kerb brick on mortar.....		63.20	11213

Item									Item	
STONE SLABS/TILES										
Natural marble or granite slabs/tiles in any size, shape, pattern and colour :-										
<i>Per square metre</i>										
	Tiles	Slabs								
	Thickness (mm)	Thickness (mm)								
	8-12	20	25	32	40	50	75	100		
	A	B	C	D	E	F	G	H		
	\$	\$	\$	\$	\$	\$	\$	\$		
11214	Marble slabs/tiles, polished/flamed surface laid on floors.....	282.70	462.80	560.00	651.80	725.80	775.60	920.30	1,114.80	11214
11215	Marble slabs/tiles, polished/flamed surface fixed on walls, columns or vertical surfaces.....	409.60	568.50	642.10	737.80	884.50	-	-	-	11215
11216	Marble slabs/tiles, polished/flamed surface laid to treads and risers, steps, return ends, top and sides of counters, cills, door or window jambs and heads, bands, string courses, copings, arches and the like including all necessary cutting and forming holes.....	362.60	540.80	569.50	672.60	746.60	-	-	-	11216
11217	Granite slabs/tiles, polished/flamed surface laid on floors.....	278.00	441.20	532.20	651.80	725.80	775.60	876.30	1,114.80	11217
11218	Granite slabs/tiles, fine hammered dressed surface laid on floors.....	278.00	441.20	532.20	651.80	725.80	775.60	876.30	1,114.80	11218
11219	Granite slabs/tiles, polished/flamed surface fixed on walls, columns or vertical surfaces.....	522.80	694.50	713.10	810.40	884.50	-	-	-	11219
11220	Granite slabs/tiles, fine hammer dressed surface fixed on walls, columns or vertical surfaces.....	522.80	694.50	713.10	810.40	884.50	-	-	-	11220
11221	Granite slabs/tiles, polished/flamed surface laid to treads and risers, steps, return ends, top and sides of counters, cills, door or window jambs and heads, bands, string courses, copings, arches and the like including all necessary cutting and forming holes.....	394.70	643.60	662.10	765.10	839.30	-	-	-	11221
11222	Granite slabs/tiles, fine hammered dressed surface laid to treads and risers, steps, return ends, top and sides of counters, cills, door or window jambs and heads, bands, string courses, copings, arches and the like including all necessary cutting and forming holes.....	394.70	643.60	662.10	765.10	839.30	-	-	-	11222
<i>Per linear metre</i>										
		Thickness (mm)								
		20-30	30-40	40-50	50-75	75-100				
		A	B	C	D	E				
		\$	\$	\$	\$	\$				
11223	Marble/granite mouldings, polished/flamed surface n.e. 100 mm wide.....	88.20	98.80	106.40	125.60	152.10			11223	
11224	Ditto but 100 - 200 mm wide.....	156.10	176.10	190.10	226.80	277.50			11224	
<i>Per linear metre</i>										
		Thickness (mm)								
		n.e. 10	10-15	15-20						
		A	B	C						
		\$	\$	\$						
11225	Marble/granite door threshold, n.e. 70 mm wide, with bevelled edges.....	186.10	206.80	227.50					11225	
Add to either of Items 11214 to 11225 inclusive for natural marble or granite of European origin.....									40%	

Item							Item																														
STONE SLABS/TILES (CONT'D)																																					
Natural marble or granite slabs/tiles in any size, shape, pattern and colour : - (Cont'd)																																					
<table border="1"> <thead> <tr> <th rowspan="2">Marble/ Granite tiles</th> <th colspan="5">Marble/Granite slabs</th> </tr> <tr> <th colspan="5">Thickness (mm)</th> </tr> <tr> <th>Thickness (mm)</th> <th>8-12</th> <th>20-30</th> <th>30-40</th> <th>40-50</th> <th>50-75</th> <th>75-100</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>								Marble/ Granite tiles	Marble/Granite slabs					Thickness (mm)					Thickness (mm)	8-12	20-30	30-40	40-50	50-75	75-100	A	B	C	D	E	F	\$	\$	\$	\$	\$	\$
Marble/ Granite tiles	Marble/Granite slabs																																				
	Thickness (mm)																																				
Thickness (mm)	8-12	20-30	30-40	40-50	50-75	75-100																															
A	B	C	D	E	F																																
\$	\$	\$	\$	\$	\$																																
<i>Per square metre</i>																																					
11226	Lay only slabs/tiles on floors.....	70.00	83.90	87.80	91.60	97.90	108.10	11226																													
11227	Fix/lay only slabs/tiles to walls, columns or vertical surfaces.....	212.00	256.40	261.40	-	-	-	11227																													
11228	Ditto but including metal support backing frame.....	-	821.40	886.00	-	-	-	11228																													
11229	Lay only slabs/tiles to treads and risers, steps, return ends, top and sides of counters, cills, door or window jambs and heads, bands, string courses, copings, arches and the like including all necessary cutting and forming holes.....	82.70	99.10	110.60	-	-	-	11229																													
<table border="1"> <thead> <tr> <th colspan="6">Thickness (mm)</th> </tr> <tr> <th></th> <th>20-30</th> <th>30-40</th> <th>40-50</th> <th>50-75</th> <th>75-100</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>								Thickness (mm)							20-30	30-40	40-50	50-75	75-100	A	B	C	D	E	\$	\$	\$	\$	\$								
Thickness (mm)																																					
	20-30	30-40	40-50	50-75	75-100																																
A	B	C	D	E																																	
\$	\$	\$	\$	\$																																	
<i>Per linear metre</i>																																					
11230	Lay only moulding n.e. 100 mm wide.....	28.20	30.70	33.30	37.10	43.50	11230																														
11231	Lay only moulding 100 - 200 mm wide.....	33.30	37.10	40.80	47.20	57.30	11231																														
SUNDRY PAVING, ETC.																																					
<i>Per square metre</i>																																					
11232	Pebble finish 20 mm thick Mix "A" comprising cement, sand and pebble (2:2:3) laid on floor with washed finish.....						A	11232																													
11233	Pebble finish 20 mm thick Mix "B" comprising cement and pebble (2:3) rendering to vertical surfaces with washed finish.....						\$	11233																													
11234	Pebble paving formed with selected pebbles exceeding 25 mm but n.e. 75 mm gauge, pressed into top of concrete bed (measured separately) before setting to give roughly level surfaces, including neatly recess pointing between pebbles in cement and sand (1:3) grout.....						158.90	11234																													
11235	Small stone paving formed with selected stones exceeding 25 mm but n.e. 100 mm gauge, pressed into top of concrete bed (measured separately) before setting to give roughly level surfaces, including dressing off top of stones after setting to give roughly level surfaces and neatly recess pointing between stones in cement and sand (1:3) grout.....						200.90	11235																													
11236	Silicone carbide non-slip grains sprinkled on and lightly trowelled into surface of paving before setting, at a rate of 0.50 kg/m ² paving.....						318.70	11236																													
11237	Ditto but at rate of 1 kg/m ² paving.....						387.80	11237																													
11238	15 x 25 mm Non-slip insert strips bedded in paving, stair treads or steps as G.S. Item 18.88.....						48.60	11238																													
11239	75 x 150 x 10 mm Plain vitreous clay or quarry non-slip nosing tiles with grooves or raisings on top surface, bedded, jointed and pointed in cement and sand (1:3) grout.....						96.80	11239																													
11240	Non-ferrous metal nosing angle fixed to stair and step treads.....						31.60	11240																													
<i>Per linear metre</i>																																					
11238	15 x 25 mm Non-slip insert strips bedded in paving, stair treads or steps as G.S. Item 18.88.....						30.50	11238																													
11239	75 x 150 x 10 mm Plain vitreous clay or quarry non-slip nosing tiles with grooves or raisings on top surface, bedded, jointed and pointed in cement and sand (1:3) grout.....						68.70	11239																													
11240	Non-ferrous metal nosing angle fixed to stair and step treads.....							11240																													

Item					Item	
	TACTILES					
	Rubber/P.V.C. tactiles with adhesive in any pattern, colour, size and thickness, all in strict accordance with the manufacturer's instructions : -	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
11241	Rubber/plastic tactiles.....	289.50	10.80	14.20	45.50	11241
	Ceramic or quarry tile tactiles with cement and sand slurry in any pattern, colour, size and thickness, all in strict accordance with the manufacturer's instructions : -					
	<i>Per square metre</i>					
11242	Ceramic or quarry tile tactiles.....	333.30	14.90	19.10	43.90	11242
	Concrete tactile pavers with cement and sand slurry in any pattern, colour, size and thickness, all in strict accordance with the manufacturer's instructions : -					
	<i>Per square metre</i>					
11243	Concrete block tactiles.....	554.10	17.10	19.90	65.30	11243
	Artificial granite tactiles with cement and sand slurry in any pattern, colour, size and thickness, all in strict accordance with the manufacturer's instructions : -					
	<i>Per square metre</i>					
11244	Artificial granite tactiles.....	571.30	17.10	19.90	69.40	11244
	Supply and fix stainless steel tactile marker grade 316 with studs or strips with or without plastic cover fixed with adhesive, fixing bolts and nuts including drilling, cut holes, make good and all necessary fixing accessories, lay in any pattern and all in strict accordance with the manufacturer's instructions: -					
	<i>Each</i>					
11245	23 mm Diameter x 5 mm thick (positional).....	9.00	0.30	0.80	1.60	11245
11246	35 mm Diameter x 5 mm thick (hazard warning tile).....	9.70	0.30	0.80	1.60	11246
11247	34 mm x 285 mm x 5 mm thick (directional).....	58.60	1.30	2.50	10.10	11247
	Supply and fix proprietary POM tactile guide path, with or without studs, fixed with adhesive and including drilling, cut holes, make good and all necessary fixing accessories, lay in any pattern and all in strict accordance with the manufacturer's instructions : -					
	<i>Each</i>					
11248	23 mm Diameter x 5 mm thick (positional).....	6.60	0.30	0.80	1.60	11248
11249	35 mm Diameter x 5 mm thick (hazard warning tile).....	7.50	0.30	0.80	1.60	11249
11250	34 mm x 285 mm x 5 mm thick (directional).....	52.00	1.30	2.50	10.10	11250

Item

Item

DIVISION STRIPS

Depth (mm)	3 mm thick								
	Plastic			Stainless steel			Brass		
	20	25	40	20	25	40	20	25	40
	A	B	C	D	E	F	G	H	I
	\$	\$	\$	\$	\$	\$	\$	\$	\$
11251	8.20	9.00	10.20	19.20	22.40	30.00	22.40	26.50	37.00

Per linear metre

11251 Division strips set between different floor or wall finishes.....

11251

SUSPENDED CEILING SYSTEM FOR ACOUSTIC CEILING TILES

Supply and install suspension (grid) system as G.S. Items 13.23 and 13.45 :-

Tile size (m ²)	Fit for square or rectangular		Fix only
	n.e. 0.36	exc. 0.36	
	A	B	C
	\$	\$	\$
11252	66.90	62.50	31.70
	15%	15%	-

Per square metre

11252 Metal grid suspension system for acoustic ceiling tiles.....

11252

Add to Item 11252 for suspension system suitable for foam tape or sealing mastic.....

Supply and fix acoustic ceiling tiles in any thickness as G.S. Item 13.22 :-

Tile size (m ²)	Fit for square or rectangular		Fix only
	n.e. 0.36	exc. 0.36	
	A	B	C
	\$	\$	\$
11253	87.80	100.80	19.00
11254	87.80	100.20	19.00
11255	138.10	154.00	19.00
11256	169.50	190.80	19.00
11257	182.80	189.50	19.00
11258	201.10	213.90	19.00
11259	212.70	235.40	19.00
11260	256.20	267.70	19.00

Per square metre

11253 Wood or other organic fibre perforated acoustic ceiling tiles.....

11253

11254 Mineral fibre/rock wool acoustic tiles with fissured design tiles.....

11254

11255 Moisture resistant mineral fibre/rock wool acoustic tiles.....

11255

11256 Moisture resistant vinyl faced mineral fibre/rock wool acoustic tiles.....

11256

11257 Moisture resistant hygiene acoustic tiles.....

11257

11258 Moisture resistant metal foil faced mineral fibre/rock wool acoustic tiles.....

11258

11259 Moisture resistant metal foil faced bio-proof hygiene mineral fibre/rock wool acoustic tiles.....

11259

11260 Ditto but sealed into the suspension system with low compression foam tape and/or silicone sealing mastic.....

11260

Item									Item																																		
	<p>SUSPENDED CEILING SYSTEM FOR METAL CEILING</p> <p>Supply and install suspension grid system recommended by the manufacturer for approved ceiling type : -</p> <p><i>Per square metre</i></p>																																										
				<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="3">Strip/panel</th> <th rowspan="2">Fix only</th> </tr> <tr> <th>Lay-in</th> <th colspan="2">Clip-in</th> </tr> <tr> <th>Internal type</th> <th>Internal type</th> <th>External type</th> <th></th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>				Strip/panel			Fix only	Lay-in	Clip-in		Internal type	Internal type	External type		A	B	C	D	\$	\$	\$	\$																	
Strip/panel			Fix only																																								
Lay-in	Clip-in																																										
Internal type	Internal type	External type																																									
A	B	C	D																																								
\$	\$	\$	\$																																								
11261	Metal suspension system for metal ceiling.....	72.10	75.20	82.00	35.50				11261																																		
11262	Extra over Item 11261 for air-tight suspension system.....	54.10	116.90	-	33.60				11262																																		
	<p>Non-perforated ceiling panel/strip in any thickness and colour fixed to suspension system in accordance with the manufacturer's instructions (suspension system measured separately) : -</p> <p><i>Per square metre</i></p>																																										
		<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="3">Aluminium panel/strip</th> <th colspan="3">G.M.S. panel/strip</th> <th rowspan="2">Fix only</th> </tr> <tr> <th>Lay-in</th> <th colspan="2">Clip-in</th> <th>Lay-in</th> <th colspan="2">Clip-in</th> </tr> <tr> <th>Internal type</th> <th>Internal type</th> <th>External type</th> <th>Internal type</th> <th>Internal type</th> <th>External type</th> <th></th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>						Aluminium panel/strip			G.M.S. panel/strip			Fix only	Lay-in	Clip-in		Lay-in	Clip-in		Internal type	Internal type	External type	Internal type	Internal type	External type		A	B	C	D	E	F	G	\$	\$	\$	\$	\$	\$	\$		
Aluminium panel/strip			G.M.S. panel/strip			Fix only																																					
Lay-in	Clip-in		Lay-in	Clip-in																																							
Internal type	Internal type	External type	Internal type	Internal type	External type																																						
A	B	C	D	E	F	G																																					
\$	\$	\$	\$	\$	\$	\$																																					
11263	Ceiling panel/strip.....	173.00	173.00	193.60	161.40	161.40	181.10	19.00	11263																																		
11264	Extra over Item 11263 for additional sound absorbing mats on the rear side of the panel/strip.....	45.00	45.00	45.00	45.00	45.00	45.20	5.70	11264																																		
11265	Extra over Item 11263 for air-tight panel/strip.....	288.20	345.40	-	277.70	-	-	28.40	11265																																		
	Add to Item 11263 for panel/strip of perforated ceiling type.....	10%	10%	10%	10%	10%	10%	-																																			
	<p>PROPRIETARY SUSPENDED CEILING SYSTEM</p> <p>Proprietary aluminium baffle suspended ceiling system comprising minimum 1 mm thick aluminium sheets with powder coated finishes being formed to 25-30 mm wide x 100-150 mm height skeleton panels at specified centres to centres, including forming openings for light fittings or air grilles, fixed to and including suspension system and submission of catalogue, technical literature, samples, shop drawings and manufacturer's guarantee, all in accordance with the manufacturer's instructions : -</p> <p><i>Per square metre</i></p>																																										
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Ceiling panels at																																											
100 mm centre	150 mm centre																																										
A	B																																										
\$	\$																																										
11266	Proprietary aluminium baffle suspended ceiling system.....						1,614.10	1,107.40	11266																																		
11267	Take down and clear away proprietary aluminium baffle suspended ceiling system.....						48.30	33.50	11267																																		
11268	Take down and set aside for re-use proprietary aluminium baffle suspended ceiling system.....						56.90	39.40	11268																																		
11269	Fix only proprietary aluminium baffle suspended ceiling system.....						636.40	440.40	11269																																		
	<p>Proprietary tubular suspended ceiling system comprising minimum 1 mm thick aluminium sheets with polyester powder coated finishes being formed by 50 mm diameter tube at specified centres to centres, including forming openings for light fittings or air grilles, fixed to and including suspension system and submission of catalogue, technical literature, samples, shop drawings and manufacturer's guarantee, all in accordance with the manufacturer's instructions : -</p> <p><i>Per square metre</i></p>																																										
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Ceiling panels at																																											
100 mm centre	150 mm centre																																										
A	B																																										
\$	\$																																										
11270	Proprietary tubular suspended ceiling system.....						763.00	529.10	11270																																		
11271	Take down and clear away proprietary tubular suspended ceiling system.....						42.70	29.30	11271																																		
11272	Take down and set aside for re-use proprietary tubular suspended ceiling system.....						51.20	35.20	11272																																		
11273	Fix only proprietary tubular suspended ceiling system.....						303.10	208.40	11273																																		

Item					Item	
	SUNDRY LABOURS ON SUSPENDED CEILING SYSTEM					
			Take down and clear away	Take down and set aside for re-use		
	<i>Per square metre</i>		A \$	B \$		
11274	Suspended ceiling system including suspension system and acoustic ceiling tiles (all types).....		18.50	25.60	11274	
11275	Suspended ceiling system including suspension system and metal ceilings (all types).....		28.40	35.50	11275	
	Forming openings to existing suspended ceilings :-	Opening size (m ²)	n.e. 0.05	n.e. 0.50		
			Sprinkler heads, smoke detectors and the like	Light fittings, air grilles, access panels and the like		
	<i>Each</i>		A \$	B \$		
11276	Forming openings through existing suspended ceiling system for acoustic ceiling tiles (all types) including plywood backing as required.....		8.20	33.30	11276	
11277	Forming openings through existing suspended ceiling system for metal ceiling (all types) including plywood backing as required.....		20.50	44.70	11277	
	RAISED ACCESSED FLOORING					
	Raised accessed flooring in any pedestal height as G.S. Items 18.164 to 18.183 :-	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
11278	Flooring with bare panel.....	437.10	33.20	40.70	88.70	11278
11279	Flooring with high pressure laminated panel finish.....	601.70	33.20	40.70	88.70	11279
11280	Flooring with carpet tile finish.....	612.90	33.20	40.70	88.70	11280
11281	Flooring with vinyl tile finish.....	616.00	33.20	40.70	88.70	11281
11282	Access ramp.....	1,126.80	34.10	46.40	202.80	11282
11283	Steps.....	1,419.70	30.70	46.40	152.10	11283
	<i>Per linear metre</i>					
11284	Standard railing.....	1,765.40	15.70	21.60	153.30	11284
	<i>Each</i>				A \$	
11285	Set of picker and tool (lifting device).....				678.00	11285

Item

Item

HEAVY CONTRACT QUALITY CARPET

CARPET; FULLY ADHERING METHOD

Supply and lay carpet with all types of backing and in any series and colour finish required : -

Carpet					
Pile weight (kg/m ²)					
n.e. 1.50			exc. 1.50		
to floor	to stairs	to wall	to floor	to stairs	to wall
A	B	C	D	E	F
\$	\$	\$	\$	\$	\$
162.10	183.40	216.60	215.50	244.10	272.80
171.20	195.40	227.60	227.60	249.00	279.70

Per square metre

11286 Carpet laid with adhesive..... 11286

11287 Carpet laid with adhesive and release bond agent..... 11287

Supply and lay carpet including backing as "Environmentally Friendly Carpet" in any series and colour finish required : -

Carpet					
Pile weight (kg/m ²)					
n.e. 1.00			exc. 1.00		
to floor	to stairs	to wall	to floor	to stairs	to wall
A	B	C	D	E	F
\$	\$	\$	\$	\$	\$
231.50	251.00	283.50	263.20	288.40	322.60
238.90	257.80	293.50	283.00	304.50	335.30

Per square metre

11288 Carpet laid with adhesive..... 11288

11289 Carpet laid with adhesive and release bond agent..... 11289

Per square metre

Carpet		
Pile density (fibre/m ²)		
exc. 75 million		
to floor	to stairs	to wall
A	B	C
\$	\$	\$
291.80	312.80	339.10
308.50	325.20	361.90

11290 Carpet laid with adhesive..... 11290

11291 Carpet laid with adhesive and release bond agent..... 11291

Alterations and repairs : -

Carpet		
to floor	to stairs	to wall
A	B	C
\$	\$	\$
7.40	9.00	9.80
18.20	21.80	23.70
25.40	38.00	41.90
38.00	44.40	50.70

Per square metre

11292 Take up and clear away existing carpet of any type..... 11292

11293 Take up existing carpet of any type and set aside for re-use..... 11293

11294 Lay or fix only carpet of any type with adhesive..... 11294

11295 Lay or fix only carpet of any type with adhesive and release bond agent..... 11295

Item

Item

HEAVY CONTRACT QUALITY CARPET (CONT'D)

CARPET; GRIPPER METHOD

Supply and lay carpet with all type of backing and in any series and colour finish required :-

Per square metre

Carpet			
Pile weight (kg/m ²)			
n.e. 1.50		exc. 1.50	
to floor	to stairs	to floor	to stairs
A	B	C	D
\$	\$	\$	\$
167.40	213.80	250.40	292.90
200.70	245.90	282.30	327.50

11296 Carpet laid with grippers..... 11296

11297 Ditto with underlays..... 11297

Supply and lay carpet including backing as "Environmentally Friendly Carpet" in any series and colour finish required :-

Per square metre

Carpet			
Pile weight (kg/m ²)			
n.e. 1.00		exc. 1.00	
to floor	to stairs	to floor	to stairs
A	B	C	D
\$	\$	\$	\$
240.80	261.20	289.00	305.60
272.30	289.00	316.80	333.40

11298 Carpet laid with grippers..... 11298

11299 Ditto with underlays..... 11299

Alterations and repairs :-

Per square metre

Carpet	
to floor	to stairs
A	B
\$	\$
7.40	9.00
18.20	21.80
21.80	26.30
25.40	69.70
31.70	76.10
63.80	108.20

11300 Take up and clear away existing carpet of any type with or without underlay..... 11300

11301 Take up existing carpet of any type and set aside for re-use..... 11301

11302 Ditto but including underlays..... 11302

11303 Lay only carpet of any type with and including grippers..... 11303

11304 Ditto with underlays..... 11304

11305 Lay only carpet of any type including provision of new underlays and clear away old underlays..... 11305

100% PURE WOOL CARPET; GRIPPER METHOD

Per square metre

Carpet			
Pile weight (kg/m ²)			
n.e. 2.05		exc. 2.05	
to floor	to stairs	to floor	to stairs
A	B	C	D
\$	\$	\$	\$
425.40	465.00	479.00	530.50
447.70	487.90	525.10	567.80
722.10	750.20	778.00	794.70
759.30	778.00	805.80	822.40

11306 Carpet 'machine tufted' laid with grippers..... 11306

11307 Ditto with underlays..... 11307

11308 Carpet 'hand made' laid with grippers..... 11308

11309 Ditto with underlays..... 11309

Item

Item

HEAVY CONTRACT QUALITY CARPET (CONT'D)

100% PURE WOOL CARPET; GRIPPER METHOD (CONT'D)

Alterations and repairs : -

Carpet	
to floor	to stairs
A	B
\$	\$
6.60	9.00
17.40	20.90
20.90	25.10
25.40	76.80
31.70	83.00
70.30	115.20

Per square metre

11310	Take up and clear away existing carpet of any type.....	6.60	9.00	11310
11311	Take up existing carpet of any type and set aside for re-use.....	17.40	20.90	11311
11312	Ditto but including underlays.....	20.90	25.10	11312
11313	Lay only carpet of any type with and including grippers.....	25.40	76.80	11313
11314	Ditto with underlays.....	31.70	83.00	11314
11315	Lay only carpet of any type including provision of new underlays and clear away old underlays.....	70.30	115.20	11315

HEAVY CONTRACT QUALITY CARPET TILES

CARPET TILES; FULLY ADHERING METHOD

Supply and lay carpet tiles module size n.e. 0.40 m² in all types of backing and in all series and colour finish required : -

Carpet tiles					
Pile weight (kg/m ²)					
n.e. 1.00			exc. 1.00		
to floor	to stairs	to wall	to floor	to stairs	to wall
A	B	C	D	E	F
\$	\$	\$	\$	\$	\$
150.10	165.10	195.10	192.90	212.00	245.00
168.60	185.10	215.10	206.00	225.10	258.20
179.90	197.40	229.40	211.80	229.20	257.50
192.00	209.50	241.50	223.80	241.20	271.40

Per square metre

11316	Carpet tiles laid with adhesive.....	150.10	165.10	195.10	192.90	212.00	245.00	11316
11317	Ditto laid with adhesive and release bond agent.....	168.60	185.10	215.10	206.00	225.10	258.20	11317
11318	Carpet tiles laid with adhesive.....	179.90	197.40	229.40	211.80	229.20	257.50	11318
11319	Ditto laid with adhesive and release bond agent.....	192.00	209.50	241.50	223.80	241.20	271.40	11319

Supply and lay carpet tiles module size n.e. 1.00 m² including backing as "Environmentally Friendly Carpet" in any series and colour finish required : -

Per square metre

11318	Carpet tiles laid with adhesive.....	179.90	197.40	229.40	211.80	229.20	257.50	11318
11319	Ditto laid with adhesive and release bond agent.....	192.00	209.50	241.50	223.80	241.20	271.40	11319

Supply and lay carpet tiles module size n.e. 0.40 m² including backing as "Environmentally Friendly Carpet" in any series and colour finish required : -

Carpet tile		
Pile density (fibre/m ²)		
exc. 75 million		
to floor	to stairs	to wall
A	B	C
\$	\$	\$
344.10	359.10	389.10
364.10	379.10	409.10

Per square metre

11320	Carpet tiles laid with adhesive.....	344.10	359.10	389.10	11320
11321	Ditto laid with adhesive and release bond agent.....	364.10	379.10	409.10	11321

Item		Carpet			Item	
		to floor	to stairs	to wall		
		A	B	C		
		\$	\$	\$		
HEAVY CONTRACT QUALITY CARPET TILES (CONT'D)						
CARPET TILES ; FULLY ADHERING METHOD (CONT'D)						
Alterations and repairs : -						
<i>Per square metre</i>						
11322	Take up and clear away existing carpet tiles of any type.....	7.40	8.20	8.20	11322	
11323	Take up existing carpet tiles of any type and set aside for re-use.....	18.20	21.80	20.00	11323	
11324	Lay only carpet tiles of any type with adhesive.....	30.70	34.80	31.50	11324	
11325	Lay only carpet tiles of any type with adhesive and release bond agent.....	33.20	39.80	36.50	11325	
ENTRANCE MATTING						
Supply and install entrance matting comprises aluminium rolling mat strips and frames and aluminium/rubber/carpet scraper strip in any colour, profile spacing and finish : -						
<i>Per square metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
11326	Heavy duty entrance matting, ribbed carpet/grooved rubber/brush/aluminium scraper finished strip, n.e. 17 mm high.....	3,554.10	46.40	70.50	126.70	11326
11327	Ditto, 17 - 22 mm high.....	4,028.00	46.40	70.50	126.70	11327
11328	Ditto, 22 - 27 mm high.....	4,738.80	46.40	70.50	126.70	11328
TAKING DOWN EXISTING PLASTER, PAVINGS, TILING, SUSPENDED CEILING, ETC.						
(Note : - The items under column A hereafter shall not be measured if the wall or slab, etc. to which the finish being affixed is to be taken down.)						
Take down and clear away, or set aside for re-use as required, the following from any position : -						
<i>Per square metre</i>						
				Take down and clear away	Take down and set aside for re-use	
				A	B	
				\$	\$	
11329	Expanded metal lathing.....			3.80	-	11329
11330	Lightweight screeds to floors and roofs of any thickness.....			13.70	-	11330
11331	Cement and sand paving, floor screeds or floor rendering of any mix or thickness, including covering to stair treads, risers, kerbs, channels and the like.....			11.40	-	11331
11332	Cement and sand wall or ceiling rendering, screeds, skirting and the like.....			14.40	-	11332
11333	Internal plaster, external plaster, acoustic plaster, Shanghai plaster or gypsum plaster of any mix, thickness, or number of coats.....			13.70	-	11333
11334	Flexible sheets and skirting of any type to floor or wall (screed measured separately).....			9.90	12.90	11334
11335	"Sandtex-trowel" finish including backing screed if any.....			20.50	-	11335

Item			Take down and clear away	Take down and set aside for re-use	Item
			A \$	B \$	
	TAKING DOWN EXISTING PLASTER, PAVINGS, TILING, SUSPENDED CEILING, ETC. (CONT'D)				
	(Note : - The items under column A hereafter shall not be measured if the wall or slab, etc. to which the finish being affixed is to be taken down.) (Cont'd)				
	Take down and clear away, or set aside for re-use as required, the following from any position : - (Cont'd)				
	<i>Per square metre</i>				
11336	Granolithic or terrazzo paving of any mix or thickness, including covering to stair treads, risers, kerbs, channels and the like, and backing screed if any.....		19.70	-	11336
11337	Granolithic or terrazzo wall dadoes and skirting of any mix or thickness including backing screed if any.....		16.00	-	11337
11338	Ceramic or quarry floor tiling, skirting, etc., of any type (screed measured separately).....		13.70	-	11338
11339	Precast concrete floor tiling or skirting of any thickness (ditto).....		12.90	17.40	11339
11340	Terrazzo floor tiling, skirting, etc. of any type (ditto).....		15.20	21.20	11340
11341	Cork tiling of any thickness to floor, wall or ceiling (ditto).....		5.40	6.70	11341
11342	Flexible tiles and skirting of any type to floor or wall (ditto).....		9.90	12.90	11342
11343	Rubber tiles and sheets to floors, and treads and risers of any type (ditto).....		9.90	12.90	11343
11344	Mosaic floor or wall tiling of any type (ditto).....		13.70	-	11344
11345	Glazed or ceramic wall tiling of any type (ditto).....		13.70	-	11345
11346	Precast concrete paving slabs of any thickness (ditto).....		12.90	17.40	11346
11347	Rectangular or interlocking precast concrete paving blocks of any thickness (ditto).....		15.20	20.50	11347
11348	Artificial granite floor or wall tiling of any thickness (ditto).....		16.00	22.00	11348
11349	Clay brick paver of any size (ditto).....		14.40	19.00	11349
11350	Natural marble or granite slabs in any thickness on floors, walls, columns, vertical surfaces in dadoes and wall lining, treads and risers, end of stairs, top and sides of counters, window cills and the like (ditto).....		16.00	22.00	11350
11351	Marble/granite tiles of any size (ditto).....		13.70	18.20	11351
11352	Pebble or small stone paving of any mix or thickness.....		9.90	-	11352
11353	Acoustic ceiling tiling of any type or thickness on suspended ceiling and the like.....		7.10	8.50	11353
11354	Ceiling panel/strip of any type or thickness on suspended ceiling and the like.....		7.10	8.50	11354
	<i>Per linear metre</i>				
11355	Plaster of paris mouldings and moulded cornices n.e. 150 mm girth, complete with bracketing and the like.....		3.80	-	11355
11356	Ditto 150 - 300 mm girth, ditto.....		4.50	-	11356
11357	Brick curb of any size.....		6.10	8.30	11357
11358	Natural marble or granite moulding n.e. 100 mm wide.....		6.10	8.30	11358
11359	Ditto 100 - 200 mm wide.....		6.70	10.60	11359

Item				Item
	SUPPLY ONLY OF MATERIALS			
	<i>Per square metre</i>	A \$		
11360	6 mm Thick cork tiles.....	64.20		11360
11361	9 mm Ditto.....	96.30		11361
11362	12 mm Ditto.....	128.50		11362
		Thickness (mm)		
		n.e. 9.5	exceed- ing 9.5	
	<i>Per square metre</i>	A \$	B \$	
11363	Ceramic and quarry floor tiles each tile size n.e. 0.36 m ²	77.20	113.60	11363
11364	Ceramic and quarry floor tiles each tile size exceeding 0.36 m ²	88.80	116.70	11364
11365	Ditto but to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like each tile size n.e. 0.36 m ²	77.20	113.60	11365
11366	Ditto but to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like each tile size exceeding 0.36 m ²	88.80	116.70	11366
	<i>Per linear metre</i>			
11367	Ceramic and quarry skirting tiles 100 mm high.....	18.10	19.20	11367
11368	Ceramic and quarry skirting tiles 150 mm high.....	21.50	24.10	11368
11369	Ceramic and quarry skirting tiles 200 mm high.....	27.70	30.70	11369
	Add to either of Items 11363 to 11369 inclusive for ceramic and quarry floor tiles of specific quality.....		60%	
	<i>Per square metre</i>	A \$		
11370	Re-constituted artificial granite strip tile each tile size n.e. 0.01 m ² , 10 - 15 mm thick.....	111.20		11370
11371	Re-constituted artificial granite strip tile each tile size exceeding 0.01 m ² , 10 - 15 mm thick.....	120.20		11371
11372	Re-constituted artificial granite square/rectangular tile each tile size n.e. 0.01 m ² , 12 - 18 mm thick.....	136.30		11372
11373	Re-constituted artificial granite square/rectangular tile each tile size exceeding 0.01 m ² , 12 - 18 mm thick.....	137.20		11373
	Add to either of Items 11370 to 11373 inclusive for re-constituted artificial granite tiles of specific quality.....		65%	

Item	Item
SUPPLY ONLY OF MATERIALS (CONT'D)	
<i>Per square metre</i>	
11374	11374
Terrazzo floor tiles to BS EN 13748 in any colour and surface finish, 20 mm thick.....	120.60
11375	11375
Unbacked flexible vinyl tiles in any colour and surface finish 2 mm thick.....	85.60
11376	11376
Semi-flexible P.V.C. tiles in any colour and surface finish, 2.5 mm thick.....	111.70
11377	11377
Linoleum tiles in any colour and surface finish 3.2 mm thick.....	173.80
11378	11378
Unbacked flexible sheet in any colour and surface finish, 1.2 mm thick.....	65.90
11379	11379
Unbacked flexible sheet in any colour and surface finish, 2 mm thick.....	86.70
11380	11380
Foam backed (1.5 mm thick) flexible sheet in any colour and surface finish, overall 3 mm thick.....	103.10
11381	11381
Linoleum flexible sheet in any colour and surface finish, 3.2 mm thick.....	187.90
11382	11382
Linoleum flexible sheet in any colour and surface finish, 4.5 mm thick.....	254.60
11383	11383
Homogeneous vinyl tiles, 2 mm thick.....	159.40
11384	11384
Homogeneous vinyl sheet, 2 mm thick.....	172.50
11385	11385
Rubber tiles in any colour and surface finish, 4 mm thick.....	322.40
11386	11386
Rubber sheet in any colour and surface finish, 4 mm thick.....	363.20
<i>Per linear metre</i>	
11387	11387
Preformed flexible P.V.C. skirting 100 mm high coved bottom.....	35.60
11388	11388
'L' shape P.V.C. skirting, 100 x 45 x 2 mm thick.....	42.20
<i>Per square metre</i>	
11389	11389
Glazed ceramic mosaic tiles in any colour and size.....	91.80
11390	11390
Unglazed vitreous mosaic tiles in any colour and size.....	107.90
11391	11391
Ceramic wall tiles each tile size n.e. 0.05 m ² and n.e. 9.5 mm thick.....	79.20
11392	11392
Ceramic wall tiles each tile size exceeding 0.05 m ² and n.e. 9.5 mm thick.....	115.90
11393	11393
Ceramic wall tiles each tile size n.e. 0.05 m ² and exceeding 9.5 mm thick.....	113.60
11394	11394
Ceramic wall tiles each tile size exceeding 0.05 m ² and exceeding 9.5 mm thick.....	119.20
Add to either of Items 11391 to 11394 inclusive for ceramic wall tiles of specific quality.....	
50%	

Item		A \$	Item
SUPPLY ONLY OF MATERIALS (CONT'D)			
<i>Per square metre</i>			
11395	Glazed ceramic swimming pool tiles in any colour size, surface finish and thickness.....	190.80	11395
11396	Fully adhered or loosely laid carpet, pile weight n.e. 1.50 kg/m ² delivered to Site.....	61.80	11396
11397	Fully adhered or loosely laid carpet, pile weight exceeding 1.50 kg/m ² delivered to Site.....	82.10	11397
11398	Fully adhered or loosely laid "Environmental Friendly" carpet, pile weight n.e. 1.00 kg/m ² delivered to Site.....	90.60	11398
11399	Fully adhered or loosely laid "Environmental Friendly" carpet, pile weight exc. 1.00 kg/m ² delivered to Site.....	141.70	11399
11400	Carpet tile module size n.e. 0.40 m ² , pile weight n.e. 1.00 kg/m ² delivered to Site.....	61.80	11400
11401	Carpet tile module size n.e. 0.40 m ² , pile weight exc. 1.00 kg/m ² delivered to Site.....	114.80	11401
11402	"Environmental Friendly" Carpet tiles size n.e. 1.00 m ² , pile weight n.e. 1.00 kg/m ² delivered to Site.....	80.60	11402
11403	"Environmental Friendly" Carpet tiles size n.e. 1.00 m ² , pile weight exc. 1.00 kg/m ² delivered to Site.....	94.90	11403
11404	"Environmental Friendly" Carpet tiles, pile density (fibre/m ²) exceeding 75 million in any series, delivered to Site.....	141.70	11404
11405	100% pure wool, pile weight n.e. 2.05 kg/m ² "machine tufted" carpet delivered to Site.....	189.40	11405
11406	100% pure wool, pile weight exceeding 2.05 kg/m ² "machine tufted" carpet delivered to Site.....	205.90	11406
11407	100% pure wool, pile weight n.e. 2.05 kg/m ² "hand made" carpet delivered to Site.....	271.80	11407
11408	100% pure wool, pile weight exceeding 2.05 kg/m ² "hand made" carpet delivered to Site.....	288.30	11408
11409	Carpet underlay delivered to Site.....	35.40	11409

Section 12

ROADWORK AND CABLE DUCT

SECTION 12

ROADWORK AND CABLE DUCT

SPECIAL CONDITIONS

Drawings	SC12.01	The drawings referred to in this Section and listed in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule can be viewed on the internet website via the pathway referred therein. Refer to Section 00 - General Regulations Clause GR.08 for the requirements of the drawings.
Specification	SC12.02	This Section shall be read and used in conjunction with G.S. Section 24 - External Works.
Measurement of excavation, concrete work, etc.	SC12.03	All excavation, concrete work, steel and metal work, plaster work and drainage work shall be measured separately and paid for at appropriate rates under applicable Work Sections of this Schedule unless specifically described in this Section.
Measurement of granular beds, base or sub-base	SC12.04	<p>The measurement of granular beds, base or sub-base shall be the compacted thickness as specified by the Maintenance Surveyor, whether laid in one or more layers. No deductions shall be made for manholes, gullies, catch pits, inspection covers, columns or piers, etc. not exceeding 1.00 m².</p> <p>In the case of quadrants, the outer circular girth shall be measured.</p>
ROADWORK		
Rates generally	SC12.05	<p>Rates for all items shall include for any or all of the following as applicable :-</p> <ol style="list-style-type: none"> (a) Finishing surfaces level or to falls, gradients, crowns and cambers to exact profile required, with each successive surface finished parallel to the final finished surface. (b) Additional bulk of material required to allow for compaction and consolidation. (c) All wheeling and multi-handing of material to place of final incorporation in the work. (d) Maintenance and cleaning of surfaces. (e) Protection of curbs, masking and unmasking of drainage channels, manhole covers, gully gratings, expansion joints, road studs and road marking. (f) Provision, maintenance and removal of measures to maintain traffic flow including all temporary traffic diversion lighting and signs including labours and all charges incurred. (g) Provision, maintenance and removal of temporary road, walkway covers to trenches and the like. (h) Obtaining permits from Government departments before execution of the works.

SPECIAL CONDITIONS

ROADWORK

Rates generally (Cont'd)

SC12.05 (Cont'd)

- (i) Mobilization, maintenance and demobilization of paving machine, rollers, compaction plant, milling machine and the like.
- (j) Coring, testing and reinstatement with bituminous material shall include for : -
 - (i) Marking the edges of the surfaces to be cored.
 - (ii) Making good any overbreak, cracking or other damages.
 - (iii) Cleaning up and removing surplus material and waste.
 - (iv) Taking core samples, sealing and transferring in the proper sequence to core box and delivering them to place of testing.
 - (v) Recording and submitting records and reports.
 - (vi) Filling up core holes with appropriate materials.

Rates for granular sub-base and/or lean concrete

SC12.06

Rates for granular sub-base and/or lean concrete sub-base shall further include for : -

- (a) Trial areas.
- (b) Reclaimed asphalt pavement as specified in G.S. Item 24.06.
- (c) Grading, measuring, mixing, transporting, depositing, spreading, levelling and compacting.
- (d) Making of all joints.
- (e) In the case of lean concrete sub-base, all testing and formwork.
- (f) Spillage and slopes at edges.
- (g) Edge support.

Rates for bituminous road base

SC12.07

Rate for bituminous road base shall further include for : -

- (a) Trial areas.
- (b) Reclaimed asphalt pavement as specified in G.S. Item 24.06.
- (c) Grading, measuring, mixing, transporting, depositing, spreading, levelling and compacting.
- (d) Making of all joints.
- (e) Spillage and slopes at edges.

SPECIAL CONDITIONS

ROADWORK

**Rates for
bituminous
road base
(Cont'd)**

**SC12.07
(Cont'd)**

- (f) Edge support.
- (g) Sealing surfaces, priming and tack coats.

**Rates for
bituminous
flexible
surfacing**

SC12.08

The rates for bituminous flexible surfacing shall further include for : -

- (a) Preparation and cleaning of surface to receive bituminous materials.
- (b) Reclaimed asphalt pavement as specified in G.S. Item 24.06.
- (c) Grading, measuring, mixing, transporting, depositing, spreading, levelling and compacting.
- (d) Cutting back and making of joints including applying bituminous priming coats.
- (e) Maintenance of surface and cleaning or removal and replacement of contaminated layers.
- (f) Spillage and slopes at edges.
- (g) Making good up to curbs and around manholes and gully covers and frames and up to existing services and around expansion joints.
- (h) Making good up to existing flexible surfacing.
- (i) Sealing surfaces, priming and tack coats.

**Rates for
polymer modified
friction course**

SC12.09

The rates for polymer modified friction course shall further include for : -

- (a) Preparation and cleaning of surface to receive polymer modified friction course materials.
- (b) Grading, measuring, mixing, transporting, depositing, spreading, levelling and compacting.
- (c) Cutting back and making of joints including applying bituminous priming coats.
- (d) Maintenance of surface and cleaning or removal and replacement of contaminated layers.
- (e) Spillage and slopes at edges.
- (f) Making good up to curbs and around manholes and gully covers and frames and up to existing services and around expansion joints.
- (g) Making good up to existing flexible surfacing.
- (h) Sealing surfaces, priming and tack coats.

SPECIAL CONDITIONS

ROADWORK

Rates for cold milling of wearing course

SC12.10

The rates for cold milling of wearing course shall further include for : -

- (a) Removal of all material arising.
- (b) Preparation and brushing of surface.
- (c) Multiple milling to the depth, profile shape, fall and the texture surface required.
- (d) Making good up to curbs and around manholes and gully covers and frames and up to existing services and around expansion joints.
- (e) Making good up to existing flexible surfacing.
- (f) Loosing, breaking of milled particles.
- (g) Cleaning milled surface by mechanical vacuum road sweeper.

Rates for patching up potholes with bituminous material

SC12.11

The rates for patching up potholes with bituminous material shall further include for : -

- (a) Potholes of any thickness.
- (b) Removal of debris and loose material from potholes.
- (c) Drying out water in potholes.
- (d) Preparation of surface and applying bituminous priming coat.
- (e) Placing and compacting bituminous material marrying in with existing surfaces.

Rates for patching up potholes with instant filling material

SC12.12

The rates for patching up potholes with instant filling material shall further include for : -

- (a) Potholes of any thickness.
- (b) Removal of debris and loose material from potholes.
- (c) Drying out water in potholes.
- (d) Placing and compacting instant hole filling material marrying in with existing surfaces.

Rates for concrete carriageway

SC12.13

The rates of concrete carriageway shall further include for : -

- (a) Trial mixes.
- (b) Waterproofing membrane underlays.
- (c) Formwork and trimming bars.
- (d) Spreading, compacting and finishing the concrete.

SPECIAL CONDITIONS

ROADWORK

**Rates for
concrete
carriageway
(Cont'd)**

**SC12.13
(Cont'd)**

- (e) In the case of rapid hardening concrete, providing and mixing approved concrete admixture for early strength or rapid hardening cement.
- (f) Surface texturing, curing and protection.
- (g) Forming channels as an integral part of the slab.
- (h) Forming recesses, openings and bays for manholes, gullies and road studs.
- (i) Forming surfaces within vertical and horizontal tolerances and surface regularity.
- (j) Restrictions on the use of pavement courses by construction traffic.
- (k) Making good up to existing.

**Rates for
steel fabric
reinforcement**

SC12.14

The rates for steel fabric reinforcement shall include for : -

- (a) Extra fabric reinforcement at laps.
- (b) All requirements of sampling and testing.
- (c) Cleaning, cutting to size, bending, fixing and securely supporting in the required position.
- (d) Plastic cover spacers, spacer blocks, steel spacer rods, steel chairs and annealed iron tying wire or tack welding.

**Rates for
longitudinal,
expansion and
contraction
joints**

SC12.15

The rates for longitudinal, expansion and contraction joints shall include for : -

- (a) Forming joints through full thickness of concrete slab carriageway and surfacing including formwork.
- (b) Removal of dust and debris.
- (c) Provision of bond breaker or backing strips.
- (d) Masking tape to sides of groove.
- (e) Application of primer to sides of sealing grooves.
- (f) Joint assemblies complete including, as appropriate, groove forming strip, tie bars with PVC sleeves, crack inducers, dowel bars, dowel sheaths, dowel bar cradles, joint filler and joint sealant.
- (g) Removal of groove forming strip at movement joints after concrete has set.

SPECIAL CONDITIONS

ROADWORK

**Rates for
run-in**

SC12.16

The rates for run-in shall further include for : -

- (a) Cutting pavement by saw cut, excavating and clearing away or filling and compacting excavated materials.
- (b) Taking up and clearing away from Site or setting aside for re-laying existing curbs.
- (c) Breaking up and clearing away from Site existing concrete bedding for curbs.
- (d) Preparation of formation and compacting base.
- (e) Laying and compacting of 150 mm granular sub-base.
- (f) Concrete pavement up to 200 mm thick and finishing surface.
- (g) Supplying and laying steel fabric reinforcement.
- (h) Supplying and laying additional/replacement drop curbs including concrete bedding.

**Rates for
curbs, precast
concrete
footway
edgings, etc.**

SC12.17

The rates for granite or precast concrete curbs, precast concrete footway edgings, etc. shall further include for : -

- (a) Excavating in any materials, ramming bottom, backfilling and removing surplus materials from Site.
- (b) Concrete bedding, backing and foundation for curbs or edgings.
- (c) Formwork.
- (d) Reinforcement.
- (e) Keying of surface and tack coat.
- (f) Finishing, protecting and curing.
- (g) Making and sealing joints.
- (h) Dressing of curbs.

**Rates for
concrete
footways**

SC12.18

The rates for concrete footways shall further include for : -

- (a) Trial mixes.
- (b) Waterproofing membrane underlays.
- (c) Formwork and trimming bars.
- (d) Spreading, compacting and finishing the concrete.

SPECIAL CONDITIONS

ROADWORK

Rates for concrete footways (Cont'd)	SC12.18 (Cont'd)	<ul style="list-style-type: none"> (e) In the case of rapid hardening concrete, providing and mixing approved concrete admixture for early strength or rapid hardening cement. (f) Surface texturing, curing and protection. (g) Spillage and slopes at sides. (h) Forming channels as an integral part of the slab. (i) Forming recesses, openings and bays for manholes, gullies and road studs. (j) Forming surfaces within vertical and horizontal tolerances and surface regularity. (k) Forming and including expansion, longitudinal and contraction joints including all necessary formwork. (l) Restrictions on the use of pavement courses by construction traffic. (m) Making good up to existing.
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CABLE DUCT

Measurement of cable duct pipes	SC12.19	All cable duct pipes shall be measured net as laid or fixed over all fittings.
Rates for concrete beds, haunchings and surrounds to pipes	SC12.20	<p>The rates for concrete beds, haunchings and surrounds to pipes shall include for : -</p> <ul style="list-style-type: none"> (a) Providing and laying a layer of polythene sheeting or concrete blinding on the bottom of trenches before concreting. (b) All necessary formwork and falsework. (c) Forming flexible joints including joint filler. (d) All necessary precast concrete wedges, blocks or cradles or other approved pipe supports including compressible sheeting. (e) Keeping concrete and pipes damp until backfilling placed.
Rates for granular beds	SC12.21	<p>The rates for granular beds shall include for : -</p> <ul style="list-style-type: none"> (a) Recycled or non-recycled granular bedding material to be clean, hard, durable, crushed rock or crushed concrete, broken stone, hard brick, concrete or other comparable hard insert approved by the Maintenance Surveyor. (b) Compacting and trimming granular beds to correct gradient and shape under barrel and pipe sockets.

SPECIAL CONDITIONS**CABLE DUCT**

Rates for granular beds (Cont'd)

SC12.21 (Cont'd)

- (c) Handling from temporary spoil heaps.
- (d) Additional bulk of material required to allow for compaction and consolidation.
- (e) Re-compacting and laying granular around pipes after testing.

Rates for cable duct pipes

SC12.22

The rates for cable duct pipes shall include for : -

- (a) All short lengths and all cutting and waste.
- (b) All jointing and jointing materials.
- (c) Provision of nylon draw cord in each length of duct.
- (d) Provision of all information required by the Maintenance Surveyor for preparation of record drawings.

Item				Item	
ROAD, CARPARKS AND PAVED AREAS					
SUB-BASE					
		A \$			
<i>Per cubic metre</i>					
12001	Granular sub-base.....	185.90		12001	
12002	Lean concrete sub-base.....	941.50		12002	
ROAD BASE					
		A \$			
<i>Per cubic metre</i>					
12003	Bituminous road base.....	799.40		12003	
FLEXIBLE SURFACING					
Supply, lay and roll with roller for the following bituminous surfacing (consolidated thickness stated) :-					
		Nominal aggregate size (mm)			
		37.5	28	20	10
		A	B	C	D
		\$	\$	\$	\$
12004	55 mm Thick bituminous base course.....	84.30	-	-	-
12005	Add to Item 12004 for each additional 5 mm thickness or part thereof in excess of 55 mm.....	7.80	-	-	-
12006	55 mm Thick bituminous base course.....	-	90.50	-	-
12007	Add to Item 12006 for each additional 5 mm thickness or part thereof in excess of 55 mm.....	-	8.50	-	-
12008	40 mm Thick bituminous wearing course.....	-	-	89.20	-
12009	Add to Item 12008 for each additional 5 mm thickness or part thereof in excess of 40 mm.....	-	-	9.20	-
12010	30 mm Thick bituminous wearing course.....	-	-	-	61.70
12011	Add to Item 12010 for each additional 5 mm thickness or part thereof in excess of 30 mm.....	-	-	-	10.50
		Thickness (mm)			
		10	20	40	
		A	B	C	
		\$	\$	\$	
12012	Polymer modified friction course.....	23.50	45.00	81.80	12012
		A \$			
<i>Per square metre</i>					
12013	Add to Item 12012 for each additional 5 mm thickness or part thereof in excess of 40 mm.....	8.90		12013	

Item

Item

ROAD, CARPARKS AND PAVED AREAS (CONT'D)

COLD MILLING WORK

Per square metre

A
\$

12014	Cold mill 25 mm thick wearing course with shaving machine and remove from Site all materials arising.....	19.60		12014
12015	Add to Item 12014 for each additional 25 mm thickness or part thereof in excess of 25 mm.....	15.70		12015

PATCHING UP POTHoles

(Note : - The following Items 12016 to 12017 inclusive shall only be measured when individual potholes n.e. 2.0 m² each are repaired.)

Pothole size (m ²)			
n.e. 0.2	0.2 - 0.5	0.5 - 1.0	1.0 - 2.0
A	B	C	D
\$	\$	\$	\$
28.20	41.30	63.70	127.00
109.00	284.00	571.00	1,141.00

Each

12016	Patch up pothole with bituminous material.....			12016
12017	Patch up pothole with instant hole filling material.....			12017

REINFORCED CONCRETE CARRIAGEWAY

Per cubic metre

A
\$

12018	Reinforced concrete Grade 40S, Grade 40D or 40MPa carriageway.....	1,288.30		12018
12019	Extra over Item 12018 for rapid hardened concrete.....	273.70		12019

STEEL FABRIC REINFORCEMENT

Per square metre

BS 4483 or SS-32 Reference number				
C785	C636	C503	C385	C283
A	B	C	D	E
\$	\$	\$	\$	\$
59.90	54.10	45.30	38.10	31.90

12020	Supply and lay steel fabric reinforcement.....			12020
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RUN-IN

Each

A
\$

12021	Concrete run-in size n.e. 10 m ²	2,976.00		12021
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Per square metre

A
\$

12022	Concrete run-in size exceeding 10 m ²	284.50		12022
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Item									Item	
ROAD, CARPARKS AND PAVED AREAS (CONT'D)										
REPAIRS TO EXISTING CONCRETE SURFACING										
		Depth of grooves (mm)		n.e. 15	15 - 25	n.e. 20	20 - 25	n.e. 20	20 - 35	n.e. 40
		Width of grooves (mm)		n.e. 10	n.e. 10	10 - 15	10 - 15	15 - 20	15 - 20	20 - 25
				A	B	C	D	E	F	G
		<i>Per linear metre</i>		\$	\$	\$	\$	\$	\$	\$
12023	Saw cut groove in concrete carriageway for joint sealant.....	22.00	33.00	37.90	47.30	56.90	109.90	145.60		12023
				Bar diameter (mm)		12	20	25		
				Embedded length (mm)		200	325	325		
		<i>Each</i>		A	B	C				
				\$	\$	\$				
12024	Drill hole in edge of concrete carriageway for dowel bar and PVC sleeve.....					28.40	50.80	63.20		12024
LONGITUDINAL, EXPANSION AND CONTRACTION JOINTS										
				Thickness of slab (mm)		n.e. 150	150-310			
		<i>Per linear metre</i>		A	B	\$	\$			
12025	Form expansion joint through full thickness of slab.....					263.50	357.30			12025
12026	Form longitudinal joint ditto.....					134.30	157.00			12026
12027	Form contraction joint ditto.....					270.90	338.60			12027
FOOTWAYS, CYCLE TRACKS, PAVING AND CURBING										
		<i>Per linear metre</i>		A	\$					
12028	Granite curb n.e. 200 mm high including backing and foundations.....					167.00				12028
12029	Add to Item 12028 for each additional 50 mm height or part thereof in excess of 200 mm.....					10.00				12029
12030	Extra over either of Items 12028 to 12029 inclusive for curb n.e. 15.00 m radius.....					55.30				12030
12031	Granite quadrant n.e. 200 mm high including backing and foundations.....					272.20				12031
12032	Add to Item 12031 for each additional 50 mm height or part thereof in excess of 200 mm.....					62.00				12032
12033	Extra over either of Items 12031 to 12032 inclusive for quadrant n.e. 15.00 m radius.....					55.30				12033
12034	Lay only granite curbs/quadrants of any size including backing and foundations.....					142.40				12034
12035	Ditto but n.e. 15.00 m radius.....					158.80				12035

Item							Item																		
FOOTWAYS, CYCLE TRACKS, PAVING AND CURBING (CONT'D)																									
<i>Per linear metre</i>																									
Concrete curb type																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 16.6%;">K1</th> <th style="width: 16.6%;">K2</th> <th style="width: 16.6%;">K3</th> <th style="width: 16.6%;">K5 or K9</th> <th style="width: 16.6%;">K6 or K8</th> <th style="width: 16.6%;">K7</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">C</td> <td style="text-align: center;">D</td> <td style="text-align: center;">E</td> <td style="text-align: center;">F</td> </tr> <tr> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> </tr> </tbody> </table>								K1	K2	K3	K5 or K9	K6 or K8	K7	A	B	C	D	E	F	\$	\$	\$	\$	\$	\$
K1	K2	K3	K5 or K9	K6 or K8	K7																				
A	B	C	D	E	F																				
\$	\$	\$	\$	\$	\$																				
12036	Precast concrete curb including backing and foundations.....	158.30	171.20	164.10	185.50	181.80	159.70	12036																	
12037	Extra over Item 12036 for curb n.e. 15.00 m radius.....	56.20	56.20	51.80	58.70	58.70	47.20	12037																	
12038	Lay only precast concrete curb including backing and foundations.....	133.80	133.80	123.90	136.50	136.50	119.40	12038																	
12039	Ditto but n.e. 15.00 m radius.....	156.10	156.10	144.50	159.20	159.20	139.50	12039																	
<i>Per linear metre</i>																									
Edging type																									
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E1	E2	E3																							
A	B	C																							
\$	\$	\$																							
12040	Precast concrete footpath edging including backing and foundations.....				158.40	160.50	156.60	12040																	
<i>Per linear metre</i>																									
12041	Precast concrete quadrant to suit curbs and edgings of any size and radius including backing and foundations.....						210.80	12041																	
<i>Per cubic metre</i>																									
12042	Plain concrete Grade 30S, Grade 30D or 30MPa footway.....						918.80	12042																	
12043	Plain concrete Grade 30S, Grade 30D or 30MPa margin or edging.....						939.30	12043																	
12044	Ditto flat or dish channel.....						939.30	12044																	
12045	Extra over either of Items 12042 to 12044 inclusive for concrete footpath with rapid hardening concrete.....						250.90	12045																	
12046	Reinforced concrete Grade 30S, Grade 30D or 30MPa footway.....						928.10	12046																	
12047	Ditto margin or edging.....						951.90	12047																	

Item

Item

FOOTWAYS, CYCLE TRACKS, PAVING AND CURBING (CONT'D)

SUNDRIES

Per square metre

A
\$

12048 Take up and clear away from Site existing paving slabs/blocks and sand bedding..... 45.50 12048

12049 Take up, set aside for re-use and re-lay existing paving slabs/blocks and sand bedding including additional sand filling and bedding..... 85.30 12049

Per linear metre

12050 Take up and clear away from Site existing granite curbs or precast concrete curb, in any size and any radius, and associated concrete bedding, backing and foundation..... 42.70 12050

12051 Take up, set aside for re-use and re-lay existing granite curbs or precast concrete curbs, ditto..... 213.20 12051

CABLE DUCT

CABLE DUCT PIPES

	Type and bore of pipe (mm)								
	U.P.V.C.				Galvanized mild steel				
	50	75	100	150	50	80	100	150	
<i>Per linear metre</i>	A	B	C	D	E	F	G	H	
	\$	\$	\$	\$	\$	\$	\$	\$	
12052 Pipe laid in trench as cable duct.....	53.70	93.20	142.60	258.80	125.60	174.30	230.80	336.20	12052
12053 Take up and clear away ditto.....	3.40	4.90	5.80	8.30	4.30	7.10	10.00	12.50	12053
12054 Take up and set aside for re-use ditto.....	4.90	5.80	6.60	9.10	7.10	10.00	11.40	14.90	12054
12055 Extra over either of Items 12053 to 12054 inclusive for breaking out and clearing away concrete bed and surround if any.....	9.40	10.90	16.30	23.20	9.40	10.90	16.30	23.20	12055
12056 Lay only pipe in trench as cable duct.....	21.50	37.30	57.00	103.50	50.30	69.70	92.30	134.50	12056

CONCRETE BEDS FOR CABLE DUCT PIPES

Concrete Grade 10S, Grade 10D or 10MPa in : -

	Width of concrete bed and pipe bore (mm)						
	400	450	600	700	800	950	
	Wide under 100 pipe	Wide under 150 pipe	Wide under two 100 pipes	Wide under two 150 pipes	Wide under three 100 pipes	Wide under three 150 pipes	
<i>Per linear metre</i>	A	B	C	D	E	F	
	\$	\$	\$	\$	\$	\$	
12057 Bed 100 mm thick under pipe or pipes laid side-by-side including haunching up from outside edge of bed to meet pipe barrel tangentially after pipes are laid.....	33.40	35.80	50.80	61.80	73.10	87.10	12057
12058 Add to Item 12057 if pipe or pipes completely surrounded with similar concrete not less than 100 mm thick all round.....	38.50	47.40	56.10	63.90	75.80	99.80	12058

Item					Item	
	CABLE DUCT (CONT'D)					
	GRANULAR BEDS FOR CABLE DUCT PIPES					
	<i>Per cubic metre</i>			A \$		
12059	Beds, haunching or surrounds to pipe or pipes laid side-by-side.....			262.00	12059	
	DRAW-IN PITS					
		Internal girth (m)				
		n.e. 2.44	Exc. 2.44 but n.e. 3.05	Exc. 3.05 but n.e. 3.66	Exc. 3.66 but n.e. 4.27	
	<i>Each</i>	A \$	B \$	C \$	D \$	
12060	Excavate temporary cable draw-in pit n.e. 450 mm deep, deposit surplus material on Site or cart away to dump, maintain sides and backfill with clean sand after cable being laid.....	55.20	66.70	111.00	133.00	12060
12061	Ditto but 450 - 600 mm deep.....	67.10	89.20	134.00	179.00	12061
12062	Ditto but 600 - 750 mm deep.....	89.20	112.00	179.00	245.00	12062
12063	Permanent draw-in pit n.e. 450 mm deep internally (from top of base slab to top of cover slab) constructed of concrete Grade 20S, Grade 20D or 20MPa with 200 mm base slab, 150 mm thick walls and 100 mm thick precast concrete Grade 20S, Grade 20D or 20MPa cover slab extending to outer face of walls and reinforced with and including 10 mm diameter steel rods at 150 mm centres both ways, and set flush with surrounding paving and jointed against the same with mastic, including all necessary excavation, disposal of surplus material on Site or cart away to dump, formwork, leaving 50 mm diameter hole through base slab, forming 450 x 450 x 300 mm deep soakaway sump under and filling the same with 50 mm gauge broken stone, and filling pit with dry sand after cable being laid if ordered.....	505.00	602.00	751.00	935.00	12063
12064	Ditto but 450 - 600 mm deep internally.....	787.00	923.00	1,157.00	1,403.00	12064
12065	Ditto but 600 - 750 mm deep internally.....	948.00	1,095.00	1,353.00	1,648.00	12065
	MARKER SLABS					
	<i>Each</i>				A \$	
12066	Precast concrete Grade 20S, Grade 20D or 20MPa marker slab, size 225 x 200 mm and 100 mm thick trowelled smooth with letters or numbers formed in top surface as ordered, and with two 6 mm diameter steel rods cast in and left projecting 225 mm as anchor rods including setting in position flush with ground level over temporary draw-in pit or cable trench.....				52.70	12066

Section 13

PLUMBING AND DRAINAGE

SECTION 13

PLUMBING AND DRAINAGE

SPECIAL CONDITIONS

Specification	SC13.01	<p>This Section shall generally be read and used in conjunction with the Specification in particular the Particular Specification for Plumbing Installation, Particular Specification for Drainage Installation and any other relevant Particular Specifications adopted in the Contract.</p> <p>Due allowance is deemed to have been made in the Contract Percentages and any percentage addition adjustment to any of the rate contained in this Section or other Sections in the Schedule for any difference in cost and expenses incurred for complying with all requirements as stipulated in the Specification and Employer's Requirements adopted in the Contract for the Plumbing and Drainage Installation (the Installation).</p>
Definitions generally	SC13.02	<p>Further to General Regulations Clause GR.02, the following definition is added in this Schedule :-</p> <p>“fresh water” shall mean “potable water” as referred to in this Schedule and the Contract.</p>
		PLUMBING AND DRAINAGE INSTALLATION
Measurement generally	SC13.03	<p>Pipe sizes are referred to nominal sizes.</p> <p>Pipes shall generally be measured the length along centre line of the pipework over all in-line fittings including bends, branches, junctions and the like unless otherwise provided.</p> <p>All underground drain pipes shall be measured net as laid or fixed over all fittings.</p> <p>Gutters shall be measured the net length as fixed. No allowance for laps shall be measured.</p> <p>Insulation to pipe shall be measured the diameter of the pipes to be insulated.</p> <p>The materials stated for the valve are the materials of the body and bonnet of the valves.</p>
Measurement of fittings	SC13.04	<p>Only fittings over 50 mm diameter, or 54 mm diameter in the case of copper fittings, shall be measured separately. All fittings shall be identified by the largest diameter.</p> <p>Unless otherwise stated, fittings shall be measured as “Extra over“ the gutter, tubing or pipe run.</p> <p>Taper pipes, taper bends, tees and junctions with diminishing branches shall be measured as the size of the largest end.</p>

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

Measurement of fittings (Cont'd)	SC13.04 (Cont'd)	<p>Connector shall include valve connector, press fitting, flat seal etc. and the like, female or male construction. Connector shall only be measured in the connections of pipework to water tanks, cisterns and the like, and connections between new and existing pipework. Connectors in new pipework is deemed to be included in the measurement of pipes.</p> <p>Elbow shall include all degree elbow, reducing elbow, pre-formed pipe bridge, adapter, with or without sort, plain end, wall plate, outlet, etc. and the like, female or male construction.</p> <p>Tee shall include equal tee, branch tee, reducing tee, with or without outlet, etc. and the like, female or male construction.</p> <p>Unless otherwise provided, all copper pipes and fittings shall include for press end joints and fittings in accordance with BS 8537 and any other construction recommended by the manufacturer. All stainless steel pipes and fittings shall include for press end joints and fittings and any other construction recommended by the manufacturer.</p>
Measurement of sheet lead work	SC13.05	<p>Sheet lead shall be measured the net weight as laid or fixed. The weight of tacks, wedges and the like shall be added in.</p>
Measurement under separate Sections	SC13.06	<p>Unless specifically included in the items under this Section, the following works shall be measured separately and paid for at the appropriate rates under the respective Sections as stated below or other applicable Work Sections in this Schedule : -</p> <ul style="list-style-type: none"> (a) All trench excavation under Section 03 - Excavation. (b) All chases in and holes through existing walls, ceilings, etc. for tubing and pipes, other than mortices or holes for brackets, and all concrete filling under Section 04 - Concrete Work and Section 05 - Brickwork and Blockwork. (c) All steel reinforcement under Section 04 - Concrete Work. (d) All plasterwork under Section 11 - Plastering and Finishes. (e) All painting to pipework under Section 15 - Painting.
Measurement of granular bedding for drain pipes	SC13.07	<p>The measurement shall be the compacted thickness as specified by the Maintenance Surveyor, whether laid in one or more layers. No deduction shall be made for voids not exceeding 1.00 m³.</p>
Measurement of formwork	SC13.08	<p>Formwork shall be measured as the actual surface in contact with concrete. No deduction shall be made for openings not exceeding 1.00 m². Boxing for opening exceeding 1.00 m² shall be measured as edges. Wrot formwork shall be measured only when a fair finished face to the concrete is specifically ordered by the Maintenance Surveyor in writing.</p>

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

Measurement of precast concrete	SC13.09	Precast concrete shall be measured the actual size of the item casted.
Measurement of manholes, cesspits, etc.	SC13.10	<p>Manholes, cesspits, etc. shall be measured net as cast.</p> <p>No deduction shall be made for : -</p> <p>(a) Voids not exceeding 0.05 m³.</p> <p>(b) The volume of reinforcement, steel joist and the like.</p> <p>(c) Openings in walls, cover slabs and the like not exceeding 0.10 m².</p>
Measurement of internal lining to leaking buried water-carrying services	SC13.11	Preparation and applying internal lining to leaking buried water-carrying services shall be measured the number of the net length of pipes over all fittings and joints not exceeding 2500 mm long. Length exceeding 2500 mm shall be measured the net length of pipes over all fittings and joints. The material and length of internal lining shall be submitted for the Maintenance Surveyor's approval before formal application.
Rates for Plumbing and Drainage Installation	SC13.12	<p>The rates for Plumbing and Drainage Installation shall generally include for : -</p> <p>(a) Carrying out all necessary preparation and investigation to the Site and the areas or services that may be affected by the works prior to commencement of the Installation.</p> <p>(b) Working internally or externally, and at any height and position.</p> <p>(c) Submission of technical literatures, catalogues, sample boards, samples, test certificates and other documents as specified in the Contract for the approval of the Maintenance Surveyor.</p> <p>(d) Provision of proper and safe protection to equipment, materials delivered to Site and any installation works executed.</p> <p>(e) Provision of cleaning and disinfection of the Installation upon completion using methods as specified in the Contract.</p> <p>(f) Works executed by Specialist Sub-contractor approved by the Maintenance Surveyor.</p> <p>(g) Provision of design and record drawings except for installation drawing and as-built drawing preparation which are part of the services provided for the Enhanced Execution Works for the Plumbing and Drainage Installation under Special Conditions Clause SC13.37(a) herein, in which case, the drawing preparation shall be measured and paid for separately in accordance with Special Conditions Clauses SC13.41 to SC13.42 herein.</p>

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

Rates for Plumbing and Drainage Installation (Cont'd)

SC13.12 (Cont'd)

- (h) Programming, planning, co-ordination, control, supervision, monitoring and phasing of installation works in existing and/or occupied buildings and premises including providing all necessary superintendents as required and specified in the Contract.
- (i) Provision of temporary works and protective measures for execution of works in existing and/or occupied buildings or premises to suit users and/or building management requirements, including the erection, alteration and dismantling of such temporary works and protective measures on a daily basis.
- (j) Temporary suspension of the water supplies and arranging for temporary plumbing system and diversion, if required.
- (k) Providing labels for marking all valves, pipework, filtration tanks, fuses, terminals, lamps, switches, handles, keys instruments, gauges, control and other equipment, etc.
- (l) Conducting sampling and analysis of potable fresh water upon substantial completion of the plumbing installation.
- (m) Carrying out cleaning of the plumbing installation pipework and water storage tanks and disinfection of plumbing installation in potable use.
- (n) Carrying out all testing and commissioning for the Installation as required under the Contract including provisions of all incidental sundry components for operation of the Installation to the satisfaction of the Maintenance Surveyor.

Rates for lead work

SC13.13

Rates for lead work shall include for all dressing, bossing up, forming angles and inter-sections, bossing ends and the like to rolls and welts.

Rates for pipeworks

SC13.14

The rates for pipeworks shall further include for :-

- (a) All short lengths, cutting and waste.
- (b) All joints in the running lengths including flanges, couplings, unions, or other connection devices, cutting and jointing pipe to fittings like bends, elbows, branches, tees, caps, heads, outlets, gullies, etc., joints between pipes of differing materials, including using all necessary jointing materials and fixing accessories.
- (c) Unless otherwise provided, all methods of jointings to pipes and fittings.
- (d) All connections of pipework to water tanks, cisterns and the like including drilling of tank, cistern, etc. as required, and connections between new and existing pipework including all necessary jointing materials and fixing accessories, cutting into existing pipework and removing short length of pipe in position, and preparing and making good pipe ends to receive new fittings.
- (e) Fittings for pipes not exceeding 50 mm diameter (or 54 mm diameter in the case of copper pipes) including connections.

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

**Rates for
pipeworks
(Cont'd)**

**SC13.14
(Cont'd)**

- (f) Provision and fixing of all pipe sleeves of any kind of materials including loose cover plates, pointing with approved non-acidic and anti-mould sealants, sealing up voids between pipes and fire rated walls or floors with sealing system as specified.
- (g) Provision and fixing of pipe supports including stainless steel clamps, brackets, clips, etc. as specified.
- (h) Fixing in any position to floors, walls and soffits including fixing in chases, ducts, false ceilings and similar positions, and laying in trench.
- (i) Protection of underground and concealed metal pipes with "Denso" tape or other materials as specified.
- (j) Provision of connection point for the purposes of connection of equipotential bonding connection as required by the I.E.E. Regulations.
- (k) Carrying out quality control of soldering/brazing joints for copper pipes.
- (l) Making good to any length of pipe damaged in addition to the net length which has actually been removed, including providing new pipes and forming and including new joints.
- (m) Making good all surfaces disturbed.

**Rates for
drain pipes for
underground
drainage**

SC13.15

- The rates for all types of drain pipes for underground drainage shall further include for : -
- (a) All jointing including provision of loose collars, loose sockets, connectors, flanged socket ends, flanged spigot ends and the like and jointing materials.
 - (b) Provision and fixing of all holderbats required for pipes fixed to manhole sides and the like and making good.
 - (c) Building in ends of pipes to manhole sides and the like, jointing to channels and making good.
 - (d) Cutting into and removing short length of pipe in position, preparing and making good pipe ends to receive new fittings (measured separately) including cutting into and making good concrete bed or surround afterwards as necessary.
 - (e) Temporary sealing of pipes during the progress of the work.
 - (f) Making good to any length of drain pipe damaged in addition to the net length which has actually been removed, including providing new drain pipes and forming and including new joints.
 - (g) Maintaining the soil or waste flow by means of temporary channels or drain pipes whilst the work is in progress, including additional excavation or other related works.
 - (h) Making good of surfaces disturbed.

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

Rates for sub-soil drain pipes	SC13.16	<p>The rates for sub-soil drain pipes shall further include for : -</p> <p>(a) Forming holes in pipeline for junction if required.</p>
Rates for vitrified clay pipes	SC13.17	<p>The rates for vitrified clay pipes shall further include for : -</p> <p>(a) Providing extra strength "o" ring flexible spigot and socket joints.</p>
Rates for tubing and pipes include for made bends	SC13.18	<p>The rates for UPVC pipes, polyethylene (PE) pipes, galvanized mild steel pipes, uPVC lined galvanized mild steel pipes, stainless steel pipes and copper pipes shall further include for : -</p> <p>(a) Made bends.</p>
Rates for fittings	SC13.19	<p>The rates for fittings on gutters, tubing and pipes of all types shall include for : -</p> <p>(a) Additional cutting and waste on gutter, tubing or pipe and all extra joints.</p> <p>(b) In the case of pipe bends and gutter angles, bends and gutter angles of any angle.</p> <p>(c) In the case of tees, crosses and single or double junctions, square or oblique connections with straight or curved offsets and all ends either equal or reducing.</p>
Rates for take up or take down, etc. gutters, tubing or pipes	SC13.20	<p>The rates for take up or take down and clear away or take up or take down and set aside for re-use gutters, tubing or pipes shall further include for : -</p> <p>(a) All fittings including brackets or hangers.</p> <p>(b) Cutting into existing gutter, tubing or pipe in position.</p> <p>(c) Preparing remaining ends to receive joint with new pipe if required.</p> <p>(d) Plugging ends with plugs or caps as required.</p> <p>(e) Making good surfaces disturbed.</p> <p>(f) Arranging for temporary plumbing system and diversion, if required.</p>
Rates for fix only or lay only gutters, tubing or pipes	SC13.21	<p>The rates for fix only or lay only gutters, tubing or pipes shall further include for : -</p> <p>(a) All fittings including brackets, gaskets, bolts, nuts and washers and other accessories.</p> <p>(b) Cutting mortices and grouting in cement mortar.</p>

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

Rates for fix only or lay only gutters, tubing or pipes (Cont'd)	SC13.21 (Cont'd)	<ul style="list-style-type: none"> (c) Preparing ends to receive joints with pipes. (d) Making good surfaces disturbed.
Rates for insulation	SC13.22	<p>The rates for insulation to pipeworks shall include for : -</p> <ul style="list-style-type: none"> (a) All cutting, waste and fitting. (b) Fixing bands.
Rates for valves	SC13.23	<p>Rates for valves shall further include for : -</p> <ul style="list-style-type: none"> (a) Providing valves of the type approved by the WSD. (b) Submitting test certificates issued by the PWL/AL. (c) Providing certificates from WRAS or equivalent organization for potable water application.
Rates for cisterns and tanks	SC13.24	<p>The rates for cisterns and tanks shall include for : -</p> <ul style="list-style-type: none"> (a) Supply and installation in accordance with the manufacturer's instructions. (b) Provision of design for glass-fibre reinforced plastic water tanks. (c) Suitable for storage of fresh water, portable water and/or flushing water. (d) Any colour and shape. (e) Supply and fix nozzles, air vent, electrode seat and cover, internal ladder, external ladder, galvanized mild steel base supporting frames, etc. and all necessary accessories, fittings and the like recommended by the manufacturer. (f) Providing and fixing with anchor bolts. (g) Cutting mortice, sinking or drilling in concrete, brick, stone or other surfaces as required. (h) Grouting into new or existing mortice or holes. (i) Making good disturbed surfaces. (j) Masking, protecting and cleaning.

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

Rates for cisterns and tanks (Cont'd)	SC13.24 (Cont'd)	<ul style="list-style-type: none"> (k) Submission of catalogues, technical literature, operation manuals and manufacturer's guarantee for the approval of the Maintenance Surveyor. (l) Testing and commissioning. (m) Providing test certificate.
Rates for concrete beds, haunchings and surrounds to pipes	SC13.25	<p>The rates for concrete beds, haunchings and surrounds to pipes shall include for : -</p> <ul style="list-style-type: none"> (a) Providing and laying a layer of polythene sheeting or concrete blinding on the bottom of trenches before concreting. (b) All necessary formwork and falsework. (c) Forming and including movement joints. (d) All necessary precast concrete wedges, blocks or cradles or other approved pipe supports including compressible sheeting. (e) Keeping concrete and pipes damp until backfilling placed.
Rates for granular beds	SC13.26	<p>The rates for granular beds shall include for : -</p> <ul style="list-style-type: none"> (a) Recycled or non-recycled granular bedding material to be clean, hard, durable, crushed rock or crushed concrete, broken stone, hard brick, concrete or other comparable hard insert approved by the Maintenance Surveyor. (b) Compacting and trimming granular beds to correct gradient and shape under barrel and pipe sockets. (c) Handling from temporary spoil heaps. (d) Additional bulk of material required to allow for compaction and consolidation. (e) Re-compacting and laying granular around pipes after testing.
Rates for traps and gullies of any type	SC13.27	<p>The rates for traps and gullies of any type shall include for : -</p> <ul style="list-style-type: none"> (a) All necessary concrete bedding, cover and surrounds including formwork. (b) Excavation, backfilling with suitable materials, compaction and removal of surplus excavated materials from Site. (c) Building in ends of pipes to gully sides and the like. (d) Connecting and jointing to drainage system.

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

Rates for surface water channels or step channels

SC13.28

The rates for surface water channels or step channels shall include for : -

- (a) Excavation, backfilling with suitable filling materials, compaction and removal of surplus excavated materials from Site.
- (b) All necessary formwork.
- (c) Forming and including movement joints, angles, ends, intersections, junctions, outlets, rebates to receive channel covers and the like.
- (d) Rendering all exposed surfaces with minimum 13 mm thick cement and sand (1:3) mortar.
- (e) Providing and forming PVC weepholes, if required.
- (f) Connecting and jointing to drainage system.

Rates for cast iron channel covers

SC13.29

The rates for cast iron channel covers shall include for : -

- (a) Multi-handling and placing in position.
- (b) All necessary cutting and waste.
- (c) Adjusting to suit channel alignment.

Rates for precast concrete channel covers

SC13.30

The rates for precast concrete channel covers shall include for : -

- (a) Forming slots to channel covers.
- (b) Multi-handling and placing in position.
- (c) All necessary formwork.
- (d) All necessary cutting and waste.
- (e) Adjusting to suit channel alignment.

Rates for manholes, cesspits, etc.

SC13.31

The rates for manholes, cesspits, etc. shall include for : -

- (a) Tamping around reinforcement.
- (b) Rendering all internal surfaces with minimum 13 mm thick cement and sand (1:3) mortar.
- (c) Forming benching for main and branch channels as required including finishing to falls.
- (d) Benching finishing smooth and marrying into structural sides with cement mortar (1:3).

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

**Rates for
manholes,
cesspits, etc.
(Cont'd)**

**SC13.31
(Cont'd)**

- (e) Fair-faced finish internally.
- (f) Testing of water tightness.

**Rates for
formwork**

SC13.32

The rates for formwork shall include for : -

- (a) Submission of design on formwork and falsework, if any, including supports and foundations by a Registered Structural Engineer.
- (b) Erecting, maintaining and striking formwork and falsework.
- (c) Preventing loss of grout between joints.
- (d) Fixing inserts and chases.
- (e) Box out to form holes not exceeding 1.00 m².
- (f) Preparing and applying surface retarders and release agents as required.
- (g) Multi-handling of removing formwork and falsework when striking without overloading the finished concrete work.
- (h) Preparing and applying wood preservatives to all surfaces of left-in timber formwork.
- (i) Forming cambers and falls.
- (j) Individual fillets, chambers, splays, drips, rebates, recesses, grooves and the like, not exceeding 100 mm total girth measured on the faces in contact with the concrete.
- (k) Strutting to soffits at any height.
- (l) Soffits of solid slabs in any thickness.
- (m) Sides and soffits of beams in any depth.
- (n) In case of formwork materials proposed by the contractor, all necessary preparation work other than spatterdash.

**Rates for
manhole or
gully sump
cover and
frame**

SC13.33

The rates for manhole or gully sump cover and frame shall include for : -

- (a) Bedding frame in cement and sand (1:3) mortar.
- (b) Sealing cover in heavy grease.
- (c) Providing two keys for each pattern of cover.

SPECIAL CONDITIONS

PLUMBING AND DRAINAGE INSTALLATION

Rates for alterations to existing manholes

SC13.34

The rates for alterations to existing manholes shall include for : -

- (a) All preparation work that are required for the alteration.
- (b) Forming main and branch channels as required in re-formed benching including finishing to falls.
- (c) Provision of temporary channels or drain pipes and/or other temporary measures necessary to maintain the existing soil or waste flow whilst the work is in progress.
- (d) All other related works that are required for the alteration.
- (e) Clearing away debris arising from alteration work.
- (f) Making good areas disturbed to match existing.

Rates for internal lining to leaking buried water-carrying services

SC13.35

The rates for internal lining to leaking buried water-carrying services shall include for : -

- (a) Removing covers of manholes and other drainage chambers and re-fixing including heavy grease after cleaning.
- (b) Cleaning of all pipelines and drainage structures with high pressure water jets before application of internal lining including removing all water arising and drying up the pipelines and drainage structures before execution of works.
- (c) Application to all types of pipe materials including fittings.
- (d) Temporary diversion of drainage flow.
- (e) Establishment, maintaining and removal of all necessary plant, tools and equipment.
- (f) Testing as specified, remedying any defects and re-testing as necessary until the Maintenance Surveyor satisfies the test results.
- (g) Providing two sets of CD-ROM recording of the repaired pipelines certified by the Contractor's Leakage Test Team Leader and Contract Manager.
- (h) Submission of catalogues, technical literature, etc. for the approval of the Maintenance Surveyor.

G.S. clauses for formwork

SC13.36

G.S. clauses for formwork can be found in the Concrete Work Section of the General Specification for Building.

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

Services generally

SC13.37

Services for Plumbing and Drainage Installation in this Section shall refer to the following services to be provided by the Contractor in connection with the Plumbing and Drainage Installation, all in accordance with the requirements of the Contract : -

- (a) Services provided for the Enhanced Execution Works ("EEW") for the Plumbing and Drainage Installation.
- (b) Services provided to fresh water plumbing system.
- (c) Services for inspection, testing and cleaning of existing drainage system.

For any services or works required for the satisfactory completion and operation of the Plumbing and Drainage Installation in accordance with the requirements of the Contract but are not separately itemized under the Services for Plumbing and Drainage Installation in this Section, the Contractor is deemed to have allowed for such item(s) in his Contract Percentages and any percentage addition to the rates contained in this and other Sections in the Schedule of Rates under the Contract.

Services for Enhanced Execution Works

SC13.38

Services provided for the Enhanced Execution Works shall include for any of the following services : -

- (a) Submission of installation drawings prior to commencement of the Installation for the approval of the Maintenance Surveyor.
- (b) Submission of as-built drawings upon completion of the Installation for the approval of the Maintenance Surveyor.
- (c) Submission of operation and maintenance (O&M) manual upon completion of the Installation for the approval of the Maintenance Surveyor.
- (d) Providing specific operation and maintenance services for the completed Plumbing and Drainage Installation.

Measurement of Services for Plumbing and Drainage Installation

SC13.39

The items included under Services for Plumbing and Drainage Installation shall only be measured and paid for where specifically ordered by the Maintenance Surveyor in writing.

Measurement of Services for Enhanced Execution Works

SC13.40

Measurement of the Services for the Enhanced Execution Works shall be based on the final value of the Installation included in the Works Order (but excluding the value of the services ordered for the EEW of such Installation) that has been certified by the Maintenance Surveyor (the "Installation Value").

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

Measurement of installation drawings	SC13.41	The provision for installation drawings shall be measured and paid for when the complete set of drawings and/or documents for the Installation has been submitted and approved by the Maintenance Surveyor.
Measurement of as-built drawings	SC13.42	The provision for as-built drawings shall be measured and paid for when the drawings have been submitted and approved by the Maintenance Surveyor.
Measurement of O&M manual	SC13.43	The provision for operation and maintenance (O&M) manuals shall be measured and paid for when the O&M manual have been submitted and approved by the Maintenance Surveyor.
Measurement of inspection to fresh water plumbing system	SC13.44	<p>Measurement of provision of inspection to fresh water plumbing system is based on the following : -</p> <p>(a) Inspection to fresh water plumbing system shall be measured as number of inspection instructed by the Maintenance Surveyor to the fresh water plumbing system including all the upfeed to and downfeed from the fresh water tanks for each building.</p> <p>Unless otherwise stated, if the building contains an annex block, then only the main building will be considered in the measurement.</p> <p>If the annex block has an independent fresh water plumbing system, in which case, inspection of the annex block shall be measured separately as if it is a stand-alone building.</p>
Measurement of utilities survey	SC13.45	Measurement of utilities survey of the buried/exposed existing underground utilities/services shall be the plan area within boundary as directed by the Maintenance Surveyor inclusive of all terrains and irregularities, etc. and measured flat. Measurement shall either be taken at the date of commencement or at the date of completion or both as agreed by the Maintenance Surveyor.
Measurement of acoustic test for detection of leaking buried water pipes	SC13.46	Measurement of acoustic test for detection of leaking buried water pipes shall be the plan length within boundary as directed by the Maintenance Surveyor inclusive of all terrains and irregularities, etc. and measured flat. Measurement shall either be taken at the date of commencement or at the date of completion or both as agreed by the Maintenance Surveyor.

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

Rates for Services for Enhanced Execution Works

SC13.47

The rates for Services for Enhanced Execution Works shall further include for : -

- (a) Submission of a detailed programme of the Installation showing the intended method, stages and order of work execution for the approval of the Maintenance Surveyor.
- (b) Submission of full details of builder's work requirements for the approval of the Maintenance Surveyor.

For any works or services that are required in the Specification for Enhanced Execution Works but are not separately itemized in this Section, the Contractor is deemed to have allowed such works or services in the Contract Percentages and any percentage addition for complying with the Specification requirements.

Rates for provision of installation drawings

SC13.48

The rates for provision of installation drawings shall further include for : -

- (a) Developing, preparing and completion of drawings showing the complete installation requirements incorporating the following details and other details as specified : -
 - Installation drawings
 - Pipework installation drawings
 - Special plant rooms co-ordination work
 - Builder's work drawings
 - Manufacturer's shop drawings
 - Checking drawings of other trades
- (b) Reviewing, updating and revising the drawings taking into account comments from the Maintenance Surveyor and/or changes of the works during the Contract.
- (c) Provision of drawings in electronic format conforming to the latest version of CAD Standard of Works Projects as specified.
- (d) Submission of the number of copies of drawings as required by the Contract.

Rates for provision of as-built drawings

SC13.49

The rates for provision of as-built drawings shall further include for : -

- (a) Developing, preparing and completion of drawings showing the as-built condition of the Installation incorporating the details as required by the Contract.
- (b) Reviewing, updating and revising the drawings taking into account comments from the Maintenance Surveyor and/or changes of the works during the Contract.
- (c) Submission of the number of copies of drawings as required by the Contract.
- (d) Provision and installation of a glass frame for the valve chart and plant room record drawings at major plant rooms.

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

Rates for provision of O&M manual

SC13.50

The rates for provision of O&M manual shall further include for : -

- (a) Developing, preparing and completion of the O&M manual showing the detailed technical information covering both operation and maintenance aspects of the Installation as required by the Contract.
- (b) Reviewing, updating and revising the O&M manual taking into account comments from the Maintenance Surveyor and/or changes of the works during the Contract.
- (c) Submission of the number of copies of the O&M manual as required by the Contract.

Rates for provision of annual operation and maintenance services

SC13.51

The rates for provision for annual operation and maintenance services shall further include for : -

- (a) Submission of a maintenance schedule identifying the programme for monthly routine services, quarterly, half-yearly and annual operation and maintenance services, all to the approval of the Maintenance Surveyor.
- (b) Carrying out monthly routine maintenance services, quarterly, half-yearly and annual operation and maintenance services, as detailed in the Contract and to the satisfaction of the Maintenance Surveyor.
- (c) Provision of emergency call-out services for any installation and equipment failure.
- (d) Carry out replacement or repair of all components of equipment and pipework as necessary in order to maintain the whole Installation in a good working order including supply of equipment, fittings and consumable items.
- (e) Maintaining an attendance log book and details of operation and maintenance services carried out.
- (f) Carrying out checking and, if necessary, re-adjustment of the Installation one month before the expiry date of the Maintenance Period.

Rates for inspection to fresh water plumbing system

SC13.52

The rates for carrying out inspection to fresh water plumbing system shall further include for : -

- (a) Any function/type of building to be inspected irrespective of the number of floors in a building.
- (b) Any locations to be inspected including any basement floor(s), ground floor, sky garden floor and/or refuge floor(s).
- (c) Any return visits due to attending follow-up actions from matters arising from the inspection, shall be deemed to be included in the same inspection, and such return visits shall not be measured separately.
- (d) Provision of a licensed plumber, building surveyor or building services engineer with qualification and experience that meets the requirements as laid down in the Water Safety Plan issued by Water Supplies Department.

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

Rates for inspection to fresh water plumbing system (Cont'd)

SC13.52 (Cont'd)

- (e) All expenses and reimbursement in connection with employment of the licensed plumber, building surveyor or building services engineer including but not limited to basic salary, contribution to the Mandatory Provident Fund, gratuity and all necessary levies, e.g. levy for Construction Industry Council, insurances, etc.
- (f) Carrying out inspection of the fresh water plumbing system in accordance with the recommended practices as laid down in the Water Safety Plan issued by Water Supplies Department.
- (g) Programming, planning, co-ordination and phasing of installation works in existing and/or occupied buildings and premises.
- (h) Provision of temporary works and protective measures for execution of works in existing and/or occupied buildings or premises to suit users and/or building management requirements.
- (i) Submission of documentary support and inspection results, provision of estimates for proposed repair works, water tank cleansing reports and other documents necessary for the new or renewal application under the Scheme as required by the Maintenance Surveyor.

Rates for cleaning of fresh and flush water tanks

SC13.53

The rates for cleaning of fresh and flush water tanks shall include for : -

- (a) Cleaning of water tanks all in accordance with the Specification requirements.
- (b) Designating a competent Unit Foreman to supervise throughout the course of cleaning.
- (c) Co-ordination with the user or management office in carrying out cleaning works in existing and/or occupied buildings and premises.
- (d) Submitting method statements, plant/equipment lists and risk assessment on the delivery of cleaning.
- (e) Conducting sampling and analysis for water quality examination as SC13.54 for cleaning of fresh water tanks.
- (f) Submitting attendance records.
- (g) Taking photographic records.
- (h) Submitting completion reports including : -
 - (i) attendance records of all skilled labourers;
 - (ii) photographic records on the locations and distribution of defects found on the internal wall finishes and/or structure before and after the repairs;

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

Rates for cleaning of fresh and flush water tanks (Cont'd)

SC13.53 (Cont'd)

- (iii) photographic records after completion of the cleaning services; and
- (iv) photographic records to show the proper functioning condition of the stop valves and stop cocks after completion of the cleaning services.

Rates for sampling and analysis for water quality examination

SC13.54

The rates for sampling and analysis for water quality examination shall include for : -

- (a) Conducting sampling and analysis for the quality of fresh water on completion of the plumbing installation. At least one sampling shall be taken from each water supply tank.
- (b) All water tests and analysis shall be conducted by the PWL/AL as stated in the Contract and in accordance with Enhanced Water Quality Monitoring Programme and/or the prevailing publication issued by the Water Supplies Department.
- (c) Submission of test reports.

Rates for utilities survey

SC13.55

The rates for utilities survey of the buried/exposed existing underground utilities/services shall include for : -

- (a) Carrying out the utilities survey of the buried/exposed existing underground utilities/services by the qualified personnel of an approved independent firm using their own equipment and providing such labour and assistance as may be required.
- (b) Preparation and submission of survey report in 2 copies with record drawings, photo records, text reports and layout plans and 2 sets of CD-ROM containing all such information.
- (c) Compliance with the requirements of the current Code of Practice on Monitoring and Maintenance of Water - Carrying Services Affecting Slopes prepared by Civil Engineering and Development Department.

Rates for acoustic test for detection of leaking buried water pipes

SC13.56

The rates for acoustic test for detection of leaking buried water pipes shall include for : -

- (a) Carrying out the acoustic test by the qualified personnel of an approved independent firm using their own equipment and providing such labour and assistance as may be required.
- (b) Preparation and submission of survey report in 2 copies with record drawings, photo records, text reports and layout plans and 2 sets of CD-ROM containing all such information.
- (c) Compliance with the requirements of the current Code of Practice on Monitoring and Maintenance of Water - Carrying Services Affecting Slopes prepared by Civil Engineering and Development Department.

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

**Rates for
cleaning of
existing drainage
system**

SC13.57

The rates for cleaning of existing drainage system shall include for : -

- (a) Cleaning of existing manholes including branches and drains between manholes, cesspits, septic tanks, catch pits, grease pits and other drainage chambers.
- (b) Removing covers and re-fixing including re-sealing with heavy grease after cleaning out works.
- (c) Removing all sludge, silts, solid matters, etc. and the like by labour or pumping out from drainage chamber.
- (d) Clearing away and disposal of sludge, deposits, solid matters, etc. to the dumping site approved by Environmental Protection Department.
- (e) Cleaning of drainage chamber with high pressure water jets including removing all water arising.
- (f) Obtaining a disposal permit from Environmental Protection Department and submitting a copy to the Maintenance Surveyor.
- (g) Keeping surrounding and affected areas clean and tidy including sanitizing, cleaning, removing all matters arising.

**Rates for
CCTV
inspection
survey to
existing
underground
drainage system**

SC13.58

The rates for CCTV inspection survey to existing underground drainage system shall include for : -

- (a) Cleaning all pipelines and drainage structures with high pressure water jets before testing.
- (b) Providing two copies of CCTV inspection survey reports and two sets of 3R-size digital colour photographs of all identified defects.
- (c) Providing two sets of CD-ROM recordings of all drains, manholes, cesspits, septic tanks, catch pits, grease pits and other drainage chambers inspected.

**Rates for
testing
existing
drains**

SC13.59

The rates for testing existing drains shall include for : -

- (a) Cleaning all pipelines and drainage structures with high pressure water jets before testing.
- (b) Temporary sealing ends of drains and connections.
- (c) Provision of all water, material and equipment.
- (d) Provision of test record.

Item						Item	
	LEAD WORK						
	Milled lead and all labours including provision of all nails, screws, holdfasts, wedges, tacks and solder in :-						
	<i>Per kg</i>						
13001	Flats (including rolls), gutters (including cesspools), cornices, dormers, flashings, hips, ridges, linings to sinks, cisterns, safes, drawers and the like.....	93.00	8.30	10.00	17.20	13001	
	DUCTILE IRON PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM						
	Ductile iron pipes and fittings to BS EN 545 Class 100 with minimum thickness as specified and internal cement lining and external bitumen coating, for fresh and flushing water system :-						
	<i>Per linear metre</i>						
		Pipe diameter (mm)					
		80	100	150	200	250	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
13002	Pipe laid in trench.....	495.60	501.90	706.90	960.10	1,237.80	13002
13003	Pipe fixed to floor, wall or soffits.....	507.10	513.40	723.40	979.60	1,259.20	13003
	<i>Each</i>						
13004	Extra over either of Items 13002 to 13003 inclusive for cover plate to flanged end.....	78.30	95.00	125.00	165.00	207.00	13004
13005	Ditto for flanged socket end.....	189.00	286.00	375.00	496.00	622.00	13005
13006	Ditto for flanged spigot end.....	263.00	360.00	474.00	626.00	785.00	13006
13007	Ditto for flanged connector to existing pipework or water tank, etc.....	333.00	402.00	529.00	698.00	875.00	13007
13008	Ditto for bend.....	243.00	334.00	455.00	607.00	758.00	13008
13009	Ditto for tee.....	277.00	366.00	482.00	636.00	798.00	13009
13010	Ditto for cross.....	306.00	384.00	505.00	666.00	835.00	13010
	<i>Per linear metre</i>						
13011	Take up and clear away pipe laid in trench excavation (trench excavation measured separately).....	17.10	21.30	25.60	31.30	32.70	13011
13012	Take up and set aside for re-use pipe laid in trench (ditto).....	24.20	25.60	31.30	35.50	39.80	13012
13013	Take down and clear away pipe fixed to floor, wall or soffits.....	18.50	24.20	25.60	31.30	35.50	13013
13014	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	24.20	25.60	31.30	35.50	39.80	13014
13015	Lay only pipe in trench.....	74.00	76.00	80.00	86.00	94.00	13015
13016	Fix only pipe to floor, wall or soffits.....	100.00	106.00	113.90	115.90	123.90	13016

Item

Item

DUCTILE IRON PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)

Ductile iron pipes and fittings to BS EN 545 Class 100 with minimum thickness as specified and internal cement lining and external bitumen coating, for fresh and flushing water system : - (Cont'd)

Pipe diameter (mm)				
80	100	150	200	250
A	B	C	D	E
\$	\$	\$	\$	\$
63.20	71.30	89.20	116.00	148.00
59.70	66.00	83.30	110.00	138.00

Each

13017	Unbolt existing joint, remove gasket and clear away, clean flange faces, provide new gasket and re-bolt joint.....	63.20	71.30	89.20	116.00	148.00	13017
13018	Remove flange cover plate and clear away, clean flange face, provide new gasket and prepare end of existing pipe for jointing to new pipework (measured separately).....	59.70	66.00	83.30	110.00	138.00	13018

UPVC LINED GALVANIZED MILD STEEL PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM

UPVC lined galvanized steel pipes and fittings to BS 1387 with internal lining of an approved type for fresh water supply system : -

Pipe diameter (mm)											
15	20	25	32	40	50	65	80	100	125	150	
A	B	C	D	E	F	G	H	I	J	K	
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
85.50	99.20	128.40	157.60	174.40	224.50	245.90	291.50	378.20	442.30	528.30	13019
95.40	110.00	143.00	175.20	200.60	247.70	270.20	320.20	411.50	481.30	575.20	13020
<i>Each</i>											
-	-	-	-	-	-	86.20	132.00	203.00	298.00	392.00	13021
-	-	-	-	-	-	112.00	144.00	205.00	291.00	355.00	13022
-	-	-	-	-	-	151.00	185.00	295.00	369.00	443.00	13023
-	-	-	-	-	-	200.00	244.00	338.00	538.00	684.00	13024
-	-	-	-	-	-	91.30	162.00	294.00	322.00	357.00	13025
-	-	-	-	-	-	54.40	69.10	103.00	144.00	186.00	13026

Per linear metre

Item

Item

UPVC LINED GALVANIZED MILD STEEL PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)

UPVC lined galvanized steel pipes and fittings to BS 1387 with internal lining of an approved type for fresh water supply system : - (Cont'd)

Per linear metre

		Pipe diameter (mm)											
		15	20	25	32	40	50	65	80	100	125	150	
		A	B	C	D	E	F	G	H	I	J	K	
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
13027	Take up and clear away pipe laid in trench (trench excavation measured separately).....	2.90	4.30	5.70	7.10	10.00	11.40	12.80	14.20	15.60	18.50	24.20	13027
13028	Take up and set aside for re-use pipe laid in trench (ditto).....	4.30	7.10	10.00	11.40	12.80	14.20	15.60	17.10	18.50	21.30	25.60	13028
13029	Take down and clear away pipe fixed to floor, wall or soffits.....	4.30	5.70	7.10	8.50	10.00	11.40	12.80	14.20	17.10	18.50	24.20	13029
13030	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	4.30	7.10	8.50	10.00	11.40	12.80	14.20	17.10	18.50	21.30	25.60	13030
13031	Lay only pipe in trench.....	6.00	10.00	12.00	14.00	16.00	18.00	20.00	24.00	26.00	29.80	33.80	13031
13032	Fix only pipe to floor, wall or soffits.....	13.90	16.00	18.00	23.80	26.00	30.00	33.80	34.00	43.70	46.00	53.60	13032

COPPER PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM

Copper pipes and fittings to BS EN 1057 encapsulated with moisture resistant polyethylene sheath including factory applied thermal insulation polyethylene sheath with internal profile to entrap air for fresh water supply system as required : -

Per linear metre

		Pipe diameter (mm)									
		15	22	28	35	42	54	67	76	108	
		A	B	C	D	E	F	G	H	I	
		\$	\$	\$	\$	\$	\$	\$	\$	\$	
13033	Pipe laid in trench.....	89.80	134.00	173.30	254.30	302.70	376.10	445.40	578.50	850.40	13033
13034	Pipe fixed to floor, wall or soffits.....	94.90	144.30	180.20	262.70	313.00	386.30	455.60	590.60	862.50	13034

Item		Pipe diameter (mm)			Item
		67	76	108	
		A	B	C	
		\$	\$	\$	
COPPER PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)					
Copper pipes and fittings to BS EN 1057 encapsulated with moisture resistant polyethylene sheath including factory applied thermal insulation polyethylene sheath with internal profile to entrap air for fresh water supply system as required : - (Cont'd)					
Brass "Compression type" fittings : -					
	Each				
13035	Extra over either of Items 13033 to 13034 inclusive for stop end.....	139.00	196.00	236.00	13035
13036	Ditto for bend or elbow (copper to copper).....	144.00	202.00	266.00	13036
13037	Ditto for bend or elbow (copper to steel).....	276.00	306.00	411.00	13037
13038	Ditto for tee (all ends for copper).....	351.00	430.00	676.00	13038
13039	Ditto for tee (copper to copper to steel).....	405.00	514.00	762.00	13039
13040	Ditto for cross (all ends for copper).....	544.00	619.00	790.00	13040
13041	Ditto for connector to existing pipework.....	269.00	321.00	475.00	13041
13042	Ditto for flanged tank connector or double nut tank connector to existing water tank, cistern and the like.....	332.00	414.00	522.00	13042
Brass or copper "Capillary type" fittings : -					
	Each				
13043	Extra over either of Items 13033 to 13034 inclusive for stop end.....	116.00	163.00	197.00	13043
13044	Ditto for bend or elbow (copper to copper).....	120.00	169.00	222.00	13044
13045	Ditto for bend or elbow (copper to steel).....	230.00	255.00	343.00	13045
13046	Ditto for tee (all ends for copper).....	292.00	358.00	563.00	13046
13047	Ditto for tee (copper to copper to steel).....	338.00	429.00	635.00	13047
13048	Ditto for cross (all ends for copper).....	453.00	515.00	659.00	13048
13049	Ditto for connector to existing pipework.....	224.00	267.00	396.00	13049
13050	Ditto for flanged tank connector or double nut tank connector to existing water tank, cistern and the like.....	277.00	345.00	435.00	13050

Item											Item	
COPPER PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)												
Copper pipes and fittings to BS EN 1057 encapsulated with moisture resistant polyethylene sheath including factory applied thermal insulation polyethylene sheath with internal profile to entrap air for fresh water supply system as required : - (Cont'd)												
Brass or copper "Press end type" fittings to BS 8537 :-												
<i>Each</i>												
		Pipe diameter (mm)										
		67	76	108								
		A	B	C								
		\$	\$	\$								
13051	Extra over either of Items 13033 to 13034 inclusive for stop end.....	125.00	176.00	212.00								13051
13052	Ditto for bend or elbow (copper to copper).....	129.00	182.00	239.00								13052
13053	Ditto for bend or elbow (copper to steel).....	248.00	275.00	370.00								13053
13054	Ditto for tee (all ends for copper).....	316.00	387.00	609.00								13054
13055	Ditto for tee (copper to copper to steel).....	364.00	463.00	685.00								13055
13056	Ditto for cross (all ends for copper).....	490.00	557.00	711.00								13056
13057	Ditto for connector to existing pipework.....	242.00	289.00	428.00								13057
13058	Ditto for flanged tank connector or double nut tank connector to existing water tank, cistern and the like.....	299.00	373.00	470.00								13058
<i>Per linear metre</i>												
		Pipe diameter (mm)										
		15	22	28	35	42	54	67	76	108		
		A	B	C	D	E	F	G	H	I		
		\$	\$	\$	\$	\$	\$	\$	\$	\$		
13059	Take up and clear away pipe laid in trench (trench excavation measured separately).....	2.90	4.30	5.70	7.10	10.00	11.40	12.80	14.20	15.60	13059	
13060	Take up and set aside for re-use pipe laid in trench (ditto).....	4.30	7.10	10.00	11.40	12.80	14.20	15.60	17.10	18.50	13060	
13061	Take down and clear away pipe fixed to floor, wall or soffits.....	4.30	7.10	8.50	10.00	11.40	12.80	14.20	15.60	17.10	13061	
13062	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	4.30	7.10	10.00	11.40	12.80	14.20	17.10	18.50	21.30	13062	
13063	Lay only pipe in trench.....	6.00	10.00	14.00	16.00	17.90	20.00	23.80	25.90	27.90	13063	
13064	Fix only pipe to floor, wall or soffits.....	13.90	16.00	20.00	24.00	26.00	30.00	33.80	35.70	42.00	13064	

Item

Item

COPPER PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)

Copper pipes and fittings to BS EN 1057 encapsulated with moisture resistant polyethylene sheath including factory applied thermal insulation polyethylene sheath with internal profile to entrap air for fresh water supply system as required : - (Cont'd)

		Pipe diameter (mm)								
		15	22	28	35	42	54	67	76	108
		A	B	C	D	E	F	G	H	I
		\$	\$	\$	\$	\$	\$	\$	\$	\$
Each										
13065	Repair and make good one existing joint for "compression type" joint fittings including loosening nut and compression ring, cleaning tube end and re-tightening.....	9.80	10.90	12.10	13.20	14.30	16.60	19.70	22.00	33.90
13066	Repair and make good one existing joint for "capillary type" joint fittings including heating, re-tinning tub end and re-soldering as necessary.....	33.40	37.00	42.70	47.20	52.90	62.20	71.40	81.70	105.00
13067	Repair and make good one existing joint for "press end type" joint fittings to BS 8537 including loosening fittings, cleaning tube end, re-deburring, re-assembling and re-pressing as necessary.....	36.10	39.90	46.10	51.00	57.20	67.10	77.10	88.20	114.00
13068	Seal off existing pipe fixed in position including providing and jointing on "compression type" stop end.....	46.80	53.50	63.00	77.40	100.00	111.00	133.00	155.00	185.00
13069	Ditto but "capillary type" stop end.....	39.80	45.50	53.60	64.50	83.40	92.30	111.00	128.00	155.00
13070	Ditto but "press end type" stop end to BS 8537.....	42.10	48.20	56.70	69.70	90.10	99.80	120.00	139.00	166.00

13065

13066

13067

13068

13069

13070

		Pipe diameter (mm)								
		15	22	28	35	42	54	67	76	108
		A	B	C	D	E	F	G	H	I
		\$	\$	\$	\$	\$	\$	\$	\$	\$
Per linear metre										
13071	Approved polyethylene sheath to existing copper pipe including all cutting and fittings at joints, tees, bends and other fittings or alternatively covering such fittings with insulation quilt or insulation rope to the thickness required.....	19.00	22.60	24.40	33.40	37.00	40.60	42.40	49.60	51.40

13071

Item							Item							
STAINLESS STEEL PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM														
Stainless steel pipes and fittings to BS EN 10312 for fresh water supply system :-														
						Pipe diameter (mm)								
						15	18	22	28	35	42			
						A	B	C	D	E	F			
						\$	\$	\$	\$	\$	\$			
<i>Per linear metre</i>														
13072	Pipe laid in trench.....	112.70	131.10	167.40	206.60	297.80	364.00					13072		
13073	Pipe fixed to floor, wall or soffits.....	118.20	136.50	172.90	214.00	306.70	374.80					13073		
<i>Each</i>														
13074	Repair and make good existing joint including cleaning ends.....	28.20	31.70	33.90	37.40	39.80	44.40					13074		
13075	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....	31.10	40.10	47.30	53.20	65.00	84.10					13075		
Stainless steel pipes and fittings to BS EN 10217-7 for fresh water supply system :-							Pipe diameter (mm)							
							54	76						
							A	B						
							\$	\$						
<i>Per linear metre</i>														
13076	Pipe laid in trench.....					444.70	669.00					13076		
13077	Pipe fixed to floor, wall or soffits.....					455.50	681.80					13077		
<i>Each</i>														
13078	Extra over either of Items 13076 to 13077 inclusive for cap end or plug.....					94.20	98.00					13078		
13079	Ditto for bend or elbow.....					302.00	417.00					13079		
13080	Ditto for three-way elbow or tee.....					339.00	479.00					13080		
13081	Ditto for cross.....					433.00	582.00					13081		
13082	Ditto for reducer.....					277.00	408.00					13082		
13083	Ditto for connector to existing pipework.....					154.00	217.00					13083		
13084	Ditto for flanged tank connector or double nut tank connector to existing water tank, cistern and the like.....					283.00	409.00					13084		
<i>Each</i>														
13085	Repair and make good existing joint including cleaning ends.....					47.80	51.30					13085		
13086	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....					95.90	116.00					13086		

Item

Item

STAINLESS STEEL PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)

Stainless steel pipes and fittings to BS EN 10217-7 or BS EN 10312 for fresh water supply system : -

Pipe diameter (mm)										
15	18	22	28	35	42	54	76			
A	B	C	D	E	F	G	H			
\$	\$	\$	\$	\$	\$	\$	\$			
<i>Per linear metre</i>										
13087	Take up and clear away pipe laid in trench (trench excavation measured separately).....	2.80	3.60	4.30	5.70	7.10	8.50	9.90	12.80	13087
13088	Take up and set aside for re-use pipe laid in trench (ditto).....	5.70	6.40	7.10	9.20	9.90	11.40	12.80	15.60	13088
13089	Take down and clear away pipe fixed to floor wall or soffits.....	4.30	5.00	5.70	7.10	8.50	9.90	11.40	14.20	13089
13090	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	5.70	6.40	8.50	11.00	12.50	13.20	16.40	19.00	13090
13091	Lay only pipe in trench.....	6.00	10.00	12.90	14.00	16.00	17.90	22.50	25.90	13091
13092	Fix only pipe to floor, wall or soffits.....	13.90	16.00	18.90	21.90	25.90	27.90	32.40	35.70	13092

Stainless steel flexible pipes and fittings for fresh water supply system : -

Pipe diameter (mm)								
15	18	22	28	35	42			
A	B	C	D	E	F			
\$	\$	\$	\$	\$	\$			
<i>Per linear metre</i>								
13093	Flexible pipe for connecting water boiler, heater, etc.....	177.20	204.80	259.20	320.90	460.00	562.20	13093

Stainless steel anti-shock connector and jointing to copper pipes or ductile pipes including flanges and accessories : -

Pipe diameter (mm)
150
A
\$
4,702.00

Each

13094 Anti-shock connector..... 4,702.00 13094

Item								Item
UPVC PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM								
UPVC Pressure pipes and fittings to BS 3505 Class E or to BS EN ISO 1452-2 series S8 or high for fresh and flushing water supply system with joints and fittings complying with BS EN ISO 1452-3 for fresh and flushing water supply system :-								
<i>Per linear metre</i>								
	Pipe diameter (mm)							
	15	20	25	32	40	50	65	
	A	B	C	D	E	F	G	
	\$	\$	\$	\$	\$	\$	\$	
13095	51.20	61.40	88.70	105.80	113.70	133.10	162.60	13095
13096	53.20	66.80	94.00	113.80	123.70	147.20	181.90	13096
<i>Each</i>								
13097	-	-	-	-	-	-	59.80	13097
13098	-	-	-	-	-	-	80.10	13098
13099	-	-	-	-	-	-	109.00	13099
13100	-	-	-	-	-	-	49.40	13100
13101	-	-	-	-	-	-	236.00	13101
<i>Per linear metre</i>								
13102	2.90	4.30	5.80	7.30	8.80	10.20	11.70	13102
13103	4.30	7.10	8.80	10.20	11.70	13.20	14.60	13103
13104	4.30	5.80	7.30	8.80	10.20	11.70	13.20	13104
13105	5.70	8.50	10.20	11.70	13.20	14.60	16.10	13105
13106	9.90	11.90	13.90	16.00	17.90	19.90	21.90	13106
13107	20.00	23.80	26.00	28.00	30.00	32.00	34.00	13107
<i>Each</i>								
13108	24.30	31.20	41.50	50.70	65.50	72.50	87.60	13108

Item							Item	
UPVC PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)								
UPVC Pressure pipes and fittings to BS 3505 Class E or to BS EN ISO 1452-2 series S8 or high for fresh and flushing water supply system with joints and fittings complying with BS EN ISO 1452-3 for fresh and flushing water supply system : - (Cont'd)								
<i>Per linear metre</i>								
	Pipe diameter (mm)							
	80	100	150	200	250	300		
	A	B	C	D	E	F		
	\$	\$	\$	\$	\$	\$		
13109	Pipe laid in trench.....	191.10	229.70	279.80	515.20	589.10	742.60	13109
13110	Pipe fixed to floor, wall or soffits.....	215.30	258.60	318.00	559.20	639.70	799.30	13110
<i>Each</i>								
13111	Extra over either of Items 13109 to 13110 inclusive for cap end.....	69.90	83.90	103.00	181.00	207.00	259.00	13111
13112	Ditto for bend or elbow.....	93.60	112.00	138.00	243.00	278.00	347.00	13112
13113	Ditto for tee.....	128.00	154.00	189.00	332.00	380.00	474.00	13113
13114	Ditto for connector to existing pipework.....	57.70	69.30	85.20	150.00	171.00	214.00	13114
13115	Ditto for flanged tank connector or double nut tank connector to existing water tank, cistern and the like.....	276.00	332.00	407.00	529.00	689.00	895.00	13115
<i>Per linear metre</i>								
13116	Take up and clear away pipe laid in trench (trench excavation measured separately).....	13.20	14.60	17.50	19.90	21.30	24.20	13116
13117	Take up and set aside for re-use pipe laid in trench (ditto).....	16.10	17.50	21.30	24.20	28.40	31.30	13117
13118	Take down and clear away pipe fixed to floor, wall or soffits.....	14.60	16.10	19.00	21.30	24.20	25.60	13118
13119	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	17.50	19.00	24.20	25.60	29.90	32.70	13119
13120	Lay only pipe in trench.....	23.80	25.90	29.80	33.80	35.70	37.80	13120
13121	Fix only pipe to floor, wall or soffits.....	36.00	38.00	40.00	44.00	48.00	54.00	13121
<i>Each</i>								
13122	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....	102.00	122.00	149.00	264.00	301.00	376.00	13122

Item										Item	
POLYETHYLENE (PE) PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM											
PE 100 Pressure pipes and fittings to BS-EN-12201 with nominal pressure rating PN16 under pipe series SDR 11, for fresh water supply system :-											
Pipe diameter (mm)											
25 32 50 63 90 125 180 250 315											
<i>Per linear metre</i>											
A B C D E F G H I											
\$ \$ \$ \$ \$ \$ \$ \$ \$											
13123	Pipe laid in trench.....	14.20	20.00	38.60	57.00	87.80	156.30	309.10	580.50	910.80	13123
<i>Each</i>											
13124	Extra over Item 13123 for cap end.....	-	-	-	19.80	30.60	55.10	104.00	195.00	304.00	13124
13125	Ditto for bend or elbow.....	-	-	-	26.60	41.00	73.90	140.00	261.00	406.00	13125
13126	Ditto for tee.....	-	-	-	36.40	55.90	101.00	191.00	357.00	556.00	13126
13127	Ditto for connector to existing pipework.....	-	-	-	16.40	25.30	45.50	86.20	161.00	251.00	13127
13128	Ditto for flanged tank connector or double nut tank connector to existing water tank, cistern and the like.....	-	-	-	78.60	121.00	218.00	327.00	556.00	889.00	13128
<i>Per linear metre</i>											
13129	Take up and clear away pipe laid in trench (trench excavation measured separately).....	4.30	7.10	10.00	11.40	13.90	16.10	18.50	21.30	25.60	13129
13130	Take up and set aside for re-use pipe laid in trench (ditto).....	7.10	10.00	11.40	14.20	16.90	18.50	24.20	25.60	31.30	13130
13131	Lay only pipe in trench.....	13.90	16.00	19.90	21.90	24.80	27.90	31.80	35.70	50.00	13131
PE 100 Pressure pipes and fittings to BS-EN-12201 with nominal pressure rating PN20 under pipe series SDR 9, for fresh water supply system :-											
<i>Per linear metre</i>											
13132	Pipe fixed to floor, wall or soffits.....	13.90	19.50	38.90	59.50	94.00	172.20	349.00	672.10	1,063.00	13132
<i>Each</i>											
13133	Extra over Item 13132 for cap end.....	-	-	-	22.10	35.00	64.50	125.00	239.00	376.00	13133
13134	Ditto for bend or elbow.....	-	-	-	29.60	46.70	86.70	168.00	320.00	504.00	13134
13135	Ditto for tee.....	-	-	-	40.40	63.80	118.00	229.00	440.00	689.00	13135
13136	Ditto for connector to existing pipework.....	-	-	-	18.20	28.90	53.20	103.00	198.00	311.00	13136
13137	Ditto for flanged tank connector or double nut tank connector to existing water tank, cistern and the like.....	-	-	-	87.20	137.00	255.00	493.00	947.00	1,486.00	13137

Item

Item

POLYETHYLENE (PE) PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)

PE 100 Pressure pipes and fittings to BS-EN-12201 with nominal pressure rating PN20 under pipe series SDR 9, for fresh water supply system :- (Cont'd)

		Pipe diameter (mm)									
		25	32	50	63	90	125	180	250	315	
		A	B	C	D	E	F	G	H	I	
		\$	\$	\$	\$	\$	\$	\$	\$	\$	
<i>Per linear metre</i>											
13138	Take down and clear away pipe fixed to floor, wall or soffits.....	4.30	7.10	10.00	11.40	14.90	17.10	18.50	24.20	25.60	13138
13139	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	8.50	11.40	14.20	16.10	18.30	21.30	24.20	28.40	32.70	13139
13140	Fix only pipe to floor, wall or soffits.....	24.00	26.00	30.00	34.00	36.00	40.00	44.00	46.00	64.00	13140
<i>Each</i>											
13141	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....	37.30	47.30	70.90	86.60	114.00	134.00	219.00	304.00	389.00	13141

THERMAL INSULATION TO PIPES

(Note :- The following Items 13142 to 13149 inclusive do not apply to factory applied thermal insulation to pre-insulated pipework.)

Per linear metre

		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
13142	Thermal insulation to pipework n.e. 15 mm diameter.....	89.60	18.20	19.90	42.50	13142
13143	Ditto but 15 - 30 mm diameter.....	97.50	20.80	23.30	51.60	13143
13144	Ditto but 30 - 40 mm diameter.....	118.60	23.30	24.10	59.70	13144
13145	Ditto but 40 - 55 mm diameter.....	145.40	27.40	29.00	68.90	13145
13146	Ditto but 55 - 80 mm diameter.....	189.30	32.40	34.20	81.30	13146
13147	Ditto but 80 - 125 mm diameter.....	237.00	38.90	41.00	97.60	13147
13148	Ditto but 125 - 200 mm diameter.....	322.10	46.60	49.20	117.10	13148
13149	Ditto but 200 - 300 mm diameter.....	402.90	56.00	59.10	140.50	13149

Item		Half round section			Ogee section	Item
		Internal diameter (mm)			Internal diameter (mm)	
		75	100	150	100	
		A	B	C	D	
		\$	\$	\$	\$	
CAST IRON RAINWATER PIPES, GUTTERS AND FITTINGS FOR SURFACE WATER DRAINAGE						
Cast iron rainwater gutter and fittings to BS 416-1, internally and externally coated :-						
	<i>Per linear metre</i>					
13150	Rainwater gutters fixed on brackets at 1.00 m (maximum) centres.....	152.10	203.40	313.60	214.90	13150
	<i>Each</i>					
13151	Extra over Item 13150 for stop end.....	55.20	70.30	85.40	70.30	13151
13152	Ditto for internal or external angle.....	70.30	82.10	138.00	101.00	13152
13153	Ditto for nozzle outlet.....	101.00	126.00	209.00	162.00	13153
13154	Ditto for combined stop end nozzle outlet.....	119.00	160.00	259.00	199.00	13154
	<i>Per linear metre</i>					
13155	Take down and clear away gutter.....	10.80	14.90	18.20	15.70	13155
13156	Take down and set aside for re-use gutter.....	11.60	15.70	19.10	16.60	13156
13157	Fix only gutter complete including providing brackets at 1.00 m (maximum) centres.....	66.90	80.40	114.90	91.80	13157
	<i>Each</i>					
13158	Repair and make good existing joint including cleaning ends.....	30.10	34.70	53.10	43.90	13158

Item		Pipe diameter (mm)		Item
		100	150	
CAST IRON RAINWATER PIPES, GUTTERS AND FITTINGS FOR SURFACE WATER DRAINAGE (CONT'D)				
Cast iron pipes and fittings to BS 416-1, internally and externally coated, for surface water drainage :-				
		A	B	
		\$	\$	
	<i>Per linear metre</i>			
13159	Pipe fixed to floor, wall or soffits.....	289.60	531.60	13159
	<i>Each</i>			
13160	Extra over Item 13159 for shoe.....	266.00	422.00	13160
13161	Ditto for bend.....	252.00	431.00	13161
13162	Ditto for single junction.....	307.00	553.00	13162
13163	Ditto for double junction.....	495.00	891.00	13163
13164	Ditto for swan-neck of any projection.....	462.00	800.00	13164
13165	Ditto for connector to existing pipework.....	88.30	231.00	13165
13166	Add to either of Items 13161 to 13163 inclusive if fitted with bolted access door.....	90.90	101.00	13166
13167	Roof outlet with square or circular, flat or domed grating.....	607.00	783.00	13167
13168	Rainwater head, flat or angular.....	171.00	193.00	13168
	<i>Per linear metre</i>			
13169	Take down and clear away pipe fixed to floor, wall or soffits.....	17.50	25.60	13169
13170	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	21.30	28.40	13170
13171	Fix only pipe to floor, wall or soffits.....	50.00	76.00	13171
	<i>Each</i>			
13172	Repair and make good existing joint including cleaning ends.....	67.00	90.00	13172

Item				Item
	UPVC RAINWATER PIPES, GUTTERS AND FITTINGS FOR SURFACE WATER DRAINAGE			
	UPVC rainwater gutters and fittings to BS EN 1329-1: -	Internal diameter (mm)		
		80		
	<i>Per linear metre</i>	A \$		
13173	Half round rainwater gutter fixed on brackets at 1.00 m (maximum) centres.....	119.50		13173
	<i>Each</i>			
13174	Extra over Item 13173 for stop end.....	53.30		13174
13175	Ditto for internal or external angle.....	63.80		13175
13176	Ditto for nozzle outlet.....	79.20		13176
13177	Ditto for combined stop end and nozzle outlet.....	96.30		13177
	<i>Per linear metre</i>			
13178	Take down and clear away gutter.....	14.20		13178
13179	Take down and set aside for re-use gutter.....	17.10		13179
13180	Fix only gutter including providing brackets at 1.00 m (maximum) centres.....	51.60		13180
	UPVC rainwater gutters and fittings to BS 4514 : -	Internal diameter (mm)		
		100	150	
	<i>Per linear metre</i>	A \$	B \$	
13181	Half round rainwater gutter fixed on brackets at 1.00 m (maximum) centres.....	147.90	214.60	13181
	<i>Each</i>			
13182	Extra over Item 13181 for stop end.....	66.00	110.00	13182
13183	Ditto for internal or external angle.....	72.50	121.00	13183
13184	Ditto for nozzle outlet.....	99.00	154.00	13184
13185	Ditto for combined stop end and nozzle outlet.....	120.00	175.00	13185
	<i>Per linear metre</i>			
13186	Take down and clear away gutter.....	18.50	24.20	13186
13187	Take down and set aside for re-use gutter.....	21.30	25.60	13187
13188	Fix only gutter including providing brackets at 1.00 m (maximum) centres.....	36.00	46.00	13188

Item					Item		
UPVC RAINWATER PIPES, GUTTERS AND FITTINGS FOR SURFACE WATER DRAINAGE (CONT'D)							
UPVC Non-pressure pipes and fittings to BS 4514 :-							
Pipe diameter (mm)							
65 80 100 150							
A B C D							
\$ \$ \$ \$							
13189	Pipe fixed to floor, wall or soffits.....	102.80	112.20	122.40	217.90	13189	
<i>Per linear metre</i>							
13190	Extra over Item 13189 for cap end.....	32.60	35.60	38.80	69.10	13190	
13191	Ditto for bend or elbow.....	60.10	71.70	92.50	138.00	13191	
13192	Ditto for branch.....	73.80	90.40	107.00	178.00	13192	
13193	Ditto for double branch.....	114.00	139.00	164.00	274.00	13193	
13194	Ditto for connector to existing pipework.....	33.60	41.10	48.30	80.90	13194	
13195	Add to either of Items 13191 o 13193 inclusive for screwed access.....	21.20	25.90	30.60	51.10	13195	
13196	Tapered socket with cap nut and joint to steel tubing or brass fittings.....	118.00	145.00	181.00	272.00	13196	
13197	Flat roof outlet with raised grating.....	151.00	184.00	253.00	435.00	13197	
<i>Per linear metre</i>							
13198	Take down and clear away pipe fixed to floor, wall or soffits.....	13.20	14.60	16.10	19.00	13198	
13199	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	16.10	17.50	19.00	24.20	13199	
13200	Fix only pipe to floor, wall or soffits.....	34.00	36.00	38.00	40.00	13200	
<i>Each</i>							
13201	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....	77.30	91.30	111.00	135.00	13201	
UPVC two-way floor outlet for surface water drainage :-							
Pipe diameter (mm)							
100							
A							
\$							
13202	Two-way floor outlet.....					52.90	13202

Item						Item	
CAST IRON SOIL, WASTE AND VENTILATION PIPES AND FITTINGS FOR FOUL WATER DRAINAGE							
Cast iron pipes and fittings to BS 416-1, internally and externally coated, for foul water drainage : -							
						Pipe diameter (mm)	
						50 65 75 or 80 90 or 100 150	
						A B C D E	
						\$ \$ \$ \$ \$	
<i>Per linear metre</i>							
13203	Pipe fixed to floor, wall or soffits.....	194.30	196.90	227.30	289.60	531.60	13203
<i>Each</i>							
13204	Extra over Item 13203 for loose socket.....	67.00	75.10	84.60	107.00	156.00	13204
13205	Ditto for large socket for and including joint to clayware pipe.....	-	-	-	197.00	272.00	13205
13206	Ditto for plug to socket end or cap to spigot end.....	-	165.00	172.00	268.00	379.00	13206
13207	Ditto for bend.....	-	166.00	192.00	252.00	431.00	13207
13208	Ditto for single junction.....	-	178.00	211.00	307.00	553.00	13208
13209	Ditto for double junction.....	-	271.00	303.00	495.00	891.00	13209
13210	Ditto for swan-neck of any projection.....	-	194.00	356.00	445.00	800.00	13210
13211	Ditto for connector to existing pipework.....	-	47.30	58.30	85.00	231.00	13211
13212	Add to either of Items 13207 to 13209 inclusive if fitted with bolted access door.....	-	50.70	62.40	90.90	101.00	13212
<i>Per linear metre</i>							
13213	Take down and clear away pipe fixed to floor, wall or soffits.....	11.40	14.20	16.10	17.50	25.60	13213
13214	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	14.20	17.10	18.50	21.30	28.40	13214
13215	Fix only pipe to floor, wall or soffits.....	33.80	43.70	46.00	50.00	76.00	13215
<i>Each</i>							
13216	Cut or burn out existing joint, clean socket and spigot ends, repair and make good existing joint.....	80.40	91.80	103.00	126.00	161.00	13216

Item	Item
CAST IRON SOIL, WASTE AND VENTILATION PIPES AND FITTINGS FOR FOUL WATER DRAINAGE (CONT'D)	
Cast iron pipes and fittings to BS 437, internally and externally coated, for foul water drainage : -	
	Pipe diameter (mm)
	200 or 225
	A S
	<i>Per linear metre</i>
13217	Pipe fixed to floor, wall or soffits..... 807.50 13217
	<i>Each</i>
13218	Extra over Item 13217 for loose socket..... 226.00 13218
13219	Ditto for large socket for and including joint to clayware pipe..... 396.00 13219
13220	Ditto for plug to socket end or cap to spigot end..... 554.00 13220
13221	Ditto for bend..... 660.00 13221
13222	Ditto for single junction..... 842.00 13222
13223	Ditto for double junction..... 1,026.00 13223
13224	Ditto for swan-neck of any projection..... 1,219.00 13224
13225	Ditto for connector to existing pipework..... 353.00 13225
13226	Add to either of Items 13221 to 13223 inclusive if fitted with bolted access door..... 153.00 13226
	<i>Per linear metre</i>
13227	Take down and clear away pipe fixed to floor, wall or soffits..... 42.70 13227
13228	Take down and set aside for re-use pipe fixed to floor, wall or soffits..... 46.90 13228
13229	Fix only pipe to floor, wall or soffits..... 95.40 13229
	<i>Each</i>
13230	Cut or burn out existing joint, clean socket and spigot ends, repair and make good existing joint..... 207.00 13230

Item			Item	
CAST IRON SOIL, WASTE AND VENTILATION PIPES AND FITTINGS FOR FOUL WATER DRAINAGE (CONT'D)				
Grey iron pipes and fittings to BS 4622, internally and externally coated, for foul water drainage :-				
			Pipe diameter (mm)	
			200 or 225	
			250	
			A	
			B	
<i>Per linear metre</i>			\$	
13231	Pipe fixed to floor, wall or soffits.....	843.50	1,168.90	13231
<i>Each</i>				
13232	Extra over Item 13231 for loose socket.....	236.00	327.00	13232
13233	Ditto for large socket for and including joint to clayware pipe.....	413.00	573.00	13233
13234	Ditto for plug to socket end or cap to spigot end.....	579.00	802.00	13234
13235	Ditto for bend.....	689.00	955.00	13235
13236	Ditto for single junction.....	879.00	1,219.00	13236
13237	Ditto for double junction.....	1,029.00	1,426.00	13237
13238	Ditto for swan-neck of any projection.....	1,273.00	1,765.00	13238
13239	Ditto for connector to existing pipework.....	369.00	511.00	13239
13240	Add to either of Items 13235 to 13237 inclusive if fitted with bolted access door.....	160.00	222.00	13240
<i>Per linear metre</i>				
13241	Take down and clear away pipe fixed to floor, wall or soffits.....	39.80	54.00	13241
13242	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	42.70	56.90	13242
13243	Fix only pipe to floor, wall or soffits.....	90.00	110.00	13243
<i>Each</i>				
13244	Cut or burn out existing joint, clean socket and spigot ends, repair and make good existing joint.....	207.00	242.00	13244

Item									Item								
CAST IRON SOCKETLESS PIPES AND FITTINGS FOR FOUL WATER DRAINAGE																	
Cast iron socketless pipes and fittings to BS EN 877, epoxy coated internally, anti-corrosive coated externally, for surface or foul water drainage : -																	
Pipe diameter (mm)																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 12.5%;">40</th> <th style="width: 12.5%;">50</th> <th style="width: 12.5%;">70 or 75</th> <th style="width: 12.5%;">100 or 125</th> <th style="width: 12.5%;">150</th> <th style="width: 12.5%;">200</th> <th style="width: 12.5%;">250</th> <th style="width: 12.5%;">300</th> </tr> </thead> </table>										40	50	70 or 75	100 or 125	150	200	250	300
40	50	70 or 75	100 or 125	150	200	250	300										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 12.5%;">A \$</th> <th style="width: 12.5%;">B \$</th> <th style="width: 12.5%;">C \$</th> <th style="width: 12.5%;">D \$</th> <th style="width: 12.5%;">E \$</th> <th style="width: 12.5%;">F \$</th> <th style="width: 12.5%;">G \$</th> <th style="width: 12.5%;">H \$</th> </tr> </thead> </table>										A \$	B \$	C \$	D \$	E \$	F \$	G \$	H \$
A \$	B \$	C \$	D \$	E \$	F \$	G \$	H \$										
<i>Per linear metre</i>																	
13245	Pipe fixed to floor, wall or soffits.....	217.90	229.10	249.00	293.50	477.90	702.90	1,001.90	1,253.40	13245							
<i>Each</i>																	
13246	Extra over Item 13245 for cap end or plug.....	-	-	182.00	260.00	325.00	416.00	651.00	781.00	13246							
13247	Ditto for bend or elbow.....	-	-	189.00	252.00	384.00	576.00	812.00	1,016.00	13247							
13248	Ditto for three-way elbow or tee.....	-	-	231.00	311.00	497.00	731.00	1,042.00	1,304.00	13248							
13249	Ditto for access door.....	-	-	68.40	92.10	90.80	134.00	190.00	238.00	13249							
13250	Ditto for reducer.....	-	-	141.00	178.00	269.00	403.00	569.00	711.00	13250							
13251	Ditto for connector to existing pipework.....	-	-	63.90	86.20	208.00	305.00	435.00	545.00	13251							
<i>Per linear metre</i>																	
13252	Take down and clear away pipe fixed to floor, wall or soffits.....	10.00	11.40	14.20	17.10	25.60	39.80	54.00	68.00	13252							
13253	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	11.40	14.20	17.10	21.30	28.40	42.70	56.90	71.10	13253							
13254	Fix only pipe to floor, wall or soffits.....	26.00	33.80	44.00	50.00	76.00	90.00	110.00	129.90	13254							
<i>Each</i>																	
13255	Repair and make good existing joint including cleaning ends.....	27.10	36.30	45.50	47.80	52.40	57.80	66.90	86.30	13255							
13256	Seal off existing pipe laid or fixed in position including threading end and providing and jointing on cap or plug.....	62.20	119.00	176.00	235.00	297.00	354.00	411.00	469.00	13256							

Item		Pipe diameter (mm)				Item
		90	114	140	165	
		A	B	C	D	
		\$	\$	\$	\$	
GALVANIZED IRON PIPES AND FITTINGS FOR FOUL WATER DRAINAGE						
Galvanized iron pipes and fittings to BS EN 10255 medium grade and hot dip zinc coated for foul water drainage :-						
<i>Per linear metre</i>						
13257	Pipe fixed to floor, wall or soffits.....	141.80	203.80	241.00	313.60	13257
<i>Each</i>						
13258	Extra over Item 13257 for cap end or plug.....	97.30	140.00	165.00	215.00	13258
13259	Ditto for bend or elbow.....	116.00	167.00	197.00	256.00	13259
13260	Ditto for three-way elbow or tee.....	147.00	213.00	251.00	327.00	13260
13261	Ditto for access door.....	26.90	38.60	45.70	59.40	13261
13262	Ditto for reducer.....	83.40	120.00	143.00	185.00	13262
13263	Ditto for connector to existing pipework.....	62.00	89.10	105.00	137.00	13263
<i>Per linear metre</i>						
13264	Take down and clear away pipe fixed to floor, wall or soffits.....	14.20	17.10	24.20	31.30	13264
13265	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	18.50	24.20	25.60	39.80	13265
13266	Fix only pipe to floor, wall or soffits.....	36.00	44.00	46.00	54.00	13266
<i>Each</i>						
13267	Repair and make good existing joint including cleaning ends.....	46.50	48.90	51.30	53.50	13267
13268	Seal off existing pipe laid or fixed in position including threading end and providing and jointing on cap or plug.....	133.00	191.00	226.00	270.00	13268

Item		Pipe diameter (mm)			Item
		32	43	56	
		A	B	C	
		\$	\$	\$	
UPVC PIPES AND FITTINGS FOR FOUL WATER DRAINAGE					
UPVC Non-pressure pipes and fittings to BS 5255 for foul water drainage : -					
<i>Per linear metre</i>					
13269	Pipe fixed to floor, wall or soffits.....	52.90	81.60	93.70	13269
<i>Each</i>					
13270	Extra over Item 13269 for cap end.....	-	-	56.50	13270
13271	Ditto for bend or elbow.....	-	-	46.20	13271
13272	Ditto for branch.....	-	-	71.00	13272
13273	Ditto for double branch.....	-	-	88.50	13273
13274	Ditto for connector to existing pipework.....	-	-	32.30	13274
13275	Add to either of Items 13271 to 13273 inclusive for screwed access.....	-	-	28.00	13275
13276	Tapered socket with cap nut and joint to steel tubing or brass fittings.....	-	-	90.50	13276
13277	Flat roof outlet with raised grating.....	-	-	126.00	13277
<i>Per linear metre</i>					
13278	Take down and clear away pipe fixed to floor, wall or soffits.....	8.80	10.20	12.50	13278
13279	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	11.70	13.20	15.40	13279
13280	Fix only pipe to floor, wall or soffits.....	28.00	30.00	32.00	13280
<i>Each</i>					
13281	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....	43.60	56.40	62.40	13281

Item		Pipe diameter (mm)		Item
		100	150	
	UPVC PIPES AND FITTINGS FOR FOUL WATER DRAINAGE (CONT'D)			
	UPVC Non-pressure pipes and fittings to BS 4514 for foul water drainage : -			
	<i>Per linear metre</i>			
13282	Pipe fixed to floor, wall or soffits.....	122.40	217.90	13282
	<i>Each</i>			
13283	Extra over Item 13282 for cap end.....	38.80	69.10	13283
13284	Ditto for bend or elbow.....	92.50	138.00	13284
13285	Ditto for branch.....	107.00	178.00	13285
13286	Ditto for double branch.....	164.00	274.00	13286
13287	Ditto for connector to existing pipework.....	46.20	77.40	13287
13288	Add to either of Items 13284 to 13286 inclusive for screwed access.....	30.50	51.00	13288
13289	Tapered socket with cap nut and joint to steel tubing or brass fittings.....	173.00	260.00	13289
13290	Flat roof outlet with raised grating.....	242.00	416.00	13290
	<i>Per linear metre</i>			
13291	Take down and clear away pipe fixed to floor, wall or soffits.....	16.10	19.00	13291
13292	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	19.00	24.20	13292
13293	Fix only pipe to floor, wall or soffits.....	38.00	40.00	13293
	<i>Each</i>			
13294	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....	107.00	131.00	13294

Item		Pipe diameter (mm)			Item	
		38	51			
		A	B			
		\$	\$			
VULCATHENE MECHANICAL WASTE PIPES AND FITTINGS FOR ABOVE GROUND DRAINAGE						
	<i>Per linear metre</i>					
13295	Pipe fixed to floor, wall or ceiling with and including brackets.....	183.40	275.00		13295	
	<i>Each</i>					
13296	Extra over Item 13295 for cap end.....	-	92.10		13296	
13297	Ditto for bend or elbow.....	-	199.00		13297	
13298	Ditto for branch.....	-	227.00		13298	
13299	Ditto for reducer.....	-	180.00		13299	
13300	Ditto for connector to existing pipework.....	-	103.00		13300	
PRECAST CONCRETE PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE						
Precast concrete pipes and fittings to BS 5911-1 or BS EN 1916, for below ground drainage : -						
		Pipe diameter (mm)				
		150	225	300	375	450
		A	B	C	D	E
		\$	\$	\$	\$	\$
13301	Pipe, unreinforced, laid in trench.....	547.80	686.80	852.20	1,110.50	1,437.40
13302	Ditto, reinforced, laid in trench.....	-	-	-	-	1,509.20
	<i>Each</i>					
13303	Extra over for either of Items 13301 to 13302 inclusive for elbow or bend including cutting pipe ends to profile, making good and grouting joints smooth with cement and sand (1:3) mortar or cast around elbow or bend with concrete surround as required.....	412.00	550.00	623.00	747.00	818.00
13304	Extra over for either of Items 13301 to 13302 inclusive for single junction including cutting through pipe and pipe end to profile, making good and grouting junction smooth with cement and sand (1:3) mortar or cast around elbow or bend with concrete surround as required.....	445.00	566.00	629.00	779.00	915.00
13305	Ditto for double junction.....	713.00	906.00	1,006.00	1,247.00	1,464.00

Item						Item	
PRECAST CONCRETE PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE (CONT'D)							
Precast concrete pipes and fittings to BS 5911-1 or BS EN 1916, for below ground drainage : - (Cont'd)							
						Pipe diameter (mm)	
						150 225 300 375 450	
						A B C D E	
						\$ \$ \$ \$ \$	
<i>Per linear metre</i>							
13306	Take up and clear away pipe laid in trench complete with all fittings (trench excavation measured separately).....	21.30	24.20	25.60	31.30	32.70	13306
13307	Take up and set aside for re-use ditto.....	24.20	25.60	29.80	32.70	35.50	13307
13308	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately).....	125.10	127.90	130.80	132.20	137.90	13308
13309	Lay only pipe in trench.....	33.60	36.50	39.50	42.40	45.30	13309
VITRIFIED CLAY PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE							
Vitrified clay pipes and fittings to BS 65, chemical resistant, for below ground drainage : -							
						Pipe diameter (mm)	
						100 150 225 300	
						A B C D	
						\$ \$ \$ \$	
<i>Per linear metre</i>							
13310	Pipe laid in trench.....	437.60	580.40	794.70	1,214.00		13310
<i>Each</i>							
13311	Extra over Item 13310 for taper pipe.....	-	88.00	229.00	-		13311
13312	Ditto for bend.....	122.00	199.00	464.00	-		13312
13313	Ditto for single junction.....	194.00	286.00	520.00	801.00		13313
13314	Ditto for double junction.....	285.00	421.00	767.00	-		13314
13315	Ditto for pipe stopper bedded in cement or lime mortar.....	121.00	176.00	218.00	-		13315
<i>Per linear metre</i>							
13316	Take up and clear away pipe laid in trench (trench excavation measured separately).....	18.50	21.30	24.20	27.00		13316
13317	Take up and set aside for re-use pipe laid in trench (ditto).....	21.30	24.20	25.60	31.30		13317
13318	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately).....	123.70	125.10	127.90	130.80		13318
13319	Lay only pipe in trench.....	46.20	50.80	55.50	62.40		13319

Item							Item	
DUCTILE IRON PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE								
Ductile iron pipes and fittings to BS EN 598 with cement lining internally and zinc coating externally, for below ground drainage : -								
Pipe diameter (mm)								
80 100 150 200 250 300								
<i>Per linear metre</i>								
	A	B	C	D	E	F		
	\$	\$	\$	\$	\$	\$		
13320	Pipe laid in trench.....	446.80	448.00	639.40	897.00	1,122.50	1,370.50	13320
13321	Drop pipe.....	511.60	512.70	709.00	963.20	1,179.70	1,393.80	13321
<i>Each</i>								
13322	Extra over either of Items 13320 to 13321 inclusive for cover plate for end.....	92.00	92.30	128.00	173.00	212.00	251.00	13322
13323	Ditto for socket end (for repair work only).....	192.00	236.00	312.00	424.00	519.00	613.00	13323
13324	Ditto for spigot end (for repair work only).....	205.00	245.00	326.00	443.00	542.00	641.00	13324
13325	Ditto for connector with screwed end to existing pipework.....	227.00	275.00	369.00	501.00	613.00	725.00	13325
13326	Ditto for bend.....	264.00	330.00	447.00	606.00	743.00	877.00	13326
13327	Ditto for single junction.....	300.00	339.00	468.00	636.00	778.00	920.00	13327
13328	Ditto for double junction.....	314.00	356.00	491.00	667.00	816.00	965.00	13328
13329	Add to either of Items 13326 to 13328 inclusive if fitted with bolted access door.....	29.60	53.50	92.20	136.00	242.00	348.00	13329
<i>Per linear metre</i>								
13330	Take up and clear away pipe laid in trench (trench excavation measured separately).....	17.10	21.30	25.60	31.30	32.70	45.50	13330
13331	Take up and set aside for re-use pipe laid in trench (ditto).....	24.20	25.60	31.30	35.50	39.80	49.70	13331
13332	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately).....	56.90	61.10	81.00	116.60	137.90	160.60	13332
13333	Take down and clear away drop pipe.....	18.50	24.20	28.40	31.30	35.50	42.70	13333
13334	Take down and set aside for re-use drop pipe.....	24.20	27.00	31.30	35.50	38.40	46.90	13334
13335	Lay only pipe in trench.....	79.50	83.50	92.50	99.40	108.60	127.10	13335
13336	Fix only drop pipe.....	149.60	156.30	168.70	181.00	193.10	206.70	13336
<i>Each</i>								
13337	Remove and clear away gasket and/or cover plate to existing joint and re-joint with new gasket and/or cover plate.....	63.80	74.70	88.50	95.20	102.00	110.00	13337

Item	Pipe diameter (mm)				Item	
	75	100	150	200 or 225		
	A \$	B \$	C \$	D \$		
CAST IRON PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE						
Cast iron pipes and fittings to BS 437, internally and externally coated, for below ground drainage :-						
<i>Per linear metre</i>						
13338	Pipe laid in trench.....	201.60	248.80	446.20	689.90	13338
13339	Drop pipe.....	274.80	324.00	527.50	775.90	13339
<i>Each</i>						
13340	Extra over either of Items 13338 to 13339 inclusive for plug to socket end.....	189.00	222.00	362.00	532.00	13340
13341	Ditto for cap to spigot end.....	189.00	222.00	362.00	532.00	13341
13342	Ditto for bend.....	224.00	264.00	430.00	633.00	13342
13343	Ditto for single junction.....	286.00	338.00	550.00	809.00	13343
13344	Ditto for double junction.....	349.00	411.00	670.00	985.00	13344
13345	Ditto for connector to existing pipework.....	120.00	142.00	230.00	339.00	13345
13346	Add to either of Items 13342 to 13344 inclusive if fitted with bolted access door.....	52.20	61.60	100.00	147.00	13346
<i>Per linear metre</i>						
13347	Take up and clear away pipe laid in trench (trench excavation measured separately).....	11.40	16.10	24.20	32.70	13347
13348	Take up and set aside for re-use pipe laid in trench (ditto).....	16.90	18.50	25.60	35.50	13348
13349	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately).....	120.80	123.70	125.10	127.90	13349
13350	Take down and clear away drop pipe.....	14.20	17.10	28.40	42.70	13350
13351	Take down and set aside for re-use drop pipe.....	18.50	23.40	30.70	46.90	13351
13352	Lay only pipe in trench.....	41.60	50.10	53.20	57.80	13352
13353	Fix only drop pipe.....	120.20	127.10	134.10	145.60	13353
<i>Each</i>						
13354	Cut or burn out existing joint, clean spigot and socket ends and make good joint.....	99.40	120.00	155.00	192.00	13354

Item			Item	
CAST IRON PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE (CONT'D)				
Grey iron pipes and fittings to BS 4622, internally and externally coated, for below ground drainage :-				
			Pipe diameter (mm)	
			200 or 225	
			250	
			A	
			B	
<i>Per linear metre</i>			\$	
			\$	
13355	Pipe laid in trench.....	724.80	1,030.30	13355
13356	Drop pipe.....	810.40	1,123.10	13356
<i>Each</i>				
13357	Extra over either of Items 13355 to 13356 inclusive for plug to socket end.....	556.00	771.00	13357
13358	Ditto for cap to spigot end.....	556.00	771.00	13358
13359	Ditto for bend.....	662.00	918.00	13359
13360	Ditto for single junction.....	845.00	1,171.00	13360
13361	Ditto for double junction.....	989.00	1,370.00	13361
13362	Ditto for connector to existing pipework.....	354.00	491.00	13362
13363	Add to either of Items 13359 to 13361 inclusive if fitted with bolted access door.....	154.00	213.00	13363
<i>Per linear metre</i>				
13364	Take up and clear away pipe laid in trench (trench excavation measured separately).....	32.70	39.80	13364
13365	Take up and set aside for re-use pipe laid in trench (ditto).....	35.50	45.30	13365
13366	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately).....	127.90	142.00	13366
13367	Take down and clear away drop pipe.....	42.70	56.00	13367
13368	Take down and set aside for re-use drop pipe.....	46.90	61.10	13368
13369	Lay only pipe in trench.....	57.80	64.70	13369
13370	Fix only drop pipe.....	145.60	167.30	13370
<i>Each</i>				
13371	Cut or burn out existing joint, clean spigot and socket ends and make good joint.....	208.00	254.00	13371

Item								Item	
UPVC PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE									
UPVC Pressure pipes and fittings to BS 3506 for pressurized drainage with joints and fittings complying with relevant parts of BS 4346-1 and BS EN 1452-1 to 5 or BS EN ISO 1452-1 :-									
Pipe diameter (mm)									
80 100 125 150 200 250 300									
A B C D E F G									
\$ \$ \$ \$ \$ \$ \$									
<i>Per linear metre</i>									
13372	Pipe laid in trench.....	70.50	102.40	147.80	193.00	260.00	389.00	486.00	13372
<i>Each</i>									
13373	Extra over Item 13372 for cap end.....	26.10	37.90	54.70	71.50	96.40	144.00	180.00	13373
13374	Ditto for bend or elbow.....	35.30	51.20	73.90	97.00	130.00	194.00	243.00	13374
13375	Ditto for junction.....	49.40	71.70	103.00	135.00	182.00	272.00	340.00	13375
13376	Ditto for reducer.....	24.70	35.80	51.70	67.70	91.20	136.00	170.00	13376
13377	Ditto for connector to existing pipework.....	21.20	30.70	44.40	58.00	78.10	117.00	146.00	13377
<i>Per linear metre</i>									
13378	Take up and clear away pipe laid in trench (trench excavation measured separately).....	12.80	14.20	16.10	17.50	20.50	23.40	25.60	13378
13379	Take up and set aside for re-use pipe laid in trench (ditto).....	16.10	17.50	20.50	23.40	25.60	28.40	32.70	13379
13380	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately).....	121.00	124.00	125.00	129.00	132.00	135.00	138.00	13380
13381	Lay only pipe in trench.....	23.80	25.90	27.90	29.80	33.80	35.70	37.80	13381
UPVC Pressure pipes and fittings to BS 4660 for gravity sewage and surface water drainage :-									
Pipe diameter (mm)									
110 160									
A B									
\$ \$									
<i>Per linear metre</i>									
13382	Pipe laid in trench.....					140.00	203.50		13382
<i>Each</i>									
13383	Extra over Item 13382 for cap end.....					135.00	196.00		13383
13384	Ditto for bend or elbow.....					271.00	393.00		13384
13385	Ditto for tee.....					306.00	444.00		13385
13386	Ditto for connector to existing pipework.....					136.00	196.00		13386

Item

Item

UPVC PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE (CONT'D)

UPVC Pressure pipes and fittings to BS 4660 for gravity sewage and surface water drainage : - (Cont'd)

Pipe diameter (mm)	
110	160
A	B
\$	\$
17.10	25.60
18.50	28.40
125.00	131.00
29.10	35.10

Per linear metre

13387	Take up and clear away pipe laid in trench (trench excavation measured separately).....	17.10	25.60	13387
13388	Take up and set aside for re-use pipe laid in trench (ditto).....	18.50	28.40	13388
13389	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately).....	125.00	131.00	13389
13390	Lay only pipe in trench.....	29.10	35.10	13390

STRAINERS

Nominal size (mm)					
15	20	25	32	40	50
A	B	C	D	E	F
\$	\$	\$	\$	\$	\$
194.00	238.00	278.00	308.00	324.00	369.00
224.00	313.00	403.00	515.00	649.00	806.00

Each

13391	uPVC Y-strainer.....	194.00	238.00	278.00	308.00	324.00	369.00	13391
13392	Copper alloy Y-strainer.....	224.00	313.00	403.00	515.00	649.00	806.00	13392

Nominal size (mm)					
65	80	100	150	200	250
A	B	C	D	E	F
\$	\$	\$	\$	\$	\$
311.00	365.00	501.00	903.00	1,519.00	2,501.00

Each

13393	Cast iron Y-strainer.....	311.00	365.00	501.00	903.00	1,519.00	2,501.00	13393
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Clear and clean Y-strainer including taking out, clearing, cleaning and refixing the removable screen : -

Nominal size (mm)											
15	20	25	32	40	50	65	80	100	150	200	250
A	B	C	D	E	F	G	H	I	J	K	L
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
28.40	32.70	39.80	45.50	52.60	56.90	61.10	68.20	73.90	85.30	96.70	109.00

Each

13394	Y-strainer.....	28.40	32.70	39.80	45.50	52.60	56.90	61.10	68.20	73.90	85.30	96.70	109.00	13394
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Item											Item																														
VALVES																																									
Copper alloy valves for fresh or flushing water supply system :-																																									
Nominal size (mm)																																									
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15	20	25	32	40	50	65	80	100	150																																
A	B	C	D	E	F	G	H	I	J																																
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$																																
<i>Each</i>																																									
13395	Copper alloy gate valve.....	89.50	106.00	138.00	166.00	236.00	339.00	489.00	704.00	900.00	1,062.00	13395																													
13396	Ditto but flanged.....	-	-	-	-	-	-	-	-	1,017.00	1,200.00	13396																													
13397	Copper alloy non-return valve.....	112.00	138.00	161.00	183.00	260.00	374.00	538.00	775.00	991.00	1,170.00	13397																													
13398	Copper alloy ball float valve with ball float for fresh water tank.....	-	519.00	607.00	692.00	983.00	1,190.00	-	-	-	-	13398																													
Brass or bronze or gunmetal valves for fresh or flushing water supply system :-																																									
Nominal size (mm)																																									
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15	20	25	30	40	50	65	80	100	150																																
A	B	C	D	E	F	G	H	I	J																																
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$																																
<i>Each</i>																																									
13399	Brass or bronze ball valve with plastic float.....	283.00	350.00	408.00	464.00	660.00	799.00	1,149.00	1,461.00	1,797.00	2,120.00	13399																													
13400	Gunmetal ball valve with plastic float.....	411.00	558.00	841.00	1,108.00	1,456.00	1,690.00	3,047.00	3,916.00	4,798.00	5,677.00	13400																													
13401	Gunmetal ball valve with stainless steel float.....	419.00	566.00	849.00	1,116.00	1,464.00	1,698.00	3,055.00	3,924.00	4,806.00	5,685.00	13401																													
Heavy pattern gunmetal full way gate valve.....																																									
Nominal size (mm)																																									
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80	100																																								
A	B																																								
\$	\$																																								
13402	Heavy pattern gunmetal full way gate valve.....									1,324.00	1,863.00	13402																													
13403	Heavy pattern gunmetal full way gate valve flanged.....									1,496.00	2,258.00	13403																													
Stainless steel Grade 316 valves for fresh or flushing water supply system :-																																									
Nominal size (mm)																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">15</th> <th style="width: 10%;">18</th> <th style="width: 10%;">22</th> <th style="width: 10%;">28</th> <th style="width: 10%;">35</th> <th style="width: 10%;">42</th> <th style="width: 10%;">54</th> <th style="width: 10%;">76</th> <th style="width: 10%;">89</th> <th style="width: 10%;">108</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>H</th> <th>I</th> <th>J</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>												15	18	22	28	35	42	54	76	89	108	A	B	C	D	E	F	G	H	I	J	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
15	18	22	28	35	42	54	76	89	108																																
A	B	C	D	E	F	G	H	I	J																																
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$																																
<i>Each</i>																																									
13404	Stainless steel gate valve.....	427.00	488.00	575.00	644.00	769.00	934.00	1,257.00	1,806.00	2,149.00	2,664.00	13404																													
13405	Stainless steel check valve.....	333.00	390.00	474.00	597.00	672.00	851.00	1,176.00	1,414.00	1,763.00	2,186.00	13405																													

Item

Item

VALVES (CONT'D)

Ductile iron valves for fresh or flushing water supply system :-

Nominal size (mm)				
80	100	150	200	250
A	B	C	D	E
\$	\$	\$	\$	\$
2,830.00	2,975.00	4,009.00	4,989.00	6,758.00

Each

13406 Ductile iron pressure reducing valve flanged..... 13406

Cast iron valves for fresh or flushing water supply system :-

Nominal size (mm)									
80	100	125	150	200	250	300	350	400	
A	B	C	D	E	F	G	H	I	
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1,568.00	1,868.00	2,450.00	4,163.00	5,000.00	6,690.00	8,031.00	-	-	
1,871.00	2,520.00	3,305.00	4,730.00	5,681.00	10,899.00	13,733.00	-	-	
3,074.00	4,158.00	5,934.00	7,322.00	13,312.00	23,039.00	30,411.00	46,123.00	68,526.00	
10,356.00	13,520.00	19,297.00	28,967.00	29,691.00	36,571.00	46,079.00	-	-	
15,963.00	16,876.00	21,772.00	26,161.00	32,963.00	-	-	-	-	

Each

13407 Cast iron gate valve flanged..... 13407

13408 Cast iron non-return valve flanged..... 13408

13409 Cast iron globe valve flanged..... 13409

13410 Cast iron pressure reducing valve flanged..... 13410

13411 Cast iron ball float valve with ball float for fresh water tank..... 13411

UPVC or PVC valves for flushing water supply system :-

Nominal size (mm)								
15	20	25	30	40	50	65	80	
A	B	C	D	E	F	G	H	
\$	\$	\$	\$	\$	\$	\$	\$	\$
	83.50	95.20	145.00	184.00	337.00	379.00	-	-
	161.00	196.00	273.00	324.00	406.00	427.00	531.00	637.00
	112.00	126.00	-	-	-	-	-	-

Each

13412 PVC or UPVC screw down valve..... 13412

13413 Ditto but flanged..... 13413

13414 Plastic ball valve with plastic float for flushing cistern..... 13414

Each

Nominal size (mm)		
6	8	10
A	B	C
\$	\$	\$
71.70	95.60	120.00
59.80	59.80	59.80

13415 UPVC or plastic angle valve for flushing cistern and urinal..... 13415

13416 UPVC or plastic connecting pipe for angle valve n.e. 600 mm long..... 13416

Cast iron valves for underground drainage :-

Nominal size (mm)						
80	100	125	150	200	250	300
A	B	C	D	E	F	G
\$	\$	\$	\$	\$	\$	\$
1,568.00	1,868.00	2,450.00	4,163.00	5,000.00	6,690.00	8,031.00

Each

13417 Cast iron gate valve flanged..... 13417

Item

Item

SUNDRIES REPAIRS TO VALVES AND BALL VALVES

Nominal size (mm)			
65 and below	65 - 135	135 - 200	200 and beyond
A	B	C	D
\$	\$	\$	\$
28.40	32.70	39.80	45.50
32.70	38.40	45.50	52.60
49.50	59.60	69.70	79.80

Each

13418	Take down and clear away valve of all types of materials and functions.....	28.40	32.70	39.80	45.50	13418
13419	Take down and set aside for re-use valve of all types of materials and functions.....	32.70	38.40	45.50	52.60	13419
13420	Fix only valve of all types of materials and functions.....	49.50	59.60	69.70	79.80	13420

Nominal size (mm)	
15 - 80	80 - 150
A	B
\$	\$
69.70	78.70
265.00	328.00
183.00	225.00
86.50	133.00
138.00	288.00

Each

13421	Take off existing float from ball valve, solder to watertight and re-fix in position.....	69.70	78.70	13421
13422	Take off and clear away existing float from ball valve, provide and fix new float.....	265.00	328.00	13422
13423	Take off and clear away existing metal or plastic connecting rod from ball valve, provide and fix new rod.....	183.00	225.00	13423
13424	Re-wash existing ball valve including providing leather, vulcanized fibre, plastic or rubber washer as ordered.....	86.50	133.00	13424
13425	Re-pack stuffing box, grind in valve and regulate.....	138.00	288.00	13425

Item													Item
	TRAPS AND WASTE OUTLETS												
	Supply and fix			Take down and clear away			Take down and set aside for re-use			Fix only			
	Nominal size (mm)			Nominal size (mm)			Nominal size (mm)			Nominal size (mm)			
	32	38	51	32	38	51	32	38	51	32	38	51	
	A	B	C	D	E	F	G	H	I	J	K	L	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
<i>Each</i>													
13426	Plastic re-sealing anti-syphonic trap with 80 mm seal.....												13426
	191.00	238.00	284.00	28.00	30.00	34.00	30.00	33.00	36.00	57.00	70.00	83.00	
13427	Galvanized malleable iron "P", "S" or running trap with 38 mm or 76 mm seal, as ordered, and screwed cleaning eye including joints to fitting, waste outlet, or galvanized steel or P.V.C. tubing.....												13427
	191.00	221.00	284.00	44.00	49.00	56.00	46.00	52.00	58.00	67.00	79.00	96.00	
13428	Cast brass ditto.....												13428
	278.00	335.00	455.00	44.00	49.00	57.00	46.00	52.00	58.00	69.00	79.00	96.00	
13429	Chromium plated brass ditto.....												13429
	291.00	339.00	497.00	44.00	49.00	57.00	46.00	52.00	58.00	80.00	90.00	120.00	
13430	Add to either of Items 13427 to 13429 inclusive if fitted with connector for copper tubing.....												13430
	147.00	183.00	244.00	-	-	-	-	-	-	-	-	-	
13431	Approved "P" or "S" plastic bottle trap including joints to fitting, waste outlet or P.V.C. tubing.....												13431
	179.00	209.00	-	28.00	30.00	-	30.00	34.00	-	55.00	66.00	-	

Item

Item

**TRAPS AND WASTE
OUTLETS (CONT'D)**

13432

Brass waste outlet with chromium plated flange and grating flynut, long shank slotted for overflow if required, and screwed for joint to galvanized steel tubing or trap including rubber or vulcanite plug with chromium plated ring and chain and fixing stud if required, and bedded in red lead cement in sink or basin.....

Supply and fix			Take down and clear away			Take down and set aside for re-use			Fix only		
Nominal size (mm)			Nominal size (mm)			Nominal size (mm)			Nominal size (mm)		
32	38	51	32	38	51	32	38	51	32	38	51
A	B	C	D	E	F	G	H	I	J	K	L
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
210.00	257.00	388.00	30.00	37.00	42.00	34.00	39.00	44.00	53.00	72.00	81.00

13432

13433

Ditto but with chromium plated brass overflow grid and connection for bath.....

244.00	309.00	-	33.00	42.00	-	35.00	44.00	-	58.00	78.00	-
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13433

13434

Cast iron trap epoxy coated internally and anti-corrosive coated externally for cast iron socketless pipes to BS EN 877.....

Nominal size (mm)			
50	75	100	150
A	B	C	D
\$	\$	\$	\$
122.00	160.00	243.00	502.00

13434

CLEARING TRAPS AND WASTE PIPES

Each

13435

Clear blocked trap and waste pipe complete with combined overflow if necessary to lavatory basin, sink, bath or wall urinal bowl including taking off and re-fixing cleaning eye from trap, etc., if required and leaving trap and pipe in clean and perfect condition.....

55.00
61.00

13435

13436

Ditto but for trap and waste pipe to W.C., gully, stall or slab urinal.....

13436

Item					Item	
	CISTERNS AND TANKS					
	Galvanized low carbon steel cisterns and tanks complete with vent, overflow and warning pipe, accessories, etc. including all joints to tubing :-					
	(Note :- The nominal capacity is measured based on the base area of the tank, measured on plan, and multiplied by the height of the tank, excluding any projection, and multiplied by 1,000 litres/m ³ .)					
	Each					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
13437	Cistern or tank n.e. 100 litre nominal capacity.....	3,460.00	157.00	55.50	147.00	13437
13438	Ditto but 100 - 200 litre nominal capacity.....	4,430.00	196.00	65.50	171.00	13438
13439	Ditto but 200 - 300 litre nominal capacity.....	5,993.00	269.00	87.10	219.00	13439
13440	Ditto but 300 - 500 litre nominal capacity.....	7,593.00	356.00	133.00	305.00	13440
13441	Ditto but 500 - 1,000 litre nominal capacity.....	10,388.00	478.00	194.00	451.00	13441
13442	Ditto but 1,000 - 2,000 litre nominal capacity.....	13,921.00	628.00	271.00	671.00	13442
13443	Ditto but 2,000 - 3,000 litre nominal capacity.....	17,389.00	847.00	332.00	878.00	13443
13444	Ditto but 3,000 - 5,000 litre nominal capacity.....	24,903.00	1,053.00	483.00	1,316.00	13444
13445	Ditto but 5,000 - 10,000 litre nominal capacity.....	28,338.00	1,279.00	726.00	1,951.00	13445
13446	Add to Item 13445 for each additional 2,500 litres or part thereof in nominal capacity.....	2,521.00	605.00	218.00	365.00	13446
	GLASS-FIBRE REINFORCED PLASTIC WATER TANKS					
	One-piece glass-fibre reinforced plastic (GRP) water tanks with cover complete with vent, overflow and warning pipe, accessories, etc. including all joints to tubing :-					
	(Note :- The nominal capacity is measured based on the base area of the tank, measured on plan, and multiplied by the height of the tank, excluding any projection, and multiplied by 1,000 litres/m ³ .)					
	Each					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
13447	Water tank n.e. 100 litre nominal capacity.....	1,414.00	62.00	44.00	121.00	13447
13448	Ditto but 100 - 250 litre nominal capacity.....	2,232.00	74.00	53.00	146.00	13448
13449	Ditto but 250 - 350 litre nominal capacity.....	2,953.00	111.00	80.00	219.00	13449
13450	Ditto but 350 - 500 litre nominal capacity.....	3,822.00	148.00	106.00	293.00	13450
13451	Ditto but 500 - 800 litre nominal capacity.....	4,898.00	216.00	154.00	426.00	13451

Item						Item	
	GLASS-FIBRE REINFORCED PLASTIC WATER TANKS (CONT'D)						
	Panel type glass-fibre reinforced plastic (GRP) water tank with cover complete with access ladder if required, roof vent, overflow and warning pipes, bracing system, accessories, etc. and including all joints to tubing : -						
	(Note : - The area on plan of water tanks is measured the dimensions of the bottom of the tank.)						
		Height (m)					
		1.00	1.50	2.00	2.50	3.00	
	Each	A	B	C	D	E	
		\$	\$	\$	\$	\$	
13452	Water tank of area on plan n.e. 2.00 m ²	10,430.00	15,298.00	18,615.00	23,220.00	26,257.00	13452
13453	Ditto but 2.00 - 4.00 m ²	17,384.00	25,728.00	29,602.00	37,301.00	42,181.00	13453
13454	Ditto but 4.00 - 6.00 m ²	25,182.00	39,849.00	43,213.00	53,544.00	60,548.00	13454
13455	Ditto but 6.00 - 8.00 m ²	30,397.00	49,176.00	53,990.00	67,153.00	75,938.00	13455
13456	Ditto but 8.00 - 10.00 m ²	35,067.00	48,671.00	60,394.00	74,153.00	83,853.00	13456
13457	Ditto but 10.00 - 12.00 m ² (The actual rate should be : \$100,635.00 for Item 13457E)	44,109.00	58,807.00	77,898.00	89,747.00	10,063.50	13457
13458	Ditto but 12.00 - 16.00 m ² (The actual rate should be : \$110,600.00 for Item 13458E)	50,862.00	71,523.00	87,211.00	99,477.00	11,060.00	13458
	Take down and clear away panel type GRP water tank with cover including all accessories : -						
		Height (m)					
		1.00	1.50	2.00	2.50	3.00	
	Each	A	B	C	D	E	
		\$	\$	\$	\$	\$	
13459	Water tank of area on plan n.e. 2.00 m ²	415.00	581.00	746.00	913.00	1,411.00	13459
13460	Ditto but 2.00 - 4.00 m ²	663.00	913.00	1,078.00	1,327.00	1,576.00	13460
13461	Ditto but 4.00 - 6.00 m ²	913.00	1,161.00	1,411.00	1,825.00	2,417.00	13461
13462	Ditto but 6.00 - 8.00 m ²	1,078.00	1,327.00	1,825.00	2,240.00	2,843.00	13462
13463	Ditto but 8.00 - 10.00 m ²	1,161.00	2,074.00	2,405.00	2,843.00	3,412.00	13463
13464	Ditto but 10.00 - 12.00 m ²	1,411.00	2,157.00	2,985.00	3,412.00	3,980.00	13464
13465	Ditto but 12.00 - 16.00 m ²	1,659.00	2,489.00	3,650.00	4,314.00	5,227.00	13465

Item						Item	
	GLASS-FIBRE REINFORCED PLASTIC WATER TANKS (CONT'D)						
	Take down and set aside for re-use panel type GRP water tank with cover including all accessories : -						
	<i>Each</i>						
		Height (m)					
		1.00	1.50	2.00	2.50	3.00	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
13466	Water tank of area on plan n.e. 2.00 m ²	391.00	552.00	709.00	867.00	1,340.00	13466
13467	Ditto but 2.00 - 4.00 m ²	631.00	867.00	1,025.00	1,261.00	1,497.00	13467
13468	Ditto but 4.00 - 6.00 m ²	867.00	1,104.00	1,340.00	1,734.00	2,267.00	13468
13469	Ditto but 6.00 - 8.00 m ²	1,025.00	1,261.00	1,734.00	2,128.00	2,680.00	13469
13470	Ditto but 8.00 - 10.00 m ²	1,104.00	1,970.00	2,282.00	2,694.00	3,234.00	13470
13471	Ditto but 10.00 - 12.00 m ²	1,340.00	2,049.00	2,836.00	3,248.00	3,788.00	13471
13472	Ditto but 12.00 - 16.00 m ²	1,576.00	2,364.00	3,468.00	4,098.00	4,965.00	13472
	Fix only panel type GRP water tank with cover including all accessories : -						
	<i>Each</i>						
		Height (m)					
		1.00	1.50	2.00	2.50	3.00	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
13473	Water tank of area on plan n.e. 2.00 m ²	989.00	1,385.00	1,780.00	2,176.00	3,363.00	13473
13474	Ditto but 2.00 - 4.00 m ²	1,583.00	2,176.00	2,572.00	3,165.00	3,759.00	13474
13475	Ditto but 4.00 - 6.00 m ²	2,176.00	2,770.00	3,363.00	4,352.00	5,815.00	13475
13476	Ditto but 6.00 - 8.00 m ²	2,572.00	3,165.00	4,352.00	5,341.00	6,841.00	13476
13477	Ditto but 8.00 - 10.00 m ²	2,770.00	4,946.00	5,737.00	6,841.00	8,209.00	13477
13478	Ditto but 10.00 - 12.00 m ²	3,363.00	5,143.00	7,121.00	8,209.00	9,577.00	13478
13479	Ditto but 12.00 - 16.00 m ²	3,956.00	5,935.00	8,703.00	10,286.00	12,462.00	13479

Item										Item	
	BALLOON GRATINGS AND FRESH AIR INLETS										
		Supply and fix				Take down and clear away	Take down and set aside for re-use	Fix only			
		Nominal size (mm)									
		51	75	100	150				A	B	C
	<i>Each</i>	\$	\$	\$	\$	\$	\$	\$	\$		
13480	Stout galvanized iron wire balloon grating with pronged feet and set in top of pipe.....	37.90	56.90	75.60	114.00	17.10	18.50	16.10		13480	
13481	Stout copper wire ditto.....	114.00	171.00	227.00	341.00	17.10	18.50	16.10		13481	
						Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only		
	<i>Each</i>	A	B	C	D	\$	\$	\$	\$		
13482	Galvanized cast iron fresh air inlet valve with brass front and mica flap, and joint to top of 100 mm cast iron pipe.....				302.00	43.20	45.60	66.50		13482	
	<i>Each</i>								A		
13483	Take off and clear away existing mica flap, and provide and fix new.....								\$	85.00	
	HOSE REEL FOR CLEANSING										
						Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only		
	<i>Each</i>	A	B	C	D	\$	\$	\$	\$		
13484	30 m long hose reel complete with all necessary pipework and fittings for cleansing.....	3,347.00	99.40	109.00	119.00					13484	
	FIRE COLLAR										
	(Note : - The following Item 13485 shall only be paid for, if ordered by the Maintenance Surveyor in writing.)										
		Pipe diameter (mm)									
		15	20	25	32	40	50	65	80	100	150
	<i>Each</i>	A	B	C	D	E	F	G	H	I	J
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
13485	Pyrosleeve 'GV' type fire collar.....	115.00	117.00	121.00	126.00	139.00	147.00	162.00	184.00	210.00	279.00

Item

Item

GRANULAR BEDS FOR DRAIN PIPES

Granular bedding : -

Per cubic metre

A
\$
239.40

13486 Beds, haunching or surrounds to pipe..... 13486

CONCRETE BEDS FOR DRAIN PIPES

Concrete Grade 10S, Grade 10D or 10MPa in : -

Per linear metre

Pipe bore (mm)							
50	75	80	100	110	150	160	200
A	B	C	D	E	F	G	H
\$	\$	\$	\$	\$	\$	\$	\$
69.70	81.90	84.10	95.90	101.40	123.20	-	-
129.60	156.50	160.80	181.70	192.30	234.20	246.60	290.60
75.40	88.00	90.50	100.70	107.80	129.40	134.00	158.90

13487 Bed 300 mm wider than external diameter of pipe and 100 mm thick under pipe including haunching up after drain is tested from outside edge of bed to meet pipe barrel tangentially..... 13487

13488 Ditto but 150 mm thick under pipe including filling up after the drain is tested to mid point of pipe barrel..... 13488

13489 Add to Item 13488 if pipe is completely surrounded after testing with similar concrete not less than 150 mm thick all round..... 13489

Per linear metre

Pipe bore (mm)							
225	250	300	315	350	375	400	450
A	B	C	D	E	F	G	H
\$	\$	\$	\$	\$	\$	\$	\$
374.90	409.30	441.10	462.00	511.60	526.80	561.90	595.40
165.30	178.40	194.10	202.90	220.70	232.40	245.80	251.50

13490 Bed 300 mm wider than external diameter of pipe and 150 mm thick under pipe including filling up after the drain is tested to mid point of pipe barrel..... 13490

13491 Add to Item 13490 if pipe is completely surrounded after testing with similar concrete not less than 150 mm thick all round..... 13491

Extra over either of Items 13487 to 13491 inclusive for concrete Grade 20S, Grade 20D or 20MPa..... 6%

Item					Item	
CAST IRON TRAPS AND GULLIES						
Traps and gullies with concrete Grade 20S, Grade 20D or 20MPa bed and surround minimum 100 mm thick all round : -						
(Note : - The following Items 13492 to 13507 (Columns (A) to (D)) inclusive include for concrete bed and surround or breaking up the same as applicable.)						
	Each	Supply and fix	Take up and clear away	Take up and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
13492	Trap with 50 mm bore outlet.....	224.00	21.60	30.70	126.00	13492
13493	Ditto but with 75 mm bore outlet.....	292.00	26.50	37.30	144.00	13493
13494	Ditto but with 100 mm bore outlet.....	353.00	33.20	46.40	196.00	13494
13495	Ditto but with 150 mm bore outlet.....	551.00	43.20	60.60	238.00	13495
13496	Ditto but with 225 mm bore outlet.....	988.00	69.70	97.00	347.00	13496
13497	Gully with 100 mm bore trapped outlet and 150 mm diameter circular or 150 x 150 mm square top rebated for grating (measured separately).....	526.00	44.70	62.20	244.00	13497
13498	Ditto but with 150 mm bore trapped outlet and 225 mm diameter circular or 225 x 225 mm square top.....	806.00	50.60	71.40	285.00	13498
13499	Add to either of Items 13497 to 13498 inclusive for side or back inlet of any bore.....	246.00	-	-	-	13499
13500	Grit or grease gully with 100 mm bore trapped outlet and 225 mm diameter circular or 225 x 225 mm square top rebated for grating (measured separately) complete with removable galvanized steel strainer and handle.....	1,336.00	43.20	60.60	273.00	13500
13501	Intercepting trap with 100 mm bore outlet and square or oblique inspection arm fitted with galvanized stopper in plain or screw pattern joint.....	542.00	36.50	50.60	126.00	13501
13502	Ditto but with 150 mm bore outlet.....	787.00	44.70	62.20	163.00	13502
13503	Ditto but with 225 mm bore outlet.....	1,216.00	60.60	84.60	207.00	13503
13504	Ditto but with 300 mm bore outlet.....	1,640.00	89.60	125.00	244.00	13504
13505	Ditto but with 375 mm bore outlet.....	2,744.00	134.00	188.00	290.00	13505
13506	Ditto but with 600 mm bore outlet.....	4,487.00	201.00	282.00	474.00	13506
13507	Add to either of Items 13501 to 13506 inclusive if fitted with cast iron stopper and lever handle, 1.80 m long galvanized chain, hook and ring.....	78.70	-	-	-	13507

Item		Supply and fix	Take up and clear away	Take up and set aside for re-use	Fix only	Item
VITRIFIED CLAY TRAPS AND GULLIES						
	Traps and gullies with concrete Grade 20S, Grade 20D or 20MPa bed and surround minimum 100 mm thick all round : -					
	(Note : - The following Items 13508 to 13525 (Columns (A) to (D)) inclusive include for concrete bed and surround or breaking up the same as applicable.)					
	Each	A	B	C	D	
		\$	\$	\$	\$	
13508	Trap with 100 mm bore outlet.....	194.00	24.80	34.80	139.00	13508
13509	Ditto but with 150 mm bore outlet.....	274.00	29.90	43.90	163.00	13509
13510	Ditto but with 225 mm bore outlet.....	582.00	42.30	59.70	212.00	13510
13511	Ditto but with 300 mm bore outlet.....	1,050.00	63.10	79.60	263.00	13511
13512	Gully with 100 mm bore trapped outlet and 150 mm diameter circular or 150 x 150 mm square top rebated for grating (measured separately).....	332.00	41.50	71.40	212.00	13512
13513	Ditto but with 150 mm bore trapped outlet and 225 mm diameter circular or 225 x 225 mm square top.....	669.00	48.90	79.60	248.00	13513
13514	Add to either of Items 13512 to 13513 inclusive for side or back inlet of any bore.....	151.00	-	-	-	13514
13515	Grit or grease gully with 100 mm bore trapped outlet and 225 mm diameter circular or 225 x 225 mm square top rebated for grating (measured separately) complete with removable galvanized steel strainer and handle.....	862.00	48.10	79.60	200.00	13515
13516	Road gully, 300 mm diameter and 600 mm deep, with plain top and 100 mm or 150 mm bore outlet.....	1,208.00	95.30	151.00	383.00	13516
13517	Ditto but 300 mm diameter and 750 mm deep.....	1,320.00	100.00	165.00	433.00	13517
13518	Ditto but 375 mm diameter and 900 mm deep.....	1,540.00	117.00	184.00	517.00	13518
13519	Add to either of Items 13516 to 13518 inclusive for cleaning eye with sealing plate or stopper.....	50.10	-	-	-	13519
13520	Intercepting trap with 100 mm bore outlet and square or oblique inspection arm fitted with clayware stopper in plain or screw pattern joint.....	665.00	29.00	43.90	135.00	13520
13521	Ditto but with 150 mm bore outlet.....	918.00	34.80	54.00	156.00	13521
13522	Ditto but with 225 mm bore outlet.....	1,441.00	49.80	75.40	194.00	13522
13523	Ditto but with 300 mm bore outlet.....	2,221.00	72.20	92.80	236.00	13523
13524	Ditto but with 375 mm bore outlet.....	2,754.00	86.20	110.00	273.00	13524
13525	Add to either of Items 13520 to 13524 inclusive if fitted with galvanized iron stopper and lever handle, 1.80 m long galvanized chain, hook and ring.....	49.10	-	-	-	13525

Item						
PRECAST CONCRETE GULLIES						
	Gullies with concrete Grade 20S, Grade 20D or 20MPa bed and surround minimum 100 mm thick all round : -					
	(Note : - The following Items 13526 to 13527 (Columns (A) to (D)) inclusive include for concrete bed and surround or breaking up the same as applicable.)					
	Each					
13526	Road gully, 225 mm diameter and 600 mm deep internally with plain top and 100 or 150 mm bore outlet.....	1,082.00	133.00	97.00	615.00	13526
13527	Ditto but 450 mm diameter and 900mm deep internally.....	1,993.00	229.00	175.00	984.00	13527
GULLY KERBS, HOPPERS AND GRATINGS						
		Size of gully top (mm)				
		75 diameter	150 x 150 or 150 diameter	225 x 225 or 225 diameter		
	Each	A \$	B \$	C \$		
13528	Kerb 75 mm thick and n.e. 150 mm high, around two or three sides of gully top, of concrete Grade 10S, Grade 10D or 10MPa or bricks-on-edge in cement mortar, rendered in 15 mm thick cement and sand (1:3) trowelled smooth on all exposed surfaces and dished to gully, including all necessary formwork.....		64.70	109.00	162.00	13528
13529	Extra over Item 13528 for raising concrete surround to trap or gully to a height n.e. 300 mm above top to form hopper (or alternatively providing and fixing glazed clayware or cast iron raising piece surrounded with and including 100 mm thick concrete) including forming rebate around top if required for grating (measured separately), trowelling all surfaces smooth with cement and sand (1:2), forming all back inlets, and all additional excavation, disposal and formwork.....		122.00	209.00	296.00	13529
13530	Add to Item 13529 for each additional 150 mm or part thereof in height.....		52.40	105.00	139.00	13530
13531	Galvanized steel or coated cast iron flat or dished grating and set in gully top or concrete surround to trap or gully.....		96.30	135.00	154.00	13531
13532	Take up and clear away galvanized steel or coated cast iron flat or dished grating and set in gully top or concrete surround to trap or gully.....		7.10	8.80	10.20	13532
13533	Take up and set aside for re-use ditto.....		11.40	14.20	16.10	13533
13534	Fix only ditto.....		9.60	11.90	14.30	13534
13535	Galvanized steel or coated cast iron flat or dished hinged grating and frame and set frame in gully top or concrete surround to trap or gully.....		202.00	236.00	253.00	13535
13536	Take up and clear away galvanized steel or coated cast iron flat or dished hinged grating and frame and set frame in gully top or concrete surround to trap or gully.....		8.80	10.20	11.80	13536
13537	Take up and set aside for re-use ditto.....		14.20	16.10	18.50	13537
13538	Fix only ditto.....		18.50	26.30	30.10	13538

Item			Item			
	SURFACE WATER CHANNELS					
	<i>Per cubic metre</i>	A \$				
13539	Concrete Grade 20S, Grade 20D or 20MPa in surface water channel n.e. 0.10 m ² cross sectional area (void of waterway not deducted) with 75mm (minimum) thick sides and base, level or slope.....	1,476.00	13539			
13540	Ditto but 0.10 - 0.20 m ² cross sectional area.....	1,291.60	13540			
13541	Ditto but 0.20 - 0.40 m ² cross sectional area.....	1,107.00	13541			
	Add to either of Items 13539 to 13541 inclusive if cast to curve n.e. 3.00 m radius to centre line of waterway.....	30%				
13542	Add to either of Items 13539 to 13541 inclusive for breaking up and carting away existing concrete surface water channel and step surface water channel including clearing away channel cover and any silting in channel, if required.....	196.80	13542			
13543	Add to either of Items 13539 to 13541 inclusive for forming step surface water channel.....	49.10	13543			
	CAST IRON CHANNEL COVERS					
		Supply and fix	Take up and clear away	Take up and set aside for re-use	Fix only	
	<i>Per kg</i>	A \$	B \$	C \$	D \$	
13544	Cast iron surface channel cover with slots, weight n.e. 24 kg each.....	7.80	1.70	2.50	4.00	13544
13545	Ditto, weight exceeding 24 kg each.....	7.50	0.80	1.70	4.00	13545
	PRECAST CONCRETE CHANNEL COVERS					
		Supply and fix	Take up and clear away	Take up and set aside for re-use	Fix only	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
13546	Precast concrete Grade 20S, Grade 20D or 20MPa channel cover with slots, 25 mm thick including reinforcement.....	442.90	47.30	58.90	78.80	13546
13547	Ditto but 50 mm thick.....	516.60	61.40	72.90	123.90	13547

Item				Item
	MANHOLES, CESSPITS, SEPTIC TANKS, CATCHPITS, GREASE PITS AND OTHER DRAINAGE CHAMBERS			
	Plain and/or reinforced concrete Grade 20S, Grade 20D or 20MPa (reinforcement and formwork measured separately) : -	Plain concrete	Reinforced concrete	
	<i>Per cubic metre</i>	A \$	B \$	
13548	Base slabs.....	885.30	888.50	13548
13549	Walls.....	904.10	918.40	13549
13550	Suspended slabs.....	904.10	918.40	13550
	Extra over either of Items 13548 to 13550 inclusive for plain and/or reinforced concrete Grade 25S, Grade 25D or 25MPa.....		3%	
	Extra over either of Items 13548 to 13550 inclusive for plain and/or reinforced concrete Grade 30S, Grade 30D or 30MPa.....		4%	
	Extra over either of Items 13548 to 13550 inclusive for plain and/or reinforced concrete Grade 40S, Grade 40D or 40MPa.....		12%	
		Sawn formwork	Wrot formwork	
	<i>Per square metre</i>	A \$	B \$	
13551	Formwork to base slabs.....	369.60	376.30	13551
13552	Formwork to walls.....	418.70	426.10	13552
13553	Formwork to soffit of suspended slabs.....	395.70	426.10	13553
	<i>Per linear metre</i>			
13554	Formwork to edges n.e. 75 mm wide.....	44.90	45.60	13554
13555	Ditto but 75 - 150 mm wide.....	64.40	65.60	13555
13556	Ditto but 150 - 225 mm wide.....	79.20	81.20	13556

Item					Item	
	CAST IRON MANHOLE COVERS AND FRAMES					
		Supply and fix	Take up and clear away	Take up and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
	<i>Each</i>					
13557	Manhole cover and frame, approximately 37kg.....	269.00	62.20	84.60	92.50	13557
13558	Ditto, approximately 52kg.....	374.00	83.70	135.00	150.00	13558
13559	Ditto, approximately 143kg.....	1,008.00	109.00	148.00	199.00	13559
13560	Ditto, approximately 178kg.....	1,332.00	136.00	189.00	215.00	13560
13561	Ditto, approximately 192kg.....	1,354.00	147.00	202.00	226.00	13561
13562	Ditto, approximately 308kg.....	2,164.00	229.00	310.00	362.00	13562
13563	Circular manhole cover and manhole frame, approximately 95kg.....	676.00	71.40	99.50	123.00	13563
13564	Double triangular manhole cover and frame approximately 140kg.....	989.00	109.00	147.00	176.00	13564
13565	Gully sump cover and frame, approximately 69kg.....	490.10	53.10	69.70	91.20	13565
13566	Ditto, approximately 83kg.....	591.00	60.60	84.60	105.00	13566
	Deduct from any of Items 13557 to 13566 inclusive for work of manhole cover only or gully sump cover only.....	-	-	(30%)	(30%)	
	STEP IRONS					
				A		
				\$		
	<i>Each</i>					
13567	Manhole step irons built into concrete or grouted into existing mortice.....				77.00	13567
13568	Cut out and clear away existing step iron including making good side or cutting mortice ready to receive new step iron (measured separately).....				14.90	13568

Item								Item																																																
	ALTERATION TO EXISTING MANHOLES																																																							
	<i>Per square metre</i>						A \$																																																	
13569	Hack up existing defective benching of any thickness and re-form with concrete Grade 20S, Grade 20D or 20MPa rendered smooth in 20 mm thick cement and sand (1:3) including forming channels.....	190.40						13569																																																
			<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5">Pipe bore (mm)</th> </tr> <tr> <th>50</th> <th>75</th> <th>100</th> <th>150</th> <th>225</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">C</td> <td style="text-align: center;">D</td> <td style="text-align: center;">E</td> </tr> <tr> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> </tr> <tr> <td>13570</td> <td>Block up pipe entering manhole for a length of 300 mm with concrete Grade 10S, Grade 10D or 10MPa and make good face of manhole wall.....</td> <td style="text-align: right;">38.00</td> <td style="text-align: right;">39.50</td> <td style="text-align: right;">52.40</td> <td style="text-align: right;">59.00</td> <td style="text-align: right;">78.70</td> <td></td> <td>13570</td> </tr> <tr> <td>13571</td> <td>Cut hole through manhole wall for new pipe entering above manhole invert level and made good.....</td> <td style="text-align: right;">28.10</td> <td style="text-align: right;">56.30</td> <td style="text-align: right;">63.40</td> <td style="text-align: right;">77.40</td> <td style="text-align: right;">119.00</td> <td></td> <td>13571</td> </tr> <tr> <td>13572</td> <td>Ditto but for new pipe entering at manhole invert level including cutting out and re-forming benching as necessary, and forming new channel and make good.....</td> <td style="text-align: right;">260.00</td> <td style="text-align: right;">278.00</td> <td style="text-align: right;">316.00</td> <td style="text-align: right;">328.00</td> <td style="text-align: right;">417.00</td> <td></td> <td>13572</td> </tr> </tbody> </table>					Pipe bore (mm)					50	75	100	150	225	A	B	C	D	E	\$	\$	\$	\$	\$	13570	Block up pipe entering manhole for a length of 300 mm with concrete Grade 10S, Grade 10D or 10MPa and make good face of manhole wall.....	38.00	39.50	52.40	59.00	78.70		13570	13571	Cut hole through manhole wall for new pipe entering above manhole invert level and made good.....	28.10	56.30	63.40	77.40	119.00		13571	13572	Ditto but for new pipe entering at manhole invert level including cutting out and re-forming benching as necessary, and forming new channel and make good.....	260.00	278.00	316.00	328.00	417.00		13572		
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	<i>Per cubic metre</i>						A \$																																																	
13573	Break up existing manhole and fill in void with graded aggregates or approved hardcore well rammed.....	125.00						13573																																																
	REPAIRS TO LEAKING BURIED WATER-CARRYING SERVICES																																																							
	(Note :- The following Items 13574 to 13575 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)																																																							
	<i>Each</i>						Pipe bore n.e. 300 mm	Pipe bore 300 - 600 mm																																																
							A \$	B \$																																																
13574	Prepare and apply approved internal lining of continuous length not exceeding 2500 mm for all types of leaking pipework and fittings laid in trench.....	5,025.00						7,539.00	13574																																															
	<i>Per linear metre</i>																																																							
13575	Extra over Item 13574 for preparing and applying approved internal lining of continuous length exceeding 2500 mm for all types of leaking pipework and fittings laid in trench.....	1,868.00						2,801.80	13575																																															

Item			Item																																
	SUB-SOIL DRAIN PIPES AND DRAINAGE LAYER																																		
	Supply and lay : -																																		
	<i>Per square metre</i>	A \$																																	
13576	Proprietary non-woven geotextile filter.....	19.20	13576																																
	Supply and lay : -																																		
	<i>Per linear metre</i>																																		
13577	Perforated plastic pipe laid in trench.....		13577																																
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	WEEPHOLES THROUGH RETAINING WALLS																																		
	<i>Per linear metre</i>																																		
13578	Form weepholes through concrete walls with and including PVC pipe cast in on rake.....		13578																																
13579	Ditto but through brick or stone wall.....		13579																																
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	SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION																																		
	SERVICES PROVIDED FOR ENHANCED EXECUTION WORKS FOR THE PLUMBING AND DRAINAGE INSTALLATION																																		
	(Note : - The following Items 13580 to 13583 inclusive included under Services for Plumbing and Drainage Installation (the Installation) shall only be paid for, if ordered by the Maintenance Surveyor in writing.)																																		
	<i>Per item</i>																																		
13580	Provide installation drawings.....		13580																																
13581	Provide as-built drawings.....		13581																																
13582	Provide operation and maintenance manual.....		13582																																
13583	Provide annual operation and maintenance services.....		13583																																
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Item			Item
	SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION (CONT'D)		
	SERVICES PROVIDED TO FRESH WATER PLUMBING SYSTEM		
	(Note :- The following Items 13584 to 13594 inclusive included under Services for Plumbing and Drainage Installation (the Installation) shall only be paid for, if ordered by the Maintenance Surveyor in writing.)		
		A \$	
	<i>Per inspection</i>		
13584	Carry out inspection to the fresh water plumbing system for each building in accordance with Special Conditions Clauses SC13.44 and SC13.52.....	4,775.00	13584
	Carry out cleaning of fresh water tank :-		
	<i>Per number</i>		
13585	Cleaning of water tank of internal volume not exceeding 2 m ³	988.00	13585
13586	Ditto but 2 m ³ - 6 m ³	1,060.00	13586
13587	Ditto but 6 m ³ - 10 m ³	1,126.00	13587
13588	Ditto but 10 m ³ - 20 m ³	1,303.00	13588
13589	Ditto but 20 m ³ - 30 m ³	1,482.00	13589
13590	Ditto but 30 m ³ - 50 m ³	1,729.00	13590
13591	Ditto but 50 m ³ - 100 m ³	1,976.00	13591
13592	Add to Item 13591 for each additional 10 m ³ or part thereof in internal volume.....	43.00	13592
	Carry out sampling and conduct water analysis of fresh water for water quality examination :-		
	<i>Each</i>		
13593	Carry out sampling.....	123.00	13593
13594	Conduct water analysis.....	556.00	13594

Item			Item
	SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION (CONT'D)		
	SERVICES PROVIDED TO FLUSHING WATER SYSTEM		
	(Note :- The following Items 13595 to 13605 inclusive included under Services for Plumbing and Drainage Installation (the Installation) shall only be paid for, if ordered by the Maintenance Surveyor in writing.)		
	Carry out cleaning of flushing water tank :-		
	<i>Per number</i>	A \$	
13595	Cleaning of water tank of internal volume not exceeding 2 m ³	1,063.00	13595
13596	Ditto but 2 m ³ - 6 m ³	1,196.00	13596
13597	Ditto but 6 m ³ - 10 m ³	1,329.00	13597
13598	Ditto but 10 m ³ - 20 m ³	1,462.00	13598
13599	Ditto but 20 m ³ - 30 m ³	1,595.00	13599
13600	Ditto but 30 m ³ - 50 m ³	1,861.00	13600
13601	Ditto but 50 m ³ - 100 m ³	2,126.00	13601
13602	Add to Item 13601 for each additional 10 m ³ or part thereof in internal volume.....	51.70	13602
	<i>Each</i>	A \$	
13603	Empty galvanized steel, concrete water cistern, cylinder or tank or fibreglass tanks n.e. 1.00 m ³ internal volume, scrape or brush off internally and remove all growth, rust, scale, etc., from bottom, sides and top, scrub out and clean with chloride of lime solution (less than 1 kg chloride of lime to 6,000 litre of water) and thoroughly flush and wash through with fresh water.....	494.00	13603
13604	Ditto but 1.00 - 2.00 m ³	988.00	13604
13605	Add to Item 13604 for each additional 1.00 m ³ or part thereof in internal volume.....	178.00	13605

Item			Item
	SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION (CONT'D)		
	SERVICES FOR INSPECTION, TESTING AND CLEANING OF EXISTING DRAINAGE SYSTEM		
	(Note :- The following Items 13606 to 13615 inclusive included under Services for Plumbing and Drainage Installation (the Installation) shall only be paid for, if ordered by the Maintenance Surveyor in writing.)		
	UTILITIES SURVEY		
	<i>Per square metre</i>	A \$	
13606	Carry out utilities survey by an approved specialist to ascertain the alignment of the buried/exposed existing underground utilities/services and related surface features, including power cables, gas pipes, telecommunication lines, cable TV, water mains, drainage, fuel tank and pipes, fire hydrants, valve chambers/pits, manholes, combined services ducts, etc., within and in the vicinity of the site; determine the sizes and the horizontal and vertical alignments of these utilities by means of electromagnetic induction method including submission of survey report in 2 copies, record drawings, photo records, text reports and layout plans and 2 sets of CD-ROMs.....	82.00	13606
	DETECTION OF LEAKING BURIED WATER PIPES		
	<i>Per linear metre</i>		
13607	Carry out acoustic test for detection of leaking buried water pipes by an approved specialist including leak noise correlation survey, ground microphone survey for identification of the location of any possible leakage along the pressurized fresh water and flushing water supply pipes within the hatched areas, including submission of survey report in 2 copies, record drawings, photo records, text reports and layout plans and 2 sets of CD-ROMs.....	149.60	13607
	CLEANING OF EXISTING DRAINAGE SYSTEM		
		Pipe bore n.e. 300 mm	
	<i>Each</i>	A \$	
13608	Cleaning existing manholes, cesspits, septic tanks, catch pits, grease pits, or other drainage chambers n.e. 2.0 m ³ including branches and connections by using methods other than high pressure water jet or vacuum pump/sucker.....	462.00	13608
13609	Add to Item 13608 for each additional 2.0 m ³ or part thereof in volume.....	116.00	13609
13610	Cleaning existing manholes, cesspits, septic tanks, catch pits, grease pits, or other drainage chambers n.e. 6.0 m ³ including branches and connections by sludge and sewage vacuum pump/sucker with branch up to 204mm diameter including hoses n.e. 100 metre long.....	693.00	13610
13611	Add to Item 13610 for each additional 6.0 m ³ or part thereof in volume.....	462.00	13611
	<i>Per item</i>		
13612	Cleaning of existing drainage system including manholes, cesspits, septic tanks, catch pits, grease pits, and other drainage chambers including branches and connection by using high pressure water jet up to 2,200 PSI and 262 litre/min. by an approved specialist for a period not exceeding 4 hours.....	1,444.00	13612
13613	Add to Item 13612 for each additional 4 hours or part thereof in hour.....	1,038.00	13613
13614	Cleaning of existing drainage system including manholes, cesspits, septic tanks, catch pits, grease pits, and other drainage chambers including branches and connection by using high pressure water jet from 2,200 PSI to 10,000 PSI and 262 litre/min. by an approved specialist for a period not exceeding 4 hours.....	1,846.00	13614
13615	Add to Item 13614 for each additional 4 hours or part thereof in hour.....	1,327.00	13615

Item			Item
	SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION (CONT'D)		
	SERVICES FOR INSPECTION, TESTING AND CLEANING OF EXISTING DRAINAGE SYSTEM (CONT'D)		
	(Note :- The following Items 13616 to 13619 inclusive included under Services for Plumbing and Drainage Installation shall only be paid for, if ordered by the Maintenance Surveyor in writing.)		
	CCTV INSPECTION SURVEY TO EXISTING UNDERGROUND DRAINAGE SYSTEM		
		Pipe bore n.e. 300 mm	
		A \$	
	<i>Per item</i>		
13616	Carrying out CCTV inspection survey to existing underground drainage system by an approved specialist for a period not exceeding 4 hours.....	3,408.00	13616
13617	Add to Item 13616 for each additional 4 hours or part thereof in hour.....	1,412.00	13617
	TESTING EXISTING DRAINS		
		A \$	
	<i>Each</i>		
13618	Water test as described to existing branch or drain between manholes, up to 150 mm diameter.....	317.00	13618
13619	Ditto but for 150 - 300 mm diameter.....	410.00	13619

Section 14

GLAZING

SECTION 14

GLAZING

SPECIAL CONDITIONS

Measurement generally	SC14.01	<p>Glazing works shall be measured the net area as glazed. No deduction shall be made for opening not exceeding 0.50 m².</p> <p>Panes of glass of circular or irregular shape shall be measured the smallest rectangular or square out of which such circular or irregular shape can be cut.</p> <p>Special glazing works shall only be paid when specifically ordered by the Maintenance Surveyor in writing.</p> <p>Window and door films shall be measured the net area covered.</p> <p>Glazing to timber doors including glazing to observation panel/openings is included in the respective timber door items in Section 08 - Carpentry and Joinery and will not be measured separately in this Section unless specifically instructed otherwise.</p>
Measurement of cutting and forming holes	SC14.02	<p>All finished works shall include for cutting to the required sizes. No measurement shall be made unless the glass is not supplied by the Contractor himself.</p> <p>Forming holes through glass shall be measured separately. In the case of forming hole through existing fixed glass, "Take down and set aside for re-use" and "Fix only" shall be measured separately.</p> <p>Forming hole exceeding 0.20 m² through glass shall be measured as straight or circular cutting.</p>
Measurement of fire resisting glass block panels	SC14.03	<p>Fire resisting glass block panels shall be measured by the net area of the structural opening of the glass block panels as fixed. No deduction shall be made for voids not exceeding 0.50 m².</p>
Rates for glazing generally	SC14.04	<p>The rates for glazing shall generally include for : -</p> <ol style="list-style-type: none"> (a) Panes or sheets in any size unless otherwise stated, fixed in any positions including glazing to fixed sash in position behind guard bars and including all colours. (b) All cutting including straight, raking and/or curved cutting and waste, breakage and replacing scratched or cracked panes. (c) Painting to wood or steel beads and rebate surfaces with one coat of priming paint before glazing.

SPECIAL CONDITIONS

Rates for glazing generally (Cont'd)	SC14.04 (Cont'd)	<ul style="list-style-type: none"> (d) Fixing panes or sheets to wood or metal including all putty or glazing compound, plastic setting and location blocks, pointing and sealing junctions between glass and glazing beads or the like with approved non-acidic and anti-mould sealant materials. (e) Fixing panes or sheets to wood or metal with beads including supply of new beads and taking out, setting aside and re-fixing existing beads. (f) Painting cut edges of wired glass with bitumastic paint. (g) Protecting and cleaning. (h) Fixing in accordance with the manufacturer's instructions.
Rates for glazing of louvre blades	SC14.05	<p>The rates for glazing of louvre blades shall further include for :-</p> <ul style="list-style-type: none"> (a) Fixing in adjustable metal clips including adjusting and oiling clips. (b) Fixing in fixed metal clips. (c) Making good surfaces disturbed.
Rates for take out glass, glass blocks, etc.	SC14.06	<p>The rates for take out and clear away or take out and set aside for re-use glass or glass blockwork shall further include for :-</p> <ul style="list-style-type: none"> (a) Taking out and clearing away or taking out and setting aside for re-use wood or metal beads including replacement of any damaged beads with new beads. (b) Hacking out old putty or glazing compound and cleaning glass, blockwork and window bead and frames. (c) Protecting and storing glass or blockwork and beads.
Rates for forming holes through glass	SC14.07	<p>The rates for forming holes through glass shall further include for :-</p> <ul style="list-style-type: none"> (a) Cutting holes in any size and polishing all edges. (b) Forming holes in any size.
Rates for fully tempered glass	SC14.08	<p>The rates for fully tempered glass shall further include for :-</p> <ul style="list-style-type: none"> (a) Glass that has been treated under heat soak testing and conforming to the relevant safety glass requirements determined by the required testing standards as G.S. Items 20.01.01, 20.01.05 and 20.08. (b) Submission of methodology of the heat soak testing to the Maintenance Surveyor's approval.

SPECIAL CONDITIONS

Rates for fully tempered glass (Cont'd)	SC14.08 (Cont'd)	<ul style="list-style-type: none"> (c) Provision of a quality supervision plan for a quality supervisor of the manufacturer's heat soak process. (d) Provision of a full time technically competent persons (TCP) with experience and qualification accepted by the Maintenance Surveyor and the TCP shall supervise the heat soak process in the manufacturer's factory. (e) Submission of compliance test certificates and manufacturer's guarantee.
Rates for polycarbonate sheet	SC14.09	<p>The rates for polycarbonate sheet shall further include for : -</p> <ul style="list-style-type: none"> (a) All cutting and waste, breakage and replacing scratched or cracked panes. (b) All cold or heat bent to shape and fixing to metal or wood frames. (c) In the case of fixing to metal or wood frames, drilling holes for and providing all drive screws, self-tapping screws, rivets, bolts, hook, bolts, nuts, metal and rubber washers, and plastic caps for fixing to purlins or framing spaced at any interval. (d) Drilling holes to existing or new purlins or framing spaced at any interval for the fixing of polycarbonate sheet as required. (e) Submission of technical literature, catalogue, shop drawings, test certificates and warranties.
Rates for laminated glass	SC14.10	<p>The rates for laminated glass shall further include for : -</p> <ul style="list-style-type: none"> (a) Laminated glass, either as a safety glass or a security glass, in conformity to the relevant safety class requirements determined by the required testing standards as G.S. Items 20.01.01 and 20.11. (b) Two or more sheets of glass bonded together incorporating a plastic inlay of the required thickness. (c) Laminated glass conforming to category 1 as a minimum standard and/or categories 2 or 3 as specified in G.S. Item 20.11(ii). (d) Submission of test certificates and manufacturer's guarantee. (e) For replacement of glazing only for existing curtain wall, cutting out and removing the damaged glazing including removal of all debris and the like, and replacement with new glazing of the same colour including jointing materials recommended by the manufacturer and provision of a warranty for materials and workmanship for a period of 5 years.

SPECIAL CONDITIONS

Rates for bullet or blast resistant laminated safety glass

SC14.11

The rates for bullet or blast resistant laminated safety glass shall further include for : -

- (a) Adding an applied adhesive film, either to the external face or the internal face, if required.
- (b) Submission of technical literature, catalogue, shop drawings, test certificates and warranties.

Rates for fire rated glass

SC14.12

The rates for fire rated glass shall further include for : -

- (a) Supply of fire rated glass with integrity and insulation of the fire resistance rating in accordance with the testing standards as stated in G.S. Item 20.05 and complying with the latest fire safety code and relevant statutory requirements.
- (b) Providing and filling jambs and head of panels with expansion strips, joint filler and sealant of fire resisting type.
- (c) Submission of test certificates and manufacturer's guarantee.

Rates for glass block panels

SC14.13

The rates for glass block panels shall further include for : -

- (a) Painting all sides of structural opening to receive glass block panels with two coats of bituminous paint.
- (b) Providing and filling jambs and head of panels with expansion strips, joint filler and sealant.
- (c) Providing and fixing expanded metal reinforcement, galvanized, weighting not less than 1.6 kg/m² including securing to structure using proprietary fixing components.
- (d) Bedding and pointing in cement/lime mortar.
- (e) Supply and installation of glass block panels with panel anchors in accordance with the manufacturer's instructions.

Rates for fire resisting glass block panels

SC14.14

The rates for fire resisting glass block panels shall further include for : -

- (a) Supply and installation of glass block panels with panel anchors in accordance with the manufacturer's instructions and in compliance with statutory requirements.
- (b) Painting all sides of structural opening to receive glass block panels with two coats of bituminous paint, if required.
- (c) Providing and filling jambs and head of panels with expansion strips, joint filler and sealant of fire resisting type.

SPECIAL CONDITIONS

Rates for fire resisting glass block panels (Cont'd)	SC14.14 (Cont'd)	<ul style="list-style-type: none"> (d) Providing and fixing reinforcement including securing to structure using proprietary fixing components. (e) Bedding and pointing in proprietary screeds and sealant of fire resisting type. (f) Submission of test certificates and manufacturer's guarantee.
Rates for window and door films	SC14.15	<p>The rates for window and door films shall include for : -</p> <ul style="list-style-type: none"> (a) Films of minimum nominal thickness of polyester of 0.05 mm pigmented to provide black or other colour as required by the Maintenance Surveyor. (b) Cleaning of bonding surface and coating with a solvent based adhesive prior to applying films. (c) Application by an approved applicator accredited/endorsed by the manufacturer of the window and door films. (d) Providing technical information, test certificate and manufacturer's guarantee as required by the Maintenance Surveyor for approval or as stated in the Contract. (e) The supplier's/applicator's warranty period of which shall not be less than 5 years.
Glass block panels	SC14.16	G.S. clauses for glass block panels can be found in the Brickwork and Blockwork Section of the General Specification for Building.

Item											Item		
GENERAL GLAZING													
Glass panes or sheet : -													
		Clear float glass				Figure rolled glass	Reeded glass	Rough cast glass		Wired cast glass	Wired polished plate glass		
		Thickness (mm)	3	4	5	6	3	3	5	6	6	6	
			A	B	C	D	E	F	G	H	I	J	
		<i>Per square metre</i>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
14001	Glass and glazing to wood with putty or to metal with glazing compound.....		91.40	121.80	151.60	181.30	104.70	116.90	164.00	208.90	288.50	436.90	14001
14002	Ditto with beads.....		115.90	152.50	192.20	228.80	130.00	142.30	195.00	242.00	351.00	531.60	14002
14003	Add to either of Items 14001 and 14002 if glass, when fixed, is in single pane exceeding 5 m ²		9.60	12.80	15.50	18.70	9.70	10.90	17.20	20.40	28.30	42.80	14003
Glass panes or sheet : -													
		Float plate glass (Polished plate or float)				Tinted glass in any colour			Reflec-tive glass	Obscure glass			
		Thickness (mm)	5	6	10	12	6	10	12	6	5	6	
			A	B	C	D	E	F	G	H	I	J	
		<i>Per square metre</i>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
14004	Glass and glazing to wood with putty or to metal with glazing compound.....		220.80	255.30	407.30	483.70	283.60	482.10	567.20	401.70	173.70	217.20	14004
14005	Ditto with beads.....		261.70	295.60	454.10	531.70	323.40	530.30	618.30	430.00	205.00	254.00	14005
14006	Add to either of Items 14004 and 14005 if glass, when fixed, is in single pane exceeding 5 m ²		18.80	20.90	31.70	38.20	40.70	74.30	87.40	66.10	20.90	24.50	14006
Polycarbonate glazing sheet : -													
		Polycarbonate glazing sheet											
		Thickness (mm)	2	3	5	6	10	12					
			A	B	C	D	E	F					
		<i>Per square metre</i>	\$	\$	\$	\$	\$	\$					
14007	Polycarbonate glazing sheet fixed to wood or metal frames (measured separately) with screws.....		228.10	258.80	312.30	333.30	405.30	423.70				14007	
14008	Polycarbonate glazing sheet glazed to wood with putty or to metal with glazing compound.....		232.70	264.10	318.60	340.10	413.50	432.30				14008	
14009	Ditto with beads.....		252.40	281.90	331.20	353.50	432.30	450.20				14009	
14010	Add to either of Items 14007 to 14009 inclusive for coloured polycarbonate sheet.....		6.50	7.40	8.90	9.50	14.50	16.00				14010	
14011	Add to either of Items 14007 to 14009 inclusive for polycarbonate sheet, when fixed, is in single pane exceeding 5 m ²		24.40	27.70	32.50	35.00	51.70	56.90				14011	
14012	Add to either of Items 14007 to 14009 inclusive for polycarbonate with surface hardened treatment sheet.....		116.80	128.10	133.80	147.20	169.30	178.40				14012	

Item

Item

GENERAL GLAZING (CONT'D)

Clear float heat strengthened glass 19 mm thick :-

Per square metre

A
\$

14013	Glass and glazing to wood with putty or to metal with glazing compound.....	1,042.70	14013
14014	Ditto with beads.....	1,079.70	14014
14015	Add to either of Items 14013 and 14014 if glass, when fixed, is in single pane exceeding 5 m ² and not exceeding 30 m ²	175.20	14015
14016	Add to either of Items 14013 and 14014 if glass, when fixed, is in single pane exceeding 30 m ²	167.90	14016

Fully tempered glass :-

Per square metre

Thickness (mm)			
6	10	12	19
A	B	C	D
\$	\$	\$	\$
355.90	481.40	539.30	777.40
395.20	520.00	582.40	800.80
59.80	80.90	90.60	130.60
57.40	77.60	86.90	125.30

14017	Glass and glazing to wood with putty or to metal with glazing compound.....	355.90	481.40	539.30	777.40	14017
14018	Ditto with beads.....	395.20	520.00	582.40	800.80	14018
14019	Add to either of Items 14017 and 14018 if glass, when fixed, is in single pane exceeding 5 m ² and not exceeding 30 m ²	59.80	80.90	90.60	130.60	14019
14020	Add to either of Items 14017 and 14018 if glass, when fixed, is in single pane exceeding 30 m ²	57.40	77.60	86.90	125.30	14020

Item

Item

CELLULAR POLYCARBONATE SHEET

Double layer "Cellular Type" clear UV protection polycarbonate sheet								
Thickness (mm) overall	4	4.5	6	8	10	16	20	30
Approx. weight g/m ²	800	1000	1300	1500	1700	2700	3100	3500
Light transmission %	88	88	88	88	88	82	79	82
U-value W/m ² K	3.9	3.9	3.7	3.4	3.2	2.9	2.8	2.6
Falling dare Gardiner impact at 23°C Nm	21.3	21.3	>27	>27	>27	>27	>27	>27

Per square metre

	A	B	C	D	E	F	G	H	
	\$	\$	\$	\$	\$	\$	\$	\$	
14021 Cellular polycarbonate sheet fixed to wood or metal frames (measured separately) with screws or metal beads.....	180.20	190.00	228.60	264.10	298.10	373.80	441.20	583.10	14021

Triple layer "Cellular Type" clear UV protection polycarbonate sheet

Thickness (mm)	16	20
Approx. weight g/m ²	2700	3100
Light transmission %	82	79
U-value W/m ² K	2.4	2.2
Falling dare Gardiner impact at 23°C Nm	>27	>27

Per square metre

14022 Cellular polycarbonate sheet fixed to wood or metal frames (measured separately) with screws or metal beads.....	A	B	
	\$	\$	
	396.20	467.70	14022

Add to either of Items 14021 and 14022 for bronze and opal white polycarbonate plastic sheet..... 5%

Add to either of Items 14021 and 14022 for coloured polycarbonate plastic other than bronze or opal white..... 15%

Item							Item																												
	LAMINATED GLASS	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Glass thickness (mm)</th> <th style="width: 10%;">6 + 6</th> <th style="width: 10%;">8 + 8</th> <th style="width: 10%;">6 + 6</th> <th style="width: 10%;">8 + 8</th> <th style="width: 10%;">10 + 10</th> <th style="width: 10%;">12 + 12</th> </tr> </thead> <tbody> <tr> <td>Pvb thickness (mm)</td> <td>0.76</td> <td>0.76</td> <td>1.52</td> <td>1.52</td> <td>1.52</td> <td>1.52</td> </tr> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> <td></td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>					Glass thickness (mm)	6 + 6	8 + 8	6 + 6	8 + 8	10 + 10	12 + 12	Pvb thickness (mm)	0.76	0.76	1.52	1.52	1.52	1.52	A	B	C	D	E	F		\$	\$	\$	\$	\$	\$	\$	
Glass thickness (mm)	6 + 6	8 + 8	6 + 6	8 + 8	10 + 10	12 + 12																													
Pvb thickness (mm)	0.76	0.76	1.52	1.52	1.52	1.52																													
A	B	C	D	E	F																														
\$	\$	\$	\$	\$	\$	\$																													
	<i>Per square metre</i>																																		
14023	Laminated float glass with Pvb inlay and glazing to wood with putty or to metal with silicone mastic sealant or other glazing compound and drilling holes through the glass.....	701.80	734.20	809.70	863.80	950.20	1,076.00	14023																											
14024	Ditto with beads.....	787.80	821.60	900.80	957.40	1,048.00	1,179.90	14024																											
		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Glass thickness (mm)</th> <th style="width: 10%;">6 + 6</th> <th style="width: 10%;">8 + 8</th> <th style="width: 10%;">10 + 10</th> <th style="width: 10%;">12 + 12</th> </tr> </thead> <tbody> <tr> <td>Pvb thickness (mm)</td> <td>1.52</td> <td>1.52</td> <td>1.52</td> <td>1.52</td> </tr> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td></td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>					Glass thickness (mm)	6 + 6	8 + 8	10 + 10	12 + 12	Pvb thickness (mm)	1.52	1.52	1.52	1.52	A	B	C	D		\$	\$	\$	\$	\$									
Glass thickness (mm)	6 + 6	8 + 8	10 + 10	12 + 12																															
Pvb thickness (mm)	1.52	1.52	1.52	1.52																															
A	B	C	D																																
\$	\$	\$	\$	\$																															
	<i>Per square metre</i>																																		
14025	Laminated clear glass with Pvb inlay and heat soak test process and glazing to wood with putty or to metal with silicone mastic sealant or other glazing compound and drilling holes through the glass.....	823.50	898.30	973.20	1,088.30			14025																											
14026	Ditto with beads.....	1,012.40	1,104.30	1,196.50	1,338.00			14026																											
	Add to either of Items 14023 to 14026 inclusive for tinted glass in any colour.....							10%																											
	Add to either of Items 14023 to 14026 inclusive for glass bent to curve to radius n.e. 3.00 m.....							20%																											
	Add to either of Items 14023 to 14026 inclusive for glass bent to curve to radius 3.00 - 15.00 m.....							10%																											
	Add to either of Items 14023 to 14026 inclusive for replacement of glazing only for existing curtain wall..... (This item shall only be measured when the number of replacment of glazing is not more than five pieces irrespective of size and shape per Works Order.)							20%																											
	BULLET OR BLAST RESISTANT LAMINATED SAFETY GLASS	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Supply and fix</th> <th style="width: 10%;">Take down and clear away</th> <th style="width: 10%;">Take down and set aside for re-use</th> <th style="width: 10%;">Fix only</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>					Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	A	B	C	D	\$	\$	\$	\$																	
Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only																																
A	B	C	D																																
\$	\$	\$	\$																																
	Bullet or blast resistant laminated safety glass fixed in accordance with the manufacturer's instructions : -																																		
	<i>Per square metre</i>																																		
14027	7.52 mm Thick bullet or blast resistant laminated safety glass.....	3,197.20	43.30	64.40	131.60			14027																											

Item					Item	
	FIRE RATED GLASS					
	(Note : - The following Items 14028 to 14031 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)					
	Fire rated glass with 1/2 hour FRR : -					
		Clear glass	Tinted glass	Sand- blasted glass	Tempered glass	
		A	B	C	D	
	<i>Per square metre</i>	\$	\$	\$	\$	
14028	Glass and glazing to wood with putty or to metal with glazing compound.....	1,320.50	2,533.80	2,130.30	3,137.30	14028
14029	Ditto with beads.....	1,469.60	2,820.10	2,370.90	3,491.80	14029
14030	Add to either of Items 14028 and 14029 if glass, when fixed, is in single pane exceeding 5 m ² and not exceeding 30 m ²	221.90	425.80	357.80	527.00	14030
14031	Add to either of Items 14028 and 14029 if glass, when fixed, is in single pane exceeding 30 m ²	212.70	407.90	343.00	505.00	14031
	(Note : - The following Items 14032 to 14035 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)					
	Fire rated glass with 1 hour FRR : -					
		Clear glass	Tinted glass	Sand- blasted glass	Tempered glass	
		A	B	C	D	
	<i>Per square metre</i>	\$	\$	\$	\$	
14032	Glass and glazing to wood with putty or to metal with glazing compound.....	1,497.10	2,840.70	2,369.60	3,489.80	14032
14033	Ditto with beads.....	1,666.30	3,161.60	2,637.20	3,884.10	14033
14034	Add to either of Items 14032 and 14033 if glass, when fixed, is in single pane exceeding 5 m ² and not exceeding 30 m ²	251.60	477.30	398.10	586.30	14034
14035	Add to either of Items 14032 and 14033 if glass, when fixed, is in single pane exceeding 30 m ²	241.00	457.40	381.50	561.90	14035

Item					Item
	REPAIRS TO GENERAL GLAZING				
	Glass panes or sheet/Clear float heat strengthened glass/Fully tempered glass :-	Glass panes or sheet/ Clear float heat strengthened glass/Fully tempered glass			
		Thickness (mm)	n.e. 6	6 - 12	Exceed- ing 12
	<i>Per square metre</i>	A	B	C	
		\$	\$	\$	
14036	Take out and clear away serviceable glass.....	28.40	31.30	34.10	14036
14037	Take out and set aside for re-use serviceable glass.....	29.90	32.70	42.70	14037
14038	Fix only glass and glazing to wood with putty or to metal with glazing compound.....	32.10	39.60	59.80	14038
14039	Ditto with beads.....	45.20	55.40	69.80	14039
	<i>Per linear metre</i>				
14040	Straight cutting.....	4.10	8.20	12.30	14040
14041	Circular cutting.....	8.20	12.30	16.40	14041
	Polycarbonate glazing sheet :-	Polycarbonate glazing sheet			
		Thickness (mm)	n.e. 6	6 - 12	
	<i>Per square metre</i>	A	B		
		\$	\$		
14042	Take out and clear away polycarbonate glazing sheet.....		19.90	27.00	14042
14043	Take out and set aside for re-use polycarbonate glazing sheet.....		21.30	28.40	14043
14044	Fix only polycarbonate glazing sheet to wood or metal frames with self-tapping screws or hooks.....		28.40	41.30	14044
14045	Ditto to wood with putty or to metal with glazing compound.....		30.90	42.90	14045
14046	Ditto with beads.....		41.10	51.30	14046
	<i>Per linear metre</i>				
14047	Straight cutting.....		4.10	8.20	14047
14048	Circular cutting.....		8.20	12.30	14048

Item					Item
REPAIRS TO GENERAL GLAZING (CONT'D)					
	Cellular polycarbonate sheet :-	Double or triple layer "Cellular Type" clear UV protection polycarbonate sheet			
		Thickness (mm) overall	n.e. 10	10 - 20	20 - 30
	<i>Per square metre</i>	A	B	C	
		\$	\$	\$	
14049	Take down and clear away cellular polycarbonate sheet.....	21.30	29.90	38.40	14049
14050	Take down and set aside for re-use cellular polycarbonate sheet.....	22.70	32.70	44.10	14050
14051	Fix only cellular polycarbonate sheet to wood or metal frames with screws or metal beads.....	33.60	55.10	72.90	14051
	<i>Per linear metre</i>				
14052	Straight cutting.....	6.20	10.30	14.40	14052
14053	Circular cutting.....	10.30	14.40	18.50	14053
REPAIRS TO FIRE RATED GLASS					
	Fire rated glass :-		1/2 Hour FRR	1 Hour FRR	
	<i>Per square metre</i>		A	B	
			\$	\$	
14054	Take out and clear away serviceable glass.....		28.40	28.40	14054
14055	Take out and set aside for re-use serviceable glass.....		35.50	35.50	14055
14056	Fix only glass and glazing to wood with putty or to metal with glazing compound.....		92.40	92.40	14056
14057	Ditto with beads.....		112.00	124.40	14057
	<i>Per linear metre</i>				
14058	Straight cutting.....		8.20	8.20	14058
14059	Circular cutting.....		12.30	12.30	14059

Item								Item			
GLASS LOUVRE BLADES											
Glass louvre blades with ground and arrived edges and fixing to slots in frames or adjustable louvre metal clips (slots or clips measured separately) : -				Clear float glass		Rough cast glass	Wired cast glass	Wired polished plate glass	Clear plate glass (polished plate or float)		
				Thickness (mm)	4	5	6	6	6		
					A	B	C	D	E		
					\$	\$	\$	\$	\$		
<i>Per linear metre</i>											
14060	Blade 75 mm wide.....			31.20	35.10	37.00	41.00	63.60	88.70	47.10	14060
14061	Ditto 100 mm wide.....			32.80	36.80	38.80	42.90	66.80	93.20	49.50	14061
14062	Ditto 150 mm wide.....			35.90	42.20	44.40	49.10	76.20	106.40	56.40	14062
14063	Take out and set aside for re-use blade not exceeding 150 mm wide including risk and making good breakages.....			2.10	2.10	2.10	2.10	2.10	2.10	2.10	14063
<i>Each</i>											
14064	Take out and clear away broken or serviceable louvre blade of any length, width or thickness in slot or clip.....									1.40	14064
14065	Fix only louvre blades of any length, width or thickness in slot or clip (measured separately).....									3.60	14065
SUNDRIES											
<i>Per square metre</i>											
14066	Grind surface of sheet glass (any size).....									121.30	14066
14067	Hack out old broken glass (any type and thickness) from wood or metal sash glazed with putty, glazing compound or beads, set aside beads for re-use if any, clean and prepare rebates for re-glazing (re-glazing measured separately).....									50.20	14067
<i>Per linear metre</i>											
14068	Grind and round edge of glass (any type and thickness).....									21.80	14068
14069	Bed edge of glass (any type and thickness) in and including strip of wash leather or approved felt or plastic.....									14.10	14069
<i>Each</i>											
14070	Grind recess of any size in pane of glass (as for sliding doors to hatches).....									24.10	14070
14071	Cutting hole with straight sides n.e. 0.20 m ² through pane of glass or glazing sheet (any type) n.e. 6 mm thick.....									18.50	14071
14072	Ditto but 6 mm to 12 mm thick.....									22.60	14072
14073	Ditto but exceeding 12 mm thick.....									32.80	14073
14074	Cutting circular or elliptical hole n.e. 0.20 m ² through pane of glass or glazing sheet (any type) n.e. 6 mm thick.....									26.70	14074
14075	Ditto but 6 mm to 12 mm thick.....									37.00	14075
14076	Ditto but exceeding 12 mm thick.....									45.20	14076

Item			Item												
	SUNDRIES (CONT'D)														
	<i>Per linear metre</i>	A \$													
14077	Point and seal joint between glass and beads, window frames and the like with 3 x 3 mm silicone mastic sealant.....	3.60	14077												
14078	Ditto but with 3 x 6 mm silicone mastic sealant.....	4.80	14078												
14079	Cut out existing sealant.....	5.70	14079												
	GLASS BLOCK PANELS														
	Hollow glass blocks size: 150 x 150 - 250 x 250 mm square and 80 - 120 mm thick in any pattern and colour and including all special blocks at junctions, corners and the like bedded and jointed in cement/lime mortar and pointed both sides with white cement or white cement/lime mortar : -														
	<i>Per square metre</i>	A \$													
14080	Glass block panel.....	1,281.50	14080												
14081	Take down and clear away glass block panel.....	35.50	14081												
14082	Take down and set aside for re-use glass block panel.....	71.10	14082												
14083	Lay only glass block panel.....	166.60	14083												
	<i>Each</i>														
14084	Cut out existing defective glass block in isolated patches n.e. 10 glass blocks, fill up, joint in and replace with new glass block and make good (each glass block measured).....	78.00	14084												
	FIRE RESISTING GLASS BLOCK PANELS														
	Fire resisting hollow glass blocks size: 150 x 150 - 250 x 250 mm square and 80 - 120 mm thick in any pattern and colour and including all special blocks at junctions, corners and the like bedded and jointed : -														
	<i>Per square metre</i>														
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">FRR</th> </tr> <tr> <th>½ Hour</th> <th>1 Hour</th> <th>1½ Hour</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">C</td> </tr> <tr> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> <td style="text-align: center;">\$</td> </tr> </tbody> </table>		FRR			½ Hour	1 Hour	1½ Hour	A	B	C	\$	\$	\$
FRR															
½ Hour	1 Hour	1½ Hour													
A	B	C													
\$	\$	\$													
14085	Fire resisting glass block panels.....	4,986.50	6,906.40	10,096.80	14085										
14086	Take down and clear away fire resisting glass block panels.....	34.80	34.80	34.80	14086										
14087	Take down and set aside for re-use fire resisting glass block panels.....	71.10	71.10	71.10	14087										
14088	Lay only fire resisting glass block panels.....	246.30	369.50	410.50	14088										

Item						Item
	MIRRORS					
	Glass mirror silver backed and painted with two coats of shellac varnish after silvering, bevel edged, if required, and fixed with chromium plated clips or screws with chromium plated clip-on heads, including drilling mirror and screwing clips or screws to backing or plugging and screwing the same :-					
	<i>Per square metre</i>					
14089	6 mm Thick single side reflective mirror fixed to wood or metal frames (measured separately).....	164.10	8.50	18.50	51.30	14089
14090	6 mm Thick silvering quality polished plate glass mirror.....	263.40	8.50	18.50	51.30	14090
	<i>Each</i>					
14091	600 mm (Minimum) diameter convex mirror including brackets, mounting poles, visors, bolts, screws and the like, and drilling or cutting mortices in concrete or other surfaces, grouting and make good.....					14091

Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only
A \$	B \$	C \$	D \$

Supply and fix
A \$

Item			Item								
	WINDOW AND DOOR FILMS	Supply and fix									
	<i>Per square metre</i>	A \$									
14092	Approved frosted/opaque/translucent/coloured film which can be bonded to glass surfaces complying with the following and including the provision of a warranty of not less than 5 years : - <table border="1" style="margin-left: 20px;"> <tr><td>Surface hardness</td><td>2H</td></tr> <tr><td>Heat transmission</td><td>5.9</td></tr> <tr><td>Shade Factor</td><td>0.81</td></tr> <tr><td>Visible light transmission</td><td>72%</td></tr> </table>	Surface hardness	2H	Heat transmission	5.9	Shade Factor	0.81	Visible light transmission	72%	330.50	14092
Surface hardness	2H										
Heat transmission	5.9										
Shade Factor	0.81										
Visible light transmission	72%										
14093	Approved clear polyester window film which removes destructive ultraviolet rays from sunlight complying with the following and including the provision of a warranty of not less than 5 years : - <table border="1" style="margin-left: 20px;"> <tr><td>Visible light transmission</td><td>15% - 71%</td></tr> <tr><td>Shading coefficient</td><td>0.24 - 0.59</td></tr> <tr><td>Total solar energy rejection</td><td>49% - 79%</td></tr> </table>	Visible light transmission	15% - 71%	Shading coefficient	0.24 - 0.59	Total solar energy rejection	49% - 79%	362.70	14093		
Visible light transmission	15% - 71%										
Shading coefficient	0.24 - 0.59										
Total solar energy rejection	49% - 79%										
14094	Approved transparent, safety and security film which can be bonded to the windows for protection complying with the following and including the provision of a warranty of not less than 5 years : - <table border="1" style="margin-left: 20px;"> <tr><td>Tensile strength</td><td>30,000 PSI - 32,000 PSI</td></tr> <tr><td>Break strength</td><td>120 lbs/inch - 255 lbs/inch</td></tr> <tr><td>Elongation (percentage at break)</td><td>115% - 157%</td></tr> <tr><td>Visible light transmission</td><td>87% - 89%</td></tr> </table>	Tensile strength	30,000 PSI - 32,000 PSI	Break strength	120 lbs/inch - 255 lbs/inch	Elongation (percentage at break)	115% - 157%	Visible light transmission	87% - 89%	476.20	14094
Tensile strength	30,000 PSI - 32,000 PSI										
Break strength	120 lbs/inch - 255 lbs/inch										
Elongation (percentage at break)	115% - 157%										
Visible light transmission	87% - 89%										
	<i>Per square metre</i>	A \$									
14095	Take down and clear away window, door films and safety and security films.....	66.80	14095								

Section 15

PAINTING

SECTION 15

PAINTING

SPECIAL CONDITIONS

Paints generally	SC15.01	All paints in this Section shall comply with the Air Pollution Control Ordinance (Cap. 311), Air Pollution Control (Volatile Organic Compounds) Regulation (Cap. 311W) and G.S. Item 21.90.
New surfaces and redecoration	SC15.02	Painting of any type shall only be measured as on “new surfaces” when a complete wall face, door, frame or other area is of new or previously undecorated materials, or has been completely stripped of existing decoration. Where patches of new plaster occur within an area of existing plaster or portions of paintwork has been stripped off and stopped or portions only of metal or woodwork insert in repairs, the painting to the complete area shall be measured as “redecoration”.
Surfaces described as walls and soffits	SC15.03	Surfaces described as “walls and soffits” include all vertical, horizontal, sloping or curved walls, columns, soffits of slabs, beams, cills and the like, of concrete, brick, clay or concrete block, mason, or smooth or rough plastered or rendered, or unplastered or unrendered surface of any type, regardless of texture or porosity.
Particular Specification for proprietary painting systems	SC15.04	<p>The works relating to proprietary painting systems shall generally be read and used in conjunction with Particular Specification for Proprietary Painting Systems adopted in the Contract.</p> <p>Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the Specification and Employer’s Requirements adopted in the Contract for proprietary painting systems.</p>
Particular Specifications for cleaning and protective coating for fair-face concrete	SC15.05	<p>The works relating to cleaning and protective coating for fair-face concrete shall generally be read and used in conjunction with Particular Specification for High Pressure Water Jet Cleaning Method to Fair-face Concrete Construction, Particular Specification for Proprietary Multi-purpose Cleansing Agent to Fair-face Concrete Construction, Particular Specification for Colourless Protective Coating System (Type A) for Fair-face Concrete Construction and Particular Specification for Translucent Protective Coating System (Type B) for Fair-face Concrete Construction adopted in the Contract.</p> <p>Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the Specification and Employer’s Requirements adopted in the Contract for high pressure water jet cleaning method, proprietary multi-purpose cleansing agent, colourless and translucent protective coating systems for fair-face concrete coating systems.</p>

SPECIAL CONDITIONS

**Measurement
generally**

SC15.06

All works shall be measured the net area as painted. No deduction shall be made for voids not exceeding 0.50 m².

Surfaces to be painted exceeding 300 mm wide or girth or pipework exceeding 300 mm nominal diameter shall be measured as general surfaces.

Articles not exceeding 0.01 m² each where not in conjunction with surrounding painted work shall be measured separately. Articles exceeding 0.01 m² shall be measured as general surfaces.

Allowance shall be made for the measurements of walls and soffits for additional area of moulded or carved work and the like.

**Measurement
of certain
specific items**

SC15.07

Certain specific items shall be measured as follows :-

Chinese roof tiling, corrugated or profiled sheeting.

Measured flat overall. Girth on rolls, corrugations or profiles and the like shall be held to be included in the items.

Metal work - glazed windows, doors and the like.

Measured flat overall on both sides.

Opening edges and all surfaces of frames, mullions, transoms, cills and the like shall be held to be included in the items.

Metal work - mesh covered or ornamental fencing, gates and the like.

Measured flat overall on both sides.

All surfaces of frames, posts, braces, rails, projection and the like shall be held to be included in the items.

Manhole covers and frames, tree grilles, channel covers and the like.

Measured flat overall on both sides.

All surfaces of frames and the like shall be held to be included in the items.

Wood sashes, glazed wooden doors, windows, partitions, panels, decorating or grilled panels and the like.

Measured flat overall on both sides.

Opening edges and all surfaces of frames, mullions, transoms, cills and the like shall be held to be included in the items.

SPECIAL CONDITIONS

Measurement
of certain
specific items
(Cont'd)SC15.07
(Cont'd)

Wire mesh or mosquito
gauge panels.

Measured flat on both sides for individual
construction.

Painting shall be deemed to be included in the
sashes, doors, partitions or panels if it forms
part of the construction.

Jalousies, louvre panels and the
like.

Measured flat on both sides for individual
construction.

Painting shall be deemed to be included in the
sashes, doors, partitions or panels if it forms
part of the construction.

Collapsible gates.

Measured flat overall on both sides.

All surfaces of frames, guide and track shall be
held to be included in the item.

Nuts, bolts, locks, brackets,
staples, knobs, access panels,
switch and cover plates and the
like less than 0.01 m² each and
isolated lengths of pipe or rod
less than 300 mm long.

Measured separately if it is isolated from the
surrounding work.

Painting to nuts and bolts shall be deemed to
be carried out after fixing in position.

Railings and balustrades with
balusters less than 200 mm
centres.

Measured flat overall on both sides.

All surfaces of frames, posts, braces, rails and
the like shall be held to be included in the
items.

All other railings and balustrades.

Measured in accordance with aforesaid
Special Conditions Clause SC15.06.

SPECIAL CONDITIONS

Measurement of stripping of existing decorative material	SC15.08	<p>Throughout this Section, rates for all types of painting shall include all kinds of preparatory work. No payment shall be made for stripping of existing decoration under any circumstances, with the following exceptions : -</p> <p>(a) Stripping of existing decorative material is specifically ordered by the Maintenance Surveyor in writing and there shall be no further decorative material applied on the prepared surface.</p> <p>(b) Stripping of existing decorative material due to compatibility problem, which is specifically ordered by the Maintenance Surveyor in writing.</p> <p>Stripping of existing decoration shall be measured the net area of existing decoration to be stripped. No deduction shall be made for voids not exceeding 0.50 m².</p>
Measurement of paper hanging	SC15.09	<p>Paper hanging shall be measured the net area covered. No deduction shall be made for voids not exceeding 0.50 m².</p>
Measurement of writing	SC15.10	<p>Writing of letters, numbers or Chinese characters shall include for all full stops and commas. No separate payment shall be made. All punctuation excluding full stops and commas shall be treated as letters. Logos, features, symbols and the like shall be measured as Chinese characters of the same size.</p>
Rates for painting generally	SC15.11	<p>The rates for painting shall generally include for : -</p> <p>(a) The application of low Volatile Organic Compound (VOC) paint in accordance with the manufacturer's recommendation.</p> <p>(b) The requirements for prevention and control of mould growth, where applicable.</p> <p>(c) Execution of work either internally or externally and in any position at any height.</p> <p>(d) Working to flat, curved or sloping surfaces.</p> <p>(e) All preparation work to surfaces as G.S. Items 21.45 and 21.49.</p> <p>(f) Mixing and applying as G.S. Item 21.53.</p> <p>(g) Multi-coloured work and cutting to line.</p> <p>(h) Painting on associated beads, hinges and other fittings, brackets, bolts, nuts, lugs and the like (unless isolated from other paintwork which shall be measured separately).</p> <p>(i) Painting all surfaces with an approved primer.</p> <p>(j) All identification of pipelines as G.S. Item 21.78.</p>

SPECIAL CONDITIONS

Rates for painting generally (Cont'd)	SC15.11 (Cont'd)	<ul style="list-style-type: none"> (k) Keeping adjacent surfaces clean and painting surfaces disturbed as G.S. Item 21.44. (l) Removing all articles of ironmongery, hardware and the like before painting and replacing after painting has been completed. (m) Rubbing down smooth with sand paper on hardened coatings before the subsequent coating is applied. (n) Painting sample panels. (o) Touching up coated surfaces on completion. (p) Protecting and cleaning as G.S. Item 21.43. (q) Removing painted sample panels. (r) Provision of technical brochures, test certificates, manufacturer's certification and manufacturer's guarantee or warranty. (s) On-site checking, quality tests and surveillance tests. (t) All necessary tests as specified in the Specification.
Rates for paintwork on new surfaces	SC15.12	<p>The rates for paintwork on new surfaces shall further include for : -</p> <ul style="list-style-type: none"> (a) All preparation work to new surfaces as G.S. Item 21.46.
Rates for paintwork on existing surfaces	SC15.13	<p>The rates for paintwork on existing surfaces shall further include for : -</p> <ul style="list-style-type: none"> (a) All preparation work to existing surfaces as G.S. Items 21.48 and 21.49.
Rates for painting metal windows and doors	SC15.14	<p>The rates for painting metal windows and doors shall further include for : -</p> <ul style="list-style-type: none"> (a) Painting opening edges and all surfaces of frames, mullions, transoms, cills, guard bars, glazing beads and the like. (b) Sealing putty with primer and paint as required.
Rates for painting wire mesh, expanded metal mesh, chain link and the like in gates, fencing, etc.	SC15.15	<p>The rates for painting wire mesh, expanded metal mesh, chain link and the like in gates, fencing, guards, door and partition panels, etc. shall further include for : -</p> <ul style="list-style-type: none"> (a) Painting edge framing, posts, braces, rails and the like.

SPECIAL CONDITIONS

Rates for painting pipework	SC15.16	<p>The rates for painting pipework shall further include for : -</p> <p>(a) Painting on pipe clips, holders, hangers, conduit boxes and the like.</p>
Rates for painting wood	SC15.17	<p>The rates for painting general surfaces of wood including wood panels and flush doors, wood sashes, wood partitions, etc. shall further include for : -</p> <p>(a) Preparing and applying wood preservative.</p> <p>(b) Painting opening edges, mouldings, glazing beads and the like.</p>
Rates for painting jalousies, louvre panels, etc.	SC15.18	<p>The rates for painting jalousies, louvre panels in doors and the like shall further include for : -</p> <p>(a) Painting all frames, stiles, rails, edges, louvre blades and the like.</p>
Rates for surface protection to structural steel	SC15.19	<p>The rates for surface protection to structural steel shall further include for any combination of the following where applicable : -</p> <p>(a) All preparation work to new surfaces as G.S. Item 15.61.</p> <p>(b) All preparation work to existing surfaces as G.S. Item 15.62.</p> <p>(c) Painting to all joints as G.S. Item 15.64.</p> <p>(d) Making good damaged galvanized coating as G.S. Item 15.63.</p>
Rates for intumescent paint to structural steel surfaces	SC15.20	<p>The rates for intumescent paint to structural steel surfaces shall further include for : -</p> <p>(a) All preparation work to existing surfaces as recommended by the manufacturer.</p> <p>(b) Application by an approved applicator including submission of method statement and provision of a warranty for the period as required by the Maintenance Surveyor or as stated in the Contract.</p>
Rates for road marking materials	SC15.21	<p>The rates for road marking materials shall further include for : -</p> <p>(a) All preparation work to new or existing surfaces as G.S. Item 21.71.</p> <p>(b) Marking out to the required size and styles as ordered by the Maintenance Surveyor.</p> <p>(c) Executing work at specific time to avoid disturbance to public and traffic, and provision of temporary lighting and traffic diversion arrangement when required.</p> <p>(d) Testing of road marking materials, when required.</p> <p>(e) Submission of samples and test certificate as G.S. Item 21.75.</p>

SPECIAL CONDITIONS**Rates for
proprietary
painting
systems****SC15.22**

The rates for proprietary painting systems shall further include for : -

- (a) Complying with the relevant British Standards, Japanese Industrial Standards, ASTM International or other recognized international standards approved by the Maintenance Surveyor.
- (b) Application by an approved applicator accredited or endorsed by the manufacturer of the proprietary painting systems and approved by the Maintenance Surveyor.
- (c) All preparation work to existing surfaces or new surfaces as recommended by the manufacturer where required.
- (d) Preparation of the substrate surface in accordance with the approved method statement and repairing cracks, depressions and surface defects prior to application of the proprietary painting systems.
- (e) Carrying out joint inspection when the substrate surface preparation is complete prior to applying the top coat of the proprietary painting systems.
- (f) Provision of a warranty for the period as required by the Maintenance Surveyor or as stated in the Contract.
- (g) Submission of a copy of related purchasing information including invoice and delivery note to the Maintenance Surveyor before completion of the works.

**Rates for
proprietary
floor
coating
system****SC15.23**

The rates for proprietary floor coating system shall further include for : -

- (a) All preparation work to existing surfaces or new surfaces as recommended by the manufacturer.
- (b) Repairing minor cracks and voids to the substrate with approved proprietary materials.
- (c) Submission of method statement and provision of a warranty for the period as required by the Maintenance Surveyor or as stated in the Contract.

SPECIAL CONDITIONS

Rates for proprietary protective coating system to fair-face concrete surfaces

SC15.24

The rates for proprietary protective coating system to fair-face concrete surfaces shall further include for :-

- (a) Application by an approved applicator accredited/endorsed by the manufacturer of the proprietary protective coating system.
- (b) Cleaning to remove any contamination and deleterious matters from existing surfaces.
- (c) Coating in various degree of translucent opacity and colours.
- (d) Carrying out mock-ups on Site together with water tests, to demonstrate the functional and performance requirements of the protective coating system.
- (e) Carrying out final water test upon completion of the protective coating system.
- (f) Submission of method statement, material submission documents and completion report.
- (g) Submission of a future maintenance plan in joint name with the manufacturer.
- (h) Provision of a warranty for the period as required by the Maintenance Surveyor or as stated in the Contract, the warranty period of which shall not be less than 5 years.

Rates for proprietary paintwork system and line marking to sport hall flooring system

SC15.25

The rates for proprietary paintwork system and line marking to existing or new sport hall flooring system shall further include for :-

- (a) All preparation work to existing surfaces or new surfaces as recommended by the manufacturer where required.
- (b) Application by an approved applicator including submission of method statement and provision of a warranty for the period as required by the Maintenance Surveyor or as stated in the Contract, the warranty period of which shall not be less than 2 years.
- (c) Applying and obtaining accreditation/certification from recognized international sports organizations when required.

Rates for re-enamel paint on surface of bath tub

SC15.26

The rates for re-enamel paint on surface of bath tub shall include for :-

- (a) Cleaning and touch up existing surfaces of bath tub.
- (b) Different colour of paint.
- (c) Each bath tub ordered without any adjustment for minimum order.
- (d) Protection of adjacent surfaces and make good all works damaged and disturbed.
- (e) Provision of a one-year warranty.

SPECIAL CONDITIONS**Rates for writing, line marking, etc.****SC15.27**

The rates for painting lines, letters, characters, numbers, logos, symbols and the like shall further include for : -

- (a) Marking out to the required size and styles.
- (b) Setting out and paint all line marking to the required standards.

Rates for paper hanging**SC15.28**

The rates for paper hanging shall further include for : -

- (a) Execution of work internally and in any position at any height.
- (b) Working to flat, curved or sloping surfaces.
- (c) Preparing new or existing decorated surfaces.
- (d) All necessary cleaning and preparation of substrate including applying skim coat prior to hanging wall paper covering.
- (e) All straight, raking or circular cutting.
- (f) All cutting and waste and adhesive.
- (g) Hanging in required pattern.
- (h) Fixing around holes and openings, pipes, switches, brackets and the like.
- (i) Bonding to match existing works.
- (j) Submission of samples and mock-up.
- (k) Protecting and covering up.

Rates for stripping of existing decoration**SC15.29**

The rates for stripping of existing decoration shall further include for : -

- (a) Preparing surfaces as G.S. Item 21.48 after stripping of existing decoration.

SPECIAL CONDITIONS

Rates for high pressure water jet cleaning on fair-face concrete surfaces including the use of multi-purpose cleansing agent

SC15.30

The rates for high pressure water jet cleaning on fair-face concrete surfaces including the use of multi-purpose cleansing agent shall further include for : -

- (a) Removal and cleaning of different types of stains including efflorescence, oil stains, grease, bitumen, paint, fungi, moss, algae, graffiti and the like.
- (b) All preparation work to existing surfaces or new surfaces as G.S. Item 18.13 and G.S. Item 21.46.
- (c) Carrying out trial cleaning on Site to determine the suitable pressure rating and type of additives to avoid damage of the substrate.
- (d) Using either cold water or hot water, and if required, with addition of chemical solution such as detergents and bleaching agents, approved by the Maintenance Surveyor.
- (e) Application by an approved applicator accredited/endorsed by the manufacturer of the cleansing agent.
- (f) Using heavy duty, environmental friendly, non-toxic and water-based material with low VOC contents for proprietary multi-purpose cleansing agent.
- (g) Where the existing ink or graffiti marks cannot be removed, addition of further proprietary ink and graffiti remover approved by the Maintenance Surveyor.
- (h) Carrying out a test patch on Site to demonstrate the cleaning method using multi-purpose cleansing agent.
- (i) Protection of adjacent surfaces and making good all works damaged and disturbed.
- (j) Submission of method statement.

Item											Item
LIMEWASH											
Prepare and apply limewash to the following surfaces :-											
<i>Per square metre</i>											
		Internal			External						
		New surfaces	Redecoration		New surfaces	Redecoration					
		Two coats	One coat	Two coats	Two coats	One coat	Two coats				
		A	B	C	D	E	F				
		\$	\$	\$	\$	\$	\$				
15001	Walls and soffits.....	21.20	15.70	23.20	22.30	16.60	24.80				15001
15002	Profiled compressed particle sheeting.....	28.30	22.00	31.60	29.20	22.60	33.20				15002
EMULSION PAINT											
Prepare and apply emulsion paint to the following surfaces :-											
<i>Per square metre</i>											
		Internal				External					
		New surfaces		Redecoration		New surfaces		Redecoration			
		One thinned coat and two full coats	Water based lime resistant primer and two full coats	One full coat	Two full coats	One thinned coat and two full coats	Water based lime resistant primer and two full coats	One full coat	Two full coats		
		A	B	C	D	E	F	G	H		
		\$	\$	\$	\$	\$	\$	\$	\$		
15003	Walls and soffits.....	46.10	51.00	22.00	35.60	48.00	53.20	24.20	39.10		15003
15004	Extra over Item 15003 for moulded enriched surface picked out in one or more different colours from general surface.....	19.10	20.20	9.00	15.30	22.80	23.50	9.10	16.00		15004
15005	Grille block wall of any thickness including painting into recesses.....	69.10	71.90	35.30	59.90	73.20	79.50	36.00	62.70		15005
15006	Soft or hard fibre board, insulating board, acoustic tiles and similar surfaces.....	43.70	53.20	22.60	37.10	47.10	54.10	24.80	39.50		15006
15007	Profiled compressed particle sheeting.....	63.20	71.60	30.30	46.20	67.00	72.50	34.20	48.10		15007

Item									Item	
ANTI-MOULD ACRYLIC EMULSION PAINT										
Prepare and apply anti-mould acrylic emulsion paint to the following surfaces :-										
<i>Per square metre</i>										
		Internal				External				
		New surfaces		Redecoration		New surfaces		Redecoration		
		One thinned coat and two full coats	Water based lime resistant primer and two full coats	One full coat	Two full coats	One thinned coat and two full coats	Water based lime resistant primer and two full coats	One full coat	Two full coats	
		A	B	C	D	E	F	G	H	
		\$	\$	\$	\$	\$	\$	\$	\$	
15008	Walls and soffits.....	53.10	56.90	24.50	42.30	57.80	59.50	26.20	46.90	15008
15009	Extra over Item 15008 for moulded enriched surface picked out in one or more different colours from general surface.....	17.30	18.50	7.70	13.20	19.40	20.30	7.80	13.50	15009
15010	Grille block wall of any thickness including painting into recesses.....	75.80	82.50	39.50	68.10	79.90	85.30	42.50	70.90	15010
15011	Soft or hard fibre board, insulating board, acoustic tiles and similar surfaces.....	50.40	55.30	28.50	44.10	51.80	57.20	28.90	46.10	15011
15012	Profiled compressed particle sheeting.....	66.10	70.30	33.00	59.10	69.80	74.60	35.10	61.60	15012
TEXTURED EMULSION PAINT										
Prepare and apply textured emulsion paint to the following surfaces :-										
<i>Per square metre</i>										
		Internal				External				
		New surfaces		Redecoration		New surfaces		Redecoration		
		One thinned coat and two full coats	Water based lime resistant primer and two full coats	One full coat	Two full coats	One thinned coat and two full coats	Water based lime resistant primer and two full coats	One full coat	Two full coats	
		A	B	C	D	E	F	G	H	
		\$	\$	\$	\$	\$	\$	\$	\$	
15013	Walls and soffits.....	48.20	50.60	24.70	40.70	52.20	55.80	26.50	43.90	15013
15014	Grille block wall of any thickness including painting into recesses.....	74.50	81.40	35.40	60.60	78.50	84.20	37.20	61.40	15014
15015	Profiled compressed particle sheeting.....	60.40	64.00	30.80	50.20	64.70	67.20	33.70	53.50	15015

Item								Item
	CEMENT PAINT	Internal		External				
	Prepare and apply cement paint to the following surfaces :-	New surfaces	Redecoration	New surfaces	Redecoration			
		Two coats	One coat	Two coats	Two coats	One coat	Two coats	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$	F \$	
15016	Walls and soffits.....	38.70	25.50	44.10	41.10	27.20	46.60	15016
15017	Grille block wall of any thickness including painting into recesses.....	66.40	41.10	74.40	68.50	42.50	75.90	15017
15018	Chinese roof tiling.....	69.20	39.60	76.20	72.30	43.20	77.20	15018
	EXTERNAL TEXTURED PAINT				External			
	Prepare and apply external textured paint to the following surfaces :-			New surfaces	Redecoration			
				Two coats	One coat	Two coats		
	<i>Per square metre</i>			A \$	B \$	C \$		
15019	Walls and soffits.....			55.00	36.10	62.00		15019
15020	Grille block wall of any thickness including painting into recesses.....			94.50	61.00	102.80		15020
15021	Chinese roof tiling.....			100.30	61.10	106.40		15021
15022	Profiled compressed particle sheeting.....			82.60	51.60	88.60		15022
	MULTI-COLOUR PAINT	Internal		External				
	Prepare and apply multi-colour paint to the following surfaces by spraying :-	New surfaces	Redeco-ration	New surfaces	Redeco-ration			
		One coat primer, one binder coat and one finishing coat	One binder coat and one finishing coat	One coat primer, one binder coat and one finishing coat	One binder coat and one finishing coat			
	<i>Per square metre</i>	A \$	B \$	C \$	D \$			
15023	Walls and soffits.....	99.80	85.50	103.20	87.70			15023
	<i>Per linear metre</i>							
15024	Surfaces n.e. 150 mm girth.....	15.60	13.40	19.60	16.90			15024
15025	Ditto but 150 - 300 mm girth.....	28.10	24.60	32.10	28.30			15025

Item									Item																																								
SYNTHETIC PAINT																																																	
Prepare and apply synthetic paint to the following surfaces :-																																																	
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\$	\$	\$	\$	\$	\$	\$	\$																																										
<i>Per square metre</i>																																																	
15026	Walls and soffits.....	60.50	57.90	33.30	46.30	64.30	62.60	35.40	50.60	15026																																							
15027	Soft or hard fibre board, insulating board, acoustic tiles and similar surfaces.....	64.00	60.90	33.90	46.90	67.10	64.10	37.00	51.10	15027																																							
15028	Profiled compressed particle sheeting.....	81.70	80.10	41.10	64.90	85.30	82.50	43.50	66.90	15028																																							
<i>Per linear metre</i>																																																	
15029	Surfaces n.e. 150 mm girth.....	5.50	5.30	2.80	4.60	8.80	8.30	4.30	6.60	15029																																							
15030	Ditto but 150 - 300 mm girth.....	16.50	16.30	10.10	14.10	19.00	18.50	12.10	15.80	15030																																							
Prepare and paint the following lines, etc., in white or yellow synthetic paint on tarmac, concrete or other surfaces :-																																																	
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	A	B	C	D																																													
	\$	\$	\$	\$																																													
<i>Per linear metre</i>																																																	
15031	Line n.e. 150 mm wide.....	9.00	4.90	9.20	2.40					15031																																							
15032	Ditto but 150 - 300 mm wide.....	19.70	12.70	18.30	4.70					15032																																							
15033	Line n.e. 150 mm wide and circular on plan n.e. 15.00 m.....	9.30	5.10	9.90	2.50					15033																																							
15034	Ditto but 150 - 300 mm wide.....	20.80	13.50	19.40	5.00					15034																																							

Item							Item																														
POLYURETHANE PAINT																																					
Prepare and apply polyurethane paint to the following surfaces :-																																					
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Internal			External																																		
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\$	\$	\$	\$	\$	\$																																
<i>Per square metre</i>																																					
15035	Walls and soffits.....	53.50	30.60	42.10	60.70	40.20	46.00	15035																													
15036	Grille block wall of any thickness including painting into recesses.....	78.90	39.00	65.30	81.60	42.80	67.00	15036																													
15037	Profiled compressed particle sheeting.....	65.50	36.20	59.60	68.90	38.00	62.00	15037																													
15038	Concrete paving, kerb stones and the like.....	48.00	26.60	39.50	49.80	27.80	41.90	15038																													
COLD CURE EPOXY PAINT																																					
Prepare and apply cold cure epoxy paint (coloured) to the following surfaces :-																																					
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Internal			External																																		
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A	B	C	D	E	F																																
\$	\$	\$	\$	\$	\$																																
<i>Per square metre</i>																																					
15039	Walls and soffits.....	53.40	37.50	58.40	54.70	38.80	61.10	15039																													
15040	Grille block wall of any thickness including painting into recesses.....	80.00	47.80	81.80	84.60	52.30	86.60	15040																													
15041	Profiled compressed particle sheeting.....	63.70	42.70	77.50	67.70	43.90	81.00	15041																													
<i>Per linear metre</i>																																					
15042	Surfaces n.e. 150 mm girth.....	5.50	4.30	6.50	5.60	4.60	7.00	15042																													
15043	Ditto but 150 - 300 mm girth.....	18.10	10.80	19.20	18.90	12.00	20.90	15043																													

Item						Item
	GRANITE COATING					
	Prepare and apply 2 mm thick spray granite coating system to the following surfaces : -	Internal		External		
		New surfaces	Redecoration	New surfaces	Redecoration	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
15044	Walls and soffits.....	145.80	156.20	154.30	178.50	15044
15045	Grille block wall of any thickness including painting into recesses.....	181.30	205.60	193.60	211.30	15045
15046	Masonry walls.....	181.20	205.60	193.60	211.30	15046
	WATER-BASED PAINT ON SLOPEWORK					
	Prepare and spray water-based paint (any colour) on : -	New Surfaces		Redecoration		
		One undercoat and one finishing coat	One finishing coat	One undercoat and one finishing coat		
	<i>Per square metre</i>	A \$	B \$	C \$		
15047	Sprayed concrete surfaces on slopes.....	110.60	81.40	127.90		15047
	SYNTHETIC PAINT ON PLASTIC WORK					
	Prepare and apply synthetic paint on the following plastic work : -	New surfaces		Redecoration		
		Primer only (No subsequent paint to be applied)	Primer, two under-coats and one finishing coat	One finishing coat	One under-coat and one finishing coat	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
15048	General surfaces.....	19.00	65.00	29.60	45.50	15048
	<i>Per linear metre</i>					
15049	Surfaces n.e. 150 mm girth.....	3.40	9.90	5.40	7.60	15049
15050	Ditto but 150 - 300 mm girth.....	6.20	19.30	9.20	14.30	15050
15051	Pipe n.e. 55 mm nominal diameter.....	4.40	11.80	5.40	8.80	15051
15052	Ditto but 55 - 110 mm nominal diameter.....	7.80	34.40	14.30	22.50	15052
15053	Ditto but 110 - 300 mm nominal diameter.....	15.20	57.90	23.70	38.10	15053
15054	Eaves gutter of any type, inside and outside n.e. 600 mm total girth, including cleaning out and making good joints in red lead.....	51.70	87.20	61.00	70.00	15054

Item		New surfaces		Redecoration		Item
	SYNTHETIC PAINT ON METAL WORK	Primer only (No subsequent paint to be applied)	Primer, two under-coats and one finishing coat	One finishing coat	One under-coat and one finishing coat	
	Prepare and apply synthetic paint on the following metal work : -	A	B	C	D	
	<i>Per square metre</i>	\$	\$	\$	\$	
15055	General surfaces.....	19.00	65.00	29.60	45.50	15055
15056	Glazed windows, doors and the like.....	19.30	87.60	41.00	63.10	15056
15057	Wire mesh, expanded metal mesh, chain link, railings, balustrades and the like.....	19.20	67.20	33.20	51.70	15057
15058	Surfaces of corrugated or profiled sheeting.....	24.10	74.70	33.40	53.20	15058
15059	Surfaces of collapsible gate.....	27.90	123.10	51.30	81.20	15059
15060	Jalousies, louvre panels and the like with fixed or moveable louvres.....	25.70	101.80	42.50	69.50	15060
	<i>Per linear metre</i>					
15061	Surfaces n.e. 150 mm girth.....	3.00	9.90	4.80	7.60	15061
15062	Ditto but 150 - 300 mm girth.....	6.20	19.30	9.20	14.30	15062
15063	Pipe n.e. 55 mm nominal diameter.....	4.10	11.80	5.40	8.80	15063
15064	Ditto but 55 - 110 mm nominal diameter.....	7.80	34.40	14.30	22.50	15064
15065	Ditto but 110 - 300 mm nominal diameter.....	15.20	57.90	23.70	38.10	15065
15066	Eaves gutter of any type, inside and outside n.e. 600 mm total girth, including cleaning out and making good joints in red lead.....	51.70	87.20	61.00	70.00	15066
	<i>Each</i>					
15067	Small isolated article n.e. 0.01 m ²	2.60	4.30	2.80	3.80	15067
15068	W.C. cistern including brackets.....	9.70	40.60	14.30	23.40	15068
15069	Rainwater or waste head of any size, inside and outside, including cleaning out.....	47.80	78.00	52.50	62.40	15069

Item						Item	
	METALLIC PAINT ON METAL WORK						
	Prepare and apply metallic paint (bright or bronze finish) on the following metal work : -						
		New Surfaces		Redecoration			
		Primer only (No subse- quent paint to be applied)	Primer, two under- coats and one finishing coat	One finishing coat	One under- coat and one finishing coat	Two under- coats and one finishing coat	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
	<i>Per square metre</i>						
15070	General surfaces.....	20.80	91.30	41.30	58.20	84.40	15070
15071	Glazed windows, doors and the like.....	23.80	108.20	47.40	75.90	103.60	15071
15072	Wire mesh, expanded metal mesh, chain link, railings, balustrades and the like.....	22.50	93.00	41.90	60.60	85.80	15072
15073	Surfaces of corrugated or profiled sheeting.....	28.40	101.90	50.10	68.00	90.00	15073
15074	Surfaces of collapsible gate.....	30.00	150.30	59.70	96.10	135.90	15074
15075	Jalousies, louvre panels and the like with fixed or moveable louvres.....	28.80	122.40	54.30	82.60	113.40	15075
	<i>Per linear metre</i>						
15076	Surfaces n.e. 150 mm girth.....	3.10	11.60	5.10	8.80	11.00	15076
15077	Ditto but 150 - 300 mm girth.....	6.70	22.60	10.50	16.70	20.50	15077
15078	Pipe n.e. 55 mm nominal diameter.....	4.20	14.30	6.00	10.10	13.90	15078
15079	Ditto but 55 - 110 mm nominal diameter.....	8.50	41.90	16.40	26.00	38.60	15079
15080	Ditto but 110 - 300 mm nominal diameter.....	16.90	74.40	30.90	50.60	65.40	15080
15081	Eaves gutter of any type, inside and outside n.e. 600 mm total girth, including cleaning out and making good joints in red lead.....	52.70	100.00	67.20	88.20	96.90	15081
	<i>Each</i>						
15082	Small isolated article n.e. 0.01 m ²	2.80	4.90	3.00	4.60	4.70	15082
15083	W.C. cistern including brackets.....	10.60	47.10	18.20	29.40	35.70	15083
15084	Rainwater or waste head of any size, inside and outside, including cleaning out.....	52.00	91.60	59.70	67.20	85.00	15084

Item						Item
HEAT RESISTING PAINT ON METAL WORK						
Prepare and apply heat resisting paint on the following metal work :-						
		New Surfaces		Redecoration		
		Primer only (No subsequent paint to be applied)	Primer, two under-coats and one finishing coat	One finishing coat	One under-coat and one finishing coat	Two under-coats and one finishing coat
		A	B	C	D	E
		\$	\$	\$	\$	\$
Per square metre						
15085	General surfaces.....	27.50	97.90	42.90	66.50	90.30
Per linear metre						
15086	Surfaces n.e. 150 mm girth.....	3.80	12.10	5.10	9.30	11.70
15087	Ditto but 150 - 300 mm girth.....	7.50	27.40	10.90	16.90	22.60
15088	Pipe n.e. 55 mm nominal diameter.....	5.50	16.00	6.70	11.20	15.60
15089	Ditto but 55 - 110 mm nominal diameter.....	11.20	46.90	18.50	30.50	41.10
15090	Ditto but 110 - 300 mm nominal diameter.....	20.90	82.60	36.40	52.30	71.10
Each						
15091	Small isolated article n.e. 0.01 m ²	2.10	5.70	2.20	3.80	5.20
CHEMICAL RESISTING PAINT ON METAL WORK						
Prepare and apply chemical resisting paint on the following metal work :-						
Per square metre						
15092	General surfaces.....	30.10	101.00	42.90	66.50	90.30
Per linear metre						
15093	Surfaces n.e. 150 mm girth.....	3.80	11.40	5.10	8.10	10.80
15094	Ditto but 150 - 300 mm girth.....	7.80	28.40	10.90	16.90	22.60

Item		New surfaces		Redeco- ration	Item
		Primer only (No subse- quent paint to be applied)	Primer and one coat	One coat	
		A \$	B \$	C \$	
	BLACK ENAMEL PAINT ON METAL WORK				
	Prepare and apply black enamel paint on the following metal work :-				
	<i>Per square metre</i>				
15095	General surfaces.....	20.50	37.20	32.80	15095
	<i>Per linear metre</i>				
15096	Surfaces n.e. 150 mm girth.....	3.10	7.30	5.70	15096
15097	Ditto but 150 - 300 mm girth.....	5.80	12.40	9.80	15097
15098	Pipe n.e. 55 mm nominal diameter.....	5.10	11.40	8.90	15098
15099	Ditto but 55 - 110 mm nominal diameter.....	8.20	23.70	15.50	15099
15100	Ditto but 110 - 300 mm nominal diameter.....	18.30	40.80	29.40	15100
	<i>Each</i>				
15101	Small isolated article n.e. 0.01 m ²	1.30	3.00	2.20	15101
	NON-TOXIC PAINT ON METAL WORK				
	Prepare and apply non-toxic paint on the following metal work :-				
	<i>Per square metre</i>				
15102	General surfaces.....	20.00	76.30	71.10	15102
15103	Surfaces of corrugated or profiled sheeting.....	26.30	96.70	87.10	15103
	<i>Per linear metre</i>				
15104	Surfaces n.e. 150 mm girth.....	3.10	11.70	8.80	15104
15105	Ditto but 150 - 300 mm girth.....	7.00	20.70	16.70	15105
15106	Eaves gutter of any type, inside and outside n.e. 600 mm total girth, including cleaning out and making good joints in approved non-toxic mastic.....	55.40	95.20	80.40	15106

Item	Item																
POLYURETHANE PAINT ON METAL WORK																	
Prepare and apply polyurethane paint (coloured) on the following metal work :-																	
	<table border="1"> <thead> <tr> <th colspan="2">New surfaces</th> <th colspan="2">Redecoration</th> </tr> <tr> <th>Primer only (No subse- quent paint to be applied)</th> <th>Primer, one under- coat and one finishing coat</th> <th>One finishing coat</th> <th>One under- coat and one finishing coat</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>	New surfaces		Redecoration		Primer only (No subse- quent paint to be applied)	Primer, one under- coat and one finishing coat	One finishing coat	One under- coat and one finishing coat	A	B	C	D	\$	\$	\$	\$
New surfaces		Redecoration															
Primer only (No subse- quent paint to be applied)	Primer, one under- coat and one finishing coat	One finishing coat	One under- coat and one finishing coat														
A	B	C	D														
\$	\$	\$	\$														
	<i>Per square metre</i>																
15107	General surfaces..... 21.00 72.20 40.70 61.10 15107																
15108	Glazed windows, doors and the like..... 22.50 87.20 60.10 76.90 15108																
15109	Wire mesh, expanded metal mesh, chain link, railings, balustrades and the like..... 22.50 72.60 41.10 64.40 15109																
	<i>Per linear metre</i>																
15110	Surfaces n.e. 150 mm girth..... 3.50 9.20 5.80 7.80 15110																
15111	Ditto but 150 - 300 mm girth..... 7.40 20.70 11.20 16.70 15111																
15112	Pipe n.e. 55 mm nominal diameter..... 5.10 13.70 9.10 13.50 15112																
15113	Ditto but 55 - 110 mm nominal diameter..... 9.30 27.00 17.50 19.80 15113																
15114	Ditto but 110 - 300 mm nominal diameter..... 21.80 61.50 42.00 52.60 15114																
	<i>Each</i>																
15115	Small isolated article n.e. 0.01 m ² 1.60 4.90 2.50 4.20 15115																

Item							Item	
	COLD CURE EPOXY PAINT ON METAL WORK	New surfaces		Redecoration				
	Prepare and apply cold cure epoxy paint (coloured) on the following metal work :-	Primer only (No subsequent paint to be applied)	Primer, one under-coat and one finishing coat	One finishing coat	One under-coat and one finishing coat			
	<i>Per square metre</i>	A \$	B \$	C \$	D \$			
15116	General surfaces.....	21.40	67.30	36.60	59.50		15116	
15117	Glazed windows, doors and the like.....	22.80	77.70	42.90	68.60		15117	
15118	Wire mesh, expanded metal mesh, chain link, railing, balustrades and the like.....	23.80	72.70	39.70	62.40		15118	
	<i>Per linear metre</i>							
15119	Surfaces n.e. 150 mm girth.....	3.60	8.90	5.10	7.50		15119	
15120	Ditto but 150 - 300 mm girth.....	8.40	19.30	10.20	16.00		15120	
15121	Pipe n.e. 55 mm nominal diameter.....	5.10	13.70	8.90	10.20		15121	
15122	Ditto but 55 - 110 mm nominal diameter.....	10.00	24.70	16.20	18.80		15122	
15123	Ditto but 110 - 300 mm nominal diameter.....	22.10	53.20	27.00	45.60		15123	
	<i>Each</i>							
15124	Small isolated article n.e. 0.01 m ²	1.30	4.80	2.50	4.20		15124	
	SURFACE PROTECTION TO STRUCTURAL STEEL							
	(Note :- The following Items 15125 to 15126 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)	Type A	Type B	Type C	Type D	Type E	Type F	Type G
	Prepare and apply surface protection on the following surfaces as G.S. Items 15.61 & 15.62 :-							
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$	F \$	G \$
15125	Structural steel (new surfaces).....	78.50	91.90	209.20	183.70	264.90	66.30	66.00
15126	Structural steel (redecorated).....	83.00	96.90	206.40	181.80	218.40	63.60	65.50

Item				Item
	POWDER COATING ON METAL WORK			
	(Note : - The following Items 15127 to 15130 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)			
	Prepare and apply epoxy or polyester or polyurethane resin based dry powder coating with dry film thickness 50 - 70 microns on metal surface, including surface preparation all in strict accordance with manufacturer's instructions : -			
	<i>Per square metre</i>	A \$		
15127	Powder coating on metal surfaces.....	129.80		15127
	<i>Per linear metre</i>			
15128	Surfaces n.e. 150 mm girth.....	19.10		15128
15129	Ditto but 150 - 300 mm girth.....	36.10		15129
	<i>Each</i>			
15130	Small isolated article n.e. 0.01m ²	2.40		15130
	FLUOROCARBON PVF2 COATING ON METAL WORK			
	(Note : - The following Items 15131 to 15133 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)			
	Prepare and apply fluoropolymer resin based coating with dry film thickness 30 - 72 microns on metal surface, including surface preparation all in strict accordance with the manufacturer's instructions : -			
	<i>Per square metre</i>	A \$		
15131	2 Coats system (dry film thickness 30 - 37 microns) comprising primer coat and top coat on metal surface.....	142.10		15131
15132	3 Coats system (dry film thickness 40 - 52 microns) comprising primer coat, top coat and clear coat on metal surface.....	184.80		15132
15133	4 Coats system (dry film thickness 60 - 72 microns) comprising primer coat, barrier coat, top coat and clear coat on metal surface.....	258.90		15133
	FIRE RETARDANT PAINT			
	Prepare and apply fire retardant paint as G.S. Item 21.14 on the following surfaces : -			
	<i>Per square metre</i>	New surfaces	Redeco- ration	
		A \$	B \$	
15134	Fabric surfaces.....	23.70	27.10	15134
15135	Wood surfaces.....	25.00	28.00	15135
15136	Metal surfaces.....	23.90	27.30	15136

Item					Item
	INTUMESCENT PAINT				
	(Note : - The following Items 15137 to 15140 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)				
	Prepare and apply fire rated intumescent paint on structural steel surfaces :-				
		FRR			
		1 hour	2 hours		
	<i>Per square metre</i>	A \$	B \$		
15137	Structural steel general surfaces.....	359.70	568.20		15137
	<i>Per linear metre</i>				
15138	Structural steel surfaces n.e. 150 mm girth.....	63.10	79.70		15138
15139	Ditto but 150 - 300 mm girth.....	94.20	134.00		15139
	<i>Each</i>				
15140	Structural steel small isolated article n.e. 0.01 m ²	11.80	20.10		15140
	BLACK BITUMASTIC PAINT				
	Prepare and apply black bitumastic paint on the following surfaces :-				
		New surfaces		Redecoration	
		One coat	Two coats	One coat	Two coats
	<i>Per square metre</i>	A \$	B \$	C \$	D \$
15141	Concrete, brick, stone, plastered or rendered, or similarly finished walls and soffits.....	23.90	38.30	30.00	46.50
15142	General metal surfaces.....	24.70	40.50	32.10	47.90
15143	General surface of concrete and fixing fillets under floor boarding.....	27.90	43.40	32.90	50.70
15144	Glazed metal windows, doors and the like.....	35.40	57.30	40.20	63.50
15145	Wire mesh, expanded metal mesh, chain link, railings, balustrades and the like.....	26.20	41.60	32.10	49.80
15146	Surfaces of corrugated or profiled metal sheeting.....	26.60	42.80	34.20	51.10
15147	Metal manhole covers, channel covers, tree grilles and the like.....	24.20	40.60	32.00	49.80

Item						Item	
	BLACK BITUMASTIC PAINT (CONT'D)						
	Prepare and apply black bitumastic paint on the following surfaces :- (Cont'd)	New surfaces		Redecoration			
		One coat	Two coats	One coat	Two coats		
	<i>Per linear metre</i>	A	B	C	D		
		\$	\$	\$	\$		
15148	Surfaces of metal n.e. 150 mm girth.....	2.20	3.40	3.10	3.90	15148	
15149	Ditto but 150 - 300 mm girth.....	5.30	10.00	6.60	11.70	15149	
15150	Pipe n.e. 55 mm nominal diameter.....	4.40	6.90	5.10	7.80	15150	
15151	Ditto but 55 - 110 mm nominal diameter.....	10.50	17.90	12.60	18.50	15151	
15152	Ditto but 110 - 300 mm nominal diameter.....	19.10	33.60	19.70	35.10	15152	
15153	Eaves gutter of any type, inside and outside n.e. 600 mm total girth, including cleaning out and making good joints in red lead.....	49.30	60.50	57.80	69.60	15153	
	<i>Each</i>						
15154	Small isolated article n.e. 0.01 m ²	6.60	12.10	7.80	12.70	15154	
15155	W.C. cistern including brackets.....	10.70	18.50	12.40	20.00	15155	
15156	Rainwater or waste head of any size, inside and outside, including cleaning out.....	49.10	60.40	54.50	64.60	15156	
	SYNTHETIC PAINT ON WOOD WORK						
	Prepare and apply synthetic paint on the following wood work :-	New surfaces		Redecoration			
		Primer only (No subsequent paint to be applied)	Primer, one under-coat and one finishing coat	Primer, two under-coats and one finishing coat	One finishing coat	One under-coat and one finishing coat	
	<i>Per square metre</i>	A	B	C	D	E	
		\$	\$	\$	\$	\$	
15157	General surfaces including doors and sashes.....	14.10	50.80	59.90	32.00	41.60	15157
15158	Jalousies, louvre panels and the like with fixed or moveable louvres.....	21.50	81.40	114.90	54.30	71.00	15158
	<i>Per linear metre</i>						
15159	Surfaces n.e. 150 mm girth.....	2.70	6.90	9.30	3.80	4.70	15159
15160	Ditto but 150 - 300 mm girth.....	4.30	14.90	18.90	8.10	11.70	15160
	<i>Each</i>						
15161	Small isolated article n.e. 0.01 m ²	1.00	3.80	5.10	2.10	3.40	15161

Item					Item	
	POLYURETHANE PAINT ON WOOD WORK					
	Prepare and apply polyurethane paint on the following wood work : -					
	<i>Per square metre</i>					
15162	General surfaces including doors and sashes.....	54.90	41.00	62.60	67.20	15162
15163	Jalousies, louvre panels and the like with fixed or moveable louvres.....	87.00	58.00	95.40	106.00	15163
	<i>Per linear metre</i>					
15164	Surfaces n.e. 150 mm girth.....	6.40	4.40	7.20	8.20	15164
15165	Ditto but 150 - 300 mm girth.....	13.90	10.50	15.70	17.20	15165
	<i>Each</i>					
15166	Small isolated article n.e. 0.01 m ²	2.50	2.10	3.30	3.80	15166
	<i>Per square metre</i>					
15167	Wood block, strip or parquet flooring.....			39.20	45.40	15167
	POLYURETHANE SEALER AND POLISH ON WOOD WORK					
	Prepare and apply polyurethane sealer and polish on the following wood work : -					
	<i>Per square metre</i>					
15168	Wood block or wood strip flooring.....	60.70	38.80	56.10		15168

Item						Item
	WAX POLISH ON WOOD WORK					
	Prepare and apply wax polish on the following wood work :-	New surfaces		Redecoration		
		Two coats	Three coats	One coat	Two coats	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
15169	General surfaces.....	-	58.90	29.00	44.80	15169
	<i>Per linear metre</i>					
15170	Surfaces n.e. 150 mm girth.....	-	4.80	2.50	3.80	15170
15171	Surfaces 150 - 300 mm girth.....	-	14.10	6.90	10.70	15171
	<i>Per square metre</i>					
15172	Surfaces of wood block or wood strip flooring.....	25.00	-	16.30	26.50	15172
	NATURAL OIL ON LANDSCAPE TIMBER					
	Prepare and apply natural oil coating on the following wood work :-	New surfaces		Redecoration		
		Three coats	Two coats			
	<i>Per square metre</i>	A \$	B \$			
15173	General surfaces of landscape timber.....	104.40	71.00			15173
	LINSEED OIL ON WOOD WORK					
	Prepare and apply linseed oil on the following wood work :-	New surfaces		Redecoration		
		Three coats	Two coats			
	<i>Per square metre</i>	A \$	B \$			
15174	General surfaces.....	52.40	40.70			15174
	<i>Per linear metre</i>					
15175	Surfaces n.e. 150 mm girth.....	4.30	3.40			15175
15176	Surfaces 150 - 300 mm girth.....	12.70	10.10			15176

Item												Item
	STAIN, VARNISH AND LACQUER ON WOOD WORK											
	Prepare and apply and stain, varnish and/or lacquer on the following wood work : -											
	New surfaces					Redecoration						
	Stain		Varnish		Cellu-lose lacquer	Stain		Varnish		Cellulose lacquer		
	Two coats	Addi-tional one coat	Two coats	Three coats	Three coats	Two coats	Addi-tional one coat	One coat	Two coats	One coat	Two coats	
	A	B	C	D	E	F	G	H	I	J	K	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
	Per square metre											
15177	General surfaces including doors and sashes.....											15177
	27.70	11.00	37.00	48.70	58.20	33.90	11.00	31.70	39.20	34.40	43.90	
15178	Jalousies, louvre panels and the like with fixed or movable louvres.....											15178
	36.50	14.40	51.40	63.60	75.10	45.30	14.40	38.70	57.20	41.60	62.60	
	Per linear metre											
15179	Surfaces n.e. 150 mm girth.....											15179
	2.40	0.80	3.30	4.20	4.70	3.10	0.80	2.50	3.80	2.80	4.20	
15180	Ditto but 150 - 300 mm girth.....											15180
	7.00	3.00	8.90	11.80	14.40	8.40	3.00	6.60	9.90	8.90	11.20	
	Each											
15181	Small isolated article n.e. 0.01 m ²											15181
	1.90	1.70	2.10	2.40	2.50	1.90	1.90	1.80	2.10	1.80	2.10	
	PESTICIDAL COATING											
	Prepare and apply pesticidal coating to the following surfaces : -											
											New surfaces	Redeco-ration
											A	B
											\$	\$
	Per square metre											
15182	General surfaces of plaster, render, concrete, brick, block, stone or wood.....										33.70	39.50
	Per linear metre											
15183	Ditto but in band n.e. 150 mm wide at joints, junctions, skirting tops and similar positions.....										4.80	5.50

Item	Item										
MARKING MATERIALS											
Prepare and paint the following lines, etc., in white or yellow thermoplastic road marking material (Type A) as BS 3262:1989 on tarmac, concrete or other surfaces for roads, carriageways, car parks, paving and the like :-											
<i>Per linear metre</i>											
	<table border="1"> <thead> <tr> <th rowspan="2" style="text-align: center;">Mark out and paint in two coats</th> <th colspan="2" style="text-align: center;">Re-paint over existing</th> <th rowspan="2" style="text-align: center;">Oblit- erate existing</th> </tr> <tr> <th style="text-align: center;">One coat</th> <th style="text-align: center;">Two coats</th> </tr> <tr> <th style="text-align: center;">A \$</th> <th style="text-align: center;">B \$</th> <th style="text-align: center;">C \$</th> <th style="text-align: center;">D \$</th> </tr> </thead> </table>	Mark out and paint in two coats	Re-paint over existing		Oblit- erate existing	One coat	Two coats	A \$	B \$	C \$	D \$
Mark out and paint in two coats	Re-paint over existing		Oblit- erate existing								
	One coat	Two coats									
A \$	B \$	C \$	D \$								
15184	Line n.e. 150 mm wide..... 17.50 9.80 18.00 4.90 15184										
15185	Ditto but 150 - 300 mm wide..... 34.50 19.00 35.60 9.70 15185										
15186	Line n.e. 150 mm wide and circular on plan n.e. 15.00 m radius..... 18.80 10.80 19.10 5.50 15186										
15187	Ditto but 150 - 300 mm wide..... 34.60 20.10 38.00 10.20 15187										
<i>Each</i>											
15188	Letter, number, Chinese character, logo, symbol and the like n.e. 75 mm high..... 11.50 8.00 12.30 3.30 15188										
15189	Ditto but 75 - 150 mm high..... 24.10 15.60 24.80 7.20 15189										
15190	Ditto but 150 - 225 mm high..... 33.00 21.40 34.50 10.80 15190										
15191	Ditto but 225 - 300 mm high..... 45.70 29.00 47.20 16.10 15191										
15192	Ditto but 300 - 450 mm high..... 64.00 40.40 67.30 25.20 15192										
15193	Ditto but 450 - 600 mm high..... 94.90 58.00 96.90 41.40 15193										
15194	Ditto but 600 - 1,000 mm high..... 127.00 86.10 146.00 61.80 15194										
15195	Ditto but 1,000 - 2,000 mm high..... 188.00 114.00 197.00 83.10 15195										
15196	Arrow-head n.e. 150 mm long..... 16.50 10.80 17.40 6.00 15196										
15197	Ditto but 150 - 300 mm long..... 24.80 16.00 25.70 9.90 15197										
15198	Ditto but 300 - 450 mm long..... 35.40 22.30 36.60 13.30 15198										
15199	Ditto but 450 - 900 mm long..... 56.40 34.60 59.80 19.30 15199										
15200	Ditto but 900 - 1,350 mm long..... 101.00 58.90 105.00 27.40 15200										
15201	Ditto but 1,350 - 2,000 mm long..... 154.00 87.40 158.00 41.30 15201										
15202	Ditto but 2,000 - 3,000 mm long..... 201.00 117.00 211.00 54.60 15202										
15203	Arrow-head with left/right and straight 1,350 - 2,000 mm long..... 180.00 104.00 185.00 47.40 15203										
15204	Ditto but 2,000 - 3,000 mm long..... 229.00 131.00 237.00 61.70 15204										

Item	MARKING MATERIALS (CONT'D)	Mark out and paint in two coats	Re-paint over existing		Oblit- erate existing	Item
			One coat	Two coats		
		A \$	B \$	C \$	D \$	
	Prepare and paint the following lines, etc., in white or yellow thermoplastic road marking material (Type B) as BS 3262:1989 on tarmac, concrete or other surfaces for roads, carriageways, car parks, paving and the like :-					
	<i>Per linear metre</i>					
15205	Line n.e. 150 mm wide.....	18.50	10.10	19.00	4.90	15205
15206	Ditto but 150 - 300 mm wide.....	35.30	19.30	37.80	9.70	15206
15207	Line n.e. 150 mm wide and circular on plan n.e. 15.00 m.....	19.20	11.60	20.50	5.60	15207
15208	Ditto but 150 - 300 mm wide.....	37.30	20.70	40.00	10.50	15208
	<i>Each</i>					
15209	Letter, number, Chinese character, logo, symbol & the like n.e. 75 mm high.....	11.70	8.00	12.30	3.30	15209
15210	Ditto but 75 - 150 mm high.....	24.10	15.60	25.00	7.20	15210
15211	Ditto but 150 - 225 mm high.....	33.30	25.60	34.80	10.80	15211
15212	Ditto but 225 - 300 mm high.....	48.60	35.50	50.70	16.10	15212
15213	Ditto but 300 - 450 mm high.....	64.60	42.20	68.00	25.20	15213
15214	Ditto but 450 - 600 mm high.....	95.90	59.20	99.90	41.40	15214
15215	Ditto but 600 - 1,000 mm high.....	145.00	88.20	149.00	61.80	15215
15216	Ditto but 1,000 - 2,000 mm high.....	193.00	117.00	197.00	83.10	15216
15217	Arrow-head n.e. 150 mm long.....	16.50	10.80	17.40	6.00	15217
15218	Ditto but 150 - 300 mm long.....	25.10	16.10	26.00	9.90	15218
15219	Ditto but 300 - 450 mm long.....	35.90	22.40	37.20	13.30	15219
15220	Ditto but 450 - 900 mm long.....	57.40	34.70	60.70	19.30	15220
15221	Ditto but 900 - 1,350 mm long.....	103.00	60.70	108.00	27.40	15221
15222	Ditto but 1,350 - 2,000 mm long.....	155.00	89.20	161.00	41.80	15222
15223	Ditto but 2,000 - 3,000 mm long.....	206.00	120.00	213.00	54.60	15223
15224	Arrow-head with left/right and straight 1,350 - 2,000 mm long.....	181.00	105.00	187.00	47.90	15224
15225	Ditto but 2,000 - 3,000 mm long.....	237.00	136.00	240.00	61.80	15225

Item						Item
	FLUORESCENT PAINT	New surfaces	Redecoration			
	Prepare and apply fluorescent paint of any colour ordered on the following surfaces :-	Alkali resisting primer, one white flat water or oil based undercoat and one finishing coat	One finishing coat	One white flat water or oil based undercoat and one finishing coat		
	<i>Per square metre</i>	A \$	B \$	C \$		
15226	Concrete paving, kerb stones and the like.....	64.70	40.00	53.60		15226
15227	Plastered or rendered vertical surfaces.....	67.00	42.30	56.10		15227
	REFLECTING PAINT	New surfaces	Redecoration			
	Prepare and apply reflecting paint on the following surfaces including applying a surface coating of fine grain reflective aggregate, applied at a rate of not less than 0.6 kg/m ² while finishing coat is still wet :-	One finishing coat of white synthetic paint with high gloss finish	One finishing coat of white synthetic paint with high gloss finish	One coat alkali resisting primer, one finishing coat of white synthetic paint with high gloss finish		
	<i>Per square metre</i>	A \$	B \$	C \$		
15228	Concrete paving, kerb stones and the like.....	42.40	62.40	82.20		15228
15229	Plastered or rendered vertical surfaces.....	43.90	63.50	84.60		15229
	CHALKBOARD PAINT	New surfaces	Redecoration			
	Prepare and apply chalkboard paint on the following surfaces :-	Two coats	One coat	Two coats		
	<i>Per square metre</i>	A \$	B \$	C \$		
15230	On surfaces of chalkboard.....	34.60	20.90	36.30		15230

Item			Item								
	<p>PROPRIETARY PAINTING SYSTEMS</p> <p>(Note : - The following Items 15231 to 15238 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)</p> <p>Proprietary hygienic coating system containing finely dispersed Polytetrafluoroethylene (PTFE) comprising primer, one base coat and two top coats, water based, ready to use and easy to clean; fungicidal and prevention of most common bacteria and micro-organisms; water and dust shedding abilities; inter-coat adhesion; environmental friendly; resistance to chemical and weather/climatic attack, UV and yellowing; and apply all in accordance with the manufacturer's instructions : -</p> <p><i>Per square metre</i></p>	<table border="1"> <thead> <tr> <th colspan="2">Prepare and apply</th> </tr> <tr> <th>New surfaces</th> <th>Redeco-ration</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Prepare and apply		New surfaces	Redeco-ration	A	B	\$	\$	
Prepare and apply											
New surfaces	Redeco-ration										
A	B										
\$	\$										
15231	Proprietary hygienic coating system to tiled wall surfaces including tile filler.....	211.10	15231								
15232	Ditto to plastered walls and soffits.....	184.00	15232								
	<p>Proprietary acrylic coating system containing acrylic emulsion resin sealer and acrylic resin water based top coat; water impermeable; strong sealing and adhesion; flexible; easy application; resistance to alkali and weather; and apply all in accordance with the manufacturer's instructions : -</p> <p><i>Per square metre</i></p>	<table border="1"> <thead> <tr> <th colspan="2">Prepare and apply</th> </tr> <tr> <th>New surfaces</th> <th>Redeco-ration</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Prepare and apply		New surfaces	Redeco-ration	A	B	\$	\$	
Prepare and apply											
New surfaces	Redeco-ration										
A	B										
\$	\$										
15233	Proprietary acrylic coating system to tiled wall surface including tile filler.....	155.50	15233								
15234	Ditto to plastered walls and soffits.....	93.80	15234								
	<p>Proprietary polyurethane coating system primarily made of polyurethane resin comprising sealer, base coat and top coat; with texture if specified; with stable properties at low temperature; good workability; resistance to water, alkali, salt water, cleaning/wet scrub, humidity and cool-heat cycling, fungus and mould, weather and dirt; and apply all in accordance with the manufacturer's instructions : -</p> <p><i>Per square metre</i></p>	<table border="1"> <thead> <tr> <th colspan="2">Prepare and apply</th> </tr> <tr> <th>New surfaces</th> <th>Redeco-ration</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Prepare and apply		New surfaces	Redeco-ration	A	B	\$	\$	
Prepare and apply											
New surfaces	Redeco-ration										
A	B										
\$	\$										
15235	Proprietary polyurethane coating system to tiled wall surfaces including tile filler.....	139.90	15235								
15236	Ditto to plastered walls and soffits.....	93.30	15236								
	<p>Proprietary elastic acrylic silicon resin colour coating system comprising acrylic emulsion resin sealer coat, textured base coat and vapour permeable textured pattern top coat; sealing and adhesion on different substrates; preventive of water penetration, carbonation damage and salt-damage; fast drying; resistance to alkali, dust and dirt, weather, fungus, mould and algae; and apply all in accordance with the manufacturer's instructions : -</p> <p><i>Per square metre</i></p>	<table border="1"> <thead> <tr> <th colspan="2">Prepare and apply</th> </tr> <tr> <th>New surfaces</th> <th>Redeco-ration</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Prepare and apply		New surfaces	Redeco-ration	A	B	\$	\$	
Prepare and apply											
New surfaces	Redeco-ration										
A	B										
\$	\$										
15237	Proprietary elastic acrylic silicon resin colour coating system to tiled wall surfaces including tile filler.....	118.60	15237								
15238	Ditto to plastered walls and soffits.....	80.00	15238								

Item				Item								
	<p>PROPRIETARY PAINTING SYSTEMS (CONT'D)</p> <p>(Note : - The following Items 15239 to 15245 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)</p> <p>Proprietary fluorine resin coating system primarily made of modified fluorine based resin comprising sealer, base coat, mid-coat and top coat; with texture if specified; with stable properties at low temperature; good workability; water impermeable; resistance to water, alkali, salt, heat, cleaning/wet scrub, humidity and cool-heat cycling, weather, fungus and algae; and apply all in accordance with the manufacturer's instructions : -</p> <p><i>Per square metre</i></p>	<table border="1"> <thead> <tr> <th colspan="2">Prepare and apply</th> </tr> <tr> <th>New surfaces</th> <th>Redeco-ration</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>		Prepare and apply		New surfaces	Redeco-ration	A	B	\$	\$	
Prepare and apply												
New surfaces	Redeco-ration											
A	B											
\$	\$											
15239	Proprietary fluorine resin coating system to tiled wall surfaces including tile filler.....	270.90	277.20	15239								
15240	Ditto to plastered walls and soffits.....	224.60	229.00	15240								
15241	Ditto to metal works.....	212.30	215.30	15241								
	<p>Proprietary elastomeric acrylic waterproofing coating system comprising high strength primer/filler, one coat of acrylic alkali resisting primer and two coats of acrylic water resistance top coat; with good hardness and dynamic anti-crack properties; strong adhesion and protection; good hiding power; good light fastness; quick drying; resistance to water, alkali, fungus and algae; and apply all in accordance with the manufacturer's instructions : -</p> <p><i>Per square metre</i></p>	<table border="1"> <thead> <tr> <th colspan="2">Prepare and apply</th> </tr> <tr> <th>New surfaces</th> <th>Redeco-ration</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>		Prepare and apply		New surfaces	Redeco-ration	A	B	\$	\$	
Prepare and apply												
New surfaces	Redeco-ration											
A	B											
\$	\$											
15242	Proprietary elastomeric acrylic waterproofing coating system to tiled wall surfaces including tile filler.....	140.20	141.20	15242								
15243	Ditto to plastered walls and soffits.....	97.80	99.40	15243								
	<p>Proprietary waterproofing coating system comprising water based acrylic co-polymer waterproof membrane with high quality pigmentation; with properties of high opacity; resistance to weathering and CO₂; and apply all in accordance with the manufacturer's instructions : -</p> <p><i>Per square metre</i></p>	<table border="1"> <thead> <tr> <th colspan="2">Prepare and apply</th> </tr> <tr> <th>New surfaces</th> <th>Redeco-ration</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>		Prepare and apply		New surfaces	Redeco-ration	A	B	\$	\$	
Prepare and apply												
New surfaces	Redeco-ration											
A	B											
\$	\$											
15244	Proprietary waterproofing coating system to tiled wall surfaces including tile filler.....	161.20	166.60	15244								
15245	Ditto to plastered walls and soffits.....	119.90	122.60	15245								

Item			Item
PROPRIETARY FLOOR COATING SYSTEM			
(Note : - The following Items 15246 to 15251 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)			
<i>Per square metre</i>		A \$	
15246	Proprietary floor hardener protection coating and sealer system to concrete or rendered surface or natural stone tiles, clear colour to floor in accordance with the manufacturer's instructions. The system shall increase the abrasion resistance of the floor surface by minimum of 400% and also provide chemical resistance and dusting prevention. The system shall include (1) penetration treatment with water based liquid comprising blend of metallic silico fluorides with absorption and penetration agent, and (2) a final protection top coat.....	112.40	15246
15247	Ditto but of coloured floor protection coating and sealer system.....	148.90	15247
Proprietary floor coating system comprising minimum 2 coats of solvent based epoxy resin floor coating, capable to provide slip resistance of appropriate coefficient of friction, on concrete floor or rendering floor including primer, all necessary surface preparation and use of compatible primer, complying with DIN 51130 and in strict accordance with the manufacturer's recommendation :-			
<i>Per square metre</i>		A \$	
15248	On floors.....	163.90	15248
15249	On floors with non-slip aggregate (fine grade) to achieve non-slip surfaces.....	167.00	15249
Proprietary epoxy self-levelling heavy duty floor coating system comprising epoxy floor primer, solvent free epoxy undercoat and epoxy floor paint, on concrete floor or rendering floor, all necessary surface preparation and use of compatible primer, in strict accordance with the manufacturer's recommendation :-			
<i>Per square metre</i>		A \$	
15250	On floors.....	216.00	15250
Proprietary fast-cure anti-skid slurry coating, 1mm thick, with calcined bauxite including applying compatible sealer to existing tiled surface in accordance with the manufacturer's recommendation :-			
<i>Per linear metre</i>		A \$	
15251	On nosing tile upto 100 mm wide.....	129.30	15251

Item			Item						
	PROPRIETARY PROTECTIVE COATING SYSTEM TO FAIR-FACE CONCRETE								
	(Note : - The following Items 15252 to 15253 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)								
	Proprietary colorless protective coating system (Type A) of silane-based (isobutyl-triethoxy-silane) water repellent material comprising primer coat and surface treatment, impregnation coating and top coat, on fair-face concrete surfaces; complying with BS EN 1504-2, all in accordance with the manufacturer's instructions : -								
	<i>Per square metre</i>	A \$							
15252	On walls.....	90.70	15252						
	Proprietary translucent protective coating system (Type B) of mineral silicate paint (or mineral sol-silicate paint) water repellent material comprising primer coat and surface treatment, one base coat, intermediate coat and top coat, on fair-face concrete surfaces; complying with DIN 18363 and BS EN 1504-2, all in accordance with the manufacturer's instructions : -								
	<i>Per square metre</i>	A \$							
15253	On walls.....	132.70	15253						
	PROPRIETARY PAINTWORK TO SPORT HALL FLOORING SYSTEM								
	Proprietary paintwork to sport hall flooring system all in accordance with the manufacturer's recommendations : -								
	<i>Per square metre</i>	<table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2">Prepare and apply</th> </tr> <tr> <th>New surface</th> <th>Redecoration</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A \$</td> <td style="text-align: center;">B \$</td> </tr> </tbody> </table>		Prepare and apply		New surface	Redecoration	A \$	B \$
Prepare and apply									
New surface	Redecoration								
A \$	B \$								
15254	General surface.....	46.10	57.40	15254					
	Proprietary line marking to sport hall flooring system all in accordance with the manufacturer's recommendations : -								
	<i>Per linear metre</i>								
15255	Line n.e. 25 mm wide.....	30.30	37.40	15255					
15256	Ditto but 25 - 50 mm wide.....	34.10	44.60	15256					
15257	Ditto but 50 - 75 mm wide.....	38.20	50.40	15257					
	PROPRIETARY WALL PAINT FOR SQUASH COURT								
	Prepare and apply proprietary paint for squash court all in accordance with the manufacturer's instruction : -								
	<i>Per square metre</i>	A \$							
15258	On walls, columns, vertical surfaces, soffits or sloping soffits including beams and the like.....	169.10	15258						

Item			Item																														
	RE-ENAMEL PAINT ON SURFACE OF BATH TUB																																
	Prepare and apply re-enamel paint on the following : -																																
	<i>Per number</i>	A \$																															
15259	Exposed surfaces of bath tub of any sizes and any type.....	828.00	15259																														
	WRITING																																
	Mark out and paint the following letters, etc., in one or more thick coats of synthetic paint as necessary to obtain bold and solid result, free from brush marks or obliterate existing including scraping or stripping off letter and touching up paint to match general surface (in the case of repaint over or obliterate existing writing, not measurable if surrounding surface being re-painted) : -																																
	<i>Each</i>																																
		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:33%;">Paint new</th> <th style="width:33%;">Re-paint over existing</th> <th style="width:33%;">Obliterate existing</th> </tr> <tr> <th style="text-align:center;">A \$</th> <th style="text-align:center;">B \$</th> <th style="text-align:center;">C \$</th> </tr> </thead> <tbody> <tr> <td style="text-align:center;">7.50</td> <td style="text-align:center;">9.00</td> <td style="text-align:center;">10.80</td> </tr> <tr> <td style="text-align:center;">8.50</td> <td style="text-align:center;">10.60</td> <td style="text-align:center;">12.10</td> </tr> <tr> <td style="text-align:center;">9.80</td> <td style="text-align:center;">10.70</td> <td style="text-align:center;">16.10</td> </tr> <tr> <td style="text-align:center;">13.00</td> <td style="text-align:center;">18.50</td> <td style="text-align:center;">19.10</td> </tr> <tr> <td style="text-align:center;">15.70</td> <td style="text-align:center;">19.10</td> <td style="text-align:center;">20.50</td> </tr> <tr> <td style="text-align:center;">12.60</td> <td style="text-align:center;">14.30</td> <td style="text-align:center;">18.40</td> </tr> <tr> <td style="text-align:center;">25.00</td> <td style="text-align:center;">29.60</td> <td style="text-align:center;">38.30</td> </tr> <tr> <td style="text-align:center;">39.00</td> <td style="text-align:center;">43.80</td> <td style="text-align:center;">52.40</td> </tr> </tbody> </table>	Paint new	Re-paint over existing	Obliterate existing	A \$	B \$	C \$	7.50	9.00	10.80	8.50	10.60	12.10	9.80	10.70	16.10	13.00	18.50	19.10	15.70	19.10	20.50	12.60	14.30	18.40	25.00	29.60	38.30	39.00	43.80	52.40	
Paint new	Re-paint over existing	Obliterate existing																															
A \$	B \$	C \$																															
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12.60	14.30	18.40																															
25.00	29.60	38.30																															
39.00	43.80	52.40																															
15260	Letter, number, Chinese character, logo, symbol and the like, n.e. 25 mm high.....		15260																														
15261	Ditto but 25 - 75 mm high.....		15261																														
15262	Ditto but 75 - 150 mm high.....		15262																														
15263	Ditto but 150 - 225 mm high.....		15263																														
15264	Ditto but 225 - 300 mm high.....		15264																														
15265	Index hand or arrow n.e. 300 mm long.....		15265																														
15266	Ditto but 300 - 600 mm long.....		15266																														
15267	Ditto but 600 - 900 mm long.....		15267																														
	Extra over either of Items 15260 to 15267 inclusive for gold gilding in lieu of synthetic paint.....	50%																															

Item				Item	
	PAPER HANGING				
	Supply and fix approved wall paper : -				
		Plain fabric backed vinyl cloth	Textured vinyl cloth	Vinyl with paper backed	
	<i>Per square metre</i>	A \$	B \$	C \$	
15268	Wall paper to plastered surfaces.....	67.50	87.00	40.50	15268
15269	Ditto but to gypsum plasterboard surfaces.....	67.00	86.30	37.90	15269
15270	Ditto but to plywood surfaces.....	66.00	83.10	37.90	15270
15271	Wall paper of self-adhesive type to plastered surfaces.....	71.90	99.10	37.30	15271
15272	Ditto but to gypsum plasterboard surfaces.....	62.80	95.10	35.40	15272
15273	Ditto but to plywood surfaces.....	62.80	95.10	35.40	15273
15274	Hang only wall paper to plastered surfaces.....	25.40	25.40	25.40	15274
15275	Ditto but to gypsum plasterboard surfaces.....	25.10	25.10	25.10	15275
15276	Ditto but to plywood surfaces.....	23.50	23.50	23.50	15276
15277	Hang only wall paper of self-adhesive type to plastered surfaces.....	20.00	20.00	20.00	15277
15278	Ditto but to gypsum plasterboard surfaces.....	16.70	16.70	16.70	15278
15279	Ditto but to plywood surfaces.....	16.70	16.70	16.70	15279
	MISCELLANEOUS ITEMS				
	<i>Per square metre</i>			A \$	
15280	Completely strip off existing washable distemper, anti-mould washable distemper, plastic emulsion paint, anti-mould acrylic emulsion paint, textured emulsion paint, cement paint, textured cement paint, cold cure epoxy paint and polyurethane paint by scraping or other approved means.....			17.10	15280
15281	Completely strip off existing synthetic, metallic, heat resisting, polyurethane or similar type of paint or varnish (any number of coats) or lacquer on any surface by scraping combined with burning off, or using chemical solvents if necessary, and leaving surface bare and clean, including washing down with neutralizing solution if chemical solvents have been used.....			18.50	15281
15282	Completely strip off existing wall paper by scraping or other approved means (not measurable if backing being removed in the same operation).....			11.40	15282
15283	Extra over painting of any description for applying first or any subsequent coat by means of electrical or petrol driven compressed spraying plant, including all masking, etc., when specifically ordered by the Maintenance Surveyor in writing..... (This item shall not be paid for, if requested by the Contractor and is permitted to execute painting by spraying.)			1.80	15283
15284	Stipple last coat of paint of any description on any surface when specifically ordered by the Maintenance Surveyor in writing.....			14.20	15284
15285	Frost glass with one coat of paint to imitate ground glass (glazing bars not deducted).....			20.70	15285
15286	Wash down new or existing surface with anti-mould liquid before decorating or re-decorating.....			7.10	15286
15287	Prepare new or existing wall or ceiling surface and apply one liberal coat of silicone water repellent liquid.....			21.20	15287
15288	Ditto but two coats ditto.....			27.30	15288

Item			Item
HIGH PRESSURE WATER JET CLEANING			
(Note : - The following Items 15289 to 15292 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing. Normal cleaning up and removal of paint stains, etc., after execution of decoration or any other work, have been allowed for in the rates throughout this Schedule.)			
<i>Per square metre</i>		A \$	
15289	Clean fair-face concrete, either bare surfaces or surfaces with protective coating, or painted surfaces, and remove stains with water applied using high pressure washer or high pressure water jet.....	8.50	15289
15290	Add to Item 15289 for using proprietary multi-purpose cleansing agent all in accordance with the manufacturer's instructions.....	1.20	15290
15291	Clean stonework or Shanghai plaster with approved chemical stone cleaning solution and thoroughly wash off with water applied using high pressure water jet.....	10.20	15291
15292	Seal cleaned stonework or Shanghai plaster with approved chemical stone sealer and thoroughly wash off surplus with water applied using high pressure water jet.....	13.30	15292
SUNDRY CLEANING AND SEALING ITEMS			
(Note : - The following Items 15293 to 15303 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing. Normal cleaning up and removal of paint stains, etc., after execution of decoration or any other work, have been allowed for in the rates throughout this Schedule.)			
<i>Per square metre</i>		A \$	
15293	Thoroughly scrub and wash down surfaces of Shanghai plaster in any position with stiff hard bristle brushes and detergent in hot or cold water, and rinse down with fresh water and leave clean and free from dirt, stains and the like.....	10.00	15293
15294	Scrub clean existing terrazzo or rubbed granolithic paving, covering, skirting, etc., in any position with non-caustic fine scouring powder and water, and rinse down with fresh water.....	15.50	15294
15295	Add to Item 15294 for rubbing with carborandum blocks.....	20.20	15295
15296	Apply one coat of wax emulsion to surfaces of terrazzo or rubbed granolithic after cleaning.....	10.80	15296
15297	Clean surfaces of thermo-plastic, vinyl, cork and similar flooring with detergent in water including scrubbing with soft bristle brushes if necessary, and mopping over surface with damp mop afterwards.....	4.40	15297
15298	Apply one coat of wax emulsion to surfaces of thermo-plastic, vinyl, cork and similar flooring after cleaning, and buff up.....	3.30	15298
15299	Sweep surface of cork flooring clean and apply two coats of approved sealer.....	8.20	15299
15300	Scrub and clean surfaces of glazed or mosaic wall or floor tiling with solution of warm water and 10% hydrochloric or oxalic acid, and rinse with fresh water.....	4.90	15300
15301	Scrub and clean surfaces of vitreous or glass mosaic tiles in any position with approved cleaning solution, rinse down with fresh water.....	6.30	15301
15302	Clean down synthetic painted or varnished surfaces with soft soap or suitable detergent and water, with admixture of disinfectant if required, and dry off with wash leather.....	5.70	15302
15303	Scrub and clean surfaces of efflorescence contamination with approved organic acid detergent, remove the fixed contamination by brushing including clean by water jet and applying one coat of water-borne silicone resin glass-membrane type coating on top of the existing facing tiles.....	111.70	15303

Item	Item
SUPPLY ONLY OF MATERIALS	
<i>Per litre</i>	
15304	15304
Emulsion paint.....	25.20
15305	15305
Textured emulsion paint.....	41.80
15306	15306
Cold cured epoxy paint (coloured) (Two pack type).....	65.40
15307	15307
External textured paint.....	40.90
15308	15308
Anti-mould acrylic emulsion paint.....	50.80
15309	15309
Multi-colour paint - Primer.....	45.20
15310	15310
Ditto - binder.....	65.30
15311	15311
Ditto - Finishing coat.....	97.20
15312	15312
Synthetic paint - Undercoat.....	38.30
15313	15313
Ditto - Gloss finishing coat.....	40.80
15314	15314
Metallic paint - Aluminium bright finish.....	77.70
15315	15315
Ditto - Copper alloy bronze finish.....	77.70
15316	15316
Non-toxic paint.....	93.50
15317	15317
Polyurethane paint (coloured) (Two pack type).....	80.50
15318	15318
Polyurethane paint (clear) (Ditto).....	87.70
<i>Per square metre</i>	
15319	15319
Wall paper - Vinyl with paper backed.....	22.00
15320	15320
Ditto - Vinyl with paper backed of self-adhesive type.....	20.70
15321	15321
Ditto - Plain fabric backed vinyl cloth.....	39.90
15322	15322
Ditto - Plain fabric backed vinyl cloth of self-adhesive type.....	46.20
15323	15323
Ditto - Textured vinyl cloth.....	57.20
15324	15324
Ditto - Textured vinyl cloth of self-adhesive type.....	100.40

Section 16

REPAIRS AND ALTERATIONS TO SPECIALTY WORKS

SECTION 16

REPAIRS AND ALTERATIONS TO SPECIALTY WORKS

SPECIAL CONDITIONS

**Measurement
of repairs
and alterations
generally**

- SC16.01** This Section contains composite items for repairs and alterations to specialty works which shall only be measured and paid for using rates of this Section provided that the following conditions are met : -
- (a) The Maintenance Surveyor specifically orders that the repairs and alterations to specialty works shall be executed by specialist's skilled labourers or tradesmen in the manner and method as recommended and accepted by the manufacturers;
 - (b) Submission of documentary evidence from the manufacturers of the proprietary systems/products of the specialty works to the Maintenance Surveyor demonstrating their compliance with the manufacturer's recommendations as stated in item (a) above; and
 - (c) Submission of the proprietary systems/products for the repair and alteration works, and/or the method statements of taking down, setting aside, repairs, alterations and re-fixing or re-installation of the proprietary systems/products shall be in accordance with the requirements as set out in the Specification; and in the absence of any specific requirements, then the manufacturer's recommended methods. All proprietary systems /products and/or method statements shall be approved by the Maintenance Surveyor prior to commencement of works.

No measurement and payment shall be made under this Section if the repair to the proprietary system/product is resulted from any of the cause(s) that is(are) covered under the product warranty of the said system/product during the warranty period.

- SC16.02** All repair and alteration items under this Section shall be measured as finished work in place unless specifically provided otherwise.
- All composite items in this Section shall be measured as a whole item and shall not be broken down and measured in constituent components, and rates for any constituent components in the composite items that could be found in other Sections of the Schedule shall not be permitted to apply to the valuation of the composite items, unless with the written approval of the Maintenance Surveyor.

**Measurement
of concrete
repair by patch
repair**

- SC16.03** The area for concrete repair by patch repair shall be measured as net area over the cracked, spalled or bulged surface and agreed by the Maintenance Surveyor.
- Where the shortest distance between two isolated patches does not exceed 300 mm, the total area of these isolated patches shall be added together and measured as one whole patch area.
- No deduction shall be made for any voids not exceeding 0.50 m².

SPECIAL CONDITIONS

Measurement of concrete repair by patch repair (Cont'd)	SC16.03 (Cont'd)	Where specifically instructed by the Maintenance Surveyor, finishing the repaired surfaces with rendering or tiles or repainting the affected areas shall be measured and valued separately under Section 11 - Plastering and Finishes or Section 15 - Painting.
Measurement of concrete repair by chemical injection	SC16.04	Injection type of concrete repair work shall be measured the net length of the crack where drillholes or injection ports are placed along the crack (crack exceeding 150 mm long) at 150 - 200 mm centres. Only crack with drillhole(s) or port(s) placed along shall be measured. The net length of crack n.e. 200 mm shall only be measured when at least one drillhole or port is placed along the crack. All continuous cracks without any drillhole or port shall deem to be covered by the measurement of the crack with drillhole(s) or port(s).
Measurement of patch repair of proprietary roofing system and floor waterproofing system	SC16.05	<p>The area for patch repair to proprietary roofing system and floor waterproofing system shall be measured net over the exposed finished top surface of the patch to be repaired.</p> <p>No deduction shall be made for any voids and openings not exceeding 0.50 m².</p> <p>Measurement of patch repair under this Section shall not apply in the case of complete re-application of new roofing and floor waterproofing of which the measurement shall be made under Section 07 - Roofing and Waterproofing.</p>
Measurement of repair to proprietary solid surfacing materials	SC16.06	Repair to proprietary solid surfacing materials shall be measured as the net plane area of the damaged surfacing to be replaced, or minor cracks and scratches at surfacing to be re-finished, both inclusive of fittings. The area to be measured shall be identified using marked out photographic record and agreed by the Maintenance Surveyor. The area of any bullnose and inlay shall not be measured. No deduction shall be made for voids and openings not exceeding 0.50 m ² .
Rates for concrete repair by patch repair	SC16.07	<p>The rates for concrete repair by patch repair shall include for : -</p> <ul style="list-style-type: none"> (a) Submission of method statement supported by drawings showing different phases of repair works and details of the temporary works employed. (b) Submission of the product information of the proposed Repair Mortar System (RMS) to be used including relevant test certificates showing compliance with the material requirements of the Contract. (c) Marking out of the identified areas of bulged, spalled or cracked concrete to be repaired and obtaining agreement of the Maintenance Surveyor prior to commencement of repair work. (d) Preparation of a sample area to be patch repaired. (e) Hacking back defective concrete areas and cutting back all loose or defective concrete including saw cutting into the required depth and into neat rectangular shape, to the extent as given in the Contract and as directed by the Maintenance Surveyor.

SPECIAL CONDITIONS

**Rates for
concrete repair
by patch repair
(Cont'd)**

**SC16.07
(Cont'd)**

- (f) Preparation of concrete substrate after breaking out defective concrete, roughening surfaces to expose aggregate of concrete areas and removing loose materials, ready to receive repair mortar.
- (g) Applying admixtures for use in any type of mortar complying with B.S. 4887 Pt.2: 1987, B.S. 5075 Pt. 1: 1982, B.S. 5075 Pt.3: 1985 or other approved standards.
- (h) Applying curing compound to the repair mortar in accordance with the manufacturer's instructions.
- (i) Applying approved epoxy resin, polyesters or cementitious based material as grout to dowel bar installation.
- (j) Preparation and cleaning of exposed lengths of existing steel reinforcement using one of the cleaning methods as given in the Contract and as directed by the Maintenance Surveyor.
- (k) Applying primer and bond coat to concrete substrate and steel reinforcement.
- (l) Preparing and applying the RMS in accordance with the manufacturer's instructions.
- (m) Carrying out tests all in accordance with the Specification as adopted in the Contract by the PWL/AL and submission of test reports as General Regulations Clause GR.10(m).
- (n) Submission of repair records upon completion.
- (o) Making good repaired surfaces and affected areas to match existing or to prepare the surfaces for receiving finishes or paint works when separately instructed by the Maintenance Surveyor.

**Rates for
concrete repair
by chemical
injection**

SC16.08

The rates for concrete repair by chemical injection shall include for : -

- (a) Provision of a competent full time site supervisor of minimum 3 years of supervision experience of concrete repair by chemical injection.
- (b) Submission of method statement supported by a proposal of field trial testing, controlling attributes on suitability and injectability of the proposed chemical injection system, and details of the temporary works employed together with drawings and calculations.
- (c) Submission of the product information of the proposed chemical injection system to be used including relevant test certificates showing compliance with the material requirements of the Contract, material safety data sheets showing hazards of the materials and control measures and other information as required.
- (d) Marking out the locations and extent of cracks to be repaired and obtaining agreement of the Maintenance Surveyor prior to commencement of repair work.
- (e) Preparation of cracks by removing all loose debris by brushing or blowing out with clean compressed air, removing all defective concrete, and making good all reinforcing bars before injection.

SPECIAL CONDITIONS

**Rates for
concrete repair
by chemical
injection
(Cont'd)**

**SC16.08
(Cont'd)**

- (f) Carrying out drilling of injection holes into concrete and applying the chemical injection in accordance with the manufacturer's instructions.
- (g) Carrying out tests all in accordance with the Specification as adopted in the Contract by the PWL/AL and submission of test reports as General Regulations Clause GR.10(m).
- (h) Submission of repair records upon completion.
- (i) Making good repaired surfaces and affected areas to match existing including repairing existing finishes or repainting.

**Rates for
patch repair to
proprietary
roofing system
and floor
waterproofing
system**

SC16.09

The rates for patch repair to proprietary roofing system and floor waterproofing system shall include for : -

- (a) Carrying out the repairs in patches or isolated areas.
- (b) Roofing or waterproofing to flat, sloping or curved roofs or floors.
- (c) Inspection, preparing, cleaning and drying surfaces including removing all contaminants, dusts, loose stones, debris and the like.
- (d) Dressing to sides or ends of upstands, gutters, flashings, skirtings, edge coverings, steps and the like, including angles, junctions, turn-in edges, welded drips and the like all in accordance with the manufacturer's instructions.
- (e) Making good surfaces of substrate including filling cracks with bitumen emulsion or any other materials recommended by the manufacturer's recommendations.
- (f) Carrying out the necessary tests in accordance with the Specification and/or the manufacturer's recommendation, all to the satisfaction of the Maintenance Surveyor.
- (g) Replacement of roofing and floor waterproofing installation if failing in the non-destructive test.
- (h) Providing protective boarding in accordance with the manufacturer's instructions.
- (i) Providing all reports and maintenance manuals upon completion.

**Rates for
repair to
proprietary
solid surfacing
materials**

SC16.10

The rates for repair to proprietary solid surfacing materials shall include for : -

- (a) Marking out the identified areas of solid surfacing materials to be replaced or refinished and obtaining agreement of the Maintenance Surveyor prior to commencement of repair work.
- (b) Carrying out the repairs in patches and isolated areas.

SPECIAL CONDITIONS

Rates for repair to proprietary solid surfacing materials (Cont'd)

SC16.10 (Cont'd)

- (c) For repair of damaged solid surfacing materials, cutting out and removing the damaged material including removal of all debris, dusts and the like, followed by cleaning the surfaces and re-filling or replacement with new compatible solid surfacing material of the same colour and pattern including bonding and jointing materials recommended by the manufacturer.
- (d) For removal of minor cracks or scratches in solid surfacing materials, using recommended agent to wash, clean and rub thoroughly until the cracks or scratches disappear, including filling cracks with materials recommended by the manufacturer as required.
- (e) Sanding and polishing the repaired surfaces including the affected areas to match existing.
- (f) Finishing and cleaning the repaired surfaces including the affected areas on completion.
- (g) Submission of repair records and site photographs upon completion.

Rates for repairs and alterations to existing proprietary demountable partition system

SC16.11

The rates for repairs and alterations to existing proprietary demountable partition system shall include for : -

- (a) Taking down, clearing away, setting aside for re-use and/or fixing existing partitions including framing, panels, covering materials, etc., as recommended by the manufacturer and the rate inclusion items as stated in General Regulations Clauses GR.15 to GR.17.
- (b) Replacement and provision of new compatible fittings and fixing accessories including additional accessories as necessary.
- (c) Modifying existing openings, finishes or covering to suit actual site conditions.
- (d) Multi-handling and delivery between the designated locations and storage area as directed.
- (e) Proper protection to the partitions, framing, fittings and accessories for storage and re-use.
- (f) Modifications on existing framing including provisions of additional framing as required.
- (g) Making good surfaces disturbed.

Rates for "fix only" of existing fully glazed or partly glazed demountable partition

SC16.12

The rates for "fix only" of existing fully glazed or partly glazed demountable partition shall include for : -

- (a) Replacement of any glazing panel if damaged when carrying out repair and alteration to the demountable partition.

SPECIAL CONDITIONS

Rates for repairs and alterations to existing proprietary fume cupboards

SC16.13

The rates for repairs and alterations to existing proprietary fume cupboards shall further include for : -

- (a) Taking down, clearing away, setting aside for re-use and/or fixing existing fume cupboards including all fittings, components, services connections, etc., as recommended by the manufacturer and the rate inclusion items as stated in General Regulations Clauses GR.15 to GR.17.
- (b) Replacement and provision of new compatible fittings and fixing accessories including additional accessories as necessary and provision of any ancillary works as may be required by the manufacturer.
- (c) Replacement of any glazing panel if damaged when carrying out repair and alteration to the fume cupboards.
- (d) Provision of connection to nearest power point by registered electrical workers.
- (e) Making good surfaces disturbed.
- (f) Carrying out testing and commissioning to the satisfaction of the Maintenance Surveyor.

Rates for repairs to existing proprietary automatic swing or sliding doors

SC16.14

The rates for repairs to existing proprietary automatic swing or sliding doors shall further include for : -

- (a) Taking down, clearing away, setting aside for re-use and/or fixing existing automatic swing or sliding doors including door frames, door operator, automatic mechanism, interlocking devices and all necessary accessories, ironmongeries and the like, as recommended by the manufacturer and the rate inclusion items as stated in General Regulations Clauses GR.15 to GR.17.
- (b) Replacement and provision of new compatible fittings and fixing accessories including additional accessories as necessary, provision of any ancillary works as may be required by the manufacturer.
- (c) Replacement of any glazing panel if damaged when carrying out repair to the automatic swing or sliding doors.
- (d) Provision of connection to nearest power point by registered electrical workers.
- (e) Making good surfaces disturbed.
- (f) Carrying out testing and commissioning to the satisfaction of the Maintenance Surveyor.

Item		Thickness (mm)				Item												
	(Note :- The following Items 16001 to 16002 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)	10 - 20	20 - 40	40 - 60	exc. 60													
	<i>Per square metre</i>	A	B	C	D													
		\$	\$	\$	\$													
16001	<p>Prepare and apply proprietary pre-bagged or site batched Class 25 polymer modified concrete repair mortar to existing concrete substrate complying with the following specification including breaking out and preparation of surfaces, preparation and cleaning of existing steel reinforcement, both using methods as specified; applying prime coat to steel reinforcement; applying bond coat to concrete substrate and primed steel reinforcement; carrying out field trial test, works test, testing on grouted dowel bars and completed patch repairs, etc. all in accordance with the manufacturer's instructions :-</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Compressive strength at 28 days</td> <td style="padding: 2px;">20 - 40 MPa</td> </tr> <tr> <td style="padding: 2px;">Minimum tensile strength at 7 days</td> <td style="padding: 2px;">1.5 MPa</td> </tr> <tr> <td style="padding: 2px;">Elastic modulus at 28 days</td> <td style="padding: 2px;">9 - 15 kN/mm²</td> </tr> <tr> <td style="padding: 2px;">Minimum bond strength at 7 days</td> <td style="padding: 2px;">1.5 MPa</td> </tr> <tr> <td style="padding: 2px;">Cracking during the Coutinho ring test at 7 days</td> <td style="padding: 2px;">0</td> </tr> <tr> <td style="padding: 2px;">Minimum figg air permeability in seconds</td> <td style="padding: 2px;">150</td> </tr> </table>	Compressive strength at 28 days	20 - 40 MPa	Minimum tensile strength at 7 days	1.5 MPa	Elastic modulus at 28 days	9 - 15 kN/mm ²	Minimum bond strength at 7 days	1.5 MPa	Cracking during the Coutinho ring test at 7 days	0	Minimum figg air permeability in seconds	150	521.20	728.50	904.60	1,144.70	16001
Compressive strength at 28 days	20 - 40 MPa																	
Minimum tensile strength at 7 days	1.5 MPa																	
Elastic modulus at 28 days	9 - 15 kN/mm ²																	
Minimum bond strength at 7 days	1.5 MPa																	
Cracking during the Coutinho ring test at 7 days	0																	
Minimum figg air permeability in seconds	150																	
16002	<p>Prepare and apply proprietary pre-bagged or site batched Class 40 polymer modified concrete repair mortar to existing concrete substrate complying with the following specification including breaking out and preparation of surfaces, preparation and cleaning of existing steel reinforcement, both using methods as specified; applying prime coat to steel reinforcement; applying bond coat to concrete substrate and primed steel reinforcement; carrying out field trial test, works test, testing on grouted dowel bars and completed patch repairs, etc. all in accordance with the manufacturer's instructions :-</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Compressive strength at 28 days</td> <td style="padding: 2px;">30 - 60 MPa</td> </tr> <tr> <td style="padding: 2px;">Minimum tensile strength at 7 days</td> <td style="padding: 2px;">2.0 MPa</td> </tr> <tr> <td style="padding: 2px;">Elastic modulus at 28 days</td> <td style="padding: 2px;">15 - 25 kN/mm²</td> </tr> <tr> <td style="padding: 2px;">Minimum bond strength at 7 days</td> <td style="padding: 2px;">2.0 MPa</td> </tr> <tr> <td style="padding: 2px;">Cracking during the Coutinho ring test at 7 days</td> <td style="padding: 2px;">0</td> </tr> <tr> <td style="padding: 2px;">Minimum figg air permeability in seconds</td> <td style="padding: 2px;">200</td> </tr> </table>	Compressive strength at 28 days	30 - 60 MPa	Minimum tensile strength at 7 days	2.0 MPa	Elastic modulus at 28 days	15 - 25 kN/mm ²	Minimum bond strength at 7 days	2.0 MPa	Cracking during the Coutinho ring test at 7 days	0	Minimum figg air permeability in seconds	200	546.50	753.20	924.40	1,167.60	16002
Compressive strength at 28 days	30 - 60 MPa																	
Minimum tensile strength at 7 days	2.0 MPa																	
Elastic modulus at 28 days	15 - 25 kN/mm ²																	
Minimum bond strength at 7 days	2.0 MPa																	
Cracking during the Coutinho ring test at 7 days	0																	
Minimum figg air permeability in seconds	200																	

Item		Thickness (mm)		Item												
		40 - 60	exc. 60													
		A	B													
		\$	\$													
CONCRETE REPAIR BY PATCH REPAIR (CONT'D)																
(Note :- The following Items 16003 to 16005 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)																
<i>Per square metre</i>																
16003	<p>Prepare and apply proprietary pre-bagged or site batched Class 25 high-build polymer modified concrete repair mortar to existing concrete substrate complying with the following specification including breaking out and preparation of surfaces, preparation and cleaning of existing steel reinforcement, both using methods as specified; applying prime coat to steel reinforcement; applying bond coat to concrete substrate and primed steel reinforcement; carrying out field trial test, works test, testing on grouted dowel bars and completed patch repairs, etc. all in accordance with the manufacturer's instructions :-</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Compressive strength at 28 days</td> <td>20 - 40 MPa</td> </tr> <tr> <td>Minimum tensile strength at 7 days</td> <td>1.5 MPa</td> </tr> <tr> <td>Elastic modulus at 28 days</td> <td>9 - 15 kN/mm²</td> </tr> <tr> <td>Minimum bond strength at 7 days</td> <td>1.5 MPa</td> </tr> <tr> <td>Cracking during the Coutinho ring test at 7 days</td> <td>0</td> </tr> <tr> <td>Minimum figg air permeability in seconds</td> <td>150</td> </tr> </table>	Compressive strength at 28 days	20 - 40 MPa	Minimum tensile strength at 7 days	1.5 MPa	Elastic modulus at 28 days	9 - 15 kN/mm ²	Minimum bond strength at 7 days	1.5 MPa	Cracking during the Coutinho ring test at 7 days	0	Minimum figg air permeability in seconds	150	918.20	1,158.40	16003
Compressive strength at 28 days	20 - 40 MPa															
Minimum tensile strength at 7 days	1.5 MPa															
Elastic modulus at 28 days	9 - 15 kN/mm ²															
Minimum bond strength at 7 days	1.5 MPa															
Cracking during the Coutinho ring test at 7 days	0															
Minimum figg air permeability in seconds	150															
16004	<p>Prepare and apply proprietary pre-bagged or site batched Class 40 high-build polymer modified concrete repair mortar to existing concrete substrate complying with the following specification including breaking out and preparation of surfaces, preparation and cleaning of existing steel reinforcement, both using methods as specified; applying prime coat to steel reinforcement; applying bond coat to concrete substrate and primed steel reinforcement; carrying out field trial test, works test, testing on grouted dowel bars and completed patch repairs, etc. all in accordance with the manufacturer's instructions :-</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Compressive strength at 28 days</td> <td>30 - 60 MPa</td> </tr> <tr> <td>Minimum tensile strength at 7 days</td> <td>2.0 MPa</td> </tr> <tr> <td>Elastic modulus at 28 days</td> <td>15 - 25 kN/mm²</td> </tr> <tr> <td>Minimum bond strength at 7 days</td> <td>2.0 MPa</td> </tr> <tr> <td>Cracking during the Coutinho ring test at 7 days</td> <td>0</td> </tr> <tr> <td>Minimum figg air permeability in seconds</td> <td>200</td> </tr> </table>	Compressive strength at 28 days	30 - 60 MPa	Minimum tensile strength at 7 days	2.0 MPa	Elastic modulus at 28 days	15 - 25 kN/mm ²	Minimum bond strength at 7 days	2.0 MPa	Cracking during the Coutinho ring test at 7 days	0	Minimum figg air permeability in seconds	200	938.10	1,181.20	16004
Compressive strength at 28 days	30 - 60 MPa															
Minimum tensile strength at 7 days	2.0 MPa															
Elastic modulus at 28 days	15 - 25 kN/mm ²															
Minimum bond strength at 7 days	2.0 MPa															
Cracking during the Coutinho ring test at 7 days	0															
Minimum figg air permeability in seconds	200															
<i>Per square metre</i>																
16005	<p>Prepare and apply proprietary shrink resistant mortar consisting a mixture of cement, aggregate, water and a shrink resistant admixture, to existing concrete substrate complying with the following specification including breaking out and preparation of surfaces, preparation and cleaning of existing steel reinforcement, both using methods as specified; applying prime coat to steel reinforcement; applying bond coat to concrete substrate and primed steel reinforcement; carrying out field trial test, works test, testing on grouted dowel bars and completed patch repairs, etc. all in accordance with the manufacturer's instructions :-</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Minimum compressive strength at 28 days</td> <td>40 MPa</td> </tr> <tr> <td>Elastic modulus at 28 days</td> <td>15 - 25 kN/mm²</td> </tr> <tr> <td>Minimum bond strength at 7 days</td> <td>2.5 MPa</td> </tr> <tr> <td>Range of unrestrained plastic expansion (ASTM C827-16)</td> <td>1 - 4 %</td> </tr> <tr> <td>Maximum drying shrinkage at 28 days</td> <td>50 micro-strain</td> </tr> </table>	Minimum compressive strength at 28 days	40 MPa	Elastic modulus at 28 days	15 - 25 kN/mm ²	Minimum bond strength at 7 days	2.5 MPa	Range of unrestrained plastic expansion (ASTM C827-16)	1 - 4 %	Maximum drying shrinkage at 28 days	50 micro-strain	482.20	653.40	785.20	988.70	16005
Minimum compressive strength at 28 days	40 MPa															
Elastic modulus at 28 days	15 - 25 kN/mm ²															
Minimum bond strength at 7 days	2.5 MPa															
Range of unrestrained plastic expansion (ASTM C827-16)	1 - 4 %															
Maximum drying shrinkage at 28 days	50 micro-strain															

Item

Item

CONCRETE REPAIR BY CHEMICAL INJECTION

(Note :- The following Items 16006 to 16007 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Per linear metre

16006 Prepare and apply proprietary low viscosity high-strength epoxy grout injection to cracks of any size and thickness complying with the following specification including carrying out crack preparation, filling cracks with compatible materials, field trial test, coring test, etc., all in accordance with the manufacturer's instructions :-

Tensile strength at 7 days tested according to ASTM D638-08: or Tensile strength at 7 days tested according to BS 6319-7:	>48.0 MPa, unless for non-load bearing or minor structural elements as to be agreed by the Maintenance Surveyor but shall not be less than 35.0 MPa. >15.0 MPa
Bond strength tested according to ASTM C-882 at 2 days (moist cure) at 14 days (moist cure) or Bond strength tested according to BS EN 12618-2 at 14 days for resin injection systems at 28 days (moist cure) for cementitious injection systems	>7.0 MPa >10.0 MPa >2.0 Mpa >2.0 MPa

Wall surface	Ceiling surface
A	B
\$	\$
435.30	473.20
476.40	509.90

16006

16007 Prepare and apply proprietary flexible polyurethane grout injection to cracks of any size and thickness complying with the following specification including carrying out crack preparation, filling cracks with compatible materials, field trial test, coring test, etc., all in accordance with the manufacturer's instructions :-

Specific gravity at 25 degree Celsius: Elongation: Bond strength @ 24 hours in MPa:	1.1 @ 25 °C > 34 % > 0.28
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16007

Item						Item
	REPAIRS TO PROPRIETARY ROOFING SYSTEM OR FLOOR WATERPROOFING SYSTEM	Sheet material		Liquid applied material		
		requiring protection	self finished	requiring protection	self finished	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
16008	Carry out repair of existing roofing or floor waterproofing system in patches or isolated areas by cutting through the complete thickness of the system, preparing and applying proprietary roofing or floor waterproofing, resealing after inspection and making good disturbed surfaces, all in accordance with the manufacturer's instructions (concrete roof tiles and cement and sand screed are measured separately).....	184.60	227.60	203.00	246.00	16008
					A \$	
16009	Carry out repair of existing roofing or floor waterproofing system in patches or isolated areas by cutting through the complete thickness of the system, preparing and spray applying proprietary waterproofing membrane to the required thickness including all primer and top coat(s) and protection, resealing after inspection and making good disturbed surfaces, all in accordance with the manufacturer's instructions (concrete roof tiles and cement and sand screed are measured separately).....				765.60	16009
					A \$	
	REPAIRS TO PROPRIETARY SOLID SURFACING MATERIALS					
	<i>Per square metre</i>					
16010	Carry out repair of damaged proprietary solid surfacing material by cutting out the damaged surfacing of the full thickness, re-filling and replacement with new compatible material and preparing and finishing surfacing on completion, all in accordance with the manufacturer's instructions.....				2,989.00	16010
16011	Carry out repair of proprietary solid surfacing material by removing minor cracks or scratches including washing, cleaning and rubbing, polishing and sanding to remove cracks and scratches, and preparing and finishing surfacing on completion, all in accordance with the manufacturer's instructions.....				657.80	16011
					A \$	
	REPAIRS TO PROPRIETARY DEMOUNTABLE PARTITION SYSTEMS AND SUNDRY ITEMS	Take down and clear away		Take down and set aside for re-use	Fix only	
	<i>Per square metre</i>	A \$	B \$	C \$		
16012	Proprietary demountable partition system complete with panel covering to both sides of partition, with or without applied finishes, stud framework, infilled sound insulation, fittings and accessories, if any.....	92.30	138.40	217.80		16012
16013	Ditto but fully glazed or partly glazed demountable partition.....	110.70	169.10	261.40		16013
16014	Proprietary demountable partition system as security/fire resisting/fire resisting security partition complete with panel covering to both sides of partition, with or without applied finishes, stud framework, infilled sound insulation, door and accessories, if any.....	110.70	169.10	261.40		16014

Item			Item
	ALTERATION WORKS TO EXISTING PROPRIETARY DEMOUNTABLE PARTITION SYSTEM	Plaster-board panel covering	Plywood/ chipboard panel covering
	<i>Per square metre</i>	A \$	B \$
16015	Replace panel covering 12.5 mm (min.) thick to one side of existing proprietary demountable partition with panel covering finished with vinyl wall paper, fabric sheeting, timber veneer sheeting or laminated plastic sheeting.....	222.40	273.10
	<i>Per square metre</i>		A \$
16016	Alter existing fully glazed or partly glazed demountable partition to double glazed demountable partition with 6 mm thick clear glass.....		600.00
16017	Ditto but with 6 mm thick obscure glass.....		600.30
16018	Ditto but with 6 mm thick wired glass.....		795.30
16019	Ditto but with 6 mm thick clear or coloured tempered glass.....		954.40
16020	Alter existing demountable partition to insert 50 mm thick fibreglass insulation layer (density not less than 16 kg/m ³).....		38.90
16021	Ditto but density 48 kg/m ³		64.00
16022	Forming opening of any size through existing demountable partition including all necessary partition components.....		177.40
	<i>Each</i>		
16023	Scribe infill up to 300 mm wide in 12 mm thick luan plywood to existing window opening for abutting demountable partition of any description and height, and finished to match abutting partition.....		714.00
	REPAIRS TO PROPRIETARY FUME CUPBOARDS		A \$
	<i>Per set</i>		
16024	Take down and clear away existing proprietary fume cupboard of varying dimensions complete with air flow indicator control, safety devices, control and monitoring system, ductwork upto 3 m long, exhaust extraction system and steel support frame, extraction fan, motor and enclosure, worktop, sink, fittings and accessories, and disconnecting and capping off ductwork and nearby power, water and gas services.....		664.00
16025	Take down and set aside for re-use ditto.....		772.00
16026	Fix only existing proprietary fume cupboard of varying dimensions complete with air flow indicator control, safety devices, control and monitoring system, ductwork upto 3 m long, exhaust extraction system and steel support frame, extraction fan, motor and enclosure, worktop, sink, fittings and accessories, and re-connection to ductworks and nearby power, water and gas services.....		1,328.00
16027	Take down and clear away existing proprietary school-type fume cupboard of varying dimensions with two-compartment base storage cupboard and glass panels complete with air flow indicator control, safety devices, control and monitoring system, ductwork upto 3 m long, exhaust extraction system and steel support frame, extraction fan, motor and enclosure, worktop, sink, fittings and accessories, and disconnecting and capping off ductwork and nearby power, water and gas services.....		664.00
16028	Take down and set aside for re-use ditto.....		772.00
16029	Fix only existing proprietary school-type fume cupboard of varying dimensions with two-compartment base storage cupboard and glass panels complete with air flow indicator control, safety devices, control and monitoring system, ductwork upto 3 m long, exhaust extraction system and steel support frame, extraction fan, motor and enclosure, worktop, sink, fittings and accessories, and re-connection to ductworks and nearby power, water and gas services.....		1,328.00

Item			Item
REPAIRS TO EXTENSION DUCTWORK AND EXHAUST FANS TO PROPRIETARY FUME CUPBOARDS			
	<i>Per linear metre</i>	A \$	
16030	Take down and clear away existing 250 mm diameter extension ductwork connecting to exhaust system of proprietary fume cupboard complete with steel support frame and fixing accessories and connectors to exhaust outlet.....	81.90	16030
16031	Take down and set aside for re-use ditto.....	125.80	16031
16032	Fix only existing 250 mm diameter extension ductwork in polypropylene or similar approved materials connecting to exhaust system of proprietary fume cupboard, mounted either on internal or external wall or roof, complete with steel support frame and fixing accessories if required; connectors to exhaust outlet, all necessary builder's works as required; testing and commissioning on completion of the whole exhaust system in conjunction with the proprietary fume cupboard.....	163.90	16032
	<i>Per set</i>		
16033	Take down and clear away existing exhaust fan and motor complete with steel support frame, enclosure for fan and motor, safety devices, control and monitoring panel, connectors to the extended ductwork and exhaust system, and fixing accessories and disconnecting from ductworks.....	110.00	16033
16034	Take down and set aside for re-use ditto.....	165.00	16034
16035	Fix only existing exhaust fan and motor complete with steel support frame, enclosure for fan and motor, fixing accessories, and re-connection to extended ductworks, mounted either on external wall or roof, all necessary safety devices, control and monitoring panel, connectors to the extended ductwork and exhaust system, builder's works as required, including electrical wiring and all connection by a registered electrical worker, and testing and commissioning on completion in conjunction with the proprietary fume cupboard and associated ductworks.....	392.00	16035
REPAIRS TO PROPRIETARY AUTOMATIC SWING OR SLIDING DOOR SYSTEMS			
	<i>Per set</i>	Single leaf door	Double leaf door
		A \$	B \$
16036	Take down and clear away proprietary automatic swing or sliding door system complete with door, frames, hood, tracks, perimeter housing, ironmongery, electrical motor, control unit and associated wiring and electrical devices.....	242.00	392.00
16037	Take down and set aside for re-use proprietary automatic swing or sliding door system complete with door and ironmongery (excluding frames), electrical motor, control unit and associated wiring and electrical devices.....	392.00	588.00
16038	Fix only proprietary automatic swing or sliding door system complete with door and ironmongery (excluding frame) including connection to electrical motor, control unit and associated wiring, and testing and commissioning on completion.....	829.00	1,152.00

Section 17

LABOUR

SECTION 17

LABOUR

SPECIAL CONDITIONS

Payment for labour	SC17.01	Wherever possible, work executed under the Contract shall be measured and paid for as trade items. Payment for labour on an hourly basis shall not be made except in special circumstances where specifically ordered by the Maintenance Surveyor in writing.
Measurement generally	SC17.02	<p>The measurement of labour shall be the aggregate time employed on the item of labour to the nearest hour for any time in a 24-hour day (from 00:00 hour to 24:00 hour on the same day) including all Sundays and General Holidays. No measurement shall be made for meal breaks, rest period and travelling time. The Contractor shall be paid for those labours who are actually at work and ordered by the Maintenance Surveyor in writing.</p> <p>Allowance for overtime work and any cost/expenses incurred therein is deemed to be included in the Contract Percentage(s) applied to the Contract. Reference shall also be made to General Regulations Clauses GR.04 and GR.11.</p> <p>Any lodging and living accommodation allowance, if any, for labours is not reimbursable and shall not be measured separately.</p>
Measurement of special attendance on Building Works and on Building Services Installation	SC17.03	The measurement of special attendance on Building Works and on Building Services Installation shall be the time required for the general worker or electrical fitter to stand-by and to provide any attendance or services as directed by the Maintenance Surveyor in the Works Order.
Rates for labour generally	SC17.04	<p>The rates for labour shall generally include for : -</p> <ul style="list-style-type: none"> (a) Work being in any district. (b) Use and maintenance of hand tools and appliances, non-mechanical plant and equipment (such as ladders, trestles, stages, temporary track, wagons, skips and similar items). (c) Protective clothing and safety equipment. (d) Contractor's site supervision and employee insurance. (e) Meal breaks and rest periods. (f) Contractor's profit, establishment charges and overheads. (g) Allowance for travelling expenses and time to and from the Site. (h) Pager and mobile phone including payment of all charges incurred.

SPECIAL CONDITIONS

**Rates for
labour
generally
(Cont'd)**

**SC17.04
(Cont'd)**

- (i) Contributions to Mandatory Provident Fund.
- (j) Paid leave allowance.
- (k) Any other allowances as required.
- (l) Submission of documentary proof of qualifications, registration, certificates and/or licenses in accordance with the Construction Workers Registration Ordinance (Cap. 583).

**Rates for
Registered
Skilled Worker**

SC17.05

The rates for Registered Skilled Worker shall further include for : -

- (a) Worker who has registered under the Construction Workers Registration Ordinance (Cap. 583) as a registered skilled worker under designated trade division or designated trade division (master) and possess a trade test certificate issued by the Construction Industry Council (CIC) or former Construction Industry Training Authority (CITA) or Vocational Training Council (VTC), or other qualifications as specified by the Ordinance or other recognized registration, certificates or licenses acceptable to the Maintenance Surveyor.
- (b) Senior worker who has registered under the Construction Workers Registration Ordinance (Cap. 583) as a registered skilled worker under designated trade division or designated trade division (master), and possesses a period, or an aggregate period, of not less than ten years of relevant experience and with experience verified by the workers' employers, trade unions or provision of statutory declaration or having passed trade tests, interviews or other means as specified by the Ordinance.
- (c) Worker who has registered under the Construction Workers Registration Ordinance (Cap. 583) as a registered skilled worker (provisional) under designated trade division and possesses a period, or an aggregate period, of not less than six years of relevant experience to personally carry out construction work of a particular trade as specified under the Ordinance.

**Rates for
Registered Semi-
skilled Worker**

SC17.06

The rates for Registered Semi-skilled Worker shall further include for : -

- (a) Worker who has registered under the Construction Workers Registration Ordinance (Cap. 583) as a registered semi-skilled worker under designated trade division or designated trade division (master), and possess an intermediate trade test certificate issued by the CIC or former CITA or VTC, or other qualifications as specified by the Ordinance or other recognized registration, certificates or licenses acceptable to the Maintenance Surveyor.

SPECIAL CONDITIONS

Rates for Registered Semi-skilled Worker (Cont'd)	SC17.06 (Cont'd)	(b) Worker who has registered under the Construction Workers Registration Ordinance (Cap. 583) as a registered semi-skilled worker (provisional) under designated trade division and possesses a period, or an aggregate period, of not less than two years of relevant experience to personally carry out construction work of a particular trade as specified under the Ordinance.
Rates for Woodworker	SC17.07	The rates for Woodworker shall include for carpenter (fender), carpenter (formwork) and carpenter (formwork)(striking) for civil and building construction, joiner generally and joiner (assembling).
Rates for Waterproofing Worker	SC17.08	The rates for Waterproofing Worker shall include for waterproofing worker for liquid membrane, burn-type felt and adhesive-type felt.
Rates for Drain and Pipe Layer	SC17.09	The rates for Drain and Pipe Layer shall include for plumber, drainlayer and pipelayer.
Rates for Cement Sand Mortar Worker	SC17.10	The rates for Cement Sand Mortar Worker shall include for plasterer generally, plasterer (floor), mason, bricklayer, tiler generally, tiler (mosaic) and tiler (tile).
Rates for Demolition Worker	SC17.11	The rates for Demolition Worker shall include for demolition worker for building and unauthorized building works.
Rates for Metal-steel Worker	SC17.12	The rates for Metal-steel Worker shall include for metal worker and structural steel erector.
Rates for Construction Goods Vehicle Driver	SC17.13	The rates for Construction Goods Vehicle Driver shall include for truck driver for medium goods vehicles, heavy goods vehicles, special purpose vehicles and articulated vehicles.
Rates for Welder	SC17.14	The rates for Welder shall include for general welder and structural steel welder.
Rates for Concrete and Grouting Worker	SC17.15	The rates for Concrete and Grouting Worker shall include for concretor, concretor repairer (spalling concrete), shotconcretor and grouting worker.

SPECIAL CONDITIONS

Rates for Marble Worker	SC17.16	The rates for Marble Worker shall include for marble worker for polishing, dry fixing and wet fixing.
Rates for Scaffolder	SC17.17	The rates for Scaffolder shall include for bamboo scaffolder and metal scaffolder.
Rates for Curtain Wall and Glass Panes Installer	SC17.18	The rates for Curtain Wall and Glass Panes Installer shall include for glazier and curtain wall installer.
Rates for Floor Layer	SC17.19	The rates for Floor Layer shall include for floor layer for timber and PVC flooring.
Rates for Plant and Equipment Operator	SC17.20	The rates for Plant and Equipment Operator shall include for ground investigation operator/ driller/borer and plant and equipment operators for fork-lift truck, mini-loader, mini-loader (with attachments), grader, piling generally, percussive pile, bored pile, suspended working platform, demolition, excavator, builder's lift operator, plant and equipment operator for bulldozer, truck-mounted crane, dumper, loader, tower crane, crawler-mounted mobile crane, wheeled telescopic mobile crane, locomotive, gantry crane, compactor and scraper.
Rates for Painter and Decorator	SC17.21	The rates for Painter and Decorator shall include for painter and decorator for roller painting, surface filling, emulsion painting, brushing lacquering, synthetic painting, clear lacquering, texture-spray, metal paint spray, paperhanging and sign writing.
Rates for Blasting Worker	SC17.22	The rates for Blasting Worker shall include for shotfirer and rock breaking driller.
Rates for Lift and Escalator Mechanic	SC17.23	The rates for Lift and Escalator Mechanic shall include for lift mechanic and escalator mechanic.
Rates for Refrigeration/ Air-conditioning/ Ventilation Mechanic	SC17.24	The rates for Refrigeration/Air-conditioning/Ventilation Mechanic shall include for refrigeration/air-conditioning/ventilation mechanics for water system, air system, thermal insulation, electrical control and unitary system.

SPECIAL CONDITIONS

Rates for Fire Service Mechanic	SC17.25	The rates for Fire Service Mechanic shall include for fire service portable equipment fitter, fire service electrical fitter and fire service mechanical fitter.
Rates for Electrician	SC17.26	The rates for Electrician shall include for overhead linesman, control panel assembler, cable jointer (power), cable jointer (low voltage), cable jointer (dead cable), electrical wireman and electrical fitter.
Rates for Electronic Equipment Mechanic (Construction Work)	SC17.27	The rates for Electronic Equipment Mechanic (Construction Work) shall include for building security system mechanic and communication system mechanic.
Rates for Plant and Equipment Mechanic (Construction Work)	SC17.28	The rates for plant and equipment mechanic (construction work) shall include for construction plant mechanic and mechanical fitter.
Rates for Registered General Worker	SC17.29	The rates for Registered General Worker shall further include for : - (a) General worker and labourer who hold a valid Green Card.

Item	LABOUR					Item
		Registered Worker under designated trade division		Registered Worker under designated trade division (master)		
		Skilled Worker	Semi- skilled Worker	Skilled Worker	Semi- skilled Worker	
		A \$	B \$	C \$	D \$	
	LABOUR					
	BUILDING WORKS					
	(Note :- The following Items 17001 to 17025 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)					
	Per hour					
17001	Woodworker.....	225.60	157.90	259.50	181.60	17001
17002	Leveller.....	187.60	131.30	-	-	17002
17003	Waterproofing Worker.....	189.40	132.60	217.80	-	17003
17004	Drain and Pipe Layer.....	180.30	126.20	207.40	-	17004
17005	Paving Block Layer.....	181.50	-	-	-	17005
17006	Cement Sand Mortar Worker.....	183.30	128.30	210.80	147.60	17006
17007	Demolition Worker.....	184.80	-	212.50	-	17007
17008	Metal-steel Worker.....	192.40	134.70	221.30	154.90	17008
17009	Construction Goods Vehicle Driver.....	125.40	-	144.20	-	17009
17010	Rigger/Metal Formwork Erector.....	230.90	161.60	-	-	17010
17011	False Ceiling Installer.....	182.50	127.70	-	-	17011
17012	Asbestos Abatement Worker.....	213.20	-	-	-	17012
17013	Welder.....	202.30	141.60	-	-	17013
17014	Concrete and Grouting Worker.....	274.70	192.30	315.90	-	17014
17015	Marble Worker.....	158.70	111.10	182.50	127.80	17015
17016	Window Frame Installer.....	188.60	132.00	-	-	17016
17017	Scaffolder.....	217.50	152.30	250.20	175.10	17017
17018	Partition (Metal Frame) Installer.....	182.50	-	-	-	17018
17019	Curtain Wall and Glass Panes Installer.....	199.40	139.60	229.30	160.50	17019
17020	Floor Layer.....	170.50	119.30	196.10	137.20	17020
17021	Plant and Equipment Operator.....	175.40	122.80	201.70	141.20	17021
17022	Bar Bender and Fixer.....	283.90	198.70	-	-	17022
17023	Painter and Decorator.....	159.60	-	183.50	128.50	17023
17024	Asphalter (Road Construction).....	142.30	99.60	-	-	17024
17025	Blasting Worker.....	224.10	-	-	-	17025

Item		Registered Worker under designated trade division		Registered Worker under designated trade division (master)		Item
		Skilled Worker	Semi-skilled Worker	Skilled Worker	Semi-skilled Worker	
		A \$	B \$	C \$	D \$	
LABOUR (CONT'D)						
BUILDING SERVICES INSTALLATION						
(Note :- The following Items 17026 to 17032 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)						
<i>Per hour</i>						
17026	Lift and Escalator Mechanic.....	122.40	-	140.70	-	17026
17027	Refrigeration/Air-conditioning/Ventilation Mechanic.....	130.40	91.30	149.90	-	17027
17028	Fire Service Mechanic.....	153.80	107.70	176.90	-	17028
17029	Gas Installer.....	120.80	-	-	-	17029
17030	Electrician.....	169.70	118.80	-	-	17030
17031	Electronic Equipment Mechanic (Construction Work).....	131.50	92.10	151.20	105.90	17031
17032	Plant and Equipment Mechanic (Construction Work).....	155.60	108.90	179.00	125.30	17032
GENERAL						
(Note :- The following Items 17033 to 17034 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)						
<i>Per hour</i>						
17033	Registered General Worker.....				A \$ 142.20	17033
17034	Security Guard.....				57.30	17034
SPECIAL ATTENDANCE ON BUILDING WORKS AND ON BUILDING SERVICES INSTALLATION						
(Note :- The following Items 17035 to 17036 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)						
<i>Per hour</i>						
17035	Registered General Worker for attending Building Works.....				A \$ 142.20	17035
17036	Registered Electrical Fitter for attending Building Services Installation.....				116.90	17036

Section 18

TEMPORARY PLANT AND FACILITIES

SECTION 18

TEMPORARY PLANT AND FACILITIES

SPECIAL CONDITIONS

TEMPORARY PLANT

Measurement of temporary plant

SC18.01

Temporary plant shall include the provision of plant and machineries like air compressors, vans, lorries, excavator, skid steer loaders, cranes, mobile access platforms, generator sets, pumps, etc. measured in this Section of the Schedule.

Wherever possible, work executed under the Contract shall be measured and paid for at the rates of the appropriate Section in this Schedule. No measurement shall be made for temporary plant unless specifically ordered by the Maintenance Surveyor in writing.

The measurement of temporary plant shall be the aggregate time hired on the item of plant to the nearest hour for any time in a 24-hour day (from 00:00 hour to 24:00 hour on the same day) including all Sundays and General Holidays. No measurement shall be made for standing time, mobilization and demobilization time. The minimum order for temporary plant shall be calculated based on a minimum period of 8 hours in any one Works Order which is to be confirmed by the Maintenance Surveyor in writing. The hiring of the temporary plant shall be measured and valued based on the actual time of deployment of the plant or based on a period of 8 hours, whichever is the higher.

Allowance for overtime work and any cost/expenses incurred therein is deemed to be included in the Contract Percentage(s) applied to the Contract. Reference shall also be made to General Regulations Clauses GR.04 and GR.11.

All temporary plant brought onto the Site shall be maintained in good operation condition. Should the temporary plant provided to the Government break down or be found unserviceable, no payment shall be made for replacement of the same.

Rates generally

SC18.02

The rates shall generally include for :-

- (a) Mobilization and demobilization of all temporary plant to and from the Site.
- (b) Plant operator (for excavator, skid steer loader, crane and access platform), driver and attendant.
- (c) Fuel, lubricants, consumable stores, maintenance and repair.
- (d) Contractor's profit, establishment charges and overheads.
- (e) Insurances, license fees, patent rights and royalties, where applicable.
- (f) Moving from the designated location to new position as directed by the Maintenance Surveyor.
- (g) Lowering and hoisting including taking from or to any floor or roof of an existing building or structure.

SPECIAL CONDITIONS

TEMPORARY PLANT

Rates generally (Cont'd)

SC18.02 (Cont'd)

- (h) Loading and unloading.
- (i) Repairing and making good or replacing at the Maintenance Surveyor's discretion any articles or materials damaged during moving, loading, transit, unloading, and moving to new position, store or stack.
- (j) All tunnel or bridge tolls.

TEMPORARY ACCOMMODATION

Measurement of temporary accommodation

SC18.03

Temporary accommodation shall include the provision of temporary container office and portable toilets which are for the exclusive use by the Employer and his staff.

Throughout this Schedule, rates for all trades shall include for providing temporary offices and portable toilets as in G.S. Item 1.28 for the period of uses throughout the Works Order period. No payment shall be made for providing and maintenance of container office and portable toilets under any circumstances, except for the following ordered by the Maintenance Surveyor specifically in writing : -

- (a) Temporary container office and portable toilets for the exclusive use by the Employer and his staff.

Rates for temporary container office

SC18.04

The rates for temporary container office shall include for : -

- (a) Mobilization and demobilization of temporary container office.
- (b) Fitting out with internal finishes complete with door, windows, lighting, power socket and room cooler (power supply measured separately).

Internal finishes shall be as follows : -

- (i) Walls - painted or plastic veneered plywood including insulation.
- (ii) Ceiling - painted or acoustic tiles with insulation.
- (iii) Floors - PVC floor tiles or sheeting.
- (c) Provision of adequate lighting, air-conditioning and ventilation including payment of all charges.
- (d) Forming and levelling ground for resting of container office.
- (e) Providing MCB board for electricity supply connection.

SPECIAL CONDITIONS

TEMPORARY ACCOMMODATION

Rates for portable toilet

SC18.05

The rates for portable toilet shall include for : -

- (a) Mobilization and demobilization of portable toilet.
- (b) Regularly pumping, desludging and clearing away soil and waste.
- (c) Cleaning and sanitizing the interior and exterior of the portable toilet to ensure that the portable toilet is always kept clean, tidy and hygienic including cleaning and sanitizing as directed by the Maintenance Surveyor.
- (d) Filling and regularly re-filling flushing water, fresh water and toilet paper and maintaining water and toilet paper available at all times.
- (e) Re-charging deodorizer when required.
- (f) Replacement of portable toilet which is not serviceable.
- (g) Forming and levelling ground for resting of portable toilets.
- (h) Reinstatement and making good surfaces disturbed at demobilization.
- (i) Government dumping charges.

CONVEYANCE BY LAND VEHICLE

Measurement of conveyance of articles or materials by land vehicle

SC18.06

Conveyance of articles or materials by land vehicle shall only be measured where such conveyance is not included under any items in other Sections of this Schedule and is specifically ordered by the Maintenance Surveyor in writing.

One trip is defined as the door-to-door conveyance of articles or materials from the starting location to the last designated location which may include one or more interim and/or designated stops.

Rates for conveyance of articles or materials by land vehicle

SC18.07

The rates for conveyance of articles or materials by land vehicle shall include for : -

- (a) Conveyance of articles or materials inside and outside the Contract areas.
- (b) Moving from the designated location to new position as directed by the Maintenance Surveyor.
- (c) Lowering and hoisting including taking from or to any floor or roof of an existing building or structure.
- (d) Loading and unloading.
- (e) Transporting to and return journey of packing and personnel as required.
- (f) Neatly stacking, storing or leaving in the required new position.

SPECIAL CONDITIONS

CONVEYANCE BY LAND VEHICLE

Rates for conveyance of articles or materials by land vehicle (Cont'd)

SC18.07 (Cont'd)

- (g) Provision of driver and all labour, tools and plant necessary including levers, ropes, planks, rollers, wheelbarrows, trucks, lorries and the like.
- (h) Provision of any necessary temporary packing, securing ropes and the like, and properly securing and keeping the articles or materials secured during transit.
- (i) Repairing and making good or replacing at the Maintenance Surveyor's discretion any articles or materials damaged during moving, loading, transit, unloading, and moving to new position, store or stack.
- (j) All tunnel or bridge tolls.
- (k) All costs in respect of loading, unloading and delivery of articles or materials from and to remote area where no vehicular access is available.
- (l) Dismantling and reassembling composite articles, if required.
- (m) Obtaining access licenses and permits.
- (n) Insurance of all materials or articles being conveyed and supervising staff on board.

CONVEYANCE BY HELICOPTER

Measurement of conveyance of articles or materials by helicopter

SC18.08

Conveyance of articles or materials by helicopter shall only be measured where such conveyance is not included under any items in other Sections of this Schedule and is specifically ordered by the Maintenance Surveyor in writing.

One trip is defined as the conveyance of articles and materials from the time when the helicopter leaves the flying base to the time when it lands at the flying base. The helicopter shall be fuelled adequately for any flights over 90 minutes before it flies. No measurement shall be made for any time required for first fuelling. However, when a flight exceeds 90 minutes and where no access can be provided for the re-fuelling vehicle to the designated locations for loading or unloading, the time for re-fuelling to and from the flying base shall also be measured.

Conveyance by helicopter for the first 30 minutes shall be measured per trip. Conveyance after the first 30 minutes shall be measured to the nearest 5 minutes.

CONVEYANCE BY HELICOPTER

Rates for conveyance of articles or materials by helicopter

SC18.09

The rates for conveyance of articles or materials by helicopter shall include for :-

- (a) Lowering to and hoisting from the designated locations for loading or unloading.
- (b) Provision of pilot and lifting equipment certified by an independent specialist.
- (c) Provision of any necessary temporary packing, securing ropes and the like, and properly securing and keeping the articles or materials secured during transit.
- (d) Insurance of all materials or articles being conveyed and supervising staff on board.

SPECIAL CONDITIONS

CONVEYANCE BY HELICOPTER

Rates for conveyance of articles or materials by helicopter (Cont'd)

SC18.09 (Cont'd)

- (e) Training course at the flying base for the Employer's ground crew for loading and unloading.
- (f) A loadmaster at the designated location for loading where the helicopter can land nearby.
- (g) Radio communication between the loadmaster and the pilot where load master is provided.
- (h) Any advance payment made to the specialist helicopter conveyance company.

SCAFFOLDING, SCREENS AND STAGING

Scaffolding, screens and staging generally

SC18.10

Throughout this Schedule, rates for all trades shall include for use and waste of all types of scaffolding and staging for the execution of the Works. No payment shall be made for scaffolding and staging under any circumstances except for the following : -

- (a) Scaffolding and staging are specifically ordered by the Maintenance Surveyor in writing and stating that the scaffolding and staging are for the exclusive use of the Maintenance Surveyor for carrying out design inspections or the exclusive use of the Employer and other contractor employed by the Employer within the Works Order period.

In the event where the scaffolding and staging mentioned in sub-clause (a) above are subsequently used by the Contractor himself, no payment shall be made.

Similarly, rates for all trades shall include for screens or safety nets covering up and protecting works from damage caused by dust, sun, rain and similar hazards, and protecting the public from dust, nuisance, falling rubbish and the like.

No payment shall be made for screens or safety nets under any circumstance except where specifically ordered by the Maintenance Surveyor in writing and stating that they are for the exclusive use of the Employer.

Measurement of scaffolding

SC18.11

Scaffolding shall be measured net face area as erected between the two outmost uprights of the scaffolding. The height of the scaffolding shall be measured from the average founding levels to the top continuous effective horizontal rails. No deduction for opening shall be made.

Measurement of screens or safety nets

SC18.12

Screens or safety nets shall be measured net to the areas as fixed. No deduction shall be made for opening not exceeding 2.00 m².

Measurement of tower scaffolding

SC18.13

Tower scaffolding of any form shall be measured net volume based on net plan area as erected between the outmost supporting members of the scaffolding and the height of the top member of the scaffolding.

SPECIAL CONDITIONS

SCAFFOLDING, SCREENS AND STAGING

Measurement of staging	SC18.14	Staging to soffits of building or structure shall be measured net plan area as erected between the outmost supporting members of the staging. The height of the staging shall be measured from the working platform to the average founding level where it is erected. No deduction shall be made for opening not exceeding 1.00 m ² .
Rates for scaffolding generally	SC18.15	<p>The rates for scaffolding shall generally include for : -</p> <ul style="list-style-type: none"> (a) Provision and erection on Site of all materials including poles, uprights, rails, bracings, etc., timber, lashings, struts, wedges, boarding, toe boards, spikes, screws, bolts, straps, brackets, clamps and the like and any safety nettings, safety fans, sloping catch fans, protective canopy all as specified in the Specification in the Contract. (b) Making good any damage caused to walls and other surfaces during use, erection and taking down. (c) Repairing and maintaining throughout the period of use in first or subsequent positions. Providing all necessary inspection report(s) as required by the Construction Site (Safety) Regulations. (d) Complying with codes and standards of G.S. Items 1.34 and 1.39.1 to 1.39.8. (e) Certification by Authorized Persons or Registered Structural Engineers.
Rates for metal scaffolding	SC18.16	<p>The rates for metal scaffolding shall further include for : -</p> <ul style="list-style-type: none"> (a) Delivery to and erection on Site, repairing and maintaining throughout the period of use in first or subsequent positions and taking down and setting aside for re-erection or removing from Site. (b) Proprietary or non-proprietary type. (c) Providing and assembling all materials including poles, rails, supports, struts, ladders, bracings, working platform and any other accessories in accordance with the recommendations of the system.
Rates for screens or safety nets	SC18.17	<p>The rates for screens or safety nets shall include for : -</p> <ul style="list-style-type: none"> (a) Providing and fixing screens or safety nets to scaffoldings, slopes or other surfaces, repairing and maintaining throughout the period of use in first or subsequent positions and taking down and setting aside for re-erection or removing from Site. (b) All fixing accessories. (c) Sealing up joints, forming opening and finishing any portion as doors or flaps. (d) Allowing for laps. (e) Making good any damage caused during use, erection and taking down.

SPECIAL CONDITIONS**SCAFFOLDING, SCREENS AND STAGING****Rates for staging****SC18.18**

The rates for staging shall include for : -

- (a) Delivery to and erection on Site, repairing and maintaining throughout the period of use in first or subsequent positions, and taking down and setting aside for re-erection or removing from Site.
- (b) Providing and assembling all materials including poles, rails, supports, struts, ladders, bracings, working platform, swivel casters with brake, jack base and any other accessories to support any imposed loads in accordance with the recommendations of the staging.
- (c) Proprietary or non-proprietary type.
- (d) Making good any damage during use including replacement if required.
- (e) Allowance for ensuring no overloading the staging.

Item	A \$	Item
TEMPORARY PLANT		
<i>Per hour</i>		
18001	295.00	18001
Air compressor, silenced machine (3.0 m ³ /min. at 7 kg/cm ²) with two 15 m hoses and two breakers including one operator for compressor.....		
18002	357.00	18002
Ditto, (6.0 m ³ /min. at 7 kg/cm ²) with four 15 m hoses and four breakers including one operator for compressor.....		
18003	485.00	18003
Excavator, full circle slew crawler or wheel mounted with backacter, 6 tonnes.....		
18004	361.00	18004
Skid steer loader, rated operating capacity up to 620 kg.....		
18005	816.00	18005
Crane, lorry mounted or all terrain, n.e. 12 tonnes.....		
18006	969.00	18006
Ditto but up to 20 tonnes.....		
18007	1,160.00	18007
Ditto but up to 30 tonnes.....		
18008	284.00	18008
Access platform, scissor lift self propelled, yard travel, capacity up to 400 kg.....		
18009	339.00	18009
Ditto but up to 800 kg.....		
18010	392.00	18010
Ditto but exceeding 800 kg.....		
18011	702.00	18011
Access platform, telescopic self propelled, yard travel, capacity up to 400 kg and platform height up to 10.0 metre.....		
18012	883.00	18012
Ditto, capacity up to 400 kg and platform height exceeding 10.0 metre.....		
18013	777.00	18013
Access platform, vehicle mounted, telescopic/articulated in any capacity and platform height up to 20.0 metre.....		
18014	812.00	18014
Ditto but up to 30.0 metre.....		
18015	2,345.00	18015
Ditto but exceeding 30.0 metre.....		
18016	727.00	18016
Generator set, 330.0 kVA.....		
18017	88.00	18017
Pumps, portable, double diaphragm, discharge branch up to 51 mm diameter including hoses n.e. 100 metre long.....		
18018	125.00	18018
Ditto but up to 102 mm diameter.....		
18019	133.00	18019
Pumps, portable, sludge and sewage, discharge branch up to 102 mm diameter including hoses n.e. 100 metre long.....		
18020	81.00	18020
Pumps, portable, electric submersible, discharge branch up to 51 mm diameter including hoses n.e. 100 metre long.....		
18021	108.00	18021
Ditto but up to 102 mm diameter.....		

Item		Item
TEMPORARY ACCOMMODATION		
Temporary container office : -		
<i>Per month</i>		A \$
18022	Container office, 20 feet long.....	1,390.00 18022
Portable toilet : -		
<i>Per month</i>		
18023	Portable toilet equipped with open waste tank.....	2,189.00 18023
18024	Ditto but of handicapped type.....	2,768.00 18024
18025	Portable toilet equipped with flushing system.....	3,267.00 18025
18026	Portable toilet equipped with flushing system and wash hand basin.....	3,642.00 18026
CONVEYANCE BY LAND VEHICLE		
<i>Per trip</i>		A \$
18027	Van, pick up or similar utility vehicle, capacity up to 1.30 tonnes.....	242.00 18027
18028	Ditto but up to 2.60 tonnes.....	282.00 18028
18029	Lorry (highway use) n.e. 6.50 tonnes.....	357.00 18029
18030	Ditto but 12.00 tonnes.....	396.00 18030
18031	Ditto but 24.50 tonnes.....	494.00 18031
18032	Extra over either of Items 18029 to 18031 inclusive for lorry fitted with crane (jib arm) attachment, maximum load n.e. 3.50 tonnes.....	48.00 18032
18033	Ditto but exceeding 3.50 tonnes.....	68.00 18033
18034	Lorry with tipper (highway use) n.e. 11.0 tonnes.....	406.00 18034
CONVEYANCE BY HELICOPTER		
<i>Per trip</i>		A \$
18035	Helicopter, carrying capacity up to 800 kilogrammes, for the first 30 minutes.....	22,227.00 18035
<i>Each</i>		
18036	Add to Item 18035 for each subsequent 5 minutes (measured to the nearest 5 minutes).....	3,705.00 18036

Item		Item	
SCAFFOLDINGS			
Erect, maintain, take down and clear away :-			
<i>Per square metre</i>		A \$	
18037	Scaffolding (other than metal scaffolding) comprising a single layer of framework of uprights and horizontal rails.....	43.20	18037
18038	Scaffolding (other than metal scaffolding) comprising double layers of framework of uprights and horizontal rails of free standing scaffolding.....	55.50	18038
18039	Metal scaffolding comprising a single layer of framework of uprights and horizontal rails.....	130.40	18039
18040	Metal scaffolding comprising double layers of framework of uprights and horizontal rails of free standing scaffolding.....	173.80	18040
<i>Per cubic metre</i>			
18041	Tower scaffolding (other than metal tower scaffolding).....	146.60	18041
18042	Metal tower scaffolding.....	645.70	18042
SCREENS			
Erect, maintain, take down and clear away :-			
<i>Per square metre</i>		A \$	
18043	One layer of safety net to scaffoldings, slopes or other surfaces including stakes, pegs, supports, etc. as necessary.....	16.00	18043
18044	Screens in woven polyethylene sheet (nei lung tso pao), tarpaulin or other suitable covering to scaffoldings, slopes or other surfaces as protection including stakes, pegs, supports, etc. as necessary.....	26.40	18044
18045	Blast or landslip protection screen constructed of steel framings closely erected, and braced and strutted at not more than 1.20 m centres, or other approved construction covered with expanded metal or chain link mesh and fixed screen including concrete footings or movable concrete blocks and make good after completion.....	398.20	18045
STAGING			
Erect, maintain, take down and clear away :-			
<i>Per square metre</i>		A \$	
18046	Metal staging n.e. 4.00 m high.....	191.40	18046
18047	Ditto but 4.00 - 8.00 m high.....	218.70	18047
18048	Ditto but 8.00 - 11.00 m high.....	310.00	18048
18049	Ditto but 11.00 - 15.00 m high.....	401.20	18049
18050	Ditto but 15.00 - 19.00 m high.....	492.30	18050

Section 19

**RECREATIONAL / SPORTS SURFACING AND
PROTECTIVE PADDING**

SECTION 19

RECREATIONAL / SPORTS SURFACING AND PROTECTIVE PADDING

SPECIAL CONDITIONS

**Particular
Specification
for various
recreational/
sports
surfacing
systems**

SC19.01

The works relating to various recreational/sports surfacing systems shall generally be read and used in conjunction, where applicable, with Particular Specifications for : -

- (a) All Weather Athletic Surfaces ;
- (b) Impact Absorbing Surfacing Material ;
- (c) Proprietary In-situ Synthetic Surfaces for Jogging, Outdoor Ball Games and Recreational Areas ;
- (d) Proprietary Prefabricated Synthetic Surfaces for Jogging, Outdoor Ball Games and Recreational Areas ;
- (e) Proprietary Acrylic-Based Surfaces for Outdoor Ball Games and Recreational Areas ; and
- (f) Proprietary Inorganic Surfaces for Outdoor Ball Games and Recreational Areas.

The above six types of proprietary recreational/sports surfacing systems together with proprietary rubber sport surfacing system for indoor use are hereinafter collectively referred to as "proprietary recreational/sports surfacing systems".

Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the Specification and Employer's Requirements adopted in the Contract for recreational/sports surfacing and protective padding.

**Particular
Preamble**

SC19.02

Manufactured sand, as defined in SC11.02 of Section 11 - Plastering and Finishes, shall be adopted for local production of cement mortar to be used in plastering, rendering and floor screeding works of all public works contracts. The works related to the use of manufactured sand shall generally be read and used in conjunction with the Particular Specification for Manufactured Sand for Local Production of Cement Mortar in Plastering, Rendering, Floor Screeding Works.

Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the said Particular Specification adopted in the Contract for the use of manufactured sand.

SPECIAL CONDITIONS

Abbreviations	SC19.03	<p>"IAAF" shall mean International Association of Athletics Federations.</p> <p>"ITF" shall mean International Tennis Federation.</p> <p>"EPDM" shall mean ethylene propylene diene monomer.</p>
Measurement	SC19.04	<p>All items of surfacing/flooring systems shall be measured over the net area covered including additional girth of curbs, channels and the like. No deduction shall be made for voids not exceeding 0.50 m².</p> <p>Items for construction of new sub-base, base courses and substrate to receive the proprietary recreational/sports surfacing systems as stated in SC19.01 shall be measured and valued separately under other relevant Section(s) of this Schedule.</p> <p>All protective padding shall be measured the net covered area as fixed.</p>
Rates generally	SC19.05	<p>Unless otherwise stated, the rates shall generally include for supply and installation complete with and including all necessary fixing accessories all in accordance with manufacturer's instructions.</p> <p>The rates shall also generally include for installation for proprietary systems to be executed by specialist contractors or applicators accredited or endorsed by the manufacturer of the proprietary system and approved by the Maintenance Surveyor.</p>
Rates for taking up and preparing existing surfaces to receive new proprietary recreational/sports surfacing systems	SC19.06	<p>The rates for taking up and preparing existing surfaces to receive new proprietary recreational/sports surfacing systems shall further include for : -</p> <ul style="list-style-type: none"> (a) Complete stripping of existing surface coating and substrate to expose the existing slab including clearing away debris and making good existing surfaces. (b) Cleaning and scrubbing of base course, and filling up voids to the substrate with approved materials. (c) Raking out of cracks and priming and repairing cracks using proprietary crack filler. (d) Provision of flood test to identify any ponding and patching with levelling material, if required. (e) Removing existing and replacing with new expansion joints including repairing existing substrate.

SPECIAL CONDITIONS

**Rates for
proprietary
recreational/
sports surfacing
systems**

SC19.07

The rates for proprietary recreational/sports surfacing systems shall further include for : -

- (a) All works to flat or sloping surfaces.
- (b) Laying to falls and currents.
- (c) All works to curve, circular and any shape required by the Maintenance Surveyor.
- (d) Preparation of the substrate surfacing in accordance with the approved method statement and repairing cracks, depressions and surface defects prior to application of the new surfacing.
- (e) All necessary cleaning of new substrate as recommended by manufacturers prior to laying including application of sealer and on completion.
- (f) Complying with the Air Pollution Control (Volatile Organic Compounds) Regulation in respect of low Volatile Organic Compounds ("VOC") Limits and environmentally friendly.
- (g) Working along perimeter or around obstructions.
- (h) Laying to pattern or incorporation of graphic designs, patterns and colour transitions, if required.
- (i) Provision of aluminium curbing with rounded edges, curb markers and drainage pads at appropriate intervals, for all weather athletic surfacing.
- (j) Making good and matching existing athletic/sports surfacing where new surfacing is applied.
- (k) Provision of literature/technical brochures, test certificates, test reports, maintenance manuals, manufacturer's guarantee and supplier's/applicator's warranty.
- (l) Provision of site samples and testing including testing according to the "IAAF Track Synthetic Surface Testing Specifications" for IAAF certified systems where required.
- (m) Provision of samples and testing in accordance with "ITF Approved Tennis Balls, Classified Surfaces & Recognized Courts - A Guide to Products & Test Methods", where required.
- (n) Carrying out shock absorption and vertical deformation measurements and/or slip resistance measurements, where required.
- (o) Provision of all shop drawings.
- (p) Provision of a written assurance/certification from the manufacturer that the surfacing does not contain in its finished state any substance which is known to be toxic or carcinogenic when in contact with skin, and that no such substances will be released as a vapour or dust during normal use.

SPECIAL CONDITIONS

<p>Rates for proprietary in-situ synthetic surfaces/proprietary prefabricated synthetic surfaces/proprietary acrylic-based surfaces/proprietary inorganic surfaces for jogging, outdoor ball games and recreational areas</p>	<p>SC19.08</p>	<p>Further to Special Conditions Clauses SC19.05 and SC19.07, the rates for proprietary in-situ synthetic surfaces/proprietary prefabricated synthetic surfaces/proprietary acrylic-based surfaces/proprietary inorganic surfaces for jogging, outdoor ball games and recreational areas shall include for : -</p> <ul style="list-style-type: none"> (a) All preparation work to existing surfaces including applying floor bonding/ binding agent as recommended by the manufacturer. (b) Multi-coloured work and cutting to line. (c) Keeping adjacent surfaces clean and free from dust as G.S. Item 21.44 and make good surfaces disturbed. (d) Removing all articles of hardware and the like before painting and re-fixing after painting has been completed. (e) Painting sample as required. (f) Touching up coated surfaces on completion as required. (g) Protecting and cleaning as G.S. Item 21.43. (h) Removing painted sample. (i) Provision of water test when the substrate surface preparation is completed and upon completion of surfacing. (j) Carrying out joint inspections when the surface preparation is completed and laying of the topcoat. (k) Provision of supporting documents for obtaining BEAM Plus credits and ITF Court Pace Certification, where required.
<p>Rates for line marking for proprietary recreational/ sports surfacing systems</p>	<p>SC19.09</p>	<p>The rates for line marking for proprietary recreational/sports surfacing systems shall further include for : -</p> <ul style="list-style-type: none"> (a) All preparation work to existing surfaces as recommended by the manufacturer. (b) Keeping adjacent surfaces clean and free from dust as G.S. Item 21.44 and making good surfaces disturbed. (c) Removing all articles of hardware and the like before painting and re-fixing after painting has been completed. (d) Painting samples as required. (e) Setting out all line-markings to the required standards. (f) Touching up coated surfaces on completion as required.

SPECIAL CONDITIONS

Rates for line marking for proprietary recreational/sports surfacing systems (Cont'd)	SC19.09 (Cont'd)	<ul style="list-style-type: none"> (g) Re-applying line-markings one month prior to the expiry of the Maintenance Period. (h) Protecting and cleaning as G.S. Item 21.43. (i) Provision of literature/technical brochures, test certificates, test reports, manufacturer's certification/manufacturer's written assurance, maintenance manuals, manufacturer's guarantee and supplier's/applicator's warranty. (j) Provision of supporting documents for obtaining BEAM Plus credits and ITF Court Pace Certification, where required. (k) Checking by and provision of a Surveyor's Certificate by a qualified surveyor for IAAF certified systems as required or as stated in the Contract, where required.
Rates for provision of IAAF Certificate and report of measurement	SC19.10	<p>The rates for provision of IAAF's Certificate and report of measurement shall further include for : -</p> <ul style="list-style-type: none"> (a) Carrying out examination and survey by an approved independent specialist including labour, supervisory staff and equipment required. (b) Provision of examination certificate and IAAF Certification System - Report of Measurement.
Rates for protective padding	SC19.11	<p>The rates for protective padding shall further include for : -</p> <ul style="list-style-type: none"> (a) Provision of samples. (b) Covering material of outdoor usage which is capable to resist ultraviolet degradation within the warranty period. (c) Provision of literature, test certificates, reports, maintenance manuals, manufacturer's guarantee and supplier's warranty.

Item				Item
	PROPRIETARY ALL WEATHER ATHLETIC SURFACES			
	(Note : - The following Items 19001 to 19009 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)			
	Proprietary cast in-situ resilient synthetic all weather athletic surfacing system with high quality, stable and environmental acceptable surfacing materials suitable for athletic tracks or field facilities, approved and certified by IAAF and comply with BS EN 14877/DIN 18035 Part 6, and install all in accordance with the manufacturer's instructions : -	Supply and fix	Take up and prepare existing surface	
	<i>Per square metre</i>	A \$	B \$	
19001	Proprietary cast in-situ resilient synthetic athletic surfacing of sandwich system with primer, base layer made of recycled granules mixed with high quality polyurethane binder and top layer made of polyurethane coating using EPDM granules, overall finished thickness not less than 13 mm.....	414.90	56.50	19001
19002	Ditto but not less than 20 mm.....	489.50	62.20	19002
19003	Proprietary cast in-situ resilient synthetic athletic surfacing of triple layer top performance full PUR system with a foamed polyurethane interlayer with primer, two base layers made of recycled granules and top layer made of EPDM granules, overall finished thickness not less than 13 mm.....	501.40	56.50	19003
19004	Ditto but not less than 20 mm.....	631.00	62.20	19004
	Prepare and apply proprietary all weather athletic surfacing line marking paint of any colour and thickness including marking out, preparing surface, cleaning and making good in accordance with the manufacturer's instructions : -		Supply and fix	
	<i>Per linear metre</i>		A \$	
19005	Line n.e. 100 mm wide.....		30.60	19005
	<i>Each</i>			
19006	Hurdle and relay position.....		77.00	19006
19007	Letters, characters, logos, signs, etc. and the like n.e. 300 mm high.....		93.60	19007
19008	Apply and obtain IAAF Certificate (except Class 1 Certificate) including examination certificate and report of measurement for Certified Athletics Facilities.....		49,000.00	19008
19009	Apply and obtain IAAF Class 1 Certificate including examination certificate and report of measurement for Certified Athletics Facilities..... (The actual rate should be : \$265,000.00 for Item 19009A)		26,500.00	19009

Item			Item	
	<p>PROPRIETARY IN-SITU SYNTHETIC SURFACES FOR JOGGING, OUTDOOR BALL GAMES AND RECREATIONAL AREAS</p> <p>Proprietary in-situ resilient synthetic surfacing system with high quality, stable and environmental acceptable surfacing materials suitable for outdoor facilities such as jogging and running tracks, tennis or multi-sports facilities like basketball, handball, volleyball and netball courts, etc. and complying with BS EN 14877 or equivalent International Standards, and install all in accordance with the manufacturer's instructions :-</p>			
		Supply and fix	Take up and prepare existing surface	
		A \$	B \$	
19010	Proprietary in-situ resilient synthetic surfacing system of single layer or dual layers EPDM granules and embedded in ultraviolet resistant binder, overall finished thickness of not less than 10 mm to floor and including provision of a warranty of not less than 3 years.....	333.50	50.90	19010
19011	Ditto but overall finished thickness of not less than 15 mm.....	380.60	56.10	19011
19012	Ditto but suitable for outdoor tennis courts complying with the required ITF Court Pace Classification rating and One Star ITF Recognition, to floor and including provision of a warranty of not less than 3 years.....	411.20	56.10	19012
19013	Add to either of Items 19010 to 19012 for including proprietary cushion resilient layer.....	25.40	2.90	19013
	Proprietary in-situ resilient synthetic surfacing line marking using in-laid method, and install all in accordance with the manufacturer's instructions :-		Supply and fix	
			A \$	
19014	Line n.e. 100 mm wide.....		22.90	19014
	<i>Each</i>			
19015	Letters, characters, logos, signs, etc. and the like n.e. 300 mm high.....		70.10	19015

Item				Item				
	<p>PROPRIETARY PREFABRICATED SYNTHETIC SURFACES FOR JOGGING, OUTDOOR BALL GAMES AND RECREATIONAL AREAS</p> <p>Proprietary prefabricated resilient synthetic surfacing system with high quality, stable and environmental acceptable surfacing materials suitable for outdoor facilities such as jogging and running tracks, tennis or multi-sports facilities like basketball, handball, volleyball and netball courts, etc. and complying with BS EN 14877 or equivalent International Standards, and install all in accordance with the manufacturer's instructions :-</p>		<table border="1"> <tr> <td>Supply and fix</td> <td>Take up and prepare existing surface</td> </tr> <tr> <td>A \$</td> <td>B \$</td> </tr> </table>	Supply and fix	Take up and prepare existing surface	A \$	B \$	
Supply and fix	Take up and prepare existing surface							
A \$	B \$							
	<i>Per square metre</i>							
19016	Proprietary prefabricated resilient synthetic surfacing system of single layer or dual layers of EPDM granules and embedded in ultraviolet resistant binder, overall finished thickness of not less than 10 mm to floor and including provision of a warranty of not less than 3 years.....	438.20	35.50	19016				
19017	Ditto but overall finished thickness of not less than 15 mm.....	492.10	44.10	19017				
19018	Ditto but suitable for outdoor tennis courts complying with the required ITF Court Pace Classification rating and One Star ITF Recognition, to floor and including provision of a warranty of not less than 3 years.....	531.70	44.10	19018				
19019	Add to either of Items 19016 to 19018 for including proprietary cushion resilient layer.....	25.40	2.90	19019				
	Proprietary prefabricated resilient synthetic surfacing line marking with EPDM using in-laid method, and install all in accordance with the manufacturer's instructions :-		<table border="1"> <tr> <td>Supply and fix</td> </tr> <tr> <td>A \$</td> </tr> </table>	Supply and fix	A \$			
Supply and fix								
A \$								
	<i>Per linear metre</i>							
19020	Line n.e. 100 mm wide.....		30.10	19020				
	<i>Each</i>							
19021	Number, size : 800 x 800 mm.....		328.00	19021				
19022	Logo, size : 1200 x 1200 mm.....		590.00	19022				

Item			Item	
	<p>PROPRIETARY ACRYLIC-BASED SURFACES FOR OUTDOOR BALL GAMES AND RECREATIONAL AREAS</p> <p>Proprietary acrylic-based surface coating system with high quality, stable and environmental acceptable surfacing materials suitable for outdoor tennis courts and multi-sports facilities like multi-use games areas, jogging/running tracks, basketball, handball, volleyball and netball courts, etc. and other outdoor sporting activities, and install all in accordance with the manufacturer's instructions :-</p>			
		Supply and fix	Take up and prepare existing surface	
		A \$	B \$	
19023	Proprietary acrylic-based surface coating system based on acrylate, methacrylate or similar materials to floor and including provision of a warranty of not less than 3 years.....	97.60	21.90	19023
19024	Ditto but suitable for outdoor tennis courts complying with the required ITF Court Pace Classification rating and One Star ITF Recognition, to floor and including provision of a warranty of not less than 3 years.....	105.80	21.90	19024
19025	Add to either of Items 19023 and 19024 for including proprietary cushion resilient layer.....	25.40	2.90	19025
			Supply and fix	
			A \$	
19026	Two coats of proprietary line marking on proprietary acrylic-based surface coating system, n.e. 50 mm wide.....		9.40	19026
19027	Ditto but circular-on-plan, n.e. 10.0 m radius.....		11.40	19027

Item				Item
	PROPRIETARY INORGANIC SURFACES FOR OUTDOOR BALL GAMES AND RECREATIONAL AREAS			
	Proprietary inorganic surface coating system with high quality, stable and environmental acceptable surfacing materials suitable for outdoor tennis courts and multi-sports facilities like multi-use games areas, jogging/ running tracks, basketball, handball, volleyball and netball courts, etc. and other outdoor sporting activities, and install all in accordance with the manufacturer's instructions : -		Supply and fix	Take up and prepare existing surface
	<i>Per square metre</i>	A \$	B \$	
19028	Proprietary inorganic surface coating system with silica binder and metallic oxide pigments suitable for track facilities like jogging track, cycling track and the like to floor and including provision of a warranty of not less than 3 years.....	113.90	21.90	19028
19029	Ditto but suitable for multi-sports facilities like multi-use games areas, basketball, handball, volleyball and netball courts, etc. and other outdoor sporting activities to floor and including provision of a warranty of not less than 3 years.....	146.10	21.90	19029
19030	Ditto but suitable for outdoor tennis courts complying with the required ITF Court Pace Classification rating and One Star ITF Recognition, to floor and including provision of a warranty of not less than 3 years.....	157.90	21.90	19030
19031	Add to either of Items 19028 to 19030 for including proprietary cushion resilient layer.....	25.40	2.90	19031
			Supply and fix	
	<i>Per linear metre</i>		A \$	
19032	Two coats of proprietary line marking on proprietary inorganic surface coating system, n.e. 50 mm wide.....		13.90	19032
19033	Ditto but circular-on-plan, n.e. 10.0 m radius.....		16.00	19033

Item		Item
IMPACT ABSORBING SURFACING MATERIAL		
Impact absorbing surfacing material for play areas with high quality, stable and environmental acceptable surfacing materials complying with performance requirements and test methods of BS 7188 or equivalent international standard with thickness complying with assessment of critical fall height of BS EN 1177, and install all in accordance with the manufacturer's instructions : -		
<i>Per square metre</i>		Supply and fix
		A
		S
19034	Impact absorbing surfacing material of any colour and size with surface impact attenuation of critical fall height up to 1.50 m maximum fixed with any approved adhesive.....	19034
		393.10
19035	Ditto but with critical fall height up to 3.00 m maximum.....	19035
		648.20
19036	Take down and clear away impact absorbing surfacing material for either of Items 19034 and 19035.....	19036
		19.00
19037	Take down and set aside for reuse impact absorbing surfacing material ditto.....	19037
		21.90
19038	Fix only impact absorbing surfacing material ditto.....	19038
		82.40
<i>Per linear metre</i>		
19039	Triangular kerb margin for critical fall height up to 1.50 m maximum.....	19039
		118.70
19040	Ditto but with critical fall height up to 3.00 m maximum.....	19040
		158.20
19041	Take down and clear away triangular kerb margin surface for either of Items 19039 and 19040.....	19041
		7.10
19042	Take down and set aside for reuse triangular kerb margin ditto.....	19042
		17.10
19043	Fix only triangular kerb margin ditto.....	19043
		28.40
<i>Per set</i>		
19044	Extra over either of Items 19034 and 19035 for impact absorbing surfacing material for stepping block 300 x 300 x 600 mm high.....	19044
		1,145.00

Item		Overall thickness of system (mm)		Item	
		7 - 8	9 - 10		
PROPRIETARY RUBBER SPORT SURFACING SYSTEM FOR INDOOR USE					
Proprietary rubber sport surfacing system with high quality, stable and environmental acceptable surfacing materials suitable for indoor facilities such as fitness centres, multi-purpose games rooms and the like comprising roll sheet in 80% recycled EPDM rubber, and install all in accordance with the manufacturer's instructions : -					
<i>Per square metre</i>					
19045	Proprietary rubber sport surfacing system to floor or wall.....	411.30	442.10	19045	
19046	Take up and prepare existing surface of proprietary rubber sport surfacing system.....	35.60	42.40	19046	
<i>Per linear metre</i>					
19047	In-laid line marking on proprietary rubber sport surfacing system, n.e. 100 mm wide.....		28.20	19047	
<i>Each</i>					
19048	In-laid number on proprietary rubber sport surfacing system, size : 800 x 800 mm.....		308.00	19048	
19049	Ditto logo, size : 1200 x 1200 mm.....		554.00	19049	
Proprietary rubber sport surfacing system with high quality, stable and environmental acceptable surfacing materials in interlocking tiles for indoor facilities such as fitness centre and the like, and install all in accordance with the manufacturer's instructions : -					
<i>Per square metre</i>					
Overall thickness of system (mm)					
6 8 10					
A B C					
S S S					
19050	Proprietary rubber sport surfacing system to floor or wall.....	309.10	371.50	400.10	19050
19051	Take up and prepare existing surface of proprietary rubber sport surfacing system.....	25.60	28.40	31.30	19051
<i>Per linear metre</i>					
19052	In-laid line marking on proprietary rubber sport surfacing system, n.e. 100 mm wide.....		24.30	19052	
<i>Each</i>					
19053	In-laid number on proprietary rubber sport surfacing system, size : 800 x 800 mm.....		265.00	19053	
19054	Ditto logo, size : 1200 x 1200 mm.....		477.00	19054	

Item

Item

PROTECTIVE WALL PADDING

Protective padding for indoor or outdoor use comprising PVC coated fabric vinyl cover in any colour and minimum 30 mm thick foam complying with the following :-

Indentation hardness test	BS EN ISO 2439
Fire resistance test	BS 7176 : Medium hazard
Flammability test	BS EN 71-2
Non-toxicity Test	BS EN 71-3

Supply and fix	Fix only
A \$	B \$
526.30	41.70
457.60	34.10

Per square metre

19055 Protective padding to wall and column with 12 mm thick plywood backing board..... 19055

Per linear metre

19056 Post padding (without backing board)..... 19056

Proprietary protective wall padding complying with relevant British Standards, DIN Standards or other equivalent standards, and install all in accordance with manufacturer's instructions, fixing by any means to walls, columns, posts and the like :-

Proprietary rubber protective padding resistant to abrasion, UV light and ozone attack for outdoor use and complying with the following :-

Polymer type	≥ 95% natural rubber, resistant to abrasion, UV light and ozone attack
Hardness/Durometer	40 IRHD
Tensile strength	≥ 21MPa or 3103 psi
Elongation at break	≥ 750%
Tension set	≥ 10%
Tear strength	≥ 45 N/mm
Resilience	≥ 83%
Specific gravity	≤ 0.98
Temperature range	-40°C to +70°C (-40°F to +158°F)
Abrasion resistant index	105 at DIN 53516

Supply and fix	Fix only
A \$	B \$
1,017.00	87.60

Per square metre

19057 Proprietary rubber protective padding up to 30 mm thick to wall, column or post..... 19057

Item

Item

PROTECTIVE WALL PADDING (CONT'D)

Proprietary protective wall padding complying with relevant British Standards, DIN Standards or other equivalent standards, and install all in accordance with manufacturer's instructions, fixing by any means to walls, columns, posts and the like : - (Cont'd)

Proprietary protective padding for indoor use comprising PVC coated fabric vinyl cover in any colour and 60 mm thick foam complying with the following : -

Vinyl or PVC coated fabric	Matt finish Flame retardant to DIN 4102
Foam	Density minimum 58 kg/m ³
	Meet fire test BS 5852 : Part 2
	Contains no Class I or II Ozone Depleting Chemicals (ODC) as listed under the Clean Air Act Amendments 1990

Supply and fix	Fix only
A \$	B \$
869.50	53.50
732.20	43.30

Per square metre

19058 Proprietary protective padding to wall and column with 12 mm thick plywood backing board..... 19058

Per linear metre

19059 Proprietary post padding (without backing board)..... 19059

REPAIRS TO PROTECTIVE WALL PADDING

Per square metre

19060 Take down and clear away protective wall padding of any thickness including backing..... 19060

19061 Take down and set aside for re-use protective wall padding of any thickness including backing..... 19061

Section 20

FIXTURES AND FITTINGS

SECTION 20

FIXTURES AND FITTINGS

SPECIAL CONDITIONS

Measurement of joinery fittings

SC20.01

This Section of the Schedule contains composite units of which the whole or majority of the whole units are fabricated off-Site, delivered and assembled on-Site.

All composite units shall be measured as finished work in place.

Unless otherwise stated, all sizes stated are finished sizes.

The rates appearing in this Section shall solely be applied to the valuation of fixtures and fittings as composite units. Unless with the written approval of the Maintenance Surveyor, composite units shall be measured as a whole unit and shall not be broken down and measured as constituent components.

Rates for constituent components of the composite units in other Sections in the Schedule of Rates shall not be permitted to apply to the valuation of the same, and vice versa.

Unless otherwise stated, ironmongeries, hardware and all fixing accessories for joinery fittings are deemed to be included in the rates of the joinery fittings and shall not be measured separately.

No deduction shall be made for openings not exceeding 0.50 m².

Measurement of cabinets, cupboards, wardrobes, sink cabinets and the like

SC20.02

Drawer units, solid timber doors or sliding doors, shelving units and the like forming part of the cabinets, cupboards, wardrobes, sink cabinets and the like shall not be measured separately but shall be deemed included as part of the whole joinery fittings.

All cabinets, cupboards, wardrobes, sink cabinets and the like shall be measured as a whole unit based on the overall full height instead of splitting the same into separate units as manufactured and/or fabricated off-Site.

Glazed doors or glazed sliding doors are measured separately.

Measurement of book shelves, storage shelves, rack units and the like

SC20.03

Book shelves, storage shelves, rack units and the like, complete with side and back panels, are composite units and are measured using rates in this Section of the Schedule.

All book shelves, storage shelves, rack units and the like shall be measured as a whole unit based on the overall full height instead of splitting the same into separate units as manufactured and/or fabricated off-Site.

Shelving boards to open shelves without side and back panels shall not be measured using rates in this Section, but shall be measured using rates in Section 08 - Carpentry and Joinery of the Schedule.

SPECIAL CONDITIONS

Measurement of sunblinds, curtains, awnings and canvas generally

SC20.04

Sunblinds shall generally be measured to the exact dimensions of the windows to be blinded.

Curtains shall generally be measured the area to be curtained.

Awnings shall be measured to the plane areas as finished. Vertical edges and sides of awnings shall not be measured separately but shall be deemed included as part of the awnings. Portion operating individually is considered as one individual size.

Canvas shall be measured to the net area as finished with no allowance made for seams and pleats.

Take down existing fixtures and power supply installation shall be measured separately.

Measurement of halyard, pulleys, etc. for aluminium flag poles

SC20.05

Halyard, pulleys, etc. for aluminium flag poles shall be measured the overall height of the flag pole.

Rates for joinery fittings generally

SC20.06

The rates for joinery fittings shall generally include for :-

- (a) Submission of design and shop drawings for the Maintenance Surveyor's approval.
- (b) Submission of samples of components, colour samples, colour charts and the like, for selection and consideration by the Maintenance Surveyor.
- (c) Provision of prototypes for repetitive fittings to be approved by the Maintenance Surveyor prior to fabrication.
- (d) All fabrication, assembling and erection work either carried out on Site or off-Site.
- (e) Installation and fixing work at any positions or heights and irrespective of whether to existing or new surface.
- (f) Materials used for framing construction shall include hardwood, softwood, composite board or tropical hardwood substitute.
- (g) All necessary treatment to all timber works.
- (h) Any number of drawer units, shelving units and/or divisional panels.
- (i) All surface finishes such as wax polished and/or painting with low VOC paint, and/or laminated plastic veneer, unless otherwise specified.
- (j) Where hardwood or timber veneer is specified as the surface finishes, the veneer shall include the use of oak, maple, teak, beech, mahogany, cherry, walnut, ash, anigre, citron, sapele or sycamore veneer.
- (k) Lipping on all edges with selected hardwood.

SPECIAL CONDITIONS

**Rates for
joinery fittings
generally
(Cont'd)**

**SC20.06
(Cont'd)**

- (l) Forming tongued angles, chamfers, rebates, grooves and the like.
- (m) Forming all types of framed joints including ship-lap, mitred, tenons, housed dovetailed and the like.
- (n) All ancillary materials for jointing and fixing accessories like metal brackets, framing, bolts, nuts, etc. for installation and fixing in position.
- (o) Ironmongery and hardware like hinges, catches, drawer runners, pull handles, stud pins, locks and keys and the like.
- (p) Pointing, jointing and sealing edges with approved non-acidic and anti-mould sealant where required.
- (q) Forming holes and recesses for toilet fittings, light fittings, sockets, accessories, etc. and/or pipework.
- (r) Providing and maintaining suitable protective covering during progress of work and removal of the same and leaving the joinery fittings clean upon completion of works.
- (s) Making good all existing surfaces.

**Rates for
cabinets,
cupboards,
hanging
cupboards
wardrobes and
the like**

SC20.07

The rates for cabinets, cupboards, hanging cupboards, wardrobes and the like, shall further include for : -

- (a) Solid timber doors or sliding doors.
- (b) Where glazed doors or sliding glazed doors are specified, the panels shall be constructed either in laminated glass or polycarbonate sheet complete with glazing beads.
- (c) Where sliding doors are specified, they should be fitted with tracks and rollers.
- (d) Drawer units and shelving units forming part of the cabinets, cupboards, hanging cupboards, wardrobes and the like.
- (e) Hanging rods within wardrobes.
- (f) Fixing to wall and ceiling including anchor bolts and stainless steel support brackets.

**Rates for
sink cabinets**

SC20.08

The rates for sink cabinets shall further include for : -

- (a) Under-sink cabinet either with fixed panels, door or sliding door panels.
- (b) Drawer units and shelving units forming part of the sink cabinets.
- (c) Forming or cutting opening to accommodate sink (measured separately).

SPECIAL CONDITIONS

Rates for sink cabinets (Cont'd)	SC20.08 (Cont'd)	<ul style="list-style-type: none"> (d) Fitting and installing sink (measured separately) and making all necessary adjustment to suit. (e) Pointing edges of the sink and tap with waterproof sealant.
Rates for pigeon hole racks	SC20.09	<p>The rates for pigeon hole racks shall further include for : -</p> <ul style="list-style-type: none"> (a) Any number of pigeon holes.
Rates for proprietary fume cupboards	SC20.10	<p>The rates for proprietary fume cupboards shall include for : -</p> <ul style="list-style-type: none"> (a) Design, supply, fabrication and installation of the complete system all in accordance with the manufacturer's instructions. (b) Assembling and erection work either carried out on Site or off-Site. (c) Installation and fixing work at any positions or heights and irrespective of whether to existing or new surface. (d) All protection of appropriate means prior to and upon completion until the works are handed over. (e) Worktop to be constructed in suitable chemical resistant laboratory-grade materials for the Maintenance Surveyor's approval. (f) Either static or mobile units; in the case of mobile units, the units shall be fitted with lockable castors. (g) Provision of connections to the necessary plumbing, drainage and building services installations including electricity connectors, jointing materials and accessories. Connection to nearest power point shall be carried out by registered electrical workers. (h) Testing and commissioning on completion. (i) Submission of catalogues, technical literature and shop drawings for the Maintenance Surveyor's approval. (j) Submission of the supplier's warranty. (k) Submission of operation and maintenance manuals.
Rates for lockers	SC20.11	<p>The rates for lockers shall further include for : -</p> <ul style="list-style-type: none"> (a) Submission of catalogues, technical literature and shop drawings for the Maintenance Surveyor's approval. (b) Submission of samples of components, colour samples, colour charts and other document demonstrating the properties of moisture and impact resistance, for selection and consideration by the Maintenance Surveyor.

SPECIAL CONDITIONS

Rates for lockers (Cont'd)	SC20.11 (Cont'd)	<ul style="list-style-type: none"> (c) Provision of prototypes for repetitive fittings to be approved by the Maintenance Surveyor prior to fabrication. (d) All fabrication, assembling and erection work either carried out on Site or off-Site. (e) Installation and fixing work at any positions and irrespective of whether to existing or new surface. (f) All protection of appropriate means prior to and upon completion until the works are handed over. (g) Any number of shelving units. (h) Ironmongery and hardware like concealed hinges, cam or latch locks, hanging rods, hooks and the like and integrated rubber strips.
Rates for proprietary recycled plastic seating benches	SC20.12	<p>The rates for proprietary recycled plastic seating benches shall include for : -</p> <ul style="list-style-type: none"> (a) Design, supply, fabrication and installation of the complete system all in accordance with the manufacturer's instructions. (b) Recycled plastic materials which do not contain in its finished state any substance which is known to be toxic or carcinogenic when in contact with skin, and that no such substances will be released as a vapour or dust during normal use. (c) Assembling and installation work either carried out on Site or off-Site. (d) Arm rests at ends of seating benches. (e) All protection of appropriate means prior to and upon completion until the works are handed over. (f) Submission of catalogues, technical literature and shop drawings for the Maintenance Surveyor's approval. (g) Submission of the supplier's warranty of not less than two (2) years.
Rates for proprietary recycled plastic chess tables and chairs	SC20.13	<p>The rates for proprietary recycled plastic chess tables and chairs shall include for : -</p> <ul style="list-style-type: none"> (a) Design, supply, fabrication and installation of the complete system all in accordance with the manufacturer's instructions. (b) Recycled plastic materials which do not contain in its finished state any substance which is known to be toxic or carcinogenic when in contact with skin, and that no such substances will be released as a vapour or dust during normal use. (c) Assembling and installation work either carried out on Site or off-Site. (d) Chess tables in either square, rectangular or round shape complete with stainless steel chess board.

SPECIAL CONDITIONS

Rates for proprietary recycled plastic chess tables and chairs (Cont'd)	SC20.13 (Cont'd)	<ul style="list-style-type: none"> (e) All protection of appropriate means prior to and upon completion until the works are handed over. (f) Submission of catalogues, technical literature and shop drawings for the Maintenance Surveyor's approval. (g) Submission of the supplier's warranty of not less than two (2) years.
Rates for proprietary recycled plastic litter bins	SC20.14	<p>The rates for proprietary recycled plastic litter bins shall include for :-</p> <ul style="list-style-type: none"> (a) Submission of catalogues, technical literature and shop drawings for the Maintenance Surveyor's approval. (b) Recycled plastic materials which do not contain in its finished state any substance which is known to be toxic or carcinogenic when in contact with skin, and that no such substances will be released as a vapour or dust during normal use. (c) All fabrication and assembling work either carried out on Site or off-Site. (d) Installation and fixing work at any positions and irrespective of whether to existing or new surface including fixing accessories and anchorage. (e) Hinged doors, sign plates and ash trays integrated with the litter bins. (f) All protection of appropriate means prior to and upon completion until the works are handed over. (g) Submission of the supplier's warranty of not less than two (2) years.
Rates for venetian blinds	SC20.15	<p>The rates for venetian blinds shall include for : -</p> <ul style="list-style-type: none"> (a) Supplying and fixing of single or multi-coloured slats, rise and fall control mechanism, locking cord control mechanism, tilt control mechanism, ladder tape, child safety cleat and all necessary accessories all in accordance with the manufacturer's instructions. (b) Supplying and fixing of enamel coated galvanized steel or enamel coated, powder coated or anodized aluminium head and bottom rails. (c) Plugging and fixing to plastered surfaces or screwing to wooden pelmet. (d) Making good area disturbed, touching up plasterwork and paintwork where required. (e) Submission of technical pamphlets and samples of venetian blinds. (f) Moving and replacing in position all movable furniture as necessary at the time of execution of works.

SPECIAL CONDITIONS**Rates for
vertical blinds****SC20.16**

The rates for vertical blinds shall include for : -

- (a) Supplying and fixing of single or multi-coloured blades, base weights, drag and base connector cords, glider rail, open and close control, and stop control at any position and all necessary accessories all in accordance with the manufacturer's instructions.
- (b) Supplying and fixing of enamel coated galvanized steel or enamel coated, powder coated or anodized aluminium head rail.
- (c) Plugging and fixing to plastered surfaces or screwing to wooden pelmet.
- (d) Preparing and applying flame-proof finish to all surfaces of the fabric covering.
- (e) Making good area disturbed, touching up plasterwork and paintwork where required.
- (f) Submission of technical pamphlets and samples of vertical blinds.
- (g) Moving and replacing in position all movable furniture as necessary at the time of execution of works.

**Rates for
chic sunblinds****SC20.17**

The rates for chic sunblinds shall include for : -

- (a) Supplying and fixing of single or multi-coloured split bamboo laths, well laced with best quality waterproof line at 125 mm centres, fixing cord, pulley cleats, screw hanging eyes and all necessary accessories.
- (b) Supplying and fixing 65 mm wide stout fabric bands at both edges.
- (c) Supplying and fixing of stout whole bamboo top and bottom.
- (d) Plugging and fixing to plastered surfaces or screwing to wooden pelmet.
- (e) Spraying fire retardant paint on blinds.
- (f) Making good area disturbed, touching up plasterwork and paintwork where required.
- (g) Submission of technical pamphlets and samples of chic sunblinds.
- (h) Moving and replacing in position all movable furniture as necessary at the time of execution of works.

SPECIAL CONDITIONS**Rates for
roller blinds****SC20.18**

The rates for roller blinds shall include for : -

- (a) Supplying and fixing of single or multi-coloured roller blinds with or without linings.
- (b) Supplying and installation of switch control, motor and all necessary accessories for electrically operated roller blinds.
- (c) Supplying and installation of rise, fall and stop control mechanism including all necessary accessories.
- (d) Provision of fixing framings or brackets to existing building or structure.
- (e) Preparing and applying flame-proof finish to all surfaces of the fabric covering.
- (f) Making good areas disturbed, touching up plasterwork and paintwork where required.
- (g) Submission of technical pamphlets and samples of roller blinds.
- (h) Moving and replacing in position all movable furniture as necessary at the time of execution of works.

**Rates for
awnings****SC20.19**

The rates for awnings shall include for : -

- (a) Supplying and fixing of single or multi-coloured awnings manually or electrically operated.
- (b) Supplying and installation of switch control, motor and all necessary accessories for electrically operated awning.
- (c) Provision for vertical edge and sides of awnings.
- (d) Provision of fixing framings or brackets to existing building or structure.
- (e) Preparing and applying flame-proof finish to all surfaces of the fabric covering.
- (f) Making good areas disturbed, touching up plasterwork and paintwork where required.
- (g) Submission of technical pamphlets and samples of awnings.

SPECIAL CONDITIONS

**Rates for
blackout
curtains and
stage curtains**

SC20.20

The rates for blackout curtains and stage curtains shall include for : -

- (a) Supplying and fixing of single or multi-coloured curtains with or without linings.
- (b) All pleats and folding.
- (c) Hooks and hangers.
- (d) Moving and replacing in position all movable furniture as necessary at the time of execution of works.
- (e) Preparing and applying flame-proof finish to all surfaces of the fabric covering.
- (f) Making good areas disturbed, touching up plasterwork and paintwork where required.
- (g) Submission of technical pamphlets and samples of curtains and linings.

**Rates for
alterations
and repairs
generally**

SC20.21

The rates for alterations and repairs items shall generally include for : -

- (a) Taking down and clearing away of old/defective articles or fittings.
- (b) Preparing to receive replacement articles or fittings.
- (c) Supplying and fixing new articles or fittings.
- (d) All matching screws, spacers, tape, rails and the like.
- (e) All labour and material in mortising, fitting, plugging, cutting and pinning.
- (f) Making good areas disturbed, touching up plasterwork and paintwork where required.

**Ironmongery
for curtains**

SC20.22

Ironmongery for curtains can be found and measured in Section 09 - Ironmongery of this Schedule.

**Rates for
sanitary
fittings and
parts of
sanitary fittings
generally**

SC20.23

The rates for sanitary fittings and parts of sanitary fittings shall generally include for : -

- (a) Supply and installation of the sanitary fittings in any size (unless specifically stated otherwise) and in white or any standard colours, all in accordance with the manufacturer's recommendations and by licensed plumber.
- (b) Providing and fixing all necessary accessories, fittings and the like as recommended by the manufacturer.
- (c) Providing all necessary jointing compound, mortar, lead plugs and other ancillary materials including cutting and pinning or plugging and screwing brackets.
- (d) Applying non-acidic and anti-mould silicone sealant after de-greasing and drying of fittings.

SPECIAL CONDITIONS

Rates for sanitary fittings and parts of sanitary fittings generally (Cont'd)	SC20.23 (Cont'd)	<ul style="list-style-type: none"> (e) Providing and making all necessary connections to water supply services, overflow, waste and ventilating pipes. (f) Providing temporary sealing off of water supply services, waste and ventilating pipes in case when the installation work cannot be completed on time. (g) Providing and maintaining protective coverings during the progress of work and subsequently removal of the same, cleaning off when required and upon completion of works. (h) Supply and installation of the sanitary fittings that have been registered with and certified by WSD under the Water Efficiency Labelling Scheme (WELS) as having the specified water efficiency grade (either Grade 1, 2, 3 or 4) as and when required. (i) Submission of the WSD's Certificate of Registration of the sanitary fittings to the Maintenance Surveyor. (j) Conformance with the nominal flow rates as specified in the WSD's guidelines of the relevant water efficiency grades for WELS.
Rates for taps, cocks, mixers including shower mixers, and urinal/W.C. flush valves	SC20.24	<p>The rates for taps, cocks, mixers including shower mixers and urinal/W.C. flush valves shall further include for:-</p> <ul style="list-style-type: none"> (a) Supply and installation of fittings in brass, chromium plated brass and other materials of the like. (b) Different diameter of fittings, unless otherwise specifically stated.
Rates for fix only of taps, cocks and mixers	SC20.25	<p>The rates for fix only of taps, cocks and mixers shall further include for :-</p> <ul style="list-style-type: none"> (a) Provisions of connectors, fittings and jointing materials.
Rates for toilet fittings and accessories	SC20.26	<p>The rates for toilet fittings and accessories shall include for :-</p> <ul style="list-style-type: none"> (a) Provisions of all fixing accessories and fittings as recommended by the manufacturer. (b) Providing all necessary jointing compound, mortar, lead plugs and other ancillary materials including cutting and pinning or plugging and screwing brackets. (c) Applying non-acidic and anti-mould silicone sealant around toilet fittings and accessories after de-greasing and drying. (d) Submission of catalogues, technical literature and shop drawings. (e) Providing and maintaining suitable protective covering during progress of work and removal of the same and leaving the toilet fittings and accessories clean upon completion of works.

SPECIAL CONDITIONS**Rates for
braille and
tactile maps****SC20.27**

The rates for braille and tactile maps shall include for : -

- (a) Design, supply and installation of the braille and tactile maps, all in accordance with the manufacturer's instructions.
- (b) Design, translation and proof reading of Braille message of tactile maps by a recognized certifying body which shall be a Non-Government (Voluntary) Organization and is a member of the Hong Kong Joint Council for People with Disabilities, as accepted by the Maintenance Surveyor.
- (c) Finishing all surfaces.
- (d) All protection of appropriate means prior to and upon completion until the works are handed over.
- (e) Submission of design and shop drawings for the Maintenance Surveyor's approval.
- (f) Making good all disturbed surfaces.

**Rates for
projector
screens****SC20.28**

The rates for projector screens shall include for : -

- (a) Design, supply and installation of the complete system all in accordance with the manufacturer's instructions.
- (b) Assembling and erection work carried out on Site.
- (c) All protection of appropriate means prior to and upon completion until the works are handed over.
- (d) Provision of connection to nearest power point which shall be carried out by registered electrical workers.
- (e) Testing and commissioning on completion.
- (f) Submission of catalogues, technical literature and shop drawings.
- (g) Submission of the supplier's warranty.
- (h) Submission of operating and maintenance manuals.

SPECIAL CONDITIONS**Rates for
traffic barrier
system****SC20.29**

The rates for traffic barrier system shall include for : -

- (a) Design, supply and installation of the complete system all in accordance with the manufacturer's instructions.
- (b) Assembling and erection work carried out on Site.
- (c) All protection of appropriate means prior to and upon completion until the works are handed over.
- (d) Provision of connection to nearest power point which shall be carried out by registered electrical workers.
- (e) Testing and commissioning on completion.
- (f) Submission of catalogues, technical literature and shop drawings.
- (g) Submission of the supplier's warranty.
- (h) Submission of operating and maintenance manuals.

Item				Item
	JOINERY FITTINGS			
	Base cabinets, cupboards, hanging cupboards and the like :-			
		Plywood	Particle board or MDF	
		A	B	
		\$	\$	
	<i>Per linear metre</i>			
20001	Base cabinet, cupboard, hanging cupboard and the like, n.e. 0.40 m deep and n.e. 0.60 m high.....	2,358.00	2,034.00	20001
20002	Ditto but 0.60 - 0.90 m high.....	3,231.00	3,043.00	20002
20003	Ditto but 0.90 - 1.10 m high.....	3,591.00	3,366.00	20003
20004	Extra over either of Items 20001 to 20003 inclusive for exposed surfaces finished with natural hardwood veneer irrespective of height.....	305.00	305.00	20004
	<i>Each</i>			
20005	Extra over either of Items 20001 to 20003 inclusive for glazed door or glazed sliding door.....	80.90	80.90	20005
	<i>Per linear metre</i>			
20006	Base cabinet, cupboard, hanging cupboard and the like, 0.40 - 0.60 m deep and n.e. 0.60 m high.....	2,549.00	2,185.00	20006
20007	Ditto but 0.60 - 0.90 m high.....	3,428.00	3,234.00	20007
20008	Ditto but 0.90 - 1.10 m high.....	3,809.00	3,548.00	20008
20009	Extra over either of Items 20006 to 20008 inclusive for exposed surfaces finished with natural hardwood veneer irrespective of height.....	365.00	365.00	20009
	<i>Each</i>			
20010	Extra over either of Items 20006 to 20008 inclusive for glazed door or glazed sliding door.....	107.00	107.00	20010

Item				Item
	JOINERY FITTINGS (CONT'D)			
	Tall cabinets, wardrobes and the like :-			
	(Note :- Cabinets exceeding 1.10 m high are classified as tall cabinets.)			
	<i>Per linear metre</i>			
		Plywood	Particle board or MDF	
		A \$	B \$	
20011	Tall cabinet, wardrobe and the like, n.e. 0.40 m deep and n.e. 1.80 m high.....	4,348.00	3,661.00	20011
20012	Ditto but 1.80 - 2.40 m high.....	5,590.00	4,706.00	20012
20013	Add to Item 20012 for each additional 0.30 m or part thereof in height.....	699.00	588.00	20013
20014	Extra over either of Items 20011 to 20012 inclusive for exposed surfaces finished with natural hardwood veneer irrespective of height.....	491.00	491.00	20014
	<i>Each</i>			
20015	Extra over either of Items 20011 to 20012 inclusive for glazed door or glazed sliding door.....	132.00	132.00	20015
	<i>Per linear metre</i>			
20016	Tall cabinet, wardrobe and the like, 0.40 - 0.60 m deep and n.e. 1.80 m high.....	4,576.00	3,889.00	20016
20017	Ditto but 1.80 - 2.40 m high.....	5,883.00	5,001.00	20017
20018	Add to Item 20017 for each additional 0.30 m or part thereof in height.....	735.00	625.00	20018
20019	Extra over either of Items 20016 to 20017 inclusive for exposed surfaces finished with natural hardwood veneer irrespective of height.....	516.00	516.00	20019
	<i>Each</i>			
20020	Extra over either of Items 20016 to 20017 inclusive for glazed door or glazed sliding door.....	199.00	199.00	20020
	Sink cabinets :-			
	(Note :- Granite or solid surfacing material or material other than timber to sink top is measured separately.)			
	<i>Per linear metre</i>			
		Plywood	Particle board or MDF	
		A \$	B \$	
20021	Sink unit n.e. 0.40 m deep and n.e. 0.90 m high.....	3,191.00	2,619.00	20021
20022	Sink unit 0.40 - 0.60 m deep and n.e. 0.90 m high.....	3,373.00	2,794.00	20022
20023	Extra over either of Items 20021 to 20022 inclusive for exposed surfaces finished with natural hardwood veneer.....	324.00	324.00	20023

Item			Item	
	JOINERY FITTINGS (CONT'D)			
	Book shelves, storage shelves, rack units and the like :-			
		Plywood	Particle board or MDF	
		A	B	
		\$	\$	
	<i>Per linear metre</i>			
20024	Book shelf, storage shelf, rack unit and the like, n.e. 0.40 m deep and n.e. 0.90 m high.....	2,067.00	1,777.00	20024
20025	Ditto but 0.90 - 1.10 m high.....	2,538.00	2,176.00	20025
20026	Ditto but 1.10 - 1.80 m high.....	3,626.00	3,082.00	20026
20027	Ditto but 1.80 - 2.40 m high.....	4,243.00	3,620.00	20027
20028	Add to Item 20027 for each additional 0.30 m or part thereof in height.....	589.00	503.00	20028
20029	Extra over either of Items 20024 to 20027 inclusive for exposed surfaces finished with natural hardwood veneer irrespective of height.....	282.00	282.00	20029
20030	Book shelf, storage shelf, rack unit and the like, 0.40 - 0.60 m deep and n.e. 0.90 m high.....	2,175.00	1,850.00	20030
20031	Ditto but 0.90 - 1.10 m high.....	2,684.00	2,284.00	20031
20032	Ditto but 1.10 - 1.80 m high.....	3,807.00	3,227.00	20032
20033	Ditto but 1.80 - 2.40 m high.....	4,461.00	3,807.00	20033
20034	Add to Item 20033 for each additional 0.30 m or part thereof in height.....	620.00	529.00	20034
20035	Extra over either of Items 20030 to 20033 inclusive for exposed surfaces finished with natural hardwood veneer irrespective of height.....	298.00	298.00	20035
	Reception counters and writing benches with or without under-counter drawers :-			
	<i>Per linear metre</i>			
20036	Reception counter n.e. 0.90 m deep and n.e. 0.90 m high complete with under-counter drawer 0.15 m high, sliding tray and/or key board tray.....	6,791.00	5,583.00	20036
20037	Extra over Item 20036 for exposed surfaces finished with natural hardwood veneer.....	341.00	341.00	20037
20038	Base cabinet n.e. 0.60 m deep and n.e. 0.90 m high underneath reception counter.....	3,007.00	2,459.00	20038
20039	Drawer cabinet n.e. 0.60 m deep and n.e. 0.90 m high underneath reception counter.....	3,007.00	2,459.00	20039
20040	Shelving rack n.e. 0.30 m deep above reception counter top.....	1,837.00	1,579.00	20040
20041	Extra over either of Items 20038 to 20040 inclusive for exposed surfaces finished with natural hardwood veneer.....	271.00	271.00	20041

Item				Item	
JOINERY FITTINGS (CONT'D)					
Reception counters and writing benches with or without under-counter drawers : - (Cont'd)					
		Plywood	Particle board or MDF		
		A	B		
		\$	\$		
<i>Per linear metre</i>					
20042	L-shaped reception counter unit, 700 mm deep and n.e. 0.90 m high overall, comprising of screen partition 1,100 mm high with quadrant panel at corner and return panel at bottom ends, all covered with fabric on both sides, together with cantilevered work top and counter top along the girth, both tops having pressure laminated surfaces trimmed with T moulding and complete with support brackets.....	7,256.00	5,866.00	20042	
20043	Writing bench n.e. 0.60 m deep fixed to wall complete with metal brackets.....	3,399.00	2,976.00	20043	
20044	Ditto but supported on vertical stand n.e. 0.90 m high.....	3,791.00	3,236.00	20044	
20045	Extra over either of Items 20043 to 200404 inclusive for exposed surfaces finished with natural hardwood veneer.....	233.00	233.00	20045	
20046	Writing bench 0.60 - 0.90 m deep fixed to wall complete with metal brackets.....	3,791.00	3,236.00	20046	
20047	Ditto but supported on vertical stand n.e. 0.90 m high.....	4,171.00	3,560.00	20047	
20048	Extra over either of Items 20046 to 20047 inclusive for exposed surfaces finished with natural hardwood veneer.....	245.00	245.00	20048	
Pigeon hole racks :-					
<i>Per linear metre</i>					
20049	Pigeon hole rack n.e. 0.30 m deep and n.e. 0.90 m high.....	2,556.00	2,197.00	20049	
20050	Ditto but 0.90 - 1.10 m high.....	3,139.00	2,691.00	20050	
20051	Ditto but 1.10 - 1.80 m high.....	4,484.00	3,812.00	20051	
20052	Pigeon hole rack 0.30 - 0.60 m deep and n.e. 0.90 m high.....	2,690.00	2,287.00	20052	
20053	Ditto but 0.90 - 1.10 m high.....	3,319.00	2,825.00	20053	
20054	Ditto but 1.10 - 1.80 m high.....	4,708.00	3,991.00	20054	
Sundries :-					
		Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	
		\$	\$	\$	
20055	Base cabinet, cupboard, hanging cupboard and the like, of any sizes.....	236.00	297.00	405.00	20055
20056	Tall cabinet and wardrobe, of any sizes.....	355.00	450.00	608.00	20056
20057	Sink cabinet, book shelves, storage shelves and rack units of any sizes.....	236.00	297.00	405.00	20057
20058	Reception counter or writing bench with or without under-counter drawers, of any sizes.....	347.00	441.00	608.00	20058
20059	Pigeon hole rack of any sizes.....	227.00	284.00	405.00	20059

Item		Item
	PROPRIETARY FUME CUPBOARDS	
	Proprietary fire resistant double wall type fume cupboard with interior cabin body made of electro-galvanized steel and exterior body cabin constructed of cold-laminated steel with an organic coating of epoxy polyester resin or other similar finish; complete with airflow indicator control, safety devices, all control and monitoring system, 250 mm diameter polypropylene ductwork upto 3 m long, exhaust extraction system including steel support frame, extraction fan and motor and enclosure, worktop and sink, accessories like oval drip cup, water tap, gas outlet, electricity outlet and the like; all connection and testing and commissioning works on completion, all in accordance with the manufacturer's instructions and conformance to EN 14175 and BS 7258 :- (associated power, water and gas supply measured separately)	
		A \$
20060	Proprietary fume cupboard overall size : 1200 x 2300 x 810 mm.....	52,000.00 20060
20061	Ditto; overall size 1500 x 2300 x 810 mm.....	54,200.00 20061
	Proprietary school type fume cupboard constructed of 4-sides of toughened glass sash, side panels and baffles, with front fascia constructed of aluminium panel with epoxy powder coated or other similar finish, complete with two-compartment base storage cupboard for acid and inflammable liquids, cast epoxy resin worktop and sink; airflow indicator control, safety devices, all control and monitoring system, 250 mm diameter polypropylene ductwork upto 3 m long, exhaust extraction system including steel support frame, extraction fan and motor and enclosure, worktop and sink, accessories like oval drip cup, water tap, gas outlet, electricity outlet and the like; all connection and testing and commissioning works on completion, all in accordance with the manufacturer's instructions and conformance to EN 14175 and BS 7258 :- (associated power, water and gas supply measured separately)	
		A \$
20062	Proprietary fume cupboard overall size : 1200 x 2400 x 800 mm.....	50,900.00 20062
20063	Ditto overall size : 1500 x 2400 x 800 mm.....	54,000.00 20063
	EXTENSION TO DUCTWORK AND EXHAUST FANS TO FUME CUPBOARDS	
		A \$
20064	Add to either of Items 20060 to 20063 inclusive for extension of 250 mm diameter polypropylene ductwork connecting to exhaust system of fume cupboard, mounted either on internal or external wall or roof, complete with steel support frame and fixing accessories, connectors to exhaust outlet; all necessary builder's works; all connection and testing and commissioning works on completion of the whole exhaust system in conjunction with the proprietary fume cupboard, and all in accordance with the manufacturer's instructions and conformance to EN 14175 and BS 7258 (fume cupboard, fan, motor and power supply measured separately).....	1,412.50 20064
		A \$
20065	Add to either of Items 20060 to 20063 inclusive for exhaust fan and motor complete with steel support frame, enclosure for fan and motor, fixing accessories; connecting to extended ductwork; mounted either on external wall or roof; all necessary safety devices, control and monitoring panel, connectors to the extended ductwork and exhaust system; all necessary builder's works; all connection and testing and commissioning works on completion of the whole exhaust system in conjunction with the proprietary fume cupboard, and all in accordance with the manufacturer's instructions and conformance to EN 14175 and BS 7258 (fume cupboard, ductwork and power supply measured separately).....	16,100.00 20065

Item					Item	
	PROPRIETARY LABORATORY BENCHES AND FITTINGS					
	Proprietary laboratory benches comprising heavy duty steel framework complete with worktop of compact laminate or epoxy resin panels with chemical resistant properties, with or without central spine units, shelving units, hanging cabinets, under bench cabinets, sink units, laboratory valves, nozzles, swivel spout fittings, in high gauge brass free from impurity coated with chemically resistant polyester powder coating; accessories like oval drip cup, water taps, gas outlets, electricity outlets and the like; all connection and testing and commissioning works on completion, in accordance with the manufacturer's instructions : - (associated power, water and gas supply measured separately)					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
	Per linear metre					
20066	Laboratory side bench, 0.60 - 0.70 m deep and n.e. 0.90 m high, complete with under bench cabinets but without spine unit.....	3,072.70	248.90	331.80	480.40	20066
20067	Laboratory island bench, 1.20 - 1.50 m deep and n.e. 0.90 m high, complete with under bench cabinets but without spine unit.....	5,690.10	414.80	475.30	763.60	20067
20068	Ditto but with central spine unit, shelving unit and/or hanging cupboards.....	19,696.00	663.60	829.60	1,243.80	20068
	Each					
20069	Extra over either of Items 20066 to 20068 inclusive for chemical resistant fireclay sink with laboratory stop tap with swivel outlet, acid resistant dilution trap and overflow.....	1,389.00	87.10	90.40	171.00	20069
	Proprietary laboratory fittings in high gauge brass free from impurity coated with chemically resistant polyester powder coating complying with EN 200/DIN 17660 with nitrite seat for leak prove and approved by W.W.O. with international code colour index to DIN EN 13792-2002 : -					
	Each					
20070	Water fitting, wall mounted straight valve with removable nozzle.....	515.00	10.80	12.50	115.00	20070
20071	Water fitting with bib cock, wall mounted straight valve with removable nozzle.....	515.00	10.80	12.50	115.00	20071
20072	Bench mounted swivel swan neck water fitting with removable nozzle.....	999.00	13.30	14.90	138.00	20072
20073	Bench mounted swivel swan neck water fitting with bore anti-splash nozzle.....	1,008.20	13.30	14.90	138.00	20073
20074	Bench mounted swivel swan neck water fitting with two way side arm angle valve with removal nozzle.....	2,110.00	13.30	14.90	138.00	20074
20075	Bench mounted two way swivel swan neck water fitting with removal nozzle.....	1,768.00	13.30	14.90	138.00	20075

Item					Item	
	LOCKERS					
	Locker with panels made of impact and moisture resistant compact laminate or solid phenolic core panel conforming to BS EN 438 and metal framework including hinges, cam lock or latch lock and keys, with master keying system, locker numbering labels and rubber strip :-					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
	<i>Per set</i>					
20076	Locker, one tier, 300 mm wide x 300 - 500 mm deep x 1800 - 2000 mm high.....	2,340.00	79.60	159.00	228.00	20076
20077	Ditto but two tiers.....	2,639.00	79.60	159.00	228.00	20077
20078	Ditto but three tiers.....	2,905.00	79.60	159.00	228.00	20078
20079	Ditto but four tiers.....	3,313.00	79.60	159.00	228.00	20079
20080	Ditto but five tiers.....	3,701.00	79.60	159.00	228.00	20080
20081	Ditto but six tiers.....	4,384.00	79.60	159.00	228.00	20081
20082	Extra over either of Items 20076 to 20081 inclusive for each locker door for coin-return locking device.....	76.40	-	-	-	20082
20083	Extra over either of Items 20076 to 20081 inclusive for each locker door for pad lock device and keys (if required).....	10.40	-	-	-	20083
	Locker with panels made of mild cold rolled steel with powder coated or baked enamel finish and metal framework including hinges, cam lock or latch lock and keys, with master keying system, locker numbering labels and rubber strip :-					
	<i>Per set</i>					
20084	Locker, one tier, 300 mm wide x 300 - 500 mm deep x 1800 - 2000 mm high.....	1,905.00	80.00	159.00	184.00	20084
20085	Ditto but two tiers.....	2,159.00	80.00	159.00	184.00	20085
20086	Ditto but three tiers.....	2,413.00	80.00	159.00	184.00	20086
20087	Ditto but four tiers.....	2,667.00	80.00	159.00	184.00	20087
20088	Ditto but five tiers.....	2,920.00	80.00	159.00	184.00	20088
20089	Ditto but six tiers.....	3,175.00	80.00	159.00	184.00	20089
20090	Extra over either of Items 20084 to 20089 inclusive for each locker door for coin-return locking device.....	76.40	-	-	-	20090
20091	Extra over either of Items 20084 to 20089 inclusive for each locker door for pad lock device and keys (if required).....	10.40	-	-	-	20091
	Replacement parts only :-					
	<i>Each</i>					
20092	Supply only additional key and plastic key plate.....	13.20	-	-	-	20092
20093	Door hinge.....	71.90	2.90	6.60	14.30	20093
20094	Cam lock/latch lock and keys.....	171.00	2.90	11.40	32.60	20094
20095	Coin-return locking device.....	256.00	2.90	11.40	32.60	20095
20096	Pad lock device and keys.....	182.00	2.90	11.40	32.60	20096

Item					Item	
PROPRIETARY RECYCLED PLASTIC SEATING BENCHES						
Proprietary recycled plastic seating benches of outdoor quality including back and arm rests with intermediate and end supports with slats in recycled plastic and polyester powder coated finish; UV, moss, algae and impact resistant; rot, splinter and crack proof; and supports in cast iron with zinc rich epoxy coating; complete with anchorage and fixing accessories; all in accordance with the manufacturer's instructions and as approved by the Maintenance Surveyor : -		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
<i>Each</i>		A \$	B \$	C \$	D \$	
20097	Seating bench, 1200 - 1500 mm long x 600 - 750 mm wide.....	3,069.00	166.00	248.00	289.00	20097
20098	Ditto but 1500 - 1800 mm long x 600 - 750 mm wide.....	3,567.00	199.00	299.00	347.00	20098
20099	Ditto but 1800 - 2000 mm long x 600 - 750 mm wide.....	3,982.00	248.00	382.00	443.00	20099
20100	Ditto but 2000 - 2500 mm long x 600 - 750 mm wide.....	4,563.00	332.00	498.00	579.00	20100
					A \$	
20101	Add to either of Items 20097 to 20100 inclusive for intermediate arm rest to seating bench.....				284.00	20101
PROPRIETARY RECYCLED PLASTIC CHESS TABLES AND CHAIRS						
Proprietary recycled plastic chess tables of outdoor quality including chairs with or without backs and with slats in recycled plastic and polyester powder coated finish; UV, moss, algae and impact resistant; rot, splinter and crack proof; and supports in galvanized mild steel; complete with anchorage and fixing accessories; all in accordance with the manufacturer's instructions and as approved by the Maintenance Surveyor : -		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
<i>Each</i>		A \$	B \$	C \$	D \$	
20102	Chess table, 600 - 900 mm x 600 - 900 mm on plan x 750 - 900 mm high; and complete with 2 no. chairs, each 450 mm long x 500 mm wide x 800 mm high.....	7,400.00	284.00	426.00	485.00	20102
20103	Add to Item 20102 for each additional chair.....	928.00	71.10	85.30	162.00	20103
PROPRIETARY RECYCLED PLASTIC LITTER BINS						
Proprietary recycled plastic litter bins of outdoor quality and in all shapes and varying heights; comprising metal supports and frames with finish, removable buckets and recycled plastic slats resistant to UV, moss, algae, corrosion, vandal, impact and fire; and rots, splinter and crack proof; complete with anchorage and fixing accessories; all in accordance with the manufacturer's instructions and as approved by the Maintenance Surveyor : -		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
<i>Each</i>		A \$	B \$	C \$	D \$	
20104	Litter bin n.e. 0.25 m ² plan area.....	2,616.00	114.00	171.00	226.00	20104
20105	Ditto but 0.25 - 0.50 m ² plan area.....	3,022.00	142.00	213.00	259.00	20105

Item					Item			
	CHANGING ROOM SEATING BENCHES							
	Changing room seating benches comprising compact laminated seat made of impact and moisture resistant compact laminate conforming to BS EN 438, including back rest, coat hook rail and coat hooks, stainless steel or powder coated aluminium framing and all necessary accessories, all in accordance with the manufacturer's instructions :-							
	<i>Per linear metre</i>							
20106	Changing seating bench, 900 mm deep x 450 mm high.....	3,769.00	79.60	156.40	194.00	20106		
20107	Changing seating bench, single side, 450 mm deep x 450 mm high with 1650 mm high coat hook rail.....	3,484.50	79.60	156.40	194.00	20107		
20108	Changing seating bench, double side, 900 mm deep x 450 mm high with 1650 mm high coat hook rail.....	5,647.10	156.40	312.70	388.00	20108		
	PROPRIETARY WRITING BOARDS/NOTICE BOARDS/CHALKBOARDS							
	Proprietary writing or notice boards in any colour with or without magnetic effect including aluminium frame, bottom rail, all necessary accessories and fixing all in accordance with the manufacturer's recommendations :-							
	<i>Per square metre</i>							
20109	Proprietary writing or notice board in either ceramic or painted-surface board with writing surface in silica polyester compound, with or without magnetic effect including aluminium frame, bottom rail, complete with all necessary accessories and fixing.....	741.20	739.70	707.10	20.80	33.30	57.90	20109
20110	Proprietary triple coated writing board with acrylic resin top-coat over a galvanized steel base sheet, rust proof, surface hardness to 8H, smooth, magnetic, no discoloration; optional green chalk board with grid pattern; notice board to have 10 mm insulation board core with plywood backing, Hessian fabric cover and extruded anodized aluminium frame, including bottom rail, complete with all necessary accessories and fixing.....	465.20	440.00	415.10	16.60	29.10	48.00	20110
	Proprietary chalkboard stands on floor or fixed to wall all as recommended by the manufacturer :-							
	<i>Per square metre</i>							
20111	Proprietary chalkboard comprising 4 mm thick high pressure laminated (HPL) based boards of standard green colour, stain resistant and to NEMA LD3 standard, properties on resistance to wear, impact, scratch, on flatness dimensional stability and reaction to immersion in boiling water to meet BS EN 458 (framework and backing measured separately).....	622.20	14.10	27.40	43.90			20111
20112	Proprietary revolving surface writing board, with fixing plates, chalk writing surface to be magnetic, in black or green, standard framework for roller boards in top quality timber, aluminium or medium density fibreboard.....	1,852.60	94.60	117.60	94.60			20112
20113	Proprietary magnetic green/white board, 1.20 m wide, facing sheet to be vitreous porcelain enamel with base metal, plywood core, perimeter trim in extruded anodized aluminium channel with rounded rubber corner, complete with aluminium tube chalk trough installed with concealed bracket fastener.....	1,198.80	48.70	67.90	79.10			20113

Item				Item												
	BAIZE OR NOTICE BOARD FELT															
	<i>Per square metre</i>		A \$													
20114	Good quality red, green, blue or black baize or fine felt, fixed to doors, notice and directory boards (measured separately) and the like with adhesive or brass nails.....	334.10		20114												
20115	Ditto but fixed to grooved plastic name plates and notice boards (measured separately) including working into grooves (measured flat overall grooves).....	340.70		20115												
20116	Ditto but fixed to grooved plywood or timber name and directory boards (measured separately) including cutting grooves in plywood or timber and working the baize or felt into the same (measured flat overall grooves).....	347.70		20116												
	CLOTHES DRYING RACKS															
	Side-way type pulley operated clothes drying rack, with aluminium self-retractable roller system and nylon pulley system, wall mounted with stainless steel supporting brackets and complete with gear box accessories : -															
	<i>Each</i>															
			<table border="1" style="width: 100%; text-align: center;"> <tr> <th>Supply and fix</th> <th>Take down and clear away</th> <th>Take down and set aside for re-use</th> <th>Fix only</th> </tr> <tr> <th>A \$</th> <th>B \$</th> <th>C \$</th> <th>D \$</th> </tr> </table>	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	A \$	B \$	C \$	D \$					
Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only													
A \$	B \$	C \$	D \$													
20117	Clothes drying rack, 1500 mm long x 600 - 750 mm wide.....	792.00	41.50	49.80	54.90	20117										
20118	Clothes drying rack with canvas, 1500 mm long x 600 - 750 mm wide.....	904.00	57.00	67.90	77.90	20118										
	VENETIAN BLINDS															
	<i>Per square metre</i>															
			<table border="1" style="width: 100%; text-align: center;"> <tr> <th colspan="4">Area of blinds (m²)</th> </tr> <tr> <th>n.e. 1.0</th> <th>1.0 - 1.5</th> <th>1.5 - 2.0</th> <th>Exc. 2.0</th> </tr> <tr> <th>A \$</th> <th>B \$</th> <th>C \$</th> <th>D \$</th> </tr> </table>	Area of blinds (m ²)				n.e. 1.0	1.0 - 1.5	1.5 - 2.0	Exc. 2.0	A \$	B \$	C \$	D \$	
Area of blinds (m ²)																
n.e. 1.0	1.0 - 1.5	1.5 - 2.0	Exc. 2.0													
A \$	B \$	C \$	D \$													
20119	Blinds in individual size.....	213.60	192.20	181.50	165.50	20119										
	<i>Per square metre</i>															
20120	Extra over Item 20119 for forming graphics and the like on one side.....				65.30	20120										
20121	Ditto but on both sides.....				114.30	20121										
	<i>Each</i>															
20122	Extra over Item 20119 for forming opening of any size.....				51.50	20122										

Item			Item								
	VENETIAN BLINDS (CONT'D)										
	Alteration and repairs :-										
	Take down and clear away the following old or defective articles or fittings, and supply and fix new articles or fittings :-										
	<i>Per linear metre</i>	A \$									
20123	Slat.....	19.60	20123								
20124	Head rail.....	91.60	20124								
20125	Bottom rail.....	81.20	20125								
20126	Lift cord.....	13.80	20126								
20127	Ladder cord.....	19.60	20127								
20128	U rod.....	26.30	20128								
	<i>Each</i>										
20129	Tassel.....	8.80	20129								
20130	Tilter.....	38.90	20130								
20131	Cord lock.....	45.70	20131								
20132	Fixing bracket.....	32.00	20132								
20133	Tape roll and tape holder.....	32.00	20133								
20134	750 mm Long solid core wand with hook.....	46.20	20134								
20135	1000 mm Long ditto.....	72.50	20135								
20136	1300 mm Long ditto.....	86.80	20136								
20137	1500 mm Long ditto.....	99.10	20137								
20138	2300 mm Long ditto.....	179.00	20138								
20139	End cap to head or bottom rails.....	9.00	20139								
20140	Slat clip.....	7.30	20140								
	Sundries :-										
	<i>Each</i>										
		<table border="1"> <thead> <tr> <th colspan="2">Area of blinds (m²)</th> </tr> <tr> <th>N.e. 3.0</th> <th>Exc. 3.0</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> </tbody> </table>		Area of blinds (m ²)		N.e. 3.0	Exc. 3.0	A	B	\$	\$
Area of blinds (m ²)											
N.e. 3.0	Exc. 3.0										
A	B										
\$	\$										
20141	Take down venetian blinds and fittings, reduce to smaller size (any area), ease, adjust and re-fix in original or other position, including replacement of parts (take down area measured).....	183.00	206.00	20141							
20142	Take down existing venetian blinds and set aside for re-fix.....	31.30	34.90	20142							
20143	Ditto but clear away from Site.....	34.90	42.30	20143							
20144	Fix only venetian blinds.....	83.00	96.00	20144							

Item		Area of blinds (m ²)			Item
		N.e. 1.0	1.0 - 1.5	Exc. 1.5	
		A	B	C	
		\$	\$	\$	
VERTICAL BLINDS					
<i>Per square metre</i>					
20145	Blinds in individual size.....	223.70	201.40	190.20	20145
<i>Each</i>					
20146	Extra over Item 20145 for forming opening of any size.....			A \$ 64.30	20146
Alteration and repairs :-					
Take down and clear away the following old or defective articles or fittings, and supply and fix new articles or fittings :-					
<i>Per linear metre</i>					
20147	Fabric louvre.....			A \$ 13.30	20147
20148	Drawing cord.....			45.60	20148
20149	Bead chain.....			25.10	20149
<i>Each</i>					
20150	Base weight.....			22.90	20150
20151	End cap.....			9.90	20151
20152	Hanger.....			16.00	20152
20153	Set of runner.....			111.00	20153
20154	Spacer.....			12.10	20154
Area of blinds (m ²)					
N.e. 3.0 Exc. 3.0					
A B					
\$ \$					
20155	Take down vertical blinds and fittings, reduce to smaller size (any area), ease, adjust and re-fix in original or other position, including replacement of parts (take down area measured).....	155.00	178.00		20155
20156	Take down existing vertical blinds and set aside for re-fix.....	18.20	21.70		20156
20157	Ditto but clear away from Site.....	27.40	32.40		20157
20158	Fix only vertical blinds.....	85.50	101.00		20158

Item			Item																
	CHIC SUNBLINDS	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4">Area of blinds (m²)</th> </tr> <tr> <th>N.e. 1.0</th> <th>1.0 - 1.5</th> <th>1.5 - 2.0</th> <th>Exc. 2.0</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>		Area of blinds (m ²)				N.e. 1.0	1.0 - 1.5	1.5 - 2.0	Exc. 2.0	A	B	C	D	\$	\$	\$	\$
Area of blinds (m ²)																			
N.e. 1.0	1.0 - 1.5	1.5 - 2.0	Exc. 2.0																
A	B	C	D																
\$	\$	\$	\$																
	<i>Per square metre</i>																		
20159	Chic sunblinds in individual size.....	388.70 381.30 374.10 217.60	20159																
	<i>Each</i>		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="text-align: center;">A</td></tr> <tr><td style="text-align: center;">\$</td></tr> <tr><td style="text-align: center;">62.20</td></tr> </table>	A	\$	62.20													
A																			
\$																			
62.20																			
20160	Extra over Item 20159 for forming opening of any size.....		20160																
	Alterations and repairs : -																		
	<i>Each</i>		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Area of blinds (m²)</th> </tr> <tr> <th>N.e. 3.0</th> <th>Exc. 3.0</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Area of blinds (m ²)		N.e. 3.0	Exc. 3.0	A	B	\$	\$								
Area of blinds (m ²)																			
N.e. 3.0	Exc. 3.0																		
A	B																		
\$	\$																		
20161	Take down chic sunblinds and fittings, reduce to smaller size (any area), ease, adjust and re-fix in original or other position, including replacement of parts (take down area measured).....	169.00 192.00	20161																
20162	Take down, set aside for re-use chic sunblinds and associated cord and fittings.....	28.10 32.50	20162																
20163	Ditto but clear away from Site.....	31.10 42.70	20163																
20164	Fix only chic sunblinds complete with cord and fittings.....	74.50 83.90	20164																
	ROLLER BLINDS	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Height (m)</th> </tr> <tr> <th>N.e 1.0</th> <th>1.0-2.0</th> <th>Exc. 2.0</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>		Height (m)			N.e 1.0	1.0-2.0	Exc. 2.0	A	B	C	\$	\$	\$				
Height (m)																			
N.e 1.0	1.0-2.0	Exc. 2.0																	
A	B	C																	
\$	\$	\$																	
	<i>Per square metre</i>																		
20165	Blinds in individual size, manually operated.....	241.30 205.00 196.00	20165																
20166	Ditto, electrically operated.....	755.40 721.20 627.10	20166																
20167	Extra over either of Items 20165 to 20166 inclusive for additional blackout blinds.....	133.90 133.90 133.90	20167																
	<i>Each</i>		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="text-align: center;">A</td></tr> <tr><td style="text-align: center;">\$</td></tr> <tr><td style="text-align: center;">129.00</td></tr> </table>	A	\$	129.00													
A																			
\$																			
129.00																			
20168	Extra over either of Items 20165 to 20166 inclusive for forming opening of any size.....		20168																
	Alterations and repairs : -																		
	<i>Each</i>		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="text-align: center;">A</td></tr> <tr><td style="text-align: center;">\$</td></tr> <tr><td style="text-align: center;">184.00</td></tr> </table>	A	\$	184.00													
A																			
\$																			
184.00																			
20169	Take down roller blinds and fittings, reduce to smaller size (any area), ease, adjust and re-fix in original or other position, including replacement of parts (take down area measured).....	184.00	20169																
20170	Take down existing roller blinds and set aside for re-fix.....	13.70	20170																
20171	Ditto but clear away from Site.....	20.30	20171																
20172	Fix only roller blinds.....	110.00	20172																

Item		Awning in plane area (m ²)				
		N.e. 14.50	14.50 - 29.00			
		A \$	B \$			
AWNINGS						
Awnings complete with all necessary accessories : -						
<i>Per square metre</i>						
20173	Awnings in individual size, manually operated.....	723.00	650.60	20173		
20174	Ditto, electrically operated.....	893.70	758.00	20174		
20175	Awning fabric to existing awning frame.....	391.00	351.60	20175		
Sundries : -						
<i>Per square metre</i>						
20176	Take down existing manually operated awnings and set aside for re-fix.....		20.30	20176		
20177	Ditto but clear away from Site.....		25.40	20177		
20178	Take down existing electrically operated awnings and set aside for re-fix.....		30.50	20178		
20179	Ditto but clear away from Site.....		34.20	20179		
20180	Fix only manually operated awnings, including plugging, cutting and pinning etc., and making good and leaving in good order.....		204.10	20180		
20181	Ditto, but electrically operated.....		217.90	20181		
CANVAS						
<i>Per square metre</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20182	Best stripped drill canvas made up, including all seaming, scalloped edges and similar labours, providing and fixing any tying tape or cord, and fixing complete in sunshades and similar positions (rollers and framework measured separately).....	85.30	8.90	10.10	13.90	20182

Item		Item								
	BLACKOUT CURTAINS									
		<table border="1"> <thead> <tr> <th colspan="2">Blackout curtains</th> </tr> <tr> <th>with linings</th> <th>without linings</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Blackout curtains		with linings	without linings	A	B	\$	\$
Blackout curtains										
with linings	without linings									
A	B									
\$	\$									
	<i>Per square metre</i>									
20183	Blackout curtains of twill, polyester or velvet, fixed to curtain rails and tracks (measured separately).....	<table border="1"> <tr> <td style="width: 50px;">353.50</td> <td style="width: 50px;">234.60</td> </tr> </table>	353.50	234.60	20183					
353.50	234.60									
		<table border="1"> <tr> <td style="width: 50px;"></td> <td style="width: 50px;">A</td> </tr> <tr> <td></td> <td>\$</td> </tr> </table>		A		\$				
	A									
	\$									
	<i>Each</i>									
20184	Extra over Item 20183 for forming opening of any size.....	<table border="1"> <tr> <td style="width: 50px;">125.00</td> <td style="width: 50px;"></td> </tr> </table>	125.00		20184					
125.00										
	Sundries : -									
	<i>Per square metre</i>									
20185	Take down and clear away blackout curtains and associated cord and fittings.....	<table border="1"> <tr> <td style="width: 50px;">8.90</td> <td style="width: 50px;">A</td> </tr> <tr> <td></td> <td>\$</td> </tr> </table>	8.90	A		\$	20185			
8.90	A									
	\$									
20186	Take down, set aside for re-use blackout curtains and associated cord and fittings.....	<table border="1"> <tr> <td style="width: 50px;">10.10</td> <td style="width: 50px;"></td> </tr> </table>	10.10		20186					
10.10										
20187	Fix only blackout curtains completed with cord and fittings.....	<table border="1"> <tr> <td style="width: 50px;">21.60</td> <td style="width: 50px;"></td> </tr> </table>	21.60		20187					
21.60										
	STAGE CURTAINS									
		<table border="1"> <thead> <tr> <th colspan="2">Stage curtains</th> </tr> <tr> <th>with linings</th> <th>without linings</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Stage curtains		with linings	without linings	A	B	\$	\$
Stage curtains										
with linings	without linings									
A	B									
\$	\$									
	<i>Per square metre</i>									
20188	Cotton velveteen stage curtain with valance fixed on curtain rails and tracks (measured separately).....	<table border="1"> <tr> <td style="width: 50px;">189.50</td> <td style="width: 50px;">160.30</td> </tr> </table>	189.50	160.30	20188					
189.50	160.30									
	Sundries : -									
	<i>Per square metre</i>									
		<table border="1"> <thead> <tr> <th colspan="2">Stage curtains</th> </tr> <tr> <th>with linings</th> <th>without linings</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Stage curtains		with linings	without linings	A	B	\$	\$
Stage curtains										
with linings	without linings									
A	B									
\$	\$									
20189	Take down and clear away stage curtains and associated cord and fittings.....	<table border="1"> <tr> <td style="width: 50px;">11.00</td> <td style="width: 50px;">9.20</td> </tr> </table>	11.00	9.20	20189					
11.00	9.20									
20190	Take down, set aside for re-use stage curtains and associated cord and fittings.....	<table border="1"> <tr> <td style="width: 50px;">12.40</td> <td style="width: 50px;">10.70</td> </tr> </table>	12.40	10.70	20190					
12.40	10.70									
20191	Fix only stage curtains complete with cord and fittings.....	<table border="1"> <tr> <td style="width: 50px;">26.60</td> <td style="width: 50px;">23.90</td> </tr> </table>	26.60	23.90	20191					
26.60	23.90									

Item					Item	
	SANITARY FITTINGS					
	LAVATORY BASINS					
	Vitreous china wash basins complete with waste fittings, plug and chain, trap fittings, tap hole with overflow and fixing brackets and accessories : -					
	(Note : - All taps, cocks and mixers are measured separately.)					
	<i>Each</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20192	Wall hung wash basin.....	571.00	97.00	99.50	229.00	20192
20193	Counter top wash basin.....	666.00	97.00	99.50	229.00	20193
20194	Under-counter wash basin.....	825.00	87.10	90.40	229.00	20194
	SINKS					
	(Note : - All sink mixers or faucets are measured separately.)					
	<i>Each</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20195	Fireclay cleaner's sink (any size) complete with drainer, overflow, waste fitting, plug and chain, trap and brackets.....	806.00	100.00	103.00	298.00	20195
20196	Stainless steel Grade 304 single bowl sink complete with waste fitting, plug and chain, trap fitting, tap hole with overflow and fixing brackets and accessories.....	1,049.00	87.10	90.40	321.00	20196
20197	Stainless steel Grade 304 double bowl sink complete with waste fitting, plug and chain, trap fitting, tap hole with overflow and fixing brackets and accessories.....	1,498.00	87.10	90.40	345.00	20197
20198	Extra over either of Items 20196 to 20197 inclusive for drain board n.e. 1.00 m long.....	381.00	56.40	58.90	207.00	20198
20199	Extra over either of Items 20196 to 20197 inclusive for drain board 1.00 - 1.60 m long.....	635.00	58.10	59.70	229.00	20199
	Add to either of Items 20196 to 20199 inclusive for stainless steel Grade 316 in lieu of Grade 304.....	10%	-	-	-	
	(Note : - The following Item 20200 shall only be paid for, if ordered by the Maintenance Surveyor in writing.)					
	<i>Each</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20200	Approved hospital sluice fitting comprising combined bed-pan and wash up sink complete with loose or fixed trap, brackets, urinal bottle and bed-pan jets, high level cistern with brackets and flush pipe, waste fitting, plug and chain, drainer, shower head and including all necessary supply fittings.....	18,407.00	292.00	297.00	933.00	20200

Item					Item	
	SANITARY FITTINGS (CONT'D)					
	WATER CLOSETS (W.C.)					
	Vitreous china water closet suites complete with seat and cover, cistern with flushing devices, traps, flush bend and pipes, syphon fittings, ball valves, inlet and outlet connectors and fixing accessories : -	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Each</i>	A \$	B \$	C \$	D \$	
20201	Close-coupled W.C. suite complete with low or high level cistern with lever flush or push button, 6 litre single flush or 6 / 4 litre dual flush and "P" or "S"-trap.....	1,172.00	99.50	103.00	293.00	20201
20202	Wash down wall-hung W.C. pan complete with bottom or top inlet concealed cistern with push button, 6 litre single flush or 6 / 4 litre dual flush and "P" or "S"-trap.....	1,603.00	99.50	103.00	293.00	20202
20203	Accessible W.C. suite complete with low or high level cistern with lever flush, 6 litre single flush or 6 / 4 litre dual flush and "P" or "S"-traps.....	1,609.00	101.00	109.00	317.00	20203
20204	Approved stainless steel Grade 304 floor mounted pedestal W.C. pan complete with low, medium or high level cistern and fittings, single or dual flushing device and "P" or "S"-trap.....	4,518.00	142.00	249.00	472.00	20204
	Add to Item 20204 for stainless steel Grade 316 in lieu of Grade 304.....	10%	-	-	-	
20205	Children W.C. suite complete with low or high level cistern with lever flush, 6 litre single flush or 6 / 4 litre dual flush and "P" or "S"-traps.....	1,142.00	92.40	96.70	279.00	20205
	Squatting type water closet pans complete with cistern and flushing device, traps, flush bend and pipes, syphon fittings, ball valves, angle valves, inlet and outlet connector and fixing accessories including bedding pan in cement mortar (concrete surround measured separately) : -					
	<i>Each</i>					
20206	Fireclay plate floor mounted squatting W.C. wash-down pan complete with integral foot treads, low level cistern and fittings, flushing device and "S"-trap.....	899.00	41.50	42.30	138.00	20206
20207	Vitreous china squatting W.C. pan complete with high or medium level cistern with lever flush, 6 litre single flush device or 6 / 4 litre dual flush and "P" or "S"-trap.....	1,401.00	101.00	109.00	320.00	20207
20208	Approved stainless steel Grade 304 floor mounted squatting W.C. pan complete with high or medium level cistern and fittings, single or dual flushing device and "P" or "S"-trap.....	2,019.00	90.00	94.50	293.00	20208
20209	Approved stainless steel Grade 304 floor mounted squatting W.C. pan complete with low level cistern and fittings, single or dual flushing device, foot control and "P" or "S"-trap.....	2,417.00	125.00	145.00	419.00	20209
	Add to either of Items 20208 to 20209 inclusive for stainless steel Grade 316 in lieu of Grade 304.....	10%	-	-	-	

Item					Item	
SANITARY FITTINGS (CONT'D)						
URINALS						
Urinals complete with grating, traps, flush bend and pipes, fittings, valves, inlet and outlet connectors and fixing accessories : -						
<i>Each</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20210	Vitreous china wall urinal bowl complete with outlet grating, trap and concealed brackets or hanger (cistern, spreader, etc., measured separately).....	799.00	38.40	49.80	103.00	20210
20211	Stainless steel Grade 304 wall urinal bowl complete with outlet grating, trap and concealed brackets or hanger (cistern, spreader, etc., measured separately).....	1,173.00	42.70	54.00	129.00	20211
20212	Single stall pattern floor mounted vitreous china urinal complete with two return ends, floor channel, outlet grating and trap including bedding in cement mortar and pointing in white cement (cistern, spreader, etc., measured separately).....	975.00	71.00	78.00	179.00	20212
20213	Single stall pattern floor mounted urinal in stainless steel Grade 304 complete with two return ends, floor channel, outlet grating and trap including bedding in cement mortar and pointing in white cement (cistern, spreader, etc., measured separately).....	1,433.00	85.30	92.40	199.00	20213
20214	Approved slab pattern urinal in stainless steel Grade 304, 1.20 m wide complete with two return ends, floor channel, outlet grating and trap including bedding in cement mortar and pointing in white cement (cistern, spreader, etc., measured separately).....	5,720.00	114.00	128.00	400.00	20214
20215	Add to Item 20214 for each additional 610 mm wide back section and length of floor channel in the same range.....	2,237.00	49.80	56.90	160.00	20215
	Add to either of Items 20211, 20213 to 20215 inclusive for stainless steel Grade 316 in lieu of Grade 304.....	10%	-	-	-	
<i>Each</i>						
20216	Division slab between wall urinal bowls complete with concealed hanger.....	416.00	14.90	18.20	57.40	20216
20217	Automatic flushing cistern (any size) complete with brackets or hanger, pet cock, and flush pipe and spreader for single urinal stall or bowl, or flush and sparge pipe n.e. 1.0 m long for single section slab urinal.....	595.00	83.00	91.30	172.00	20217
20218	Add to Item 20217 for each additional stall or bowl or 610 mm width of stall urinal served from the same cistern.....	488.00	13.30	14.90	55.20	20218

Item					Item	
	SANITARY FITTINGS (CONT'D)					
	SHOWER TRAYS AND BATH TUBS					
	(Note : - All shower and bath fittings, mixers or faucets are measured separately.)					
	<i>Each</i>					
20219	Shower tray (any size) complete with waste fitting, plug and chain, and trap including bedding in cement mortar and pointing in white or coloured cement (concrete surround or benching measured separately).....	2,227.00	151.00	153.00	471.00	20219
20220	Vitreous enamelled cast iron bath n.e. 2.0 m long complete with combined overflow and waste fitting, plug and chain and trap.....	3,438.00	198.00	201.00	632.00	20220
	TAPS, COCKS AND MIXERS					
	<i>Each</i>					
20221	Bib cock, bib tap and stop cock.....	147.00	16.60	20.80	83.50	20221
20222	Pillar cock and pillar tap with lever action.....	156.00	16.60	20.80	83.50	20222
20223	Basin mixer.....	498.00	16.60	20.80	89.60	20223
20224	Sink mixer with swivel nozzle.....	487.00	16.60	20.80	105.70	20224
20225	Shower fitting comprising tap, cock or shower mixer, flexible hose, clamp bracket assembly, slide bar, shower head and spray handset.....	654.00	39.00	39.80	126.00	20225
20226	Shower fitting for disabled comprising hand held shower including wall brackets, with 15 mm diameter chromium plated brass flexible hose mounted on vertical bar minimum 500 mm long capable to carry a static load of 150 kg.....	1,761.00	41.50	49.80	144.00	20226
20227	Shower mixer with pillar taps or corks, shower head including anti-suicide fittings and accessories.....	2,428.00	28.40	35.50	298.00	20227
20228	Shower fitting comprising thermo-static shower mixer, flexible hose, clamp bracket assembly, slide bar, shower head and spray handset.....	4,017.00	28.40	47.30	184.00	20228
20229	Bath mixer fitting with fixed nozzle.....	407.00	16.60	20.80	173.00	20229
20230	Ditto with diverter automatic fitting.....	447.00	16.60	20.80	288.00	20230
20231	Add to either of Items 20221 to 20230 inclusive if fitted with "Compression type" connector for copper tubing (per one end).....	43.20	-	-	29.80	20231
20232	Ditto if fitted with "Capillary type" connector for copper tubing (per one end).....	33.80	-	-	19.90	20232
20233	Ditto if fitted with "Press end type" connector for copper tubing (per one end).....	41.20	-	-	24.00	20233

Item					Item	
	SANITARY FITTINGS (CONT'D)					
	SELF-CLOSING TAPS, COCKS AND MIXERS WITH TIME-DELAY CLOSING ACTION					
	Vandal proof self closing taps or stop cocks with time delay closing action devices complete with fittings and fixing accessories : -					
	<i>Each</i>					
20234	Self closing non-concussive basin pillar tap with time delay closing action, built in adjustable flow rate device, self cleaning piston and anti-splash gauze strainer.....	325.00	38.40	42.70	107.00	20234
20235	Self closing non-concussive basin pillar tap or mixer with lever action for disabled, with built in adjustable flow rate device, self cleaning piston and anti-splash gauze strainer.....	822.00	38.40	42.70	114.00	20235
20236	Concealed self closing non-concussive shower stop cock with built-in adjustable flow rate device, supplied with anti-theft device fixed overhead shower and riser pipe and hose.....	622.00	38.40	42.70	121.00	20236
20237	Surface mounted self closing non-concussive shower stop cock with ditto.....	791.00	38.40	42.70	121.00	20237
20238	Concealed non-concussive shower stop cock, with lever action for disabled, with lever handle at least 75 mm long from the centre of rotation to the handle tip.....	564.00	38.40	42.70	117.00	20238
20239	Ditto but for shower and bath mixer stop cock.....	707.00	38.40	42.70	117.00	20239
20240	Concealed self closing non-concussive shower mixer stop cock, knob to select showering temperature, built in adjustable flow device supplied with anti-theft device fixed shower head, riser pipe and hose.....	1,894.00	38.40	42.70	142.00	20240
20241	Surface mounted self closing non-concussive shower mixer stop cock, ditto.....	2,106.00	38.40	42.70	142.00	20241
	ELECTRONIC OPERATED TAPS, COCKS AND MIXERS					
	Electronic operated taps, cocks or mixers with adjustable self closing timing devices, electronic infra-red sensor devices, powered by transformer or battery operated complete with control box, angle stop cocks with built-in filter and check valve, fittings and fixing accessories : -					
	<i>Each</i>					
20242	Electronic operated basin bib or pillar tap powered by transformer or operated by battery including provision of connection to nearest power point by a registered electrical worker.....	959.00	41.50	43.80	135.00	20242
20243	Ditto with thermostatic mixer.....	2,444.00	41.50	43.80	135.00	20243
20244	Wall mounted electronic operated sensor tap with self closing device or premixed with adjustable sensing distance with special 220 mm projected spout supplied with extra flexible hose and electric cable with adaptor for 1 m length, powered by transformer or operated by battery including provision of connection to nearest power point by a registered electrical worker.....	1,689.00	57.00	63.90	156.00	20244
20245	Wall mounted electronic operated thermostatic mixer powered by transformer or operated by battery including provision of connection to nearest power point by a registered electrical worker.....	2,914.00	64.00	70.30	156.00	20245

Item					Item	
	SANITARY FITTINGS (CONT'D)					
	THERMOSTATIC AND THERMOSCOPIC MIXING VALVES					
	<i>Each</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20246	15 mm Thermostatic mixing valve 15mm including safety shut-off device.....	1,017.00	29.00	43.90	75.90	20246
20247	20 mm Ditto.....	1,057.00	29.00	43.90	75.90	20247
20248	22 mm Ditto.....	1,070.00	29.00	43.90	75.90	20248
20249	25 mm Ditto.....	1,195.00	29.00	43.90	75.90	20249
20250	15 mm Thermoscopic mixing valve including safety shut-off device.....	829.00	31.50	43.90	75.90	20250
	PARTS OF SANITARY FITTINGS					
	WATER CLOSET (W.C.) ACCESSORIES					
	<i>Each</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20251	Vitreous china squatting type W.C. pan.....	347.00	56.90	59.70	110.00	20251
20252	Vitreous china W.C. pan.....	456.00	56.90	59.70	140.00	20252
20253	Vitreous china accessible W.C. pan.....	472.00	56.90	59.70	140.00	20253
20254	Vitreous china children W.C. pan.....	500.00	49.80	52.60	130.00	20254
20255	Fireclay plate floor mounted squatting type W.C. wash-down pan.....	528.00	56.90	59.70	110.00	20255
20256	Stainless steel Grade 304 floor mounted squatting type W.C. pan.....	632.00	64.00	71.10	120.00	20256
20257	Solid plastic W.C. seat with moulded plastic adjustable hinges.....	116.00	14.20	17.10	28.80	20257
20258	Ditto but with cover.....	130.00	17.10	19.90	34.50	20258
20259	Solid W.C. seat with moulded adjustable hinges for disabled.....	120.00	14.20	17.10	28.80	20259
20260	India rubber buffer to W.C. seat.....	20.20	2.50	2.50	8.10	20260
20261	Pair of pillar hinges to W.C. seat.....	37.50	2.50	2.50	9.20	20261
20262	Pair of double pillar hinges to W.C. seat and cover.....	81.40	3.40	3.40	12.60	20262
20263	Vitreous china low level lever flush cistern, 6 litre single flush, complete with plastic syphon fittings, ball valve, flush bend and pipe, inlet connector, overflow, chromium plated lever and fittings.....	505.00	39.80	42.70	109.00	20263
20264	Vitreous china close-coupled cistern with 6 litre single flush or 4 / 6 litre dual flush device, complete with plastic syphon fittings, ball valve, close coupling fittings, overflow, chromium plated lever or push button and fittings.....	543.00	41.20	44.10	114.00	20264
20265	Vitreous china high level cistern, 6 litre single flush, complete with plastic syphon fittings, ball valve, flush bend and pipe, inlet connector, overflow, chromium plated chain and rubber pull and fittings.....	515.00	42.70	45.50	119.00	20265

Item					Item	
PARTS OF SANITARY FITTINGS (CONT'D)						
WATER CLOSET (W.C.) ACCESSORIES (CONT'D)						
<i>Each</i>						
	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only		
	A \$	B \$	C \$	D \$		
20266	Plastic low level cistern, 6 litre single flush or 4 / 6 litre dual flush device, complete with plastic syphon fittings, ball valve, flush bend and pipe, inlet connector, overflow, chromium plated lever and fittings.....	355.00	38.40	41.20	107.00	20266
20267	Plastic high level cistern, 6 litre single flush, complete with plastic syphon fittings, ball valve, flush bend and pipe, inlet connector, overflow, chromium plated chain and rubber pull and fittings.....	453.00	41.20	44.10	114.00	20267
20268	Plastic concealed type cistern with 6 litre single flush or 4 / 6 litre dual flush device, complete with plastic syphon fittings, ball valve, flush bend and pipe, inlet connector, overflow and chromium plated lever or push button.....	647.00	39.80	42.70	119.00	20268
20269	Electronic operated vandal proof W.C. flush valve approved by Water Supplies Department suitable for sea water, concealed/built-in type, including infra-red sensor with or without manual overriding button in case of failure of sensor, filter before flushing valve and powered by transformer and provision of connection to nearest power point by a registered electrical worker.....	3,162.00	32.40	47.30	138.00	20269
20270	32 mm Self-closing non-concussive flushing devices, inlet connector and remote control system.....	2,122.00	32.40	47.30	138.00	20270
20271	32 mm Stainless steel flushing valve.....	1,561.00	29.00	37.30	57.40	20271
20272	Plastic syphon complete with chromium plated outlet connector including adjusting and re-fixing lever arm.....	189.00	34.80	36.50	94.20	20272
20273	Pair of porcelain enamelled brackets.....	215.00	12.50	14.90	68.90	20273
20274	Chromium plated brass lever handle with linkage to syphon including adjusting.....	100.00	21.60	23.30	45.90	20274
20275	Plastic lever handle ditto.....	70.40	21.60	23.30	45.90	20275
20276	Heavy galvanized chain pull to W.C. cistern.....	51.50	21.60	-	18.30	20276
20277	Nylon cord pull ditto.....	30.00	21.60	-	18.30	20277
20278	Rod pull and guide for high level cistern.....	37.10	21.60	-	18.30	20278
20279	Foot operated flushing mechanism.....	874.00	34.10	34.80	117.00	20279
20280	Foot operated duct lever with high level cistern adaptor for wall thickness within 115 mm to 229 mm.....	1,202.00	39.00	39.80	115.00	20280
20281	Plastic flush pipe for low level cistern including connector.....	77.20	20.80	23.30	49.50	20281
20282	Plastic adjustable flush pipe for high level cistern.....	103.00	29.00	30.70	57.40	20282
20283	Plastic flush pipe connector.....	29.00	10.00	10.80	21.80	20283

Item					Item	
PARTS OF SANITARY FITTINGS (CONT'D)						
URINAL FITTINGS AND ACCESSORIES						
<i>Each</i>						
	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only		
	A \$	B \$	C \$	D \$		
20284	Urinal flush valve.....	1,023.00	32.40	47.30	138.00	20284
20285	Electronic operated vandal proof urinal flush valve approved by Water Supplies Department suitable for sea water, concealed / built-in type, infra-red sensor with or without manual overriding button in case of failure of sensor, filter before flushing valve and powered by transformer and provision of connection to nearest power point by a registered electrical worker.....	1,564.00	32.40	47.30	138.00	20285
20286	Glazed fire-clay automatic flushing cistern, 4.50 litre capacity.....	700.00	31.50	32.40	107.00	20286
20287	Ditto but 9.00 litre capacity.....	731.00	36.50	37.30	119.00	20287
20288	Ditto but 13.50 litre capacity.....	808.00	41.50	42.30	132.00	20288
20289	Plastic syphon with screwed outlet and rubber washer to suit 4.50 litre capacity automatic flushing cistern.....	206.00	19.90	20.80	66.50	20289
20290	Ditto but for 9.00 litre capacity automatic flushing cistern.....	280.00	21.60	23.30	73.50	20290
20291	Ditto but for 13.50 litre capacity automatic flushing cistern.....	327.00	25.70	26.50	79.20	20291
20292	10 mm Plastic drip cock for automatic cistern.....	115.00	10.00	10.80	36.80	20292
20293	10 mm Brass drip cock ditto.....	328.00	12.50	13.30	44.70	20293
20294	P.V.C. flush pipe and spreader for single urinal stall or bowl.....	243.00	26.50	27.40	78.10	20294
20295	Add to Item 20294 for each additional stall or bowl in a range served from the same cistern.....	257.00	12.50	13.30	40.20	20295
20296	P.V.C. flush pipe and sparge pipe n.e. 1.0 m long for slab urinal.....	365.00	34.80	35.60	91.80	20296
20297	Add to Item 20296 for each additional 610 mm width of slab urinal.....	75.00	10.00	10.80	27.50	20297

Item						
	PARTS OF SANITARY FITTINGS (CONT'D)					
	SHOWER FITTINGS					
	<i>Each</i>	A \$	B \$	C \$	D \$	
20298	Grating and waste connection to outlet from urinal channel.....	184.00	17.40	18.20	55.20	20298
20299	Chromium plated shower rose/head with galvanised mild steel capped end for fixing to all pipeworks including adjustable swivel pattern.....	93.50	10.00	10.80	36.80	20299
20300	Plastic or chromium plated shower hand spray.....	109.00	7.40	11.80	25.50	20300
20301	Chromium plated wall mounted slide bar and brackets for shower hand spray including plugging to wall.....	120.00	13.30	14.90	29.90	20301
20302	15 mm Diameter chromium plated brass flexible tube, 1.20 m long.....	131.00	8.30	10.00	21.80	20302
20303	Ditto but 1.50 m long.....	176.00	8.30	10.00	21.80	20303
20304	Shower seat not less than 550 mm wide and 400 mm deep, and fixed to wall including wall brackets.....	1,546.00	43.20	49.80	109.00	20304
	WASTE PLUGS AND CHAINS					
	<i>Each</i>	A \$	B \$	C \$	D \$	
20305	Rubber or vulcanite waste plug n.e. 64 mm top diameter with chromium plated ring to receive chain (measured separately).....	11.00	2.90	4.30	5.70	20305
20306	Stout chromium plated brass chain ring and screw fixing stud n.e. 0.8 m long.....	21.00	4.30	5.70	9.20	20306
	SUNDRY CLEANING					
	<i>Each</i>				A \$	
20307	Thoroughly scrub and clean existing W.C. pan and cistern, urinal stall, lavatory basin, sink and the like with spirits of salts and hot water.....				20.30	20307

Item					Item	
	TOILET FITTINGS AND ACCESSORIES	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
20308	Shower cubicle screen in clear polycarbonate panel complete with frame, sliding or pivot door panel, track, fittings and accessories : - <i>Per square metre</i> Shower cubicle.....	1,685.30	47.50	59.30	99.50	20308
20309	Shower curtain rails or hanging rails in polished chrome, stainless steel or aluminium finish including mounting flanges, caps, curtain rings, brackets and fixing accessories : - <i>Per linear metre</i> Shower curtain rail or hanging rail.....	40.10	2.40	4.30	6.60	20309
20310	Toilet roll holders including fixing accessories : - <i>Each</i> Toilet roll holder (heavy pattern) in stainless steel polished finish or satin finish, or chrome plated finish, surface mounted.....	87.60	7.10	16.60	33.20	20310
20311	Locking type ditto.....	110.00	9.50	16.60	33.20	20311
20312	Single toilet paper holder ditto.....	79.80	4.80	9.50	26.50	20312
20313	Double toilet roll holder in ditto.....	141.00	4.80	9.50	26.50	20313
20314	Single vitreous china toilet roll holder surface mounted.....	96.30	4.80	9.50	26.50	20314
20315	Ditto but semi-recessed.....	83.60	4.80	9.50	26.50	20315
20316	Towel rails in polished chrome, stainless steel or aluminium finish including mounting flanges, caps, brackets and fixing accessories : - <i>Each</i> Towel rail 450 mm long.....	116.00	7.10	14.20	29.80	20316
20317	Ditto 600 mm long.....	129.00	7.10	14.20	29.80	20317
20318	Ditto 900 mm long.....	160.00	7.10	14.20	29.80	20318
20319	Multi-roll toilet tissue dispenser boxes including fixing accessories : - <i>Each</i> Multi-roll toilet tissue dispenser box in plastic.....	160.00	9.50	21.40	22.90	20319
20320	Ditto in stainless steel.....	370.00	9.50	21.40	39.80	20320

Item					Item	
TOILET FITTINGS AND ACCESSORIES (CONT'D)						
Towel and feminine napkin dispensers in polished chrome, stainless steel or aluminium finish including mounting flanges, caps, brackets and fixing accessories : -						
<i>Each</i>						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20321	Towel dispenser, 275 x 230 x 110 mm surface mounted.....	401.00	7.10	14.20	30.00	20321
20322	Ditto, 400 x 600 x 300 mm, surface mounted.....	592.00	7.10	14.20	30.00	20322
20323	Feminine napkin dispensers, size 190 x 255 x 95 mm.....	273.00	4.80	11.90	26.50	20323
Grab bars in polished chrome finish, stainless steel hair line or mirror finish or aluminium finish including mounting flanges, caps, tenons plates, brackets and fixing accessories : -						
<i>Each</i>						
20324	Grab bar 32 - 40 mm diameter, 600 mm long.....	176.00	7.10	16.60	39.80	20324
20325	Ditto but 900 mm long.....	299.00	11.90	23.70	49.70	20325
20326	Grab bar 32 - 40 mm diameter, in L-shaped or two bars arranged in L-shaped configuration, 750 mm by 900 mm in length, capable of carrying a static load of 150 kg.....	632.00	19.00	35.60	66.30	20326
Folding grab bars for disabled toilet, in stainless steel polished hair line or mirror finish, including mounting flanges, caps, tenons plates, brackets and fixing accessories : -						
<i>Each</i>						
20327	Folding grab bar 32 - 40 mm diameter, in U-shaped of 750mm plan length, swing upwards, capable of carrying a static load of 150 kg.....	870.00	23.70	47.50	82.80	20327
Grab bars, in non-ferrous metal, with colour resin or similar covering, easy grip and stain proof coating including mounting flanges, caps, tenons plates, brackets and fixing accessories : -						
<i>Each</i>						
20328	Grab bar, 32 - 40 mm diameter, 600 mm long.....	260.00	7.10	16.60	39.80	20328
20329	Ditto but 900 mm long.....	389.00	11.90	23.70	49.70	20329
20330	Grab bar, 32 - 40 mm diameter, in L-shaped or two bars arranged in L-shaped configuration, 750 mm by 900 mm in length, capable of carrying a static load of 150 kg.....	1,022.00	19.00	35.60	66.30	20330
Folding grab rails for disabled toilet, in non-ferrous metal, with colour resin or similar covering, easy grip and stain proof coating including mounting flanges, caps, tenons plates, brackets and fixing accessories : -						
<i>Each</i>						
20331	Folding grab rail, 32 - 40 mm diameter, in U-shaped of 750 mm plan length, swing upwards, capable of carrying a static load of 150 kg.....	1,151.00	23.70	47.50	82.80	20331

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
	TOILET FITTINGS AND ACCESSORIES (CONT'D)					
	Accessories in polished chrome, stainless steel or aluminium finish including mounting flanges, caps, brackets and fixing accessories :-					
	<i>Each</i>	A \$	B \$	C \$	D \$	
20332	Tumbler holder.....	83.00	4.80	9.50	19.90	20332
20333	Tumbler and tooth brush holder.....	109.00	4.80	9.50	19.90	20333
20334	Glass shelves including brackets and guard rail n.e. 0.50 m long.....	132.00	9.50	21.40	39.80	20334
20335	Washing cream dispenser and plastic soap container.....	135.00	4.80	9.50	19.90	20335
20336	Soap holder.....	124.00	4.80	7.10	16.60	20336
20337	Surface mounted liquid soap dispenser.....	178.00	4.80	9.50	19.90	20337
20338	Under-counter soap dispenser with 100 mm spout length.....	201.00	4.80	9.50	19.90	20338
20339	Battery operated automatic soap dispenser with infra-red sensor, plastic cover, inspection window and soap container.....	244.00	4.80	9.50	19.90	20339
20340	Adjustable mirror for disabled, 450 x 600 mm complete with adjustable pivoted brackets.....	343.00	11.90	23.70	35.60	20340
20341	Plastic mirror cabinet.....	92.10	16.60	28.50	35.60	20341
20342	Stainless steel mirror cabinet.....	147.00	16.60	28.50	35.60	20342
	PROPRIETARY DIAPER CHANGING STATIONS					
	Proprietary diaper changing station including all necessary accessories in accordance with the manufacturer's recommendations :-					
	<i>Each</i>	A \$	B \$	C \$	D \$	
20343	Proprietary diaper changing station with FDA approved blow-moulded high-density, minimum size of 900 mm length x 500 mm width, durable polyethylene with Microban Antimicrobial additive; equipped with a pneumatic cylinder for controlled opening and closing of bed; secured to back plate with a concealed full-length steel-on-steel hinge, no hinge structure shall be exposed on interior and exterior surfaces; applicable for barrier-free accessibility and comply with ADA regulations; have smooth concave changing area with a nylon safety strap and two hooks for bags or purses; have universal instruction graphics; safety messages in 6 languages and Braille; static load performance requirements rated to support 250-300 lbs to comply with ASTM; and the product is to comply with ANSI S117.1, ASTM F2285-04 (formerly ASTM PS125), ANSI Z535.4, German TUV, ASTM G21 and ASTM G22.....	3,380.00	27.70	55.30	115.00	20343
	PROPRIETARY CHILD PROTECTION SEATS					
	Proprietary child protection seat in anti-bacterial polypropylene or anti-microbial high density polyethylene including surface mounted seat shell, support framing and all necessary accessories, all in accordance with the manufacturer's instructions :-					
	<i>Each</i>	A \$	B \$	C \$	D \$	
20344	Proprietary child protection seat with static load of upto 23 kg.....	918.00	27.70	49.80	100.00	20344

Item			Item																
	BRILLE AND TACTILE SIGNS																		
	Engraved plastic signs in Braille and tactile information comprising Braille characters, directional arrows, floor numbers and the like : -	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="4">Size (m²)</th> </tr> <tr> <th>n.e. 0.10</th> <th>0.10 - 0.20</th> <th>0.20 - 0.30</th> <th>0.30 - 0.40</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Size (m ²)				n.e. 0.10	0.10 - 0.20	0.20 - 0.30	0.30 - 0.40	A	B	C	D	\$	\$	\$	\$	
Size (m ²)																			
n.e. 0.10	0.10 - 0.20	0.20 - 0.30	0.30 - 0.40																
A	B	C	D																
\$	\$	\$	\$																
	<i>Each</i>																		
20345	Engraved plastic Braille and tactile information signs, 3 mm thick, fixed on handrail, staircases and/or other locations with adhesive or screws.....	178.00 268.00 356.00 445.00	20345																
20346	Ditto but 6mm thick.....	209.00 315.00 419.00 524.00	20346																
			<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>A</th> </tr> <tr> <th>\$</th> </tr> </thead> </table>	A	\$														
A																			
\$																			
	<i>Each</i>																		
20347	Take down and clear away plastic Braille and tactile information signs of any size from any position.....		4.20																
20348	Take down and set aside for re-use ditto.....		8.30																
20349	Fix only ditto.....		16.60																
	Metal signs in Braille and tactile information comprising Braille characters, directional arrows, floor numbers and the like : -	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="4">Size (m²)</th> </tr> <tr> <th>n.e. 0.001</th> <th>0.001 - 0.002</th> <th>0.002 - 0.003</th> <th>0.003 - 0.004</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Size (m ²)				n.e. 0.001	0.001 - 0.002	0.002 - 0.003	0.003 - 0.004	A	B	C	D	\$	\$	\$	\$	
Size (m ²)																			
n.e. 0.001	0.001 - 0.002	0.002 - 0.003	0.003 - 0.004																
A	B	C	D																
\$	\$	\$	\$																
	<i>Each</i>																		
20350	Stainless steel Braille and tactile information signs, 0.6 mm thick, polished with hair line or mirror finish, fixed on handrail, staircase and/or other locations with adhesive or screws.....	32.30 48.40 81.00 113.00	20350																
			<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>A</th> </tr> <tr> <th>\$</th> </tr> </thead> </table>	A	\$														
A																			
\$																			
	<i>Each</i>																		
20351	Take down and clear away metal Braille and tactile information signs of any size from any position.....		6.90																
20352	Take down and set aside for re-use ditto.....		8.30																
20353	Fix only ditto.....		15.10																

Item		Item
BRaille AND TACTILE SIGNS (CONT'D)		
Braille and tactile directory maps comprising graphics, logos, letters, numbers, Chinese characters, full stop, commas, and the like, complete with all necessary accessories in accordance with the manufacturer's recommendations :-		
<i>Each</i>		A \$
20354	Acid etched stainless steel Braille and tactile directory maps, polished with hair line or mirror finish, fixed to wall, n.e. 0.20 m ²	20354
		11,600.00
20355	Ditto but 0.20 m ² to 0.50 m ²	20355
		23,000.00
20356	Acid etched stainless steel Braille and tactile directory maps, polished with fine grit or hair line finish, fixed to floor with and including stand, overall height including stand not exceeding 1.0 m above finished floor level; n.e. 0.20 m ²	20356
		16,700.00
20357	Ditto but 0.20 m ² to 0.50 m ²	20357
		36,900.00
<i>Per square metre</i>		
20358	Acid etched stainless steel Braille and tactile directory maps, polished with fine grit or hair line finished, fixed to wall, exceeding 0.50 m ²	20358
		44,783.80
20359	Ditto but fixed to floor with and including stand, overall height including stand not exceeding 1.0 m above finished floor level; exceeding 0.50 m ²	20359
		59,162.90
<i>Each</i>		
20360	Extra over either of Items 20354 to 20359 inclusive for design, supply and installation of proprietary audio system including provision of connection to nearest power point by a registered electrical worker and providing necessary test certificate.....	20360
		6,400.00
<i>Per square metre</i>		
20361	Take down and clear away Braille and tactile directory maps.....	20361
		142.20
20362	Take down and set aside for re-use ditto.....	20362
		213.20
20363	Fix only ditto.....	20363
		568.60

Item						
	FLAG POLES					
	Aluminium flag poles in hot-dipped zinc coated finish complete with all necessary accessories in accordance with the manufacturer's recommendations :-	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Per linear metre</i>	A \$	B \$	C \$	D \$	
20364	Aluminium flag pole, ground stand type, roof or wall mounted with overall height n.e. 9.0 m including fixing brackets and stainless steel anchor bolts as required (concrete footing measured separately).....	5,361.50	35.60	42.70	200.10	20364
20365	Ditto but with overall height exceeding 9.0 m (concrete footing measured separately).....	5,561.70	42.70	49.80	221.90	20365
	Replacement parts only :-					
	<i>Per linear metre</i>					
20366	Halyard, pulleys, etc. for aluminium flag pole with overall height n.e. 9.0 m including cutting halyard to length and fixing to hooks or pulleys of flag pole.....	762.10	16.60	19.00	120.70	20366
20367	Ditto but with overall height exceeding 9.0 m.....	878.40	17.10	19.60	123.70	20367
	<i>Each</i>					
20368	Nylon or plastic-coated line cut to any length and fixed to hooks or pulleys of flag pole.....	1,109.00	33.20	38.00	326.00	20368
	PROJECTOR SCREENS					
	Projector screens including all necessary accessories in accordance with the manufacturer's recommendations :-	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Each</i>	A \$	B \$	C \$	D \$	
20369	Projector screen, manually operated size : 1780 x 1780 mm.....	2,175.00	104.00	120.00	325.00	20369
20370	Projector screen, electrically operated size : 1600 x 2130 mm, including provision of connection to nearest power point by a registered electrical worker.....	5,627.00	166.00	187.00	417.00	20370
	TRAFFIC BARRIER SYSTEM					
	Traffic barrier system :-		3 m straight gate arm	4.5 m straight gate arm	6 m straight gate arm	
	<i>Per set</i>		A \$	B \$	C \$	
20371	Supply and fix traffic barrier system complete with gate arm and ON/OFF push button.....		24,500.00	25,000.00	25,300.00	20371
20372	Take down and clear away traffic barrier system.....		166.00	207.00	248.00	20372
20373	Take down and set aside for re-use ditto.....		277.00	303.00	332.00	20373
20374	Fix only ditto.....		438.00	456.00	474.00	20374

Section 21

PARTITIONS AND CUBICLE SYSTEM

SECTION 21

PARTITIONS AND CUBICLE SYSTEM

SPECIAL CONDITIONS

Specification	SC21.01	<p>This Section shall generally be read and used in conjunction with the Specification in particular G.S. Items 22.77 to 22.80, the Particular Specification for the Supply and Installation of Partitions (Demountable/Dry Wall/Sliding or Folding) and Particular Specification for the Supply and Installation of Open Plan Demountable Partitions adopted in the Contract.</p> <p>Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the Specification and Employer's Requirements adopted in the Contract for the supply and installation of partitions, open plan demountable partitions and toilet cubicle system.</p>
Particular Preamble	SC21.02	<p>The term "partitions" referred to in this Section shall include demountable partitions, dry wall partitions and sliding or folding partitions.</p> <p>All demountable partition systems shall be of proprietary type and include security type and fire resisting type partition system.</p>
Measurement of partitions	SC21.03	<p>All partitions shall be measured the area of the partitions over all framing, irrespective of whether the framing is concealed or exposed to view.</p> <p>No deduction shall be made for voids or openings not exceeding 0.50 m².</p> <p>Sound insulation inside the partitions shall be measured the net area where the sound insulation is applied.</p> <p>Except flush doors for proprietary demountable partitions, all doors and ironmongery to partitions shall be measured and valued separately under Section 08 - Carpentry and Joinery and Section 09 - Ironmongery.</p> <p>Where the partition is described and measured as fully glazed, it means that the total glazed area of the partition shall be equal to or exceeding 80% of the total partition area.</p> <p>Measurement of repairs and alterations to demountable partition system and acoustic folding/sliding partition system shall be referred to Section 16 - Repairs and Alterations to Specialty Works.</p>
Rates for partitions generally	SC21.04	<p>The rates for partitions shall generally include for : -</p> <ol style="list-style-type: none"> (a) Design, fabrication, assembly and erection of the complete system including all necessary riveting, drilling, welding etc. either on Site or off Site as required. (b) All steel stud framework and components, full or part length panels to complete length of partitions ordered with natural or other anodized colour acceptable to the Maintenance Surveyor.

SPECIAL CONDITIONS

**Rates for
partitions
generally
(Cont'd)**

**SC21.04
(Cont'd)**

- (c) Sound sealing gaskets or other materials acceptable by the Maintenance Surveyor to all junctions of partitions and junctions with other walls, partitions, window mullions and suspended ceilings.
- (d) All framings and edging trims to intermediate, end or adjoining partitions and around door frames, openings and the like.
- (e) All mouldings at edges, skirtings and fixings complete.
- (f) In the case of panel stopped at door height, include additional capping to exposed upper edge of partitions.
- (g) For low level partitions, all upper cappings and intermediate stabilizers.
- (h) Providing and fixing to concrete structures, walls or fixtures with steel or stainless steel anchor bolts, brackets and the like.
- (i) Treating all exposed wood or veneer surfaces with fire retardant paint.
- (j) Treating all fabric surfaces with flame proof treatment.
- (k) Softboard covered with Hessian fabric.
- (l) Metal or timber skirting including all types of finishes and colour.
- (m) Unless specifically provided otherwise, provisions of finishes to partitions either applied in factories or on Site.
- (n) All base, ceiling and abutment fixing.
- (o) Forming wants including trimming edges.
- (p) Forming openings including trimming edges (forming openings through existing partitions shall be measured separately).
- (q) All necessary framing and suspension system from structural soffits to suspended ceiling level (above the exposed heights for partitions) for holding the partitions in place including all necessary stiffening and fixings.
- (r) Any glazing except for fully glazed partitions as described in Special Conditions Clause SC21.03.
- (s) Provisions of sample panels and applied finishes for selection by the Maintenance Surveyor.
- (t) Submission of design drawings, working details and shop drawings for the Maintenance Surveyor's approval prior to commencement of installation.

**Rates for
proprietary
demountable
partition system**

SC21.05

- The rates for proprietary demountable partition system shall further include for : -
- (a) Providing manufacturer's guarantee and supplier's warranty.

SPECIAL CONDITIONS

Rates for flush doors for proprietary demountable partition system	SC21.06	<p>The rates for flush doors for proprietary demountable partition system shall further include for : -</p> <ul style="list-style-type: none"> (a) Glazing to partition doors or glazed doors. (b) Timber louvres and the like in any size including all timber framing, architrave, etc..
Rates for alterations to existing dry wall partitions	SC21.07	<p>The rates for alterations to existing dry wall partitions shall further include for : -</p> <ul style="list-style-type: none"> (a) Taking down and re-fixing existing dry wall partitions including framing, panels, covering materials, etc.. (b) Replacement and provision of new compatible fittings and fixing accessories including additional accessories as necessary. (c) Modifying existing framing including provisions of additional framing, as required. (d) Modifying existing openings, finishes or covering to suit actual site conditions. (e) Multi-handling and delivery between the designated locations and storage area as directed. (f) Proper protection to the dry wall, framing, fittings and accessories for storage and re-use. (g) Making good surfaces disturbed.
Rates for security partitions	SC21.08	<p>The rates for security partitions shall further include for : -</p> <ul style="list-style-type: none"> (a) All galvanized mild steel framings, bracings, supports and the like rigidly and stably constructed for security purposes. (b) Sandwiched mild steel plate security panel. (c) Guard bar panel at top when required. (d) Providing and fixing wood battens or steel brackets for the face coverings.
Rates for fire resisting partitions	SC21.09	<p>The rates for fire resisting partitions shall further include for : -</p> <ul style="list-style-type: none"> (a) Supply and installation in accordance with the manufacturer's instructions. (b) All galvanized mild steel or stainless steel framings, bracings, supports and the like rigidly and stably constructed for fire resisting purposes. (c) All additional fire resisting panel, components and materials. (d) Providing and fixing wood battens or steel brackets for the face coverings. (e) Submission of technical literature, shop drawings, test certificate, manufacturer's guarantees and supplier's warranty as required.

SPECIAL CONDITIONS

Rates for sliding or folding partitions including proprietary acoustic partitions

SC21.10

The rates for sliding or folding partitions including proprietary acoustic partitions shall further include for : -

- (a) Supply and installation in accordance with the manufacturer's instructions, including submission of all necessary design, calculations and shop drawings as required.
- (b) Providing and fixing all accessories, ironmongeries, suspension system, etc..
- (c) Cutting mortice or drilling in concrete, brick, stone or other surfaces as required.
- (d) Grouting into new or existing mortice or holes.
- (e) Finishing all surfaces, if required.
- (f) Making good disturbed surfaces.
- (g) Vertical and horizontal sound seals.
- (h) Providing test certificate, operation and maintenance manual, manufacturer's guarantee and supplier's warranty.

Rates for proprietary toilet cubicle system

SC21.11

The rates for proprietary toilet cubicle system shall further include for : -

- (a) Supply and installation in accordance with the manufacturer's instructions including submission of all necessary design, calculations and shop drawings as required.
- (b) Complete system with lightweight core and solid compact laminate panels (in conformity to BS EN 438 standard), finished with high performance surface veneer sheeting and colour to doors, partition, pilaster, divisions, etc..
- (c) All aluminium frames (in conformity to EN 6060 standard) coated with corrosion resistant nylon.
- (d) All necessary corrosion resistant nylon-aluminium accessories like hooks, toilet roll holders, and the like, and ironmongery including adjustable feet, automatic hinges, snib indicators, coat hooks with door stops and angle brackets, etc..
- (e) All types of surface finishes and colours.
- (f) All computerized fabrication to ensure excellent edge finish, with no sharp and corners for safety.
- (g) Submission of catalogues, technical literature, test certificates, shop drawings and supplier's/manufacturer's warranty of not less than 3 years where specified.

Item						Item	
	DRY WALL						
	Dry wall, non-demountable complete with stud framework and panel covering 12.5 mm (min.) thick to both sides of dry wall :-	Single layer full solid wall		Double layer full solid wall			
		n.e. 100 mm thick		n.e. 200 mm thick			
		Plaster-board panel covering	Plywood/chip-board panel covering	Plaster-board panel covering	Plywood/chip-board panel covering		
	<i>Per square metre</i>	A	B	C	D		
		\$	\$	\$	\$		
21001	Dry wall with panel covering without any applied finish.....	225.50	293.20	350.00	455.00	21001	
21002	Dry wall with panel covering finished with vinyl wall paper, fabric sheeting, timber veneer sheeting or laminated plastic sheeting.....	262.80	313.00	417.70	497.50	21002	
21003	Fully glazed dry wall with glazing in clear glass of any thickness.....	329.40	347.00	478.50	506.50	21003	
21004	Ditto with glazing in obscure glass of any thickness.....	344.20	361.80	493.20	521.20	21004	
21005	Ditto with glazing in wired glass of any thickness.....	423.40	440.90	572.60	600.40	21005	
21006	Ditto with glazing in clear or coloured tempered glass of any thickness.....	563.80	578.90	692.30	716.50	21006	
	(Note : - The following Items 21007 to 21010 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)						
	<i>Per square metre</i>					A	
						\$	
21007	Add to either of Items 21001 to 21002 inclusive for additional sound insulation, 50 mm thick fibreglass insulation (density not less than 16 kg/m ³) to single layer dry wall.....					37.00	21007
21008	Ditto but density 48 kg/m ³					64.00	21008
21009	Add to either of Items 21001 to 21002 inclusive for additional sound insulation, two layers, each 50 mm thick fibreglass insulation (density not less than 16 kg/m ³) to double layer dry wall.....					59.20	21009
21010	Ditto but density 48 kg/m ³					108.70	21010

Item			Item
DRY WALL (CONT'D)			
<i>Per square metre</i>			
21011	Extra over either of Items 21001 to 21002 inclusive for security partitions for Level I security including lining with 1 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with sound seal requirement.....	A \$ 508.50	21011
21012	Extra over either of Items 21001 to 21002 inclusive for security partitions for Level II security including lining with 2 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with sound seal requirement.....	914.50	21012
21013	Extra over either of Items 21001 to 21002 inclusive for security partitions for Level III security including lining with 5 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with sound seal requirement.....	1,365.40	21013
21014	Extra over either of Items 21001 to 21002 inclusive for single layer fire resisting partitions including all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour FRR.....	283.90	21014
21015	Extra over either of Items 21001 to 21002 inclusive for double layer fire resisting partitions including all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour FRR.....	355.00	21015
21016	Extra over either of Items 21001 to 21002 inclusive for fire resisting security partitions for Level I security including lining with 1 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour FRR, sound seal requirement.....	791.00	21016
21017	Extra over either of Items 21001 to 21002 inclusive for fire resisting security partitions for Level II security including lining with 2 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour FRR, sound seal requirement.....	1,114.60	21017
21018	Extra over either of Items 21001 to 21002 inclusive for fire resisting security partitions for Level III security including lining with 5 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour FRR, sound seal requirement.....	1,533.90	21018
21019	Extra over either of Items 21001 to 21002 inclusive for louvre consisting of framing all round, louvre blades and architrave (louvre area measured).....	925.80	21019
21020	Ceiling baffle from structural soffit to suspended ceiling level, consisting of 50 mm thick fibreglass insulation (density 48 kg/m ³) on both sides of 12.50 mm thick plasterboard framed with metal channel including forming opening of any size for pipes or ducts and providing all necessary bolts, screws and the like.....	306.80	21020
21021	Extra over either of Items 21001 to 21002 inclusive for glazed sliding hatch consisting of framing all round, glass panels with polished edges and finger holes, tracks housed into framing at head and cill including forming opening in new partition, providing and fixing of all necessary additional framing and components.....	702.30	21021

Item				Item
	PROPRIETARY DEMOUNTABLE PARTITION SYSTEM			
	Proprietary demountable partition system complete with stud framework, with panel covering 12.5 mm (min.) thick to both sides of partitions and fixed in accordance with the manufacturer's instructions : -	Plaster-board panel covering to both sides of partition	Plywood/ chipboard panel covering to both sides of partition	
	<i>Per square metre</i>	A \$	B \$	
21022	Partition with panel covering finished with laminated vinyl wall paper, fabric sheeting, timber veneer sheeting or laminated plastic sheeting.....	806.70	845.20	21022
21023	Fully glazed partition with glazing in clear glass of any thickness.....	837.60	862.30	21023
21024	Ditto with glazing in obscure glass of any thickness.....	852.00	877.60	21024
21025	Ditto with glazing in wired glass of any thickness.....	931.30	956.00	21025
21026	Ditto with glazing in clear or coloured tempered glass of any thickness.....	1,146.90	1,172.30	21026
	<i>Per square metre</i>		A \$	
21027	Add to Item 21022 for additional sound insulation, 50 mm thick fibreglass insulation (density not less than 16 kg/m ³) to proprietary demountable partition system.....		37.00	21027
21028	Ditto but of density 48 kg/m ³		64.00	21028
	(Note : - The above Items 21027 to 21028 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)			
21029	Add to Item 21022 for fire resisting partitions including all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour FRR.....		283.90	21029
	FLUSH DOORS FOR PROPRIETARY DEMOUNTABLE PARTITION SYSTEM			
	Flush doors for partitions with or without frames, each leaf size 600 - 900 x 2100 mm high : - (ironmongery measured separately)		Door type with or without frame	
		Hard-wood hollow core door and frame	Hard-wood solid core door and frame	
	<i>Each</i>	A \$	B \$	
21030	Partition door, single leaf, without door frame.....	578.00	672.00	21030
21031	Ditto but with door frame.....	717.00	812.00	21031
21032	Partition door, double leaf, without door frame.....	966.00	1,154.00	21032
21033	Ditto but with door frame.....	1,126.00	1,315.00	21033

Item			Item
SLIDING OR FOLDING PARTITIONS			
	Sliding or folding partitions complete with partitions continuously hinged and suspended with swivel hanger or centrally hung suspension system, tracks or guides and all ironmongeries, fittings, partition panels constructed of hardwood frame and edging with plywood facing : -	Supply and fix	
	<i>Per square metre</i>	A \$	
21034	40 mm Thick sliding or folding partitions finished with painting, vinyl clothing, timber veneer sheeting or laminated plastic sheeting.....	1,698.00	21034
21035	Extra over Item 21034 for infilling with mineral wool.....	106.60	21035
	<i>Each</i>		
21036	Extra over Item 21034 for single pass door.....	351.00	21036
21037	Extra over Item 21034 for pair of pass doors.....	723.00	21037
PROPRIETARY ACOUSTIC SLIDING OR FOLDING PARTITION SYSTEM			
	Proprietary acoustic sliding or folding partition system, manual-operated, complete with partitions continuously hinged and suspended with swivel hanger or centrally hung and suspended with proprietary suspension system, tracks or guides and all ironmongery, fittings, partition panels constructed of aluminium or steel framing and facing panel, all in accordance with the manufacturer's recommendation : -	Supply and fix	
	<i>Per square metre</i>	A \$	
21038	Proprietary acoustic sliding or folding partition system of sound transmission class (STC) of rating not less than 45 dB and finished with vinyl clothing, timber veneer sheeting or laminated plastic sheeting.....	3,584.00	21038
21039	Extra over Item 21038 for infilling with mineral wool.....	106.60	21039
	<i>Each</i>		
21040	Extra over Item 21038 for single pass door.....	660.00	21040
21041	Extra over Item 21038 for pair of pass doors.....	889.00	21041
	<i>Per linear metre</i>	A \$	
21042	Extra over Item 21038 for additional track.....	1,412.50	21042
REPAIRS TO DRY WALL AND SUNDRY ITEMS			
		Take down and clear away	Take down and set aside for re-use
		A \$	B \$
			Fix only C \$
	<i>Per square metre</i>		
21043	Single layer full solid dry wall complete with panel covering to both sides of dry wall, with or without applied finishes, stud framework, infilled sound insulation, fittings and accessories, if any.....	23.90	47.80
			110.30
21044	Ditto but double layer full solid dry wall.....	31.30	62.50
			147.10
21045	Ditto but fully glazed dry wall partition.....	25.70	57.00
			150.70
21046	Ditto but as security/fire resisting/fire resisting security partition.....	27.60	69.90
			161.80

Item	Item				
ALTERATION WORKS TO EXISTING DRY WALL					
	<table border="1"> <thead> <tr> <th style="text-align: center;">Plaster-board panel covering</th> <th style="text-align: center;">Plywood/ chip-board panel covering</th> </tr> <tr> <th style="text-align: center;">A \$</th> <th style="text-align: center;">B \$</th> </tr> </thead> </table>	Plaster-board panel covering	Plywood/ chip-board panel covering	A \$	B \$
Plaster-board panel covering	Plywood/ chip-board panel covering				
A \$	B \$				
	Per square metre				
21047	Replace panel covering 12.5 mm (min.) thick to one side of existing dry wall, without any applied finish..... 132.60 161.50 21047				
21048	Replace panel covering 12.5 mm (min.) thick to one side of existing dry wall finished with vinyl wall paper, fabric sheeting, timber veneer sheeting or laminated plastic sheeting..... 213.90 243.80 21048				
	Per square metre				
21049	Alter existing glazed or fully glazed partitions to double glazed partition with 6 mm thick clear glass..... 571.40 21049				
21050	Ditto but with 6 mm thick obscure glass..... 571.70 21050				
21051	Ditto but with 6 mm thick wired glass..... 758.60 21051				
21052	Ditto but with glazing in clear or coloured tempered glass of any thickness..... 847.40 21052				
21053	Alter existing dry wall partitions to insert 50 mm thick fibreglass insulation layer (density not less than 16 kg/m ³)..... 40.80 21053				
21054	Ditto but density 48 kg/m ³ 74.10 21054				
21055	Forming opening of any size through existing dry wall partition including all necessary partition components..... 173.00 21055				
21056	Construct glazed sliding hatch consisting of framing all round, glass panels with polished edges and finger hole, tracks housed into framing at head and cill including forming opening in existing dry wall partition, providing and fixing of all necessary framing components..... 762.70 21056				
	Each				
21057	Construct 15 mm thick plywood blind box overall size 600 x 340 x 80 mm deep and lined with 13 mm thick softboard..... 804.00 21057				
21058	Cutting and trimming partition/dry wall around beams, air-conditioning ducts, etc., including all necessary framing components and fixings, girth of cut n.e. 1.20 m..... 79.70 21058				
21059	Scribe infill up to 300 mm wide in 12 mm thick luan plywood to existing window opening for abutting dry wall partition of any description and height, and finished to match abutting partition/dry wall..... 692.00 21059				
	Per linear metre				
21060	Pack top of dry wall partition to ceiling to make up height to 75 mm with painted scantlings plugged and screwed to concrete soffit or tapped and screwed to grid of suspended ceiling..... 51.40 21060				
21061	Construct over dry wall partition n.e. 100 mm wide and up to 300 mm high painted false beam to make up height built up of 12 mm thick luan plywood and 50 x 50 mm hardwood framing plugged and screwed to concrete soffits or tapped and screwed to grid of suspended ceiling..... 242.40 21061				
21062	Ditto but 300 - 600 mm high..... 450.20 21062				

Item		Supply and fix	Supply and fix (with provision of a minimum 3-year warranty)	Take down and clear away	Take down and set aside for re-use	Fix only	Item
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
PROPRIETARY TOILET CUBICLE SYSTEM							
Proprietary toilet cubicle system of impregnated homogeneous core with solid compact laminate panels conforming to BS EN 438, both sides of panels finished with laminated plastic sheeting, and powder coated aluminium frame, headrails and adjustable legs complete with ironmongery, hardware and accessories and all in accordance the manufacturer's instructions :-							
<i>Per set</i>							
21063	Set of one cubicle unit comprising one front panel with one door included, n.e. 1.00 m wide x n.e. 2.10 m high.....	1,267.00	1,949.00	82.40	165.00	379.00	21063
21064	Set of one corner cubicle unit comprising one front panel with one door included and one open-end panel, n.e. 1.00 m wide x n.e. 1.90 m deep x n.e. 2.10 m high.....	2,112.00	3,248.00	109.00	233.00	474.00	21064
21065	Set of one cubicle unit comprising one front panel with one door included, 1.00 - 1.25 m wide x n.e. 2.10 m high.....	1,331.00	2,047.00	86.40	173.00	398.00	21065
21066	Set of one corner cubicle unit comprising one front panel with one door included and one open-end panel, 1.00 - 1.25 m wide x n.e. 1.90 m deep x n.e. 2.10 m high.....	2,156.00	3,317.00	115.00	244.00	498.00	21066
21067	Set of one cubicle unit comprising one front panel with one door included, 1.25 - 1.50 m wide x n.e. 2.10 m high.....	1,401.00	2,155.00	97.10	211.00	414.00	21067
21068	Set of one corner cubicle unit comprising one front panel with one door included and one open-end panel, 1.25 - 1.50 m wide x n.e. 1.90 m deep x n.e. 2.10 m high.....	2,333.00	3,590.00	116.00	248.00	506.00	21068
<i>Each</i>							
21069	Add to either of Items 21063 to 21068 inclusive for division panel, n.e. 1.90 m deep x n.e. 2.10 m high.....	924.00	1,422.00	62.60	134.00	138.00	21069
<i>Per set</i>							
	Add to Item 21067 for each additional 0.25 m or part thereof in width.....	5%	5%	-	-	5%	
	Add to Item 21068 for each additional 0.25 m or part thereof in width.....	8%	8%	-	-	8%	
	Add to either of Items 21063 to 21068 inclusive for each additional 0.25 m or part thereof in height.....	8%	8%	-	-	8%	
<i>Each</i>							
	Add to Item 21069 for each additional 0.25 m or part thereof in height.....	4%	4%	-	-	4%	

Item					Item	
PROPRIETARY TOILET CUBICLE SYSTEM (CONT'D)						
Replacement parts for proprietary toilet cubicle system :-						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
	Pair					
21070	Hinge (L/H or R/H).....	111.00	2.60	4.30	10.90	21070
	Each					
21071	Adjustable leg.....	136.00	2.60	4.30	10.90	21071
21072	Rail fixing rose.....	64.40	2.60	4.30	10.90	21072
21073	Angle bracket.....	36.70	2.60	4.30	10.90	21073
21074	Headrail 3000mm (L).....	298.00	2.60	4.30	10.90	21074
21075	Rail bracket.....	75.60	2.60	4.30	10.90	21075
21076	Rail elbow.....	37.90	2.60	4.30	10.90	21076
21077	Coat hook.....	37.90	2.60	4.30	10.90	21077
21078	Indicator snib (L/H or R/H).....	212.00	2.60	4.30	10.90	21078
21079	Rail T connector.....	105.00	2.60	4.30	10.90	21079

Section 22

LANDSCAPE WORK

SECTION 22

LANDSCAPE WORK

SPECIAL CONDITIONS

Specification	SC22.01	<p>This Section shall also be read and used in conjunction with the Specification relating to landscape work and new planting works adopted in the Contract.</p> <p>Due allowance is deemed to have been made in the Contract Percentages for complying with all requirements as stipulated in the Specification adopted in the Contract for landscape work and new planting works.</p>
		PART I – PREPARATORY WORKS
Measurement of clearing and removing from Site rubbish, litter, etc.	SC22.02	<p>Clearing, cutting down and removing from Site rubbish, litter, construction debris, stones, grass, weed, vines, shrubs, undergrowth, etc. and the like including trees not exceeding 95 mm DBH shall be measured based on the overall surface area covered; and no allowance shall be made for surface irregularities or other local peculiarities.</p> <p>No deduction shall be made for any area not exceeding 1.00m².</p> <p>The items for clearing, cutting down and removing from Site rubbish, litter, construction debris, stones, grass, weed, vines, shrubs, undergrowth, etc. and the like including trees not exceeding 95 mm DBH shall not be paid for if such work is carried out in conjunction with the excavation works, or if excavation is subsequently carried out by the Contractor at the same location.</p>
Rates for clearing and removing from Site rubbish, litter, etc.	SC22.03	<p>The rates for clearing, cutting down and removing from Site rubbish, litter, construction debris, stones, grass, weed, vines, shrubs, clearing and undergrowth, etc. and the like including trees not exceeding 95 mm DBH shall include for cutting the same down to below 25 mm of the level of the ground or sloping ground and, if required, grubbing out all roots and stumps and filling voids with approved materials.</p>
Rates for removing bamboo protective fencing	SC22.04	<p>The rates for removing bamboo protective fencing shall include for taking down bamboo fencing and transporting to a storage area for re-use; or disposal as directed by the Maintenance Surveyor including all necessary operations to make good the disturbed areas.</p>

SPECIAL CONDITIONS

PART I – PREPARATORY WORKS

Rates for spreading and levelling or mixing decomposite granite, manufactured soil conditioner, sand, mulch, pine bark mulch, peat moss, alginate, soil stabilizer, stone chips and water absorbing soil additive	SC22.05	<p>The rates for spreading, levelling or mixing the decomposite granite, manufactured soil conditioner, sand, mulch, pine bark mulch, peat moss, alginate, soil stabilizer, stone chips and water absorbing soil additive shall include for supplying, delivering, loading, and/or transporting from any locations as directed; unloading, spreading the mulch or pine bark mulch evenly on the surface of the soil to the specified depth; or mixing the decomposite granite, manufactured soil conditioner, sand, peat moss, alginate, soil stabilizer, stone chips and water absorbing soil additive into the soil to a specified depth and/or at a specified rate; submission of material samples as specified; and testing of sample by the PWL/AL and provision of Certificates of Analysis of the material where necessary.</p>
Rates for spreading and levelling drainage aggregate, lightweight aggregate, round river-washed pebbles, pea gravel and gravel, laying and protecting filter layer	SC22.06	<p>The rates for spreading and levelling drainage aggregate, lightweight aggregate, round river-washed pebbles, pea gravel and gravel, laying and protecting filter layer shall include for supplying, delivering, loading, and/or transporting from any locations as directed, unloading; spreading and levelling to specified depth; laying filter layer and all necessary protection; and submission of material samples as specified.</p>
Rates for stripping of topsoil	SC22.07	<p>The rates for stripping of topsoil in layers not exceeding 150mm thick shall include for excavating, multi-handling, levelling, grading and trimming surfaces of excavation, depositing the excavated material in spoil heaps including removal to a distance not exceeding 100 metres, or disposal to an approved dump site when direct, and all necessary temporary protection.</p>
Rates for underground guying system	SC22.08	<p>The rates for specified underground guying system shall include for supplying, excavating, multi-handling, backfilling, grading, fabricating and fixing the straps, ties, and other necessary materials as specified in the required location.</p> <p>The rates for underground guying systems shall also include for submission of samples and particulars of all the necessary materials of the system for the Maintenance Surveyor's approval prior to importation and use on site.</p>

SPECIAL CONDITIONS

PART II – LANDSCAPE HARDWORKS

Measurement of ornamental boulders	SC22.09	Ornamental boulders shall be measured as the smallest square or rectangular block laid. In the case of ornamental boulders exceeding 3.00 m ³ , they shall be measured in the multiple of the largest size and the remainder shall be added. For example, a block of 10.25 m ³ shall be measured 3 times boulders 1.00 - 3.00 m ³ and the remainders are 1 times boulders of 0.75 - 1.00 m ³ and 1 times 0.25 - 0.50 m ³ .
Rates for ornamental boulders	SC22.10	<p>The rates for ornamental boulders shall further include for :-</p> <ul style="list-style-type: none"> (a) Mobilization, maintenance and demobilization of all plants necessary for the works. (b) Sourcing of the ornamental boulders per specified type and size, and provision of samples if required. (c) Supply, loading, transport, unloading, all multiple handling and disposal of surplus excavated material, storage and placing in final position including all necessary excavation (footing shall be measured separately). (d) Marking of ornamental boulders on delivery and removing all marking after installation as instructed by the Maintenance Surveyor. (e) Assembling ornamental boulders to any shape, pattern, sculptures as directed by the Maintenance Surveyor.
Rates for natural stepping stones	SC22.11	The rates for supplying and laying stepping stones shall include for sourcing and supplying, transporting, unloading, all multi-handling and placing at the final position, excavation and disposal of soil or surplus material. The stones shall be laid flush to the adjacent finished ground level.
Rates for edging to planter beds	SC22.12	The rates for supplying and laying bricks/concrete blocks for edging to planter beds shall include for supplying, loading, transporting, unloading, placing in position, including excavation and disposal to allow stable placing, all mortar and bedding, cutting and laying in patterns.
Rates for supplying, delivering and installing bamboo protective fencing and plastic lattices	SC22.13	The rates for supplying, delivering and installing bamboo protective fencing and plastic lattices shall include for supplying, loading, and/or transporting from any locations as directed, unloading, excavating, multi-handling, levelling, grading, fabricating and fixing the fences and lattices with all necessary materials as specified in the required location; fixing and adjusting; and submission of material samples as specified.

SPECIAL CONDITIONS

PART II – LANDSCAPE HARDWORKS

Rates for supplying plant labels	SC22.14	The rates for supplying plant labels shall include for supplying and delivering the plant labels as specified and provision of material samples if required for all types of vegetation including tree, shrub, conifer, palm, climber, herbaceous plant, groundcovers, etc.
Rates for fixing plant labels	SC22.15	The rates for fixing plant labels shall include for mounting and installing plant labels with appropriate mounting devices as specified in the required location, and regularly inspecting, adjusting, reinstating and replacing the plant labels.
Rates for lifting cast iron tree grilles	SC22.16	The rates for lifting existing cast iron tree grilles shall include for lifting the set of cast iron tree grilles and frames out of the tree pit, transporting the grilles to a required location and making good any damages resulting from the operation.
Rates for installing cast iron tree grilles	SC22.17	The rates for installing cast iron tree grilles shall include for delivering the set of tree grilles and frames from the storage area or a location as directed by the Maintenance Surveyor and placing the grilles in the required position. The rates shall include for all necessary protective coating and painting.
Rates for lifting mild steel tree guards	SC22.18	The rates for lifting mild steel tree guards shall include for lifting the tree guard, backfilling with suitable materials and making good existing tree pit and transporting the guard to a location as directed by the Maintenance Surveyor.
Rates for installing mild steel tree guards	SC22.19	The rates for installing mild steel tree guards shall include for delivery to the Site and securing the guard in the required location.
Rates for supplying and installing root barrier	SC22.20	The rates for supplying and installing root barrier shall include for supplying, delivering, loading, and/or transporting from any locations as directed, unloading, levelling and installing root barriers as specified in the required location; and submission of material samples as specified.
Rates for proprietary tree bracing support system “Cobra” or equivalent	SC22.21	The rates for supply and install proprietary tree bracing support system “Cobra” or equivalent shall include supply of all necessary materials including rope, loop, expansion insert, antiabrasion hose and shock absorber, transport, storage, manufacturer’s guarantees or warranties of products etc., submission of method statement, provision of all necessary equipment and safety measures, installation by qualified specialists, and multi-handlings and adjustment of tree support and bracing system for valuable problematic trees. The rates shall further include for working at any height, slope inclination, cable length and any other insurance required.

SPECIAL CONDITIONS

PART III – LANDSCAPE SOFTWORKS

Rates for landscape softworks generally

SC22.22

The rates for landscape softworks shall generally include for : -

- (a) Works executed by the contractor on the List of Approved Suppliers of Materials and Specialist Contractors for Public Works for the appropriate Group of the appropriate Class under the Landscaping category.
- (b) Carrying out establishment works after completion for a period of 12 months including all works required as stated in Special Conditions Clauses SC22.48, SC22.49 and SC22.50.

PART III.A – LANDSCAPE SOFTWORKS – SUPPLY ITEMS

Rates for supplying of plant materials

SC22.23

The rates for supplying of various categories of plant materials shall further include for supplying the plant material including sourcing, loading, transportation, unloading, storage, transit protection and placing to the required locations. The rates shall include for all necessary replacement of plant materials found dead or defective.

The grouping of planting materials referred to in this Section of the Schedule is appended in Annex 'B' to this Schedule.

The rates for supply of plant materials shall also include for provision of samples and annotated photographs of the specified species of plant materials.

Rates for supplying of climbers

SC22.24

The rates for supplying of climbers shall also include for supplying and delivering the associated supports for the non-self-clinging climbers and submission of material samples for the supports.

Rates for supplying of aquatic plants

SC22.25

The rates for supplying of aquatic plants shall also include for supplying and delivering all the associated materials including plastic mesh containers, wire mesh cages, growing medium, supports and ballast; and submission of material samples for all the associated materials.

PART III.B – LANDSCAPE SOFTWORKS – PLANTING ITEMS

Rates for landscape softworks - planting items

SC22.26

The rates for landscape softworks - planting items shall further include for : -

- (a) Provision and application of pre-planting fertilizer to fabricated soil mix or top soil or light weight soil mix as specified.
- (b) Setting-out and excavating planting pits for root balls, placing the plant in the pit, backfilling with fabricated soil mix or top soil or light weight soil mix.
- (c) All necessary supports, staking and tying or guying as specified.
- (d) Provision and application of follow-up fertilizer and insect and disease control treatment, thorough watering and all necessary operations as specified for satisfactory completion of planting works.

SPECIAL CONDITIONS

PART III.B – LANDSCAPE SOFTWORKS – PLANTING ITEMS

**Rates for
soiling
in landscape
areas**

SC22.27

The rates for soiling in landscape areas shall further include for : -

- (a) Mixing, depositing, compaction, spreading, levelling and beating.
- (b) Multiple handling.
- (c) Protection of prepared ground against compaction, erosion and siltation.
- (d) Importing soils from any source.
- (e) Provision of samples.
- (f) Additional bulk of material required to allow for compaction and consolidation.
- (g) Removing, replacing or making good placed or compacted soiling as required where soiling material subsequently becomes damaged or unsuitable.

**Rates for
fabricated soil
mix**

SC22.28

Further to Special Conditions Clause SC22.27, the rates for fabricated soil mix shall further include for : -

- (a) Testing of samples by the PWL/AL and provision of Certificates of Analysis of the fabricated soil mix.
- (b) Protection and storage of fabricated soil mix.
- (c) Replacement of fabricated soil mix which is not conforming to the Specification.

**Rates for
top soil**

SC22.29

Further to Special Conditions Clause SC22.27, the rates for top soil shall further include for : -

- (a) Testing of samples by the PWL/AL and provision of Certificates of Analysis of the top soil.
- (b) Protection and storage of top soil.
- (c) Replacement of top soil which is not conforming to the Specification.

**Rates for
planting of
climbers**

SC22.30

The rates for planting of climbers shall also include for fixing the associated supports for the non-self-clinging climbers.

**Rates for
planting of
aquatic plants**

SC22.31

The rates for planting of aquatic plants shall also include for placing and fixing all the associated materials including plastic mesh containers, wire mesh cages, growing medium, supports and ballast.

SPECIAL CONDITIONS

PART III.B – LANDSCAPE SOFTWARES – PLANTING ITEMS

Rates for pots/ containers	SC22.32	The rates for pots/containers shall include provision of samples if required, supplying, loading, transporting, unloading, placing in positions as directed, and removing from the Site if required the pots/containers including the associated trays.
Rates for ornamental plants other than Orchidaceae	SC22.33	<p>The rates for ornamental plants other than the Orchidaceae family shall include for : -</p> <ul style="list-style-type: none"> (a) Supplying pots/containers with trays of different materials, in variety of shapes, colours and finishes, and in different size categories, and provision of samples of pots/containers if required. (b) Provision of samples of the specified plant species if required. (c) Supplying, delivering and placing the plants with appropriate planting medium in pots/containers at locations as directed. (d) Removing the plants in pots/containers from the Site if required.
Rates for ornamental plants - Orchidaceae	SC22.34	<p>The rates for ornamental plants from the Orchidaceae family shall include for : -</p> <ul style="list-style-type: none"> (a) Supplying pots/containers with trays of different materials, in variety of shapes, colours sand finishes, and in different size categories, and provision of samples of pots /containers if required. (b) Provision of samples of the specified plant species if required. (c) Supplying, delivering and placing the plants with appropriate planting medium in pots/containers at locations as directed. (d) Removing the plants in pots/containers from the Site if required.
Rates for artificial plants	SC22.35	<p>The rates for artificial plants shall include for : -</p> <ul style="list-style-type: none"> (a) Supplying pots/containers with trays of different materials, in variety of shapes, colours sand finishes, and in different size categories, and provision of samples of pots /containers if required. (b) Provision of samples of the specified plant species if required. (c) Supplying, delivering and placing the plants in pots/containers at locations as directed. (d) Removing the plants in pots/containers from the Site if required.

SPECIAL CONDITIONS

PART III.C – TURFING AND GRASSING

Measurement of hydroseeding, hydro-mulching, broadcasting, sprigging and turfing	SC22.36	Hydroseeding, hydro-mulching, broadcasting, sprigging, turfing and the like shall be measured as the surface area of the face to be covered and no allowance shall be made for surface irregularities or other local peculiarities. No deduction shall be made for an area not exceeding 1.00 m ² .
Rates for hydroseeding	SC22.37	<p>The rates for hydroseeding shall further include for : -</p> <ul style="list-style-type: none"> (a) Cleaning ground and scarifying existing soil. (b) All materials and equipment necessary for the successful establishment of the vegetation. (c) Watering. (d) Protection of prepared ground surfaces. (e) Providing and fixing protective layers of biodegradable fabric including allowance for laps and staples. (f) Making good areas not covered by approved germinated grass. (g) First cut and subsequent cuts. (h) Follow up fertilizer. (i) Insect and disease control. (j) Provision of samples and testing certificates. (k) All necessary operations for satisfactory germination and completion of grass areas as specified. (l) Mobilization and demobilization of all plant and equipment necessary for the works. (m) Carrying out survey and checking the existing conditions before applications. (n) Provision of all necessary working platform.
Rates for hydro-mulching	SC22.38	<p>The rates for hydro-mulching shall further include for : -</p> <ul style="list-style-type: none"> (a) Mobilization and demobilization of all plant and equipment necessary for the works. (b) Checking and carrying out survey of existing conditions and protection of prepared ground surfaces before application. (c) Application by a specialist approved by the Maintenance Surveyor. (d) Provision of all necessary working platform.

SPECIAL CONDITIONS

PART III.C – TURFING AND GRASSING

Rates for hydro-mulching (Cont'd)

SC22.38 (Cont'd)

- (e) Submission of samples of materials to be used and particulars including manufacturer's catalogue and literature.
- (f) Providing specialist's guarantee for a period of a minimum of five years.
- (g) All necessary materials, equipment and operations for satisfactory germination and completion grass areas as specified.

Rates for turfing and sprigging

SC22.39

The rates for turfing and sprigging shall further include for : -

- (a) Cleaning ground and scarifying existing soil.
- (b) Cultivation and watering.
- (c) Protection of prepared ground surfaces.
- (d) Firming turfs with wooden beaters.
- (e) Dressing of finely sifted topsoil mix and well brushing into joints.
- (f) Adjusting any inequalities in finished levels.
- (g) Making good areas not covered by approved germinated grass.
- (h) First cut and subsequent cuts.
- (i) Preplant fertilizer and follow up fertilizer.
- (j) Insect and disease control.
- (k) Provision of samples and testing certificates.
- (l) All necessary materials, equipment and operations for satisfactory germination and completion grass areas as specified.

PART III.D – TRANSPLANTING

Measurement generally

SC22.40

The DBH of trees to be transplanted shall be measured at a point 1.30 m above ground level.

Rates for transplanting trees

SC22.41

The rates for transplanting trees shall further include for : -

- (a) Submission of method statement and programme for transplanting to the Maintenance Surveyor and obtaining his approval prior to commencement of any operations related to transplanting.

SPECIAL CONDITIONS

PART III.D –TRANSPLANTING

**Rates for
transplanting
trees
(Cont'd)**

**SC22.41
(Cont'd)**

- (b) Mobilization, maintenance and demobilization of all necessary plant and equipment for the transplanting operations.
- (c) Cleaning soil of existing ground and any contaminated ground including preparation of tree pit at receptor site and provision of protection of pit.
- (d) Excavating trenches for root ball preparation, root pruning to achieve the required size of root ball, maintenance of the root ball during the period of root ball preparation, and undercutting the root ball prior to lifting for transplanting.
- (e) Protecting the root ball by wrapping the root ball and encasing the root ball if required by materials proposed in the approved method statement, spraying with approved anti-transpiration spray if required, and keeping the whole plant moist at all time.
- (f) Crown thinning of the tree to the required form and shape.
- (g) Protection of the tree from mechanical damages, excessive sunlight, wind and drought including dressing wounds during the whole process of transplanting.
- (h) Provision of tree lifting, transporting of the tree from the donor site to the receptor site, provision of temporary storage of the tree at holding nursery if required, planting of the tree at the receptor site including backfilling of the tree pit, watering, mulching and all other necessary operations as specified for satisfactory completion of planting works.
- (i) Provision of supporting measures at donor site during root ball preparation prior to lifting for transplanting and at receptor site after transplanting.
- (j) Replacement of dead/dying tree after transplantation with the same species and size of tree.
- (k) Backfilling voids and making good disturbed surface at donor site.
- (l) Provision of a complete set of date-imprinted photographic records for each stage of the whole transplanting process.

**Rates for
root
pruning
prior to
transplanting**

SC22.42

The rates for root pruning shall further include for all works to prepare for the uplift of the plant at original location, including :

- (a) Provision of plant and equipment necessary for the works;
- (b) Inspection and programming;
- (c) Crown thinning;
- (d) Root pruning and anchoring; and
- (e) Maintenance during root pruning period.

SPECIAL CONDITIONS

PART III.D – TRANSPLANTING

Rates for temporary storage

SC22.43

The rates of temporary storage at the Contractor's holding nursery shall cover the cost of taking up the physical space by individual plant at monthly rate, under the condition that the crowns of the trees/plants shall not touch each other when placed in the nursery. If the transplanted plant is a tree, the rates shall also cover the cost of the root ball container per G.S. Item 25.73.5.

PART III.E – TREE FELLING AND PRUNING/SURGERY WORKS

Measurement generally

SC22.44

The DBH of trees to be felled shall be measured at a point 1.30 m above ground level.

Pruning to climbers and groundcovers shall be measured the coverage area on plan irrespective of the planting density and/or height of the plants.

Pruning to whip trees, seedling trees, shrubs, bamboos, herbaceous plants, standard trees, light standard trees, small conifers and palms (Group A, B, C and E) shall be measured per number irrespective of the height of the plants.

Rates for tree felling

SC22.45

The rates for tree felling shall further include for : -

- (a) Fell only those trees earmarked and labeled or those as directed or approved by the Maintenance Surveyor.
- (b) Commence any work related to tree felling on the Site only after the contractor's compliance with the requirements, such as those related to method statement, stipulated to be completed prior to commencing the tree felling work.
- (c) Take all necessary safety precautions to protect the people engaged in the tree felling work as well as the people and property in the vicinity throughout the whole process of tree felling.
- (d) Tree trunks and branches shall be removed in sections for reasons of safety and in such a manner that any potential damage to the public and adjacent utilities, services or pipes, structure, slopes or stream course vegetation is avoided.
- (e) Fell the trees by cutting them near the ground, with their stumps ground rather than pulled so that the roots of the nearby plants to be retained are not injured.
- (f) Remove the stumps and rootballs of the felled trees carefully to avoid causing damage to the roots of the nearby plants to be retained, where it is necessary to have such removal as directed by the Maintenance Surveyor.
- (g) Do not use a preserved tree as anchor when winching out a stump.
- (h) Remove from site all debris, wood, and roots where necessary. Burning of vegetation or any other construction debris is not permitted.
- (i) All voids formed as a result of the above works shall be backfilled with clean material as appropriate.

SPECIAL CONDITIONS

PART III – TREE FELLING AND PRUNING/SURGERY WORKS

**Rates for tree
felling
(Cont'd)**

**SC22.45
(Cont'd)**

- (j) Report to the Maintenance Surveyor the necessity of such tree removal.
- (k) Provide all reasonable assistance as required by the Maintenance Surveyor in the tree survey and the justification for the proposed tree removal with substantiation and the necessary details such as site formation plan and architectural or engineering drawings, for the Maintenance Surveyor's preparation of the tree felling or transplanting application for the tree removal.
- (l) Fell or transplant the trees only after the Maintenance Surveyor's approval to the tree removal which shall normally be given only after the tree felling application has been approved by the government approving authority (Lands Department (LandsD)/Leisure and Cultural Services Department (LCSD)/Agriculture, Fisheries and Conservation Department (AFCD)).
- (m) At the commencement of works, and concurrent with the tree protection works, Contractor shall identify and clearly mark all trees that are indicated on Contract drawing as trees to be felled. Any tree which for any reason is required to be felled during the progress of the work shall be immediately drawn to the Maintenance Surveyor's attention and permission sought from relevant authority prior to any felling being carried out.
- (n) Unless under emergency situation agreed by the Maintenance Surveyor, the Contractor shall submit method statement on tree felling for the Maintenance Surveyor's approval and shall commence any work related to tree felling only after the method statement has been approved by the Maintenance Surveyor in writing.

**Rates for
pruning/
surgery works**

SC22.46

The rates for tree pruning/surgery works to existing trees shall further include for operations as specified in G.S. Items 25.80 to 25.92 and removal of branch of 100 mm diameter or above.

The grouping of planting materials referred to in this Section of the Schedule is appended in Annex 'B' to this Schedule.

PART IV – ESTABLISHMENT WORKS

**Measurement
generally**

SC22.47

The 12-month Establishment Works to be provided for all planting items shall generally be included in the landscape softworks as stated in Special Conditions Clause SC22.22.

Establishment Works shall only be measured where such operations are specifically ordered by the Maintenance Surveyor in writing and in a separate Works Order.

SPECIAL CONDITIONS

PART IV – ESTABLISHMENT WORKS

**Rates for
Establishment
Works**

SC22.48

The rates for Establishment Works generally shall include for the following for the operations as specified and ordered : -

- (a) All necessary site inspections to identify the need for the implementation of the operations concerned.
- (b) Supply, loading, transportation, unloading, storage, multi-handling, and disposal of surplus of all the necessary materials.
- (c) Provision of samples, testing of samples by the PWL/AL, and provision of Certificates of Analysis of the materials if required.
- (d) Provision of method statements if required.
- (e) Implementation of the operations concerned.
- (f) Maintenance and provision of the records of the operations concerned upon completion.

**Rates for
basic
establishment
operations**

SC22.49

The rates for basic establishment operations for various types of plants/grassed areas shall further include for : -

- (a) Watering.
- (b) Control of pests and disease.
- (c) Weeding and litter removal.
- (d) Aeration and forking over.
- (e) Replacement of plants and grass with the same species and sizes where the plants or grass fail to become established or to conform to the Specification.
- (f) Firming-up and security.
- (g) Topping up of mulching.
- (h) Apply fertilizers.
- (i) Pruning and removal of dead leaves and branches.
- (j) Grass cutting.
- (k) Top-dressing.
- (l) Aeration and rolling of turf area.

SPECIAL CONDITIONS

PART IV – ESTABLISHMENT WORKS

Rates for basic establishment operations (Cont'd)

SC22.49 (Cont'd)

- (m) Cleaning and polishing of all plant leaves of indoor plants with an approved leaf polish at monthly interval.
- (n) Monthly Establishment Operations Record.

Rates for establishment operations for indoor plants

SC22.50

The rates for basic establishment works operations for indoor plants shall further include for :-

- (a) Cleaning and polishing all plant leaves with an approved leaf polish at monthly intervals.
- (b) Supply and application of slow-release fertilizer at rate according to G.S. Item 25.67(d).
- (c) Removal of dead leaves and branches, where necessary.

Rates for supplying and installing metal/bamboo staking system and guying system

SC22.51

The rates for supplying and installing metal/bamboo staking system and guying system shall include for supplying, loading, and/or transporting from any locations as directed, unloading, excavating, multi-handling, and fixing the stakes and guys with all necessary materials such as ties, guying stakes, trunk protection materials as specified in the required location; and submission of material samples as specified.

SPECIAL CONDITIONS

PART V - INDEPENDENT TREE EXPERT REPORT

Measurement of independent tree expert report

SC22.52

The rate for provision of independent tree expert (ITE) report shall be measured on a per number-tree basis when specifically ordered by the Maintenance Surveyor by the issue of relevant Works Orders. (Note : - ITE report for Old and Valuable Trees (OVT) shall be measured and valued under Section 24 - Preservation And Protection Of Preserved Trees.)

Rate for independent tree expert report

SC22.53

The rate for ITE report shall include for : -

- (a) All payments and expenses of the ITE in providing the ITE report.
- (b) Provision of services required from the ITE as stipulated in Particular Specification for Independent Tree Expert including :
 - (i) offering independent tree expertise advice to the Maintenance Surveyor in written and/or verbal form with regard to the trees under the issued Works Order, including but not limited to, offering such advice to and/or in front of media and other similar public encounters;
 - (ii) undertaking duties outside normal office hours as required and when instructed; and
 - (iii) provision of written advice, reports, photographic records and all other necessary documents to the satisfaction of the Maintenance Surveyor.
- (c) Provision of all transportation required by the ITE in performing his duties including site inspections and media/public encounters, and all cost and expenses incurred in connection thereto.
- (d) Provision of adequate digital cameras and computer equipment including software and printers for use by the ITE on preparation of written advice and other documents.
- (e) Provision and maintenance of temporary access, access tools, working platforms, scaffolds, inspection and testing equipments and personal protective equipments for safe access to tree and slope to facilitate necessary site inspection by the ITE.

PART VI – SUNDRIES

Measurement of plant identification

SC22.54

The item for “collect, handle and transport plant specimens” shall be measured once for each plant species in question as directed by the Maintenance Surveyor.

Rates for plant identification

SC22.55

The rate for “collect, handle and transport plant specimens” shall include for : -

- (a) Storage of specimen in an approved container and other; and
- (b) Collection, handling and transporting all collected plant specimen(s) to the Herbarium of Agriculture, Fisheries and Conservation Department (“AFCD”).

Item			Item
PART I - PREPARATORY WORKS			
<i>Per square metre</i>		A \$	
22001	Clear, cut down and remove from Site rubbish, litter, construction debris, stones, grass, weed, vines, shrubs, undergrowth, etc. and the like including trees not exceeding 95 mm DBH, and grubbing up roots and filling void with approved materials, where required, and making good disturbed surfaces to match existing.....	27.70	22001
22002	Ditto but to surfaces of slope including clearing up blockages of weep holes and removing all ladders, gang planks, etc. as required.....	30.70	22002
(Note: Items 22001 and 22002 inclusive shall not be paid for if the clearance, cutting down and removal works are carried out in conjunction with the excavation works, or if excavation works are subsequently carried out by the Contractor at the same location.)			
<i>Per linear metre</i>			
22003	Remove bamboo protective fencing.....	9.80	22003
<i>Per cubic metre</i>			
22004	Supply pine bark mulch.....	30.40	22004
22005	Supply manufactured soil conditioner.....	178.20	22005
22006	Supply mulch.....	178.20	22006
22007	Supply decomposite granite.....	215.90	22007
22008	Supply sand.....	381.00	22008
22009	Supply stone chips.....	635.10	22009
22010	Supply soil stabilizer.....	381.00	22010
22011	Supply drainage aggregate.....	381.00	22011
22012	Supply lightweight aggregate.....	823.80	22012
<i>Per square metre</i>			
22013	Supply filter layer.....	24.90	22013
<i>Per kg</i>			
22014	Supply peat moss.....	10.50	22014
22015	Supply alginate.....	28.60	22015
22016	Supply approved water absorbing soil additive.....	40.00	22016

Item			Item
PART I - PREPARATORY WORKS (CONT'D)			
<i>Per cubic metre</i>		A \$	
22017	Spread and level or mix in manufactured soil conditioner, mulch, pine bark mulch and soil stabilizer.....	86.50	22017
22018	Spread and level or mix in sand.....	111.10	22018
22019	Spread and level or mix in stone chips and decomposite granite.....	123.50	22019
22020	Spread and level drainage aggregate and lightweight aggregate.....	127.00	22020
<i>Per square metre</i>			
22021	Spread and mix in peat moss, alginate (at rate of 150kg per m ²).....	14.00	22021
22022	Laying and protecting filter layer.....	18.50	22022
22023	Spread and mix in approved water absorbing soil additive.....	18.50	22023
22024	Cultivate the surface of the formation up to 300 mm deep.....	6.20	22024
22025	Cultivate the surface of the formation 300 - 450 mm deep.....	9.20	22025
22026	Rip the surface of the formation.....	4.60	22026
22027	Scarify the surface of the formation.....	3.10	22027
22028	Grade the surface of the formation.....	3.10	22028
22029	Strip topsoil in layers n.e. 150 mm thick.....	10.80	22029
<i>Each</i>			
22030	Rod out, clear and clean existing weep hole and remove off Site all arising, and fill behind with geotextile fabric pocket with 20 - 25 mm coarse aggregate in 150 x 150 x 150 mm overall size.....	56.20	22030
22031	Core out 50 mm diameter weep hole in existing reinforced concrete or masonry planter wall and fill behind with geotextile fabric pocket with 20 - 25 mm coarse aggregate in 150 x 150 x 150 mm overall size.....	257.00	22031
<i>Per set</i>			
22032	Underground guying system.....	2,825.00	22032

Item		Stone Size				Item
		N.e. 0.05 m ²	0.05 - 0.075 m ²	0.075 - 0.10 m ²	0.10 - 0.15 m ²	
		A \$	B \$	C \$	D \$	
PART II - LANDSCAPE HARDWORKS						
	<i>Each</i>					
22033	Supply and lay 50 mm thick natural stepping stones.....	56.20	80.90	121.00	162.00	22033
	<i>Per cubic metre</i>				A \$	
22034	Supply and place natural round river-washed pebbles.....				3,584.70	22034
22035	Supply and place natural pea gravel.....				4,233.20	22035
	<i>Per linear metre</i>					
22036	Supply and lay 210 x 110 x 50 mm coloured concrete blocks edging to planter beds.....				49.50	22036
22037	Supply and lay 220 x 110 x 50 mm coloured bricks edging to planter beds.....				49.50	22037
22038	Supply and lay 225 x 105 x 70 mm bricks in diagonal fashion at planter edge.....				69.40	22038
	<i>Per square metre</i>					
22039	Supply and lay 255 x 105 x 70 mm bricks in tree pits.....				364.40	22039
	<i>Per linear metre</i>					
22040	Supply and fix bamboo protective fencing n.e. 600 mm high to planted and grassed areas.....				35.30	22040
22041	Ditto but 600 - 900 mm high.....				56.80	22041
22042	Supply and fix plastic lattices of 300 mm high to planted and grassed areas.....				199.60	22042
22043	Ditto but 600 mm high.....				324.80	22043
	<i>Each</i>					
22044	Supply plant labels.....				19.10	22044
22045	Fix plant labels.....				2.80	22045

Item

Item

PART II - LANDSCAPE HARDWORKS (CONT'D)

Size / Diameter				
1.00 x 1.00 m	1.05 x 1.05 m	1.50 x 1.50 m	1.20m diameter	1.50m diameter
Type 5	Type 4	Type 1	Type 3	Type 2
A	B	C	D	E
\$	\$	\$	\$	\$
1,025.00	1,131.00	2,353.00	1,508.00	2,648.00
170.00	170.00	235.00	202.00	235.00
85.40	85.40	117.00	101.00	117.00

Per set

22046	Supply cast iron tree grille.....	1,025.00	1,131.00	2,353.00	1,508.00	2,648.00	22046
22047	Install cast iron tree grille.....	170.00	170.00	235.00	202.00	235.00	22047
22048	Lift existing cast iron tree grille for re-use.....	85.40	85.40	117.00	101.00	117.00	22048

Per set

22049	Supply mild steel tree guard.....					324.00	22049
22050	Install small mild steel tree guard to tree pit.....					123.00	22050
22051	Lift existing mild steel tree guard for re-use.....					55.90	22051

Per square metre

22052	Supply and install precast reinforced concrete baffle as root barrier in tree pit.....					336.90	22052
22053	Supply and install 0.7 mm thick high density PVC sheet as root barrier (Horizontally laid).....					169.50	22053
22054	Supply and install 2 mm thick high density PVC sheet as root barrier (Vertically laid).....					203.40	22054

Item

Item

PART II - LANDSCAPE HARDWORKS (CONT'D)

(Note : - The following Items 22055 to 22058 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Supply and install proprietary tree bracing support system "Cobra" or equivalent including all necessary materials and fittings like rope, loop, expansion insert, anti-abrasion hose and shock absorber etc. all in accordance with manufacturer's recommendation :-

Per set

22055	Cobra plus 2T.....	3,571.00	22055
22056	Cobra plus 4T.....	4,089.00	22056
22057	Cobra 8T.....	6,438.00	22057

Per linear metre

22058	Cobra Ultrastatic.....	565.00	22058
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ORNAMENTAL BOULDERS

Ornamental boulders shall be natural, rounded rocks of various overall sizes and types as specified and selected by the Maintenance Surveyor, supply, lay or assemble in mortar, place and sit in soil base or concrete base (concrete base measured separately) :-

Boulder size (m³)				
n.e. 0.25	0.25 - 0.50	0.50 - 0.75	0.75 - 1.00	1.00 - 3.00
A	B	C	D	E
\$	\$	\$	\$	\$
297.00	898.00	1,150.00	1,371.00	3,167.00
306.00	1,020.00	1,591.00	2,016.00	3,169.00
259.00	855.00	1,121.00	1,369.00	2,711.00
224.00	626.00	809.00	1,035.00	2,239.00
356.00	1,241.00	1,806.00	2,327.00	3,753.00

Each

22059	Granite.....	297.00	898.00	1,150.00	1,371.00	3,167.00	22059
22060	Great Lake rock.....	306.00	1,020.00	1,591.00	2,016.00	3,169.00	22060
22061	Serpentine boulders.....	259.00	855.00	1,121.00	1,369.00	2,711.00	22061
22062	Ying rock.....	224.00	626.00	809.00	1,035.00	2,239.00	22062
22063	Yellow soap stone.....	356.00	1,241.00	1,806.00	2,327.00	3,753.00	22063

Per cubic metre

22064	Take down and clear away ornamental boulders in any sizes.....	341.20	22064
22065	Take down and set aside for re-use ditto.....	142.20	22065
22066	Lay only in concrete or soil (concrete base measured separately) ditto.....	241.70	22066

Item

Item

PART IIIA - LANDSCAPE SOFTWORKS - SUPPLY ITEMS

Supply the following plants : -

	Group A	Group B	Group C	Group D	Group E	Group F	Group G	
<i>Each</i>	A	B	C	D	E	F	G	
	\$	\$	\$	\$	\$	\$	\$	
22067 Seedling tree.....	15.70	22.50	32.60	15.70	29.20	36.00	22.50	22067
22068 Whip.....	24.70	32.60	48.30	29.20	41.60	61.80	32.60	22068
22069 Light standard tree.....	96.70	162.00	243.00	129.00	227.00	280.00	162.00	22069
22070 Standard tree.....	162.00	243.00	486.00	227.00	389.00	649.00	243.00	22070
22071 Heavy standard tree.....	486.00	810.00	1,943.00	649.00	-	-	810.00	22071
22072 Semi-mature tree n.e. 200 mm DBH.....	4,050.00	4,860.00	8,100.00	4,535.00	-	-	4,860.00	22072

<i>Each</i>	A	
	\$	
22073 Add to Item 22072A for each addition of 50 mm or part thereof in DBH.....	1,109.00	22073
22074 Add to Item 22072B for each addition of 50 mm or part thereof in DBH.....	1,336.00	22074
22075 Add to Item 22072C for each addition of 50 mm or part thereof in DBH.....	2,430.00	22075
22076 Add to Item 22072D for each addition of 50 mm or part thereof in DBH.....	1,296.00	22076
22077 Add to Item 22072G for each addition of 50 mm or part thereof in DBH.....	1,336.00	22077
22078 Extra over either of Items 22067 to 22072 inclusive for tree in clipped form with overall height n.e. 1200 mm.....	486.00	22078
22079 Ditto overall height 1200 -1500 mm.....	810.00	22079
22080 Ditto overall height 1500 -1800 mm.....	1,134.00	22080

	Group A	Group B	Group C	Group D	
<i>Each</i>	A	B	C	D	
	\$	\$	\$	\$	
22081 Small conifers.....	324.00	566.00	405.00	445.00	22081
22082 Large conifers.....	1,296.00	1,943.00	1,620.00	1,862.00	22082

Item

Item

PART IIIA - LANDSCAPE SOFTWORKS - SUPPLY ITEMS (CONT'D)

Supply the following plants : - (Cont'd)

Each

A
\$

22083	Add to Item 22082A for each additional 300 mm height or part thereof.....	162.00	22083
22084	Add to Item 22082B for each additional 300 mm height or part thereof.....	260.00	22084
22085	Add to Item 22082C for each additional 300 mm height or part thereof.....	210.00	22085
22086	Add to Item 22082D for each additional 300 mm height or part thereof.....	243.00	22086
22087	Extra over either of Items 22081 and 22082 for tree in clipped form with overall height n.e. 1200 mm.....	486.00	22087
22088	Ditto overall height 1200 -1500 mm.....	810.00	22088
22089	Ditto overall height 1500 -1800 mm.....	1,134.00	22089

Group A	Group B	Group C	Group D	Group E	Group F
A	B	C	D	E	F
\$	\$	\$	\$	\$	\$
486.00	243.00	162.00	291.00	129.00	202.00
810.00	566.00	324.00	566.00	291.00	422.00
2,430.00	1,458.00	810.00	1,296.00	-	1,094.00

Each

22090	Small palms.....	486.00	243.00	162.00	291.00	129.00	202.00	22090
22091	Medium palms.....	810.00	566.00	324.00	566.00	291.00	422.00	22091
22092	Large palms.....	2,430.00	1,458.00	810.00	1,296.00	-	1,094.00	22092

Each

A
\$

22093	Add to Item 22092A for each additional 150 mm height or part thereof.....	324.00	22093
22094	Add to Item 22092B for each additional 300 mm height or part thereof.....	486.00	22094
22095	Add to Item 22092C for each additional 300 mm height or part thereof.....	243.00	22095
22096	Add to Item 22092D for each additional 500 mm height or part thereof.....	226.00	22096
22097	Add to Item 22092F for each additional 300 mm height or part thereof.....	324.00	22097
22098	Small shrubs, 150 - 300 mm high, 150 - 250 mm spread.....	12.30	22098
22099	Small shrubs, 300 - 450 mm high, 250 - 400 mm spread.....	19.10	22099
22100	Small shrubs, 450 - 600 mm high, 400 - 550 mm spread.....	20.20	22100

Item			Item
PART IIIA - LANDSCAPE SOFTWORKS - SUPPLY ITEMS (CONT'D)			
Supply the following plants : - (Cont'd)			
	<i>Each</i>	A \$	
22101	Large shrubs, 600 - 900 mm high, 550 - 750 mm spread.....	25.90	22101
22102	Large shrubs, 900 - 1200 mm high, 750 - 1000 mm spread.....	80.90	22102
22103	Large shrubs exc. 1200 mm high.....	117.00	22103
22104	Extra over either of Items 22098 to 22100 inclusive for small shrubs in clipped form.....	76.40	22104
22105	Extra over either of Items 22101 to 22103 inclusive for large shrubs in clipped form.....	191.00	22105
22106	Herbaceous plants, 150 - 300 mm high, 100 - 200 mm spread.....	9.00	22106
22107	Herbaceous plants, 300 - 450 mm high, 200 - 400 mm spread.....	13.60	22107
22108	Herbaceous plants, 450 - 600 mm high, 400 - 600 mm spread.....	19.10	22108
22109	Ground cover plants (except Wedelia trilobata), 100 - 200 mm high, 100 - 200 mm spread.....	6.70	22109
22110	Ground cover plants (except Wedelia trilobata), 200 - 300 mm high, 200 - 450 mm spread.....	9.90	22110
22111	Ground cover plants (except Wedelia trilobata), 300 - 450 mm high, 450 - 700 mm spread.....	12.40	22111
22112	Wedelia trilobata ground cover 100 - 200 mm high, 200 - 300 mm spread.....	2.20	22112
22113	Climbers of shoot length 600 - 1500 mm.....	19.10	22113
22114	Climbers of shoot length 1500 - 2500 mm.....	39.30	22114
22115	Bamboos 500 - 1200 mm.....	25.90	22115
22116	Bamboos 1200 - 1500 mm.....	48.30	22116
22117	Bamboos 1500 - 2100 mm.....	80.90	22117
22118	Add to Item 22117 for each additional 600 mm height or part thereof.....	56.50	22118
22119	Aquatic plants, n.e. 450 mm high.....	15.70	22119
22120	Aquatic plants, 450 - 600 mm high.....	24.70	22120
22121	Aquatic plants, exc. 600 mm high.....	32.60	22121

Item								Item	
PART IIIA - LANDSCAPE SOFTWORKS - SUPPLY ITEMS (CONT'D)									
Supply, place and remove (when instructed) the following acclimatized indoor plants :-									
		Group A	Group B	Group C	Group D	Group E	Group F	Group G	
		A	B	C	D	E	F	G	
		\$	\$	\$	\$	\$	\$	\$	
	Each								
22122	Standard tree.....	179.00	268.00	535.00	243.00	429.00	713.00	268.00	22122
22123	Heavy standard tree.....	535.00	891.00	2,138.00	713.00	-	-	891.00	22123
22124	Semi-mature tree.....	4,454.00	5,346.00	8,909.00	4,989.00	-	-	5,346.00	22124
22125	Small conifer.....	356.00	624.00	445.00	486.00	-	-	-	22125
22126	Large conifer.....	1,425.00	2,138.00	1,782.00	1,960.00	-	-	-	22126
22127	Small palm.....	535.00	268.00	179.00	320.00	143.00	224.00	-	22127
22128	Medium palm.....	891.00	624.00	356.00	624.00	320.00	463.00	-	22128
22129	Large palm.....	2,673.00	1,604.00	891.00	1,425.00	-	1,158.00	-	22129
	Each							A	
								\$	
22130	Add to Item 22129A for each additional 150 mm height or part thereof.....							339.00	22130
22131	Add to Item 22129B for each additional 300 mm height or part thereof.....							535.00	22131
22132	Add to Item 22129C for each additional 300 mm height or part thereof.....							268.00	22132
22133	Add to Item 22129D for each additional 500 mm height or part thereof.....							268.00	22133
22134	Add to Item 22129F for each additional 300 mm height or part thereof.....							356.00	22134
22135	Shrubs, climbers and herbaceous plants n.e. 600 mm high above ground level with minimum 200 mm diameter pot.....							56.20	22135
22136	Shrubs, climbers and herbaceous plants 600 - 1200 mm high above ground level with minimum 300 mm diameter pot.....							260.00	22136
22137	Shrubs, climbers and herbaceous plants 1200 - 1800 mm high above ground level with minimum 400 mm diameter pot.....							842.00	22137
22138	Shrubs, climbers and herbaceous plants exc. 1800 mm high above ground level with minimum 450 mm diameter pot.....							1,808.00	22138
	Per cubic metre								
22139	Supply, spread and mix in potting medium.....							16.00	22139
	Each								
22140	Supply and plant plants in clipped form of overall height n.e. 1200 mm.....							535.00	22140
22141	Ditto - overall height 1200 - 1500 mm.....							891.00	22141
22142	Ditto - overall height 1500 - 1800 mm.....							1,425.00	22142

Item			Item
	PART III. B - LANDSCAPE SOFTWORKS - PLANTING ITEMS		
	Plant the following plants :-		
	<i>Each</i>	A S	
22143	Plant seedling tree.....	5.60	22143
22144	Collect seedling tree, whip and pot plant from the Government Nursery or other site and deliver to the Site.....	9.00	22144
22145	Plant whip.....	7.40	22145
22146	Plant light standard tree.....	37.00	22146
22147	Plant standard tree.....	121.00	22147
22148	Plant heavy standard tree.....	162.00	22148
22149	Plant semi-mature tree n.e. 200 mm DBH.....	420.00	22149
22150	Add to Item 22149 for each addition of 50 mm or part thereof in DBH.....	69.90	22150
22151	Plant small conifer.....	40.50	22151
22152	Plant large conifer.....	162.00	22152
22153	Add to Item 22152 for each additional 600 mm height or part thereof.....	80.90	22153
22154	Plant small palm.....	28.00	22154
22155	Plant medium palm.....	48.90	22155
22156	Plant large palm.....	140.00	22156
22157	Add to Item 22156 for each additional 1000 mm height or part thereof.....	69.90	22157
	<i>Per cubic metre</i>		
22158	Supply decomposed granite sub-soil filling materials, wheel, spread, level and compact in layers 75 mm thick to flat areas and slopes or filled into flower bed or flower boxes, including trimming and beating surface and forming mitres and curves.....	227.30	22158
22159	Supply fabricated soil mix ditto.....	295.90	22159
22160	Supply top soil ditto.....	399.50	22160
22161	Supply lightweight soil filling materials, wheel, spread, level and compact in layers 75 mm thick to flat areas and slopes or filled into flower bed or flower boxes, including trimming and beating surface and forming mitres and curves.....	867.20	22161
	<i>Each</i>		
22162	Plant small shrub.....	4.50	22162
22163	Plant large shrub.....	6.70	22163
22164	Plant herbaceous plant.....	4.50	22164
22165	Plant ground cover plant.....	3.40	22165

Item	Item
PART III.B - LANDSCAPE SOFTWORKS - PLANTING ITEMS (CONT'D)	
Plant the following plants : - (Cont'd)	
<i>Each</i>	
22166	Plant climber with shortest shoot 600 - 1500 mm length.....
A S	22166
22167	Plant climber with shortest shoot 1500 - 2500 mm length.....
6.70	22167
22168	Plant bamboo of height n.e. 1200 mm.....
13.50	22168
22169	Plant bamboo of height 1200 - 2100 mm.....
7.90	22169
22170	Add to Item 22169 for each additional 600 mm height or part thereof.....
15.70	22170
22171	Plant aquatic plant.....
7.90	22171
Supply the following pots or containers and remove from the Site when instructed by the Maintenance Surveyor (supply of plants is measured separately) : -	
<i>Each</i>	
22172	Plastic pot 250 - 300 mm diameter.....
15.70	22172
22173	Plastic pot 300 - 900 mm diameter.....
32.60	22173
22174	Glazed ceramic pot 400 - 450 mm diameter.....
129.00	22174
22175	Glazed ceramic pot 450 - 550 mm diameter.....
162.00	22175
22176	Glazed ceramic pot 550 - 1000 mm diameter.....
243.00	22176
22177	Unglazed pot in variety of shapes and colours with perimeter of inner rim n.e. 2000 mm.....
59.40	22177
22178	Unglazed pot in variety of shapes and colours with perimeter of inner rim 2000 - 4000 mm.....
297.00	22178
22179	Unglazed pot in variety of shapes and colours with perimeter of inner rim 4000 - 6000 mm.....
712.00	22179
22180	Unglazed pot in variety of shapes and colours with perimeter of inner rim 6000 - 8000 mm.....
1,187.00	22180
22181	Polished, coloured fibre-glass pot in variety of shapes and colours with perimeter of inner rim n.e. 2000 mm.....
508.00	22181
22182	Polished, coloured fibre-glass pot in variety of shapes and colours with perimeter of inner rim 2000 - 4000 mm.....
1,905.00	22182
22183	Polished, coloured fibre-glass pot in variety of shapes and colours with perimeter of inner rim 4000 - 6000 mm.....
3,810.00	22183
22184	Polished, coloured fibre-glass pot in variety of shapes and colours with perimeter of inner rim 6000 - 8000 mm.....
5,716.00	22184
22185	Coloured fibre-glass pots in 'granolithic' finish in variety of shapes with drain holes; bottom recessed for stand; concealed lifting eyebolts and colours with inner rim n.e. 2000 mm.....
762.00	22185
22186	Coloured fibre-glass pots in 'granolithic' finish in variety of shapes with drain holes; bottom recessed for stand; concealed lifting eyebolts and colours with inner rim 2000 - 4000 mm.....
2,540.00	22186
22187	Coloured fibre-glass pots in 'granolithic' finish in variety of shapes with drain holes; bottom recessed for stand; concealed lifting eyebolts and colours with inner rim 4000 - 6000 mm.....
4,445.00	22187
22188	Coloured fibre-glass pots in 'granolithic' finish in variety of shapes with drain holes; bottom recessed for stand; concealed lifting eyebolts and colours with inner rim 6000 - 8000 mm.....
7,621.00	22188

Item			Item
PART III.B - LANDSCAPE SOFTWORKS - PLANTING ITEMS (CONT'D)			
Supply the following pots or containers and remove from the Site when instructed by the Maintenance Surveyor (supply of plants is measured separately) : - (Cont'd)			
<i>Each</i>			
22189	Coloured fibre-glass pots in decorative molding finish in variety of shapes with drain holes; bottom recessed for stand; concealed lifting eyebolts and colours with inner rim n.e. 2000 mm.....	A \$ 953.00	22189
22190	Coloured fibre-glass pots in decorative molding finish in variety of shapes with drain holes; bottom recessed for stand; concealed lifting eyebolts and colours with inner rim 2000 - 4000 mm.....	2,858.00	22190
22191	Coloured fibre-glass pots in decorative molding finish in variety of shapes with drain holes; bottom recessed for stand; concealed lifting eyebolts and colours with inner rim 4000 - 6000 mm.....	5,080.00	22191
22192	Coloured fibre-glass pots in decorative molding finish in variety of shapes with drain holes; bottom recessed for stand; concealed lifting eyebolts and colours with inner rim 6000 - 8000 mm.....	8,256.00	22192
22193	Natural granite pots in variety of shapes, finishes and colours with stands and inner rim n.e. 2000 mm.....	712.00	22193
22194	Natural granite pots in variety of shapes, finishes and colours with stands and inner rim 2000 - 4000 mm.....	2,374.00	22194
22195	Natural granite pots in variety of shapes, finishes and colours with stands and inner rim 4000 - 6000 mm.....	4,155.00	22195
22196	Natural granite pots in variety of shapes, finishes and colours with stands and inner rim 6000 - 8000 mm.....	7,123.00	22196
22197	Concrete pots in variety of shapes with perimeter of inner rim n.e. 2000 mm.....	868.00	22197
22198	Concrete pots in variety of shapes with perimeter of inner rim 2000 - 4000 mm.....	1,736.00	22198
22199	Concrete pots in variety of shapes with perimeter of inner rim 4000 - 6000 mm.....	2,893.00	22199
22200	Concrete pots in variety of shapes with perimeter of inner rim 6000 - 8000 mm.....	6,943.00	22200
22201	Stainless steel plant containers in variety of shapes with perimeter of inner rim n.e. 2000 mm.....	1,270.00	22201
22202	Stainless steel plant containers in variety of shapes with perimeter of inner rim 2000 - 4000 mm.....	2,540.00	22202
22203	Stainless steel plant containers in variety of shapes with perimeter of inner rim 4000 - 6000 mm.....	4,445.00	22203
22204	Stainless steel plant containers in variety of shapes with perimeter of inner rim 6000 - 8000 mm.....	9,526.00	22204
22205	Supply and place ornamental plants other than Orchidaceae family 150-300 mm high, 150-300 mm spread including appropriately sized pot with tray.....	32.60	22205
22206	Supply and place ornamental plants other than Orchidaceae family 300-450 mm high, 300-400 mm spread including appropriately sized pot with tray.....	48.30	22206
22207	Supply and place ornamental plants other than Orchidaceae family 450-600 mm high, 400-550 mm spread including appropriately sized pot with trays.....	80.90	22207
22208	Supply and place ornamental plants other than Orchidaceae family 600-900 mm high, 550-750 mm spread including appropriately sized pot with trays.....	114.00	22208
22209	Supply and place ornamental plants from the Orchidaceae family with appropriately sized pot with tray.....	129.00	22209

Item

Item

PART III.B - LANDSCAPE SOFTWORKS - PLANTING ITEMS (CONT'D)

Supply and fix in position artificial plants as described and specified including appropriate sized pots with trays :-

		Height				
		N.e 900mm	900 - 1200mm	1200 - 1500mm	1500 - 1800mm	
		A \$	B \$	C \$	D \$	
22210	Trees.....	324.00	565.00	1,120.00	2,825.00	22210

		A \$	
22211	Add to Item 22210D for each additional 1000 mm height or part thereof.....		572.00

		Height				
		N.e 300mm	300 - 600mm	600 - 900mm	900 - 1200mm	
		A \$	B \$	C \$	D \$	
22212	Shrubs.....	162.00	238.00	297.00	486.00	22212

		Height					
		N.e 1000mm	1000 - 1500mm	1500 - 2000mm	2000 - 3000mm	3000 - 4000mm	
		A \$	B \$	C \$	D \$	E \$	
22213	Palms.....	486.00	649.00	972.00	1,296.00	1,620.00	22213

		A \$	
22214	Add to Item 22213E for each additional 1000 mm height or part thereof.....		324.00

		Height				
		500 - 1200mm	1200 - 1500mm	1500 - 2100mm		
		A \$	B \$	C \$		
22215	Bamboo.....		405.00	486.00	649.00	22215

		A \$	
22216	Add to Item 22215C for each additional of 600 mm height or part thereof.....		324.00

Item

Item

PART III.B - LANDSCAPE SOFTWORKS - PLANTING ITEMS (CONT'D)

Supply and fix in position artificial plants as described and specified including appropriate sized pots with trays : - (Cont'd)

		Height				
		N.e 1200mm	1200 - 1500mm	1500 - 2100mm	2100 - 2700mm	2700 - 3600mm
		A \$	B \$	C \$	D \$	E \$
22217	Conifers.....	486.00	649.00	972.00	1,296.00	1,620.00

		A \$
22218	Add to Item 22217E for each additional 500 mm height or part thereof.....	324.00

		Height	
		200 - 300mm	300 - 450mm
		Spread	Spread
		200 - 450mm	450 - 700mm
		A \$	B \$
22219	Ground covers.....	33.90	80.90

		Shoot Length			
		N.e 600mm	600 - 900mm	900 - 1200mm	1200 - 1800mm
		A \$	B \$	C \$	D \$
22220	Climbers.....	48.30	65.20	80.90	114.00

		A \$
22221	Turf (decorative).....	810.00

Item				Item
	PART III.C - TURFING AND GRASSING			
	Hydro-mulching on sprayed concrete or other non-soil surface with slope gradient of not more than 70 degrees, all in strict accordance with manufacturer's instructions :-			
	<i>Per square metre</i>	A \$		
22222	Hydro-mulching on spray-concrete or other non-soil surface.....	1,418.20		22222
22223	Broadcast seed.....	13.00		22223
22224	Supply and lay grass sprigs (grass species excluding Cynodon dactylon 'Tifway T419').....	31.70		22224
22225	Supply and lay grass sprigs of species Cynodon dactylon 'Tifway T419'.....	41.00		22225
22226	Supply and lay turf (grass species excluding Cynodon dactylon 'Tifway T419').....	56.80		22226
22227	Supply and lay Cynodon dactylon 'Tifway T419' species turf.....	64.70		22227
22228	Lay only turfs on flat or slopes areas.....	22.60		22228
22229	Spray hydroseeding to surfaces of slope n.e. 30 degree from horizontal.....	38.10		22229
22230	Ditto exceeding 30 degree from horizontal.....	42.20		22230
	PART III.D - TRANSPLANTING			
	Transplant the following plants obtained from an existing or a designated location to any distance from or to Site including all necessary excavation, backfilling, pruning, removing surplus excavated material from Site, loading, transporting, unloading, tree surgery work, cultivating, planting firming, staking, protecting and watering as required for new works by the Specification and as directed by the Maintenance Surveyor :-			
	<i>Each</i>	A \$		
22231	Groundcovers, herbaceous, climbers, small shrubs or any height and spread.....	15.70		22231
22232	Large shrubs of any height and spread/bamboos n.e. 1200 mm height.....	32.60		22232
22233	Bamboos exc. 1200 mm height.....	33.90		22233
		Location within the Site	Location outside the Site	
	<i>Each</i>	A \$	B \$	
22234	Transplant trees/palms/conifers smaller than 150 mm DBH.....	1,130.00	1,805.00	22234
22235	Ditto 150 - 450 mm DBH.....	2,056.00	3,057.00	22235
22236	Ditto 450 - 900 mm DBH.....	4,132.00	5,239.00	22236
22237	Ditto 900 - 1350 mm DBH.....	5,461.00	9,150.00	22237
22238	Ditto 1350 - 1800 mm DBH.....	18,553.00	29,516.00	22238
22239	Ditto 1800 - 2250 mm DBH.....	36,369.00	52,972.00	22239

Item			Item																																					
	PART III.D - TRANSPLANTING (CONT'D)	<table border="1" style="float: right;"> <thead> <tr> <th colspan="2">Slope Inclination</th> </tr> <tr> <th>30° - 45°</th> <th>exceeding 45°</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>		Slope Inclination		30° - 45°	exceeding 45°	A	B	\$	\$																													
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30° - 45°	exceeding 45°																																							
A	B																																							
\$	\$																																							
	<i>Each</i>																																							
22240	Extra over either of Items 22234 to 22239 inclusive for transplanting on slope inclination.....	810.00	1,620.00																																					
	Temporary storage at the Contractor's holding nursery of the following plants obtained from an existing or a designated location of any distance to the nursery : -																																							
	<i>Number per month</i>		A																																					
			\$																																					
22241	Bamboos, shrubs, ground covers, herbaceous, climbers/small palms and conifers/standard trees or below.....		11.30																																					
22242	Large palms and conifer/heavy standard trees.....		121.00																																					
22243	Semi mature trees or above.....		162.00																																					
	Root prune the following plants at the existing location ready for uplift, including all necessary excavation, backfilling, pruning, removing surplus excavated material from Site, staking, protecting and watering as required for new works by the Specification and as directed by the Maintenance Surveyor : -																																							
		<table border="1"> <thead> <tr> <th colspan="9">Stem Diameter</th> </tr> <tr> <th>0 - 50mm</th> <th>50 - 100mm</th> <th>100 - 200mm</th> <th>200 - 350mm</th> <th>350 - 500mm</th> <th>500 - 600mm</th> <th>600 - 700mm</th> <th>700 - 800mm</th> <th>exc. 800mm</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>H</th> <th>I</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>		Stem Diameter									0 - 50mm	50 - 100mm	100 - 200mm	200 - 350mm	350 - 500mm	500 - 600mm	600 - 700mm	700 - 800mm	exc. 800mm	A	B	C	D	E	F	G	H	I	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Stem Diameter																																								
0 - 50mm	50 - 100mm	100 - 200mm	200 - 350mm	350 - 500mm	500 - 600mm	600 - 700mm	700 - 800mm	exc. 800mm																																
A	B	C	D	E	F	G	H	I																																
\$	\$	\$	\$	\$	\$	\$	\$	\$																																
22244	Root prune trees/palms/conifers.....	24.70	80.90																																					
		162.00	486.00																																					
		635.00	889.00																																					
		1,270.00	2,592.00																																					
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	PART III.E - TREE FELLING AND PRUNING/SURGERY WORKS																																							
		<table border="1"> <thead> <tr> <th colspan="8">DBH</th> </tr> <tr> <th>0 - 95mm</th> <th>95 - 150mm</th> <th>150 - 300mm</th> <th>300 - 450mm</th> <th>450 - 600mm</th> <th>600 - 750mm</th> <th>exc. 750mm</th> <th></th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th></th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>							DBH								0 - 95mm	95 - 150mm	150 - 300mm	300 - 450mm	450 - 600mm	600 - 750mm	exc. 750mm		A	B	C	D	E	F	G		\$	\$	\$	\$	\$	\$	\$	\$
DBH																																								
0 - 95mm	95 - 150mm	150 - 300mm	300 - 450mm	450 - 600mm	600 - 750mm	exc. 750mm																																		
A	B	C	D	E	F	G																																		
\$	\$	\$	\$	\$	\$	\$	\$																																	
	<i>Each</i>																																							
22245	Fell tree cutting tree stump up to ground level to a height not exceeding 200mm; clearing away all arisings, and making good all disturbed ground surfaces.....	150.00	375.00	1,124.00	1,555.00	2,547.00	3,866.00	5,184.00																																
22246	Grubbing up of roots and stumps and filling in voids with approved materials, if required, clearing away all arisings, and making good all disturbed ground surfaces.....	99.40	250.00	749.00	1,036.00	1,698.00	2,577.00	3,456.00																																
		<table border="1"> <thead> <tr> <th colspan="2">DBH</th> </tr> <tr> <th>0 - 95mm</th> <th>exc. 95mm</th> </tr> <tr> <th>A</th> <th>B</th> </tr> <tr> <th>\$</th> <th>\$</th> </tr> </thead> </table>		DBH		0 - 95mm	exc. 95mm	A	B	\$	\$																													
DBH																																								
0 - 95mm	exc. 95mm																																							
A	B																																							
\$	\$																																							
22247	Fell bamboo; cutting bamboo rhizome up to ground level to a height not exceeding 200mm; clearing away all arisings, and making good all disturbed ground surface.....	51.00	90.00																																					
22248	Grubbing up of bamboo rhizome and filling in voids with approved materials, if required, clearing away all arisings, and making good all disturbed ground surfaces.....	79.00	113.00																																					

Item	Item																				
PART III E - TREE FELLING AND PRUNING/SURGERY WORKS (CONT'D)																					
<i>Per square metre</i>	A \$																				
22249 Prune climbers and groundcovers.....	13.00																				
<i>Each</i>																					
22250 Prune for crown cleaning and/or lifting of whip trees/seedling trees/shrubs/herbaceous plants.....	9.00																				
22251 Prune for crown cleaning and/or lifting of standard trees/light standard trees/small conifers/palms (Group A, B, C and E).....	178.00																				
22252 Prune for crown cleaning and/or lifting of semi-mature trees/heavy standard trees/large conifers/palms (Group D)/transplanted trees of overall height n.e. 7 m.....	711.00																				
22253 Ditto but overall height between 7 - 18 m.....	2,667.00																				
22254 Prune for crown thinning of whip trees/seedling trees/shrubs/herbaceous plants.....	10.10																				
22255 Prune for crown thinning of standard trees/light standard trees/small conifers/palms (Group A, B, C and E).....	216.00																				
22256 Prune for crown thinning of semi-mature trees/heavy standard trees/large conifers/palms (Group D)/transplanted trees of overall height n.e. 7 m.....	863.00																				
22257 Ditto but overall height between 7 - 18 m.....	3,239.00																				
22258 Prune for crown reduction of whip trees/seedling trees/shrubs/herbaceous plants.....	11.30																				
22259 Prune for crown reduction of standard trees/light standard trees/small conifers/palms (Group A, B, C and E).....	226.00																				
22260 Prune for crown reduction of semi-mature trees/heavy standard trees/large conifers/palms (Group D)/transplanted trees of overall height n.e. 7 m.....	1,016.00																				
22261 Ditto but overall height between 7 - 18 m.....	3,810.00																				
<i>Each</i>	<table border="1"> <thead> <tr> <th colspan="4" data-bbox="1235 1344 1305 1361">Diameter</th> </tr> <tr> <th data-bbox="1110 1368 1182 1417">100 - 200mm</th> <th data-bbox="1190 1368 1262 1417">200 - 300mm</th> <th data-bbox="1270 1368 1342 1417">300 - 400mm</th> <th data-bbox="1350 1368 1437 1417">exceeding 400mm</th> </tr> <tr> <th data-bbox="1126 1429 1150 1447">A</th> <th data-bbox="1222 1429 1246 1447">B</th> <th data-bbox="1302 1429 1326 1447">C</th> <th data-bbox="1390 1429 1414 1447">D</th> </tr> <tr> <th data-bbox="1126 1458 1150 1476">\$</th> <th data-bbox="1222 1458 1246 1476">\$</th> <th data-bbox="1302 1458 1326 1476">\$</th> <th data-bbox="1390 1458 1414 1476">\$</th> </tr> </thead> <tbody> <tr> <td data-bbox="1126 1536 1182 1554" style="text-align: center;">80.90</td> <td data-bbox="1206 1536 1262 1554" style="text-align: center;">381.00</td> <td data-bbox="1286 1536 1342 1554" style="text-align: center;">762.00</td> <td data-bbox="1366 1536 1437 1554" style="text-align: center;">1,130.00</td> </tr> </tbody> </table>	Diameter				100 - 200mm	200 - 300mm	300 - 400mm	exceeding 400mm	A	B	C	D	\$	\$	\$	\$	80.90	381.00	762.00	1,130.00
Diameter																					
100 - 200mm	200 - 300mm	300 - 400mm	exceeding 400mm																		
A	B	C	D																		
\$	\$	\$	\$																		
80.90	381.00	762.00	1,130.00																		
22262 Extra over either of Items 22252, 22253, 22256, 22257, 22260 and 22261 inclusive for removal/reduction of branch/limb of diameter exceeding 100 mm diameter.....	22262																				

Item

Item

PART IV - ESTABLISHMENT WORKS

(Note : The following Items 22263 to 22278 inclusive shall only be paid for, if ordered by the Maintenance Surveyor in writing.)

Square metre per month

A
\$

22263 Basic monthly establishment operations for climbers and groundcovers..... 2.90 22263

22264 Basic monthly establishment operations for grass area..... 4.30 22264

Number per month

22265 Basic monthly establishment operations for semi-mature trees of above..... 8.10 22265

22266 Basic monthly establishment operations for heavy standard trees, large palms and large conifers..... 6.40 22266

22267 Basic monthly establishment operations for standard trees, medium palms and small conifers..... 4.30 22267

22268 Basic monthly establishment operations for light standard trees and small palms..... 2.70 22268

22269 Basic monthly establishment operations for whip trees/seedling trees/shrubs/bamboos/herbaceous plants..... 0.60 22269

22270 Basic monthly establishment operations for aquatic plants..... 0.70 22270

22271 Basic monthly establishment operations for indoor semi-mature trees or above..... 4.30 22271

22272 Basic monthly establishment operations for indoor heavy standard trees, large palms and large conifers..... 4.30 22272

22273 Basic monthly establishment operations for indoor standard trees, medium palms and small conifers..... 4.30 22273

22274 Basic monthly establishment operations for indoor potted light standard trees, small palms and bamboos..... 0.90 22274

22275 Basic monthly establishment operations for indoor potted shrubs and herbaceous plants..... 1.10 22275

22276 Basic monthly establishment operations for ornamental plants other than Orchidaceae family..... 2.70 22276

22277 Basic monthly establishment operations for ornamental plants from the Orchidaceae family..... 2.20 22277

DBH					
0 - 150mm	150 - 450mm	450 - 900mm	900 - 1350mm	1350 - 1800mm	1800 - 2250mm
A	B	C	D	E	F
\$	\$	\$	\$	\$	\$
339.00	904.00	1,648.00	1,886.00	3,382.00	3,577.00

Each

22278 Basic monthly establishment operations for transplanted trees/palms/conifers..... 22278

Item			Item
PART IV - ESTABLISHMENT WORKS (CONT'D)			
	<i>Per square metre</i>	A \$	
22279	Weed planted area, free of weed.....	5.70	22279
22280	Water turf and ground cover plants.....	4.00	22280
22281	Apply fertilizer at 40g per m ² to grass, ground cover plants and herbaceous plants.....	3.40	22281
22282	Extra over Item 22281 for the use of approved organic fertilizer.....	4.60	22282
22283	Forking over.....	3.90	22283
22284	Apply pesticide or fungicide to ground covers/grassed area.....	5.60	22284
22285	Grass cutting.....	4.30	22285
22286	Top-dressing.....	33.80	22286
22287	Aeration of turf area.....	10.80	22287
22288	Rolling of turf area.....	11.70	22288
	<i>Per number</i>		
22289	Firm up semi-mature and heavy standard trees, large palms and large conifers.....	325.00	22289
22290	Firm up standard and light standard trees, medium and small palms and small conifers.....	102.00	22290
22291	Firm up whips, seedling, bamboos, shrubs, ground cover plants, herbaceous plants and climbers.....	6.70	22291
22292	Water light standard and standard trees, conifers and palms.....	5.60	22292
22293	Water heavy standard and semi-mature trees or above.....	6.70	22293
22294	Water bamboos, seedlings, whips, climbers, shrubs and herbaceous plants.....	2.20	22294
22295	Water indoor potted trees, bamboos, and palms.....	1.70	22295
22296	Water indoor potted shrubs and herbaceous plants.....	1.40	22296
22297	Apply fertilizer at 75g per plant to seedling trees, whips, small palms and conifers, shrubs, bamboo and climbers.....	4.50	22297
22298	Apply fertilizer at 125g per plant to standard trees, medium size palms.....	7.90	22298
22299	Apply fertilizer at 200g per plant to heavy standard trees, large palms and large conifers or above.....	10.10	22299
22300	Apply fertilizer at 250g per plant to semi-mature trees or above.....	12.40	22300
22301	Extra over either of Items 22297 and 22298 for the use of approved organic fertilizer.....	16.90	22301
22302	Extra over either of Items 22299 and 22300 for the use of approved organic fertilizer.....	16.90	22302
22303	Apply pesticide or fungicide to seedling trees, whips, bamboos, shrubs, herbaceous plants or climbers.....	10.80	22303
22304	Apply pesticide or fungicide to light standard, standard trees, small conifers, small & medium palms.....	22.60	22304
22305	Apply pesticide or fungicide to heavy standard and semi-mature trees, large conifers and palms, and above.....	38.20	22305

Item			Item								
PART IV - ESTABLISHMENT WORKS (CONT'D)											
	<i>Per set</i>	A \$									
22306	Supply and install staking system, with one bamboo stake.....	26.00	22306								
22307	Supply and install staking system, with three bamboo stakes.....	84.50	22307								
22308	Supply and install staking system, with two metal stakes and single tie per stake.....	170.00	22308								
22309	Supply and install staking system, with two metal stakes and two ties per stake.....	254.00	22309								
22310	Supply and install staking system, with three metal stakes and single tie per stake.....	308.00	22310								
22311	Supply and install guying system, with three guy wires.....	339.00	22311								
22312	Extra over Item 22311 for semi-mature trees, extra large palms, and extra large conifers.....	130.00	22312								
22313	Adjust tree guys and guy stakes.....	82.40	22313								
22314	Adjust tree stakes and ties.....	33.90	22314								
22315	Remove tree stakes and ties.....	49.80	22315								
22316	Remove tree guys and guy stakes.....	56.50	22316								
PART V - INDEPENDENT TREE EXPERT REPORT											
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">DBH</th> </tr> <tr> <th style="text-align: center;">0 - 1000mm</th> <th style="text-align: center;">exc. 1000mm</th> </tr> <tr> <th style="text-align: center;">A \$</th> <th style="text-align: center;">B \$</th> </tr> </thead> <tbody> <tr> <td style="text-align: right;">3,800.00</td> <td style="text-align: right;">6,800.00</td> </tr> </tbody> </table>	DBH		0 - 1000mm	exc. 1000mm	A \$	B \$	3,800.00	6,800.00	
DBH											
0 - 1000mm	exc. 1000mm										
A \$	B \$										
3,800.00	6,800.00										
	<i>Per number-tree</i>										
22317	Independent tree expert report.....		22317								
PART VI - SUNDRIES											
	Plant identification : -										
	<i>Number Per Works Order</i>	A \$									
22318	Collect, handle and transport plant specimen(s) to AFCD for identification.....	1,540.00	22318								

Section 23

GEOTECHNICAL WORKS

SECTION 23

GEOTECHNICAL WORKS

SPECIAL CONDITIONS

**Measurement
generally**

SC23.01

Inspection scaffolding shall be measured the area of the face to be covered by the scaffolding and no allowance shall be made for surface irregularities or other local peculiarities.

The rates for inspection scaffolding shall only be paid for, if : -

- (a) No other works shall be executed by the Contractor and it is ordered by the Maintenance Surveyor in writing; and
- (b) The scaffolding shall be taken down and cleared away after the use for inspection or uses by other Government departments or other contractor employed by the Government.

Preliminary stripping to existing slopes shall be measured the surface area of the area or face cleared and no allowance shall be made for surface irregularities or other local peculiarities.

Rock scaling shall be measured the surface area of the face to be scaled and no allowance shall be made for surface irregularities or other local peculiarities.

Mesh protection to rock slopes shall be measured the surface area of the face to be protected and no allowance shall be made for surface irregularities or other local peculiarities. No deduction shall be made for openings each not exceeding 1.00 m².

All geotechnical works items other than those items specifically included in this Section shall be measured and paid for at the appropriate rates under applicable Work Sections in this Schedule.

For avoidance of doubt, all rates in this Section and other appropriate rates under applicable Works Sections measured in relation to all geotechnical works shall deem to apply to works executed by the Approved Suppliers of Material and Specialist Contractors for Public Works : Landslip Preventive/Remedial Works to Slopes/Retaining Walls.

**Measurement
of proprietary mats
for erosion control**

SC23.02

Proprietary mats for erosion control shall be measured net to the area fixed or laid. No deduction shall be made for an area not exceeding 1.00 m².

**Measurement
of surface
protection**

SC23.03

Different types of surface protection shall be measured as the surface area of the face to be covered and no allowance shall be made for surface irregularities or other local peculiarities. No deduction shall be made for an area not exceeding 1.00 m².

SPECIAL CONDITIONS

Measurement of topographic survey	SC23.04	<p>Measurement of topographic survey shall be the plan area within the boundary as directed by the Maintenance Surveyor inclusive of all terrains and irregularities, etc. and measured flat. Measurement shall either be taken at the date of commencement or at the completion or both.</p> <p>The rate for topographic survey shall only be paid for if order by the Maintenance Surveyor in writing.</p>
Rates generally	SC23.05	<p>The rates for all items shall generally include for : -</p> <ul style="list-style-type: none"> (a) Conveying, lowering, hoisting and placing in any position at any height on slopes. (b) All multi-handling between excavation and final position. (c) All multi-handling between temporary deposition in spoil heaps and removal from site. (d) All scaffolding and temporary works. (e) Submission of survey records before and upon the completion of the geotechnical works.

PART I - EARTHWORK ON EXISTING SLOPES

Rates for excavation on existing slopes	SC23.06	<p>The rates for excavation on existing slopes shall further include for : -</p> <ul style="list-style-type: none"> (a) Mobilization, maintenance and demobilization of excavator, roller, compaction plant, moving plant and the like. (b) Allowance for increase in bulk of all materials arising from excavation. (c) Excavating in any type of ground including earth, clay, sand, gravel, loose boulders each not exceeding 0.20 m³, any hard surface and the like. (d) Setting out the work and all profiles, rods, etc. and work straight or circular on plan. (e) Excavating to form buttress. (f) Cutting down shrubs, under-growths, etc. including trees not exceeding 150 mm girth, grubbing up roots and clearing away. (g) Removing old drains, channels, stepped channels, catch pits, etc. and sealing off connections. (h) Provision of temporary drainage to the area affected and clearing away after completion. (i) Getting out excavated materials by any means necessary and deposit excavated material in heaps. (j) Cutting and trimming banks and slopes.
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SPECIAL CONDITIONS

PART I - EARTHWORK ON EXISTING SLOPES

Rates for excavation on existing slopes (Cont'd)

SC23.06 (Cont'd)

- (k) Protecting the exposed surfaces of excavation by any necessary means.
- (l) Preparation and submission of survey record when ordered by the Maintenance Surveyor.
- (m) Depositing in temporary spoil heaps.

Rates for earth filling to existing slopes

SC23.07

The rates for earth filling to existing slopes shall further include for : -

- (a) Additional bulk of filling required to allow for compaction.
- (b) Forming and trimming banks and slopes and compaction.
- (c) Temporary retaining boards to edges and slopes.
- (d) Removing, replacing or making good placed or compacted filling material as required where filling material subsequently becomes damaged or unsuitable.
- (e) Protecting the exposed surfaces of filling by any necessary means.
- (f) All soil tests including in-situ density tests, maximum dry density tests and etc. as required.

Rates for soil-cement filling

SC23.08

The rates for soil-cement filling shall further include for : -

- (a) Preliminary mix trials.
- (b) Preliminary trial panels.
- (c) Preparation of surface to be filled.
- (d) Compacting and finishing surfaces.
- (e) Recording and submitting records.

PART II - SLOPE TREATMENTS

Drawings

SC23.09

The drawings as referred to in this Schedule and listed in Annex 'A' - Drawing Schedule and Drawings for Builder's Works of the Schedule can be viewed on the internet websites via the pathways referred therein. Refer to Section 00 - General Regulations Clause GR.08 for the requirements of the drawings.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

PRELIMINARY STRIPPING

Rates for preliminary stripping of top soil

SC23.10

The rates for preliminary stripping of top soil shall further include for : -

- (a) Excavation and disposal of topsoil including loose soil, clearance of vegetations and undergrowths.
- (b) Taking up and clearing away vegetation, topsoil, disused drains, stepped channels and the like.
- (c) Temporary protection of stripped area.
- (d) Clearing of the slope surface and the area so affected after stripping work by means of compressed air or other approved means.
- (e) Clearing, trimming, scarifying and regulating the surface for slope treatment works.
- (f) Taking readings, measurements and observations, recordings and submitting survey records.
- (g) Reinstatement of over-stripped area with approved materials.
- (h) Removing surplus soil and debris.

Rates for preliminary stripping of impermeable surfaces

SC23.11

The rates for preliminary stripping of impermeable surfaces shall further include for : -

- (a) Excavation and disposal of existing chunam, sprayed concrete and other impermeable surfaces in any thickness including vegetations and under-growths.
- (b) Cutting of reinforcement.
- (c) Taking up and clearing away vegetation, topsoil, disused drains, stepped channels and the like.
- (d) Temporary protection of stripped areas.
- (e) Clearing of the slope surface and the area so affected after stripping work by means of compressed air.
- (f) Clearing, trimming, scarifying and regulating the surface for slope treatment works.
- (g) Taking readings, measurements and observations, recordings and submitting survey records.
- (h) Reinstatement of over-stripped area.
- (i) Removing surplus soil and debris.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

INSPECTION SCAFFOLDING

**Rates for
inspection
scaffolding**

SC23.12

The rates for inspection scaffolding shall further include for : -

- (a) Provision, maintenance, inspection, replacement (if required) and subsequent removal.
- (b) Safety ropes, fall-arresting system, harnesses hand and foot holds.
- (c) Platforms, ramps, access, protection fences and barriers.
- (d) Provision of drawings, calculations in relation to the design of Temporary Works including endorsement by a Registered Structural Engineer.
- (e) Allowance in the works programme for inspection carried out by the Maintenance Surveyor.
- (f) Re-erect or repair the inspection scaffolding to allow the re-inspection, if required.
- (g) Obtaining permission from the Maintenance Surveyor for any dismantle works.
- (h) Compliance with the requirements of the current Code of Practice for Bamboo Scaffolding Safety and Code of Practice for Metal Scaffolding Safety.

SURFACE PROTECTION

**Rates for
chunam**

SC23.13

The rates for chunam shall further include for : -

- (a) Cleaning, trimming and regulating the surface to be covered.
- (b) Preliminary trial panels.
- (c) Dowels (if required).
- (d) Weep holes and filter materials.
- (e) Finishing and curing.
- (f) Fixing anchorage.
- (g) Protection of trees, structures, street furniture and the like.
- (h) Recording and submitting records.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

SURFACE PROTECTION

**Rates for
sprayed
concrete**

SC23.14

The rates for sprayed concrete shall further include for : -

- (a) Providing, setting up, maintenance and removal of concrete spraying plant, equipment and all necessary ancillary equipment.
- (b) Preliminary mix trials.
- (c) Preliminary trial panels.
- (d) Test specimens and test panels.
- (e) Preparation of surface to be covered.
- (f) Formwork.
- (g) Weep holes and filter materials.
- (h) Forming and including construction joint and expansion joint.
- (i) Finishing and curing.
- (j) Inspection, sounding, and removal and replacement of sub-standard or hollow areas.
- (k) Coring samples, testing and making good core holes to match existing.
- (l) Protection of trees, structures, street furniture and the like.
- (m) Recording and submitting records.

**Rate for
slope
registration
sign plate**

SC23.15

The rate for supply and installation of sign plate shall include for excavation in any material and disposal of surplus material; backfilling and compaction; waterproof membrane or blinding layer; formwork; reinforcement and concrete, supply and protective treatment of all metal/alloy or other components of the sign plate; painting; welding; qualification tests for welders and welding tests.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

ROCK SCALING, REMOVAL OF BOULDERS, MESH PROTECTIONS AND SEALING AND INFILLING ROCK JOINTS

Rates for scaling and trimming of rock slopes

SC23.16

The rates for scaling and trimming of rock slopes shall further include for : -

- (a) Soil cushions and subsequent removal.
- (b) Washing down.
- (c) Scaling and trimming using hand-held tools.
- (d) Disposal of scale, debris and boulders using hand-held tools.
- (e) Temporary protective measures and subsequent removal.

Rates for mesh protection to rock slopes

SC23.17

The rates for mesh protection to rock slopes shall further include for : -

- (a) Preparation of surface.
- (b) Bolts and anchorages.
- (c) Lapping, binding and jointing.
- (d) Taking down and carting away existing mesh on rock slope.

Rates for rock or boulder splitting and removal

SC23.18

The rates for rock or boulder splitting and removal shall further include for : -

- (a) Mobilization, maintenance and demobilization of plant, tools and ancillary equipment necessary for the works.
- (b) Moving the plant, tools and ancillary equipment at various locations.
- (c) Temporary supports for plant, tools and ancillary.
- (d) Temporary protective measures and subsequent removal.
- (e) Disposal of boulders and debris.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

ROCK SCALING, REMOVAL OF BOULDERS, MESH PROTECTIONS AND SEALING AND INFILLING ROCK JOINTS

Rates for sealing and infilling rock joints

SC23.19

The rates for sealing and infilling rock joints shall further include for : -

- (a) Clearing unsuitable infill.
- (b) Excavating in rock joints to the depth required.
- (c) Concrete, cement mortar and/or epoxy mortar.
- (d) Formwork.
- (e) Reinforcement.
- (f) Masonry infilling.

Rates for concrete buttress

SC23.20

The rates for concrete buttress shall further include for : -

- (a) Preliminary mix trials.
- (b) Slump and other tests as required.
- (c) Preparation of surface to be buttressed.
- (d) Compacting and finishing surfaces.
- (e) Formwork, fair face, if required.
- (f) Reinforcement, if required.
- (g) PVC outlets connected to relief drainage system.
- (h) Recording and submitting records.

ROCK DOWELS

Rates for rock dowels

SC23.21

The rates for rock dowels shall further include for : -

- (a) Providing, setting up, maintenance and removal of sufficient number of drill rigs and ancillary equipment.
- (b) Moving the drill rigs, plant and ancillary equipment between rock dowel positions.
- (c) Drilling in any material.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

ROCK DOWELS

**Rates for
rock dowels
(Cont'd)**

**SC23.21
(Cont'd)**

- (d) Water, compressed air and drilling fluids.
- (e) Washing out holes.
- (f) Grouting.
- (g) Protective treatment to stud components.
- (h) Recording and submitting records.

SOIL NAILS

**Rates for
soil nails**

SC23.22

The rates for soil nails shall further include for : -

- (a) Providing, setting up, maintenance and removal of sufficient number of drill rigs, plant and ancillary equipment.
- (b) Moving the drill rigs, plant and ancillary equipment between soil nail positions.
- (c) Drilling in any material.
- (d) Temporary support to drillholes.
- (e) Water, compressed air and drilling fluids.
- (f) Washing out holes.
- (g) Pre-grouting and reaming.
- (h) Provision and installation of steel bars.
- (i) Grouting.
- (j) Protective treatment to steel components.
- (k) Couplers and centralizers.
- (l) Head assembly, concrete, reinforcement and formwork.
- (m) Excavation for soil nail head and disposal of surplus materials.
- (n) Supporting device including wire, ties and the like.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

SOIL NAILS

Rates for soil nails (Cont'd)	SC23.22 (Cont'd)	<ul style="list-style-type: none"> (o) Recording and submitting records. (p) Reinstatement to affected areas. (q) Protective treatment to steel components, including provision of heat-shrinkable sleeve, if ordered by the Maintenance Surveyor.
Rates for soil nails with double corrosion protection	SC23.23	<p>The rates for soil nails with double corrosion protection shall further include for : -</p> <ul style="list-style-type: none"> (a) Corrugated sheathing as described in the Specification as adopted in the Contract with proven record for use in similar projects as approved by the Maintenance Surveyor.
Rates for pull out tests and performance tests on soil nails	SC23.24	<p>The rates for pull out tests and performance tests on soil nails shall further include for : -</p> <ul style="list-style-type: none"> (a) Setting up, operating, calibrating and maintaining load jacks. (b) Provisions of temporary supports to spread the applied loads. (c) Applying and re-applying the test loads and releasing. (d) Pulling out of soil nail for inspection and grouting the drillhole. (e) Cutting off any protrusion from the drillhole and grout the remaining part of drillhole. (f) Taking readings, measurements and observations of the test and recording and submitting results of test. (g) Submission of remedial proposal and replacement of all soil nails failing the test. (h) Reinstatement of affected areas.

DRAINAGE AND EROSION CONTROL

Rates for relief drains	SC23.25	<p>The rates for relief drains shall further include for : -</p> <ul style="list-style-type: none"> (a) Nails, bolts and nuts for fixing and jointing. (b) Excavation and disposal of material from joints, faults and discontinuities. (c) Connecting to outlets including junction boxes.
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SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

DRAINAGE AND EROSION CONTROL

**Rates for relief
drains
(Cont'd)**

**SC23.25
(Cont'd)**

- (d) Weep holes.
- (e) Trial length.
- (f) Sealing up impermeable layers.
- (g) Submission of method statement.
- (h) P.V.C. flange and end cap.

**Rates for
raking drains**

SC23.26

The rates for raking drains shall further include for : -

- (a) Providing, setting up, maintenance and removal of sufficient number of drill rigs and plant together with all ancillary equipment.
- (b) Moving the drill rigs, plant and ancillary equipment between drain hole positions.
- (c) Drilling in any material.
- (d) Temporary support to drillholes.
- (e) Water, compressed air and drilling fluids.
- (f) Taking soil samples and rock cores.
- (g) Recording and submitting records.
- (h) Disposal of material.
- (i) Temporary sealing for holes.
- (j) Pipes, tubes, drain liners, drain screens and the like, including slots and perforations.
- (k) Filter sheaths and fabric.
- (l) Jointing and socketing.
- (m) Bentonite plugs and mortar seals.
- (n) Marking.
- (o) Reinstatement of affected areas.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

DRAINAGE AND EROSION CONTROL

Rates for maintenance of raking drains

SC23.27

The rates for maintenance of raking drains shall include for : -

- (a) All the equipment and labours, including supply and pumping of water, required for carrying out the maintenance of raking drains as per paragraphs 16 & 17 of WBTC No. 10/91 and agreed by the Maintenance Surveyor.
- (b) Replacement of geotextile filter sheath shall be measured separately under Section 13 - Plumbing and Drainage.
- (c) Disposal of the old filter sheath in an environmentally acceptable way as agreed by the Maintenance Surveyor.

Rates for proprietary mats for erosion control

SC23.28

The rates for proprietary mats for erosion control shall further include for : -

- (a) Preparation of surfaces to receive mats including filling irregularities with suitable materials.
- (b) Taking down and carting away existing mats for erosion control on slope.
- (c) Pins, anchorages and the like for fixing mats.
- (d) Allowance for laps between joints.
- (e) Biodegradable or non-biodegradable properties.
- (f) Submission of samples.
- (g) Submission of catalogues, technical literature, manufacturer's guarantees, etc.

Rates for forming opening to rock mesh and proprietary erosion mat on slope

SC23.29

The rates for forming opening to rock mesh and proprietary erosion mat on slope shall further include for : -

- (a) Setting-out works, wire trimming and making good opening.

GEOTECHNICAL INSTRUMENTATION AND SUNDRIES

Rates for tree rings and planter holes

SC23.30

The rates for tree rings and planter holes in sprayed concrete shall, in addition to the requirements of Special Conditions Clause SC23.14 shall include for : -

- (a) Thickened concrete, reinforcement and anchor bars, if required.
- (b) Removal of any excessive sprayed concrete inside tree ring and planter hole.
- (c) Filling hole with topsoil mix.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

GEOTECHNICAL INSTRUMENTATION AND SUNDRIES

Rates for supply and installation of survey monitoring point	SC23.31	<p>The rates for supply and installation of survey monitoring point shall further include for : -</p> <ul style="list-style-type: none"> (a) Installation of stainless steel bolts of minimum 12 mm diameter or other similar and approved with tapered lower end firmly embedded in stone or concrete and protected hemispherical upper end with 1 mm diameter drilled hole at apex. (b) Provision of concrete bedding as directed by the Maintenance Surveyor.
Rates for monitoring operation at each survey monitoring point	SC23.32	<p>The rates for monitoring operation at each survey monitoring point shall include for : -</p> <ul style="list-style-type: none"> (a) Labour, supervisory staff and equipment necessary for the recording of measurements to the frequency as required by the Maintenance Surveyor. (b) Preparation and submission of daily records.
Rates for topographic survey	SC23.33	<p>The rates for topographic survey shall include for : -</p> <ul style="list-style-type: none"> (a) Carrying out the topographic survey by the qualified personnel of an approved independent firm using their own equipment and providing such labour and assistance as required. (b) Preparation and submission of survey plans and reports duly signed by an authorized surveyor and approved by the Maintenance Surveyor. (c) Payment of all charges incurred.
Rates for monitoring of piezometer	SC23.34	<p>The rate shall include for provision of labour/supervisory staff and diameter for measuring of groundwater level.</p>
Rates for safety fence	SC23.35	<p>The rates for safety fence shall include for : -</p> <ul style="list-style-type: none"> (a) Provision, erection, maintenance, alteration as required. (b) Dismantle and clear away to left-in position as required. (c) Providing all materials including posts, strut, plates, wire meshes, rock dowel, anchor bolts, nuts and washers, cable wire, tarpaulin sheets and the like.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

GEOTECHNICAL INSTRUMENTATION AND SUNDRIES

Rates for safety fence (Cont'd)	SC23.35 (Cont'd)	<ul style="list-style-type: none"> (d) Designs for the temporary works including calculations and drawings endorsed by a Registered Structural Engineer when required. (e) All associated footings including all necessary excavation, disposal, concrete, reinforcement, base plates as required. (f) Adequate lightings and warning lights and associated power supply and electrical works and payment of all charges incurred. (g) Reinstatement and making good surface disturbed.
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SPECIFICATION FOR GEOTECHNICAL WORKS

Specification clauses	SC23.36	<p>The specification clauses for geotechnical works can be found in :-</p> <ul style="list-style-type: none"> (a) The General Specification for Building. (b) The General Specification for Civil Engineering Works. (c) Geotechnical Manual for Slopes. (d) Relevant Geoguides.
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GEOTECHNICAL WORKS FOUND IN OTHER SECTIONS OF THIS SCHEDULE

Turfing and grassing to slopes	SC23.37	Turfing and grassing to slopes can be found in Section 22 - Landscape Work of this Schedule.
Drainage system to slopes	SC23.38	Drainage system to slopes can be found in Section 13 - Plumbing and Drainage of this Schedule.
Concrete works to slopes	SC23.39	Concrete staircase to slopes and reinforcement to buttress can be found in Section 04 - Concrete Work of this Schedule.
Steel railing and staircase to slopes	SC23.40	Steel railing and staircase to slopes can be found in Section 10 - Steel and Metal Work of this Schedule.
Paintwork to slopes	SC23.41	Paintwork to slopes can be found in Section 15 - Painting of this Schedule.

Item			Item
PART I - EARTHWORK ON EXISTING SLOPES			
EARTHWORK ON EXISTING SLOPES			
<i>Per cubic metre</i>		A \$	
23001	Excavate on slopes to reduce levels.....	99.70	23001
23002	Load surplus excavated materials and remove from Site.....	142.60	23002
23003	Spread and level or patching up excavated material on slopes in layers n.e. 250 mm including compacting and handling from spoil heaps.....	119.40	23003
23004	Approved soil brought to Site from Contractor's own source and wheeled, spread, levelled, patching up, watered if necessary and compacted in layers as filling..... (Note : - This item shall only be paid for, if ordered by the Maintenance Surveyor in writing.)	201.30	23004
SOIL - CEMENT FILLING			
<i>Per cubic metre</i>		A \$	
23005	Soil-cement filling including compacting and finishing surfaces as required.....	246.50	23005
REMEDIAL WORK TO BANKS, LANDSLIPS, ETC.			
<i>Per cubic metre</i>		A \$	
23006	Excavate as necessary to trim and cut back eroded, fissured or overhanging banks, slopes and sides of slips at any height to revised profile, throw or lower earth, boulders, shrubs and other debris arising to bottom of slope and break or cut up these arisings together with any former material and debris which had been washed down, into a suitable size for handling, and load and remove from Site and erection, use and clearing away of any ladders, gang planks, shoring, etc., required (Total volume of material actually loaded and removed measured).....	191.60	23006

Item			Item
	PART II - SLOPE TREATMENTS		
	PRELIMINARY STRIPPING		
	<i>Per square metre</i>	A \$	
23007	Preliminary stripping of top soil in any depth.....	42.20	23007
23008	Preliminary stripping of impermeable surfaces in any thickness.....	61.30	23008
	INSPECTION SCAFFOLDING		
	<i>Per square metre</i>	A \$	
23009	Inspection scaffolding.....	88.60	23009
	SURFACE PROTECTION		
	<i>Per square metre</i>	A \$	
23010	Chunam, 50 mm thick.....	126.10	23010
23011	Ditto with single layer of 50 x 50 x 2.7 mm wire diameter galvanized welded mesh.....	338.10	23011
23012	Chunam, 75 mm thick.....	173.50	23012
23013	Ditto with single layer of 50 x 50 x 2.7 mm wire diameter galvanized welded mesh.....	410.10	23013
	Grade 20 or 20MPa sprayed concrete with A252 galvanized welded mesh to BS4483, and with 50 mm diameter weep holes at 1.50 m staggered centres in each direction :-		
	<i>Per square metre</i>		
23014	Sprayed concrete to slopes.....		23014

Sprayed concrete with mesh					
Single layer mesh					Double layer mesh
Thickness (mm)	75	100	125	150	200
A	B	C	D	E	
\$	\$	\$	\$	\$	
252.30	311.00	351.60	383.10	570.10	

Item			Item	
	PART II - SLOPE TREATMENTS (CONT'D)			
	SURFACE PROTECTION (CONT'D)			
	Grade 20 or 20MPa sprayed concrete, with single layer of 50 x 50 x 2.7 mm wire diameter galvanized welded mesh, and with 50 mm diameter weepholes at 1.50 m staggered centres in each direction : -			
		Sprayed concrete with mesh		
	Thickness (mm)	50	75	100
		A	B	C
		\$	\$	\$
23015	Sprayed concrete to slopes.....	155.60	197.50	241.50
		Sprayed concrete without mesh		
		Thickness (mm)	50	75
		A	B	
		\$	\$	
23016	Sprayed concrete to slopes.....		132.50	178.00
			A	
			\$	
23017	Extra over either of Items 23014 to 23016 inclusive for colour pigments in sprayed concrete in accordance with ASTM C979.....		29.80	23017
			A	
			\$	
23018	Supply and installation of slope registration sign plate as Standard Drawing Nos. 7116_01 to 7116_05.....		111.50	23018
23019	Take down and clear away ditto.....		31.30	23019
23020	Take down and set aside for re-use ditto.....		39.80	23020
23021	Fix only ditto.....		55.40	23021

Item			Item
PART II - SLOPE TREATMENTS (CONT'D)			
ROCK SCALING, REMOVAL OF BOULDERS, MESH PROTECTION AND SEALING AND INFILLING ROCK JOINTS			
<i>Per square metre</i>		A \$	
23022	Scaling and trimming of rock slopes including boulders n.e. 0.20 m ³	160.60	23022
23023	Mesh protection as Standard Drawing No. C2205.....	205.20	23023
23024	Take down and clear away ditto.....	78.20	23024
<i>Per cubic metre</i>			
23025	Sealing rock joints with 1:3 cement mortar.....	721.20	23025
23026	Infilling rock joints with no fine concrete.....	703.10	23026
23027	Ditto but with Grade 20 or 20MPa concrete.....	1,014.10	23027
23028	Ditto but with soil-cement fill.....	576.80	23028
23029	Ditto but with masonry bedded in cement mortar.....	743.60	23029
23030	Ditto but with proprietary epoxy mortar..... (Note : - This item shall only be paid for, if ordered by the Maintenance Surveyor in writing.)	1,480.80	23030
23031	Concrete Grade 20 or 20MPa buttress.....	885.30	23031
23032	Concrete Grade 30 or 30MPa buttress.....	914.90	23032
23033	Split rocks or boulders exceeding 0.20 m ³ and remove from Site.....	597.20	23033
ROCK DOWELS			
Supply and install rock dowels as detailed in Standard Drawing No. C2202 :-			
		Rock dowels diameter (mm)	
		25	32
		40	50
<i>Each</i>		A	B
		\$	\$
		C	D
		\$	\$
23034	Rock dowels n.e. 2.00 m long.....	976.00	1,036.00
23035	Ditto 2.00 - 3.00 m long.....	1,469.00	1,523.00
23036	Ditto 3.00 - 4.00 m long.....	1,897.00	2,016.00
23037	Ditto 4.00 - 5.00 m long.....	2,272.00	2,673.00
23038	Ditto 5.00 - 6.00 m long.....	3,010.00	3,194.00
23039	Ditto 6.00 - 7.00 m long.....	3,727.00	3,946.00
23040	Add to Item 23039 for each additional 1.00 m or part thereof in length.....	514.00	540.00
		607.00	679.00

Item

Item

PART II - SLOPE TREATMENTS (CONT'D)

SOIL NAILS

Supply and install soil nails as detailed in Standard Drawing No. C2106/1 to C2106/8 :-

Each

Soil nails diameter (mm)						
25	32	40	50			
A	B	C	D			
\$	\$	\$	\$			
23041	Soil nail n.e. 3.00 m long.....	1,583.00	1,742.00	1,900.00	2,212.00	23041
23042	Ditto 3.00 - 4.00 m long.....	2,111.00	2,323.00	2,534.00	2,956.00	23042
23043	Ditto 4.00 - 5.00 m long.....	2,639.00	2,904.00	3,168.00	3,696.00	23043
23044	Ditto 5.00 - 6.00 m long.....	3,167.00	3,483.00	3,800.00	4,433.00	23044
23045	Ditto 6.00 - 7.00 m long.....	3,695.00	4,063.00	4,433.00	4,900.00	23045
23046	Ditto 7.00 - 8.00 m long.....	4,222.00	4,544.00	4,850.00	5,380.00	23046
23047	Add to Item 23046 for each additional 1.00 m or part thereof in length.....	437.00	480.00	541.00	619.00	23047

Supply and install soil nails with double corrosion protection as detailed in Standard Drawing No. R1043/3 and R1043/3-1 and as specified in the Specification :-

Each

Soil nails diameter (mm)					
25	32	40			
A	B	C			
\$	\$	\$			
23048	Soil nail n.e. 3.00 m long.....	1,742.00	1,900.00	2,059.00	23048
23049	Ditto 3.00 - 4.00 m long.....	2,323.00	2,534.00	2,745.00	23049
23050	Ditto 4.00 - 5.00 m long.....	2,904.00	3,168.00	3,432.00	23050
23051	Ditto 5.00 - 6.00 m long.....	3,483.00	3,800.00	4,116.00	23051
23052	Ditto 6.00 - 7.00 m long.....	4,063.00	4,433.00	4,803.00	23052
23053	Ditto 7.00 - 8.00 m long.....	4,671.00	5,096.00	5,521.00	23053
23054	Add to Item 23053 for each additional 1.00 m or part thereof in length.....	729.00	792.00	845.00	23054

Each

A			
\$			
23055	Pull-out test of any diameter.....	14,900.00	23055
23056	Performance test of any diameter.....	4,800.00	23056

Item			Item
PART II - SLOPE TREATMENTS (CONT'D)			
DRAINAGE AND EROSION CONTROL			
	<i>Each</i>	A \$	
23057	Relief drains 200 mm wide, length n.e. 1.50 m, as detailed in Standard Drawing No. C2404.....	401.00	23057
23058	Ditto for length 1.50 - 3.00 m.....	873.00	23058
23059	Ditto for length 3.00 - 4.50 m.....	1,376.00	23059
		Overall length of each drain	
		n.e. 25.00 m	exceeding 25.00 m
	<i>Per linear metre</i>	A \$	B \$
23060	Raking drains Type 1 upwards at 0° - 45° to the horizontal as detailed in Standard Drawing No. C2403.....	199.60	227.60
23061	Ditto but Type 2.....	243.90	318.70
23062	Ditto but Type 3.....	314.20	386.90
	<i>Per item</i>	A \$	
23063	Maintenance of raking drains, including flushing with a clean air/water jet with a suitable pressure for a period not exceeding 4 hours as agreed by the Maintenance Surveyor, in accordance with the requirements as paragraphs 16 & 17 of WBTC No. 10/91.....	1,932.00	23063
23064	Add to Item 23063 for each additional 4 hours or part thereof in hour.....	1,388.00	23064
	Proprietary mats for erosion prevention/control on level or slope complying with G.S. 26.63 including all necessary fixing accessories and all in accordance with the manufacturer's instructions :-	Supply and fix	
	<i>Per square metre</i>	A \$	
23065	Proprietary mat for erosion prevention/control.....	72.00	23065
23066	Take down and clear away ditto.....	21.30	23066

Item				Item																
PART II - SLOPE TREATMENTS (CONT'D)																				
DRAINAGE AND EROSION CONTROL (CONT'D)																				
		<i>Per cubic metre</i>	A \$																	
23067	Coarse granular filter (Filter B).....	351.60		23067																
23068	Fine granular filter (Filter A).....	341.00		23068																
		<i>Each</i>																		
23069	Filter drainage pipe as detailed in Standard Drawing No. C2302, 50 mm diameter, length n.e. 3.00 m.....	117.00		23069																
23070	Ditto, for length 3.00 - 6.00 m.....	193.00		23070																
<table border="1" style="margin: auto;"> <thead> <tr> <th colspan="4">Diameter of opening (mm)</th> </tr> <tr> <th>n.e. 500</th> <th>500 - 1000</th> <th>1000 - 1500</th> <th>1500 - 2000</th> </tr> <tr> <th>A \$</th> <th>B \$</th> <th>C \$</th> <th>D \$</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">42.50</td> <td style="text-align: center;">89.50</td> <td style="text-align: center;">136.00</td> <td style="text-align: center;">183.00</td> </tr> </tbody> </table>					Diameter of opening (mm)				n.e. 500	500 - 1000	1000 - 1500	1500 - 2000	A \$	B \$	C \$	D \$	42.50	89.50	136.00	183.00
Diameter of opening (mm)																				
n.e. 500	500 - 1000	1000 - 1500	1500 - 2000																	
A \$	B \$	C \$	D \$																	
42.50	89.50	136.00	183.00																	
23071	Form opening to rock mesh and/or proprietary erosion control mat on slope.....			23071																
GEOTECHNICAL INSTRUMENTATION AND SUNDRIES																				
		<i>Per month</i>	A \$																	
23072	Monitoring operation at each survey monitoring point.....	290.00		23072																
		<i>Each</i>																		
23073	Supply and installation of survey monitoring point.....	482.00		23073																
23074	Dismantle and remove survey monitoring point, reinstatement of disturbed surfaces and making good.....	13.50		23074																
23075	Monitoring operation at each standpipe piezometer.....	17.20		23075																

Item			Item	
	PART II - SLOPE TREATMENTS (CONT'D)			
	GEOTECHNICAL INSTRUMENTATION AND SUNDRIES (CONT'D)			
	<i>Each</i>	A \$		
23076	Construct tree rings in sprayed concrete as detailed in Standard Drawing No. C2104/1 and C2104/2, inner ring diameter n.e. 800 mm.....	329.00	23076	
23077	Ditto 800 - 1,200 mm.....	441.00	23077	
23078	Ditto 1,200 - 1,800 mm.....	661.00	23078	
23079	Ditto 1,800 - 2,400 mm.....	830.00	23079	
23080	Ditto 2,400 - 3,000 mm.....	1,099.00	23080	
23081	150 mm Diameter perforated pipe planter holes not exceeding 600 mm long with top soil mix in chunam, sprayed concrete or masonry facing slope.....	58.70	23081	
23082	300 mm Ditto.....	119.00	23082	
	<i>Per square metre</i>			
23083	Carry out topographic survey..... (Note : - This item shall only be paid for, if ordered by the Maintenance Surveyor in writing.)	3.30	23083	
	SAFETY FENCE			
	<i>Per linear metre</i>	Erect, maintain, take down and clear away	Erect, maintain and left in position	
		A \$	B \$	
23084	Safety fence "Type A" as detailed in Standard Drawing Nos. C2501/1 and C2501/2.....	2,307.60	1,901.90	23084
23085	Safety fence "Type A with Highway barrier" as detailed in Standard Drawing Nos. C2501/1, C2501/2 and H2112.....	2,623.00	2,411.20	23085
23086	Safety fence "Type B" as detailed in Standard Drawing Nos. C2502/1 and C2502/2.....	2,749.30	2,569.00	23086

Section 24

PRESERVATION AND PROTECTION OF PRESERVED TREES

SECTION 24

PRESERVATION AND PROTECTION OF PRESERVED TREES

SPECIAL CONDITIONS

Particular Specification	SC24.01	This Section shall be read and used in conjunction with the Particular Specification for Preservation and Protection of Existing Trees including Old and Valuable Trees and relevant Conditions of Contract adopted in the Contract.
Particular Preamble	SC24.02	The items in this Section are applicable to existing trees which are to be preserved and protected including Old and Valuable Trees (hereinafter referred to as "OVT") as stated in G.S. Item 25.69(b).
		PRESERVATION AND PROTECTION OF PRESERVED TREES INCLUDING OLD AND VALUABLE TREES
Measurement of preservation and protection of preserved trees including Old and Valuable Trees	SC24.03	The measurement for the items for the preservation and protection measures for Old and Valuable Trees shall be the duration in which preservation and protection measures for OVT are stated in the Works Order and provided in accordance with the requirements of the Contract. One item shall be measured for each OVT.
	SC24.04	The measurement for the item for the preservation and protection measures for preserved trees other than Old and Valuable Trees shall be the duration in which preservation and protection measures for preserved trees other than OVT as stated in the Works Order and provided in accordance with the requirements of the Contract. One item shall be measured for each tree.
Rates for preservation and protection of Old and Valuable Trees	SC24.05	<p>The rates for preservation and protection of Old and Valuable Trees shall include for : -</p> <ul style="list-style-type: none"> (a) All works, materials and services for preservation and protection of the OVT in accordance with the Contract. (b) Provision, installation, securing, maintenance, reinstatement and removal of identification, labelling or marking system for OVT. (c) Provision, installation, securing, maintenance, reinstatement and removal of temporary protective fencing/armouring/mulching for OVT. (d) Provision, installation, securing, maintenance, reinstatement and removal of physical support measures to protect the OVT from instability. (e) Provision, installation, securing, maintenance and reinstatement of measures to protect the OVT from reduction in ground level, including construction of retaining wall, precautionary measures during excavation and root cutting, and measures to maintain balanced moisture content after change in ground level.

SPECIAL CONDITIONS

PRESERVATION AND PROTECTION OF PRESERVED TREES INCLUDING OLD AND VALUABLE TREES**Rates for preservation and protection of Old and Valuable Trees (Cont'd)****SC24.05 (Cont'd)**

- (f) Provision, installation, securing, maintenance and reinstatement of measures to protect the OVT from rise in ground level, including construction of dry well and soil aeration system.
- (g) Measures to protect the OVT from excavation, including submission of photographic records, precautionary measures during excavation, tunnelling of services and root cutting, and measures to maintain balanced moisture content after excavation.
- (h) Measures to protect the OVT from drilling, including precautionary measures during drilling and root cutting, and measures to maintain balanced moisture content after drilling.
- (i) Measures to control pest and disease for the OVT, including precautionary measures to prevent pest and disease attack and control measures to eradicate pest and disease from the infected trees.
- (j) Pruning of the OVT, including pre-pruning preparation, pruning operation, post-pruning treatment and reinstatement of affected areas.
- (k) Precautionary measures for the OVT as stated in the Contract.

Rates for preservation and protection of preserved trees other than Old and Valuable Trees**SC24.06**

The rates for preservation and protection of preserved trees other than Old and Valuable Trees shall include for : -

- (a) All works, materials and services for preservation and protection of preserved trees other than OVT in accordance with the Contract.
- (b) Provision, installation, securing, maintenance, reinstatement and removal of identification labelling or marking systems for preserved trees other than OVT.
- (c) Provision, installation, securing, maintenance, reinstatement and removal of temporary protective fencing/armouring/mulching for preserved trees other than OVT.
- (d) Provision, installation, securing, maintenance, reinstatement and removal of physical support measures to protect the preserved trees other than OVT from instability.
- (e) Provision, installation, securing, maintenance and reinstatement of measures to protect the preserved trees other than OVT from reduction in ground level, including construction of retaining wall, precautionary measures during excavation and root cutting, and measures to maintain balanced moisture content after change in ground level.
- (f) Provision, installation, securing, maintenance and reinstatement of measures to protect the preserved trees other than OVT from rise in ground level, including construction of dry well and soil aeration system.

SPECIAL CONDITIONS

PRESERVATION AND PROTECTION OF PRESERVED TREES INCLUDING OLD AND VALUABLE TREES

Rates for preservation and protection of preserved trees other than Old and Valuable Trees (Cont'd)

SC24.06 (Cont'd)

- (g) Measures to protect the preserved trees other than OVT from excavation, including submission of photographic records, precautionary measures during excavation, tunnelling of services and root cutting, and measures to maintain balanced moisture content after excavation.
- (h) Measures to protect the preserved trees other than OVT from drilling, including precautionary measures during drilling and root cutting, and measures to maintain balanced moisture content after drilling.
- (i) Measures to control pest and disease for the preserved trees other than OVT, including precautionary measures to prevent pest and disease attack and control measures to eradicate pest and disease from infected trees.
- (j) Pruning of the preserved trees other than OVT, including pre-pruning preparation, pruning operation, post-pruning treatment and reinstatement of affected areas.
- (k) Precautionary measures for the preserved trees other than OVT as stated in the Contract.

TREE SURVEY

Measurement of tree survey

SC24.07

The item for tree survey of each existing tree including Old and Valuable Tree shall be measured for each tree to be surveyed as stated in the Works Order and required in the Contract.

Measurement of reports

SC24.08

The item for reports on photographic record of each preserved tree including Old and Valuable Tree shall be measured for each tree to be preserved as stated in the Works Order and required in the Contract.

Rates for tree survey

SC24.09

The rates for tree survey of each existing tree including Old and Valuable Tree shall include for :-

- (a) All works, materials and services for undertaking tree survey of existing trees including OVT in accordance with the Works Order.
- (b) Preparing, amending and submitting to the Maintenance Surveyor the updated survey record of the trees.
- (c) Provision and installation of identification labelling or marking systems for all existing trees including OVT earmarked to be felled under the Works Order.

SPECIAL CONDITIONS

TREE SURVEY

Rates for reports

SC24.10

The rates for reports on photographic record of each preserved tree including Old and Valuable Tree shall include for : -

- (a) All works, materials and services for preparation, submission, amendments and updating of reports on photographic record of preserved trees including OVT in accordance with the Works Order.
- (b) Taking updated photographs of preserved trees including OVT.

INDEPENDENT TREE EXPERT REPORT

Measurement of independent tree expert report

SC24.11

The rate for provision of independent tree expert (ITE) report shall be measured on a per number-tree basis when specifically ordered by the Maintenance Surveyor by the issue of relevant Works Orders. (Note : - ITE report for non-OVT shall be measured and valued under Section 22 - Landscape Works.)

Rate for independent tree expert report

SC24.12

The rate for ITE report shall include for : -

- (a) All payments and expenses of the ITE in providing the ITE report.
- (b) Provision of services required from the ITE as stipulated in Particular Specification for Independent Tree Expert including :
 - (i) offering independent tree expertise advice to the Maintenance Surveyor in written and/or verbal form with regard to the trees under the issued Works Order, including but not limited to, offering such advice to and/or in front of media and other similar public encounters;
 - (ii) undertaking duties outside normal office hours as required and when instructed; and
 - (iii) provision of written advice, reports, photographic records and all other necessary documents to the satisfaction of the Maintenance Surveyor.
- (c) Provision of all transportation required by the ITE in performing his duties including site inspections and media/public encounters, and all cost and expenses incurred in connection thereto.
- (d) Provision of adequate digital cameras and computer equipment including software and printers for use by the ITE on preparation of written advice and other documents.
- (e) Provision and maintenance of temporary access, access tools, working platforms, scaffolds, inspection and testing equipments and personal protective equipments for safe access to tree and slope to facilitate necessary site inspection by the ITE.

SPECIAL CONDITIONS**AFTERCARE TO OLD AND VALUABLE TREES**

**Measurement
of aftercare to
Old and Valuable
Trees**

SC24.13

The measurement for the items for “aftercare to Old and Valuable Trees” shall be made to the duration in which all requirements for providing aftercare to OVT as stated in the Works Order and provided in the Contract are complied with. One item shall be measured for each OVT.

**Rates for
aftercare to each
Old and Valuable
Tree**

SC24.14

The rates for “aftercare to each Old and Valuable Tree” shall include for : -

- (a) All works, materials and services for providing aftercare to OVT in accordance with the Contract.
- (b) Tree maintenance work, work of repair to damage or health deterioration, or precautionary or mitigation measures against damage.
- (c) Removal of all debris and surplus materials off the Site.
- (d) Reinstatement of the affected areas.

Item			Item						
	PRESERVATION AND PROTECTION OF PRESERVED TREES								
	<i>Per month</i>	A \$							
24001	Preservation and protection of each Old and Valuable Tree.....	3,956.00	24001						
24002	Preservation and protection of each preserved tree other than Old and Valuable Tree.....	238.00	24002						
	TREE SURVEY								
	<i>Per number</i>	A \$							
24003	Tree survey of each existing tree including Old and Valuable Tree.....	123.00	24003						
24004	Reports on photographic record of each preserved tree other than Old and Valuable Tree.....	123.00	24004						
24005	Reports on photographic record of each Old and Valuable Tree.....	985.00	24005						
	INDEPENDENT TREE EXPERT REPORT								
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">DBH</th> </tr> <tr> <th style="text-align: center;">0 - 1000mm</th> <th style="text-align: center;">exc. 1000mm</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A \$</td> <td style="text-align: center;">B \$</td> </tr> </tbody> </table>	DBH		0 - 1000mm	exc. 1000mm	A \$	B \$	
DBH									
0 - 1000mm	exc. 1000mm								
A \$	B \$								
	<i>Per number-tree</i>								
24006	Independent tree expert report.....	5,700.00	10,300.00	24006					
	AFTERCARE TO OLD AND VALUABLE TREES								
	<i>Per month</i>	A \$							
24007	Aftercare to each Old and Valuable Tree.....	1,729.00	24007						

Section 25

**CONTROL TREATMENT ON PESTS, TERMITES AND
RED IMPORTED FIRE ANTS**

SECTION 25

CONTROL TREATMENT ON PESTS, TERMITES AND RED IMPORTED FIRE ANTS

SPECIAL CONDITIONS

PART I - CONTROL TREATMENT ON PESTS AND TERMITES

Measurement of pest and termite control	SC25.01	Only the infested areas by pests and termites as directed by the Maintenance Surveyor shall be measured.
Measurement of termite treatment to existing trees including Old and Valuable Trees	SC25.02	The items for provision of termite treatment to existing trees including Old and Valuable Tree (OVT) shall be measured based on each existing tree where termite infestation around the tree is confirmed by the Maintenance Surveyor.
Rates for pest and termite control	SC25.03	<p>The rates for pest and termite control shall include for : -</p> <ul style="list-style-type: none"> (a) The application of an appropriate pesticide or insecticide approved by the Agriculture, Fisheries and Conservation Department ("AFCD") or any control treatment methods approved by the Maintenance Surveyor. (b) The employment of a pest control specialist approved by the Maintenance Surveyor. (c) Applying the pesticide or insecticide in strict accordance with the manufacturer's instructions.
Rates for termite treatment in mounds and timber	SC25.04	<p>The rates for termite treatment in mounds and timber shall further include for : -</p> <ul style="list-style-type: none"> (a) Carrying out the investigation for the presence of termites. (b) Preparing and drilling holes around termite mounds for the injection of the approved pesticide or insecticide. (c) Treatment services on the termite mounds. (d) Collection services of specimens of termites. (e) Eradication and removal of all termites and their queens. (f) Carrying out periodic inspection to ensure that the termite treatment is effective. (g) Provision of guarantee.

SPECIAL CONDITIONS

PART I - CONTROL TREATMENT ON PESTS AND TERMITES

Rates for termite treatment to existing trees including Old and Valuable Trees

SC25.05

The rates for termite treatment to existing trees including Old and Valuable Trees (OVT) shall further include for : -

- (a) Carrying out the investigation for the presence of termites including the extent of affected soil around the tree.
- (b) Preparing and drilling holes in ground for installation of timber interceptor as in-ground bait station.
- (c) Installing of termite mud-tubes at infested area of above-ground bait station.
- (d) Working at any inclination of slopes if the trees are on slopes.
- (e) Eradication and removal of all termites and their queens.
- (f) Carrying out treatment services.
- (g) Carrying out periodic inspection to ensure that the termite treatment is effective.
- (h) Provision of guarantee.

PART II - TREATMENT SERVICES ON RED IMPORTED FIRE ANTS

Particular Specification

SC25.06

This Section shall be read and used in conjunction with the Particular Specification for Treatment Services on Red Imported Fire Ants and relevant Conditions of Contract adopted for the Contract.

Particular Preamble

SC25.07

A pest control specialist in controlling Red Imported Fire Ants ("RIFA") from the list provided by AFCD shall be employed to provide treatment services for the RIFA including their mounds. The services shall be ordered by the Maintenance Surveyor through the issue of relevant Works Orders under the Contract as and when required.

The updated list of the pesticides for RIFA treatment available from AFCD shall be referred when proposing pesticides for approval.

PROTECTION OF EXISTING PLANTING

Measurement of treatment services on Red Imported Fire Ants

SC25.08

The items for "maintain and protect all existing planting in the controlling area" shall be measured where treatment services are required to be carried out in planted area.

Rates for treatment services on Red Imported Fire Ants

SC25.09

The rates for "maintain and protect all existing planting in the controlling area" shall include for the following whenever maintenance or protection is not possible : -

- (a) Report to the Maintenance Surveyor with alternative proposal.
- (b) Resume the original condition including re-planting to the satisfaction of the Maintenance Surveyor.

SPECIAL CONDITIONS

PART II - TREATMENT SERVICES ON RED IMPORTED FIRE ANTS

COLLECTION SERVICES OF THE SUSPECTED RED IMPORTED FIRE ANTS

Measurement of collection services of the suspected Red Imported Fire Ants

- SC25.10** The items for “mark, cordon off and isolate possible infested zone around single suspected RIFA mound” shall be measured once for a single suspect of RIFA in one location. If there are multiple suspected RIFA mounds in the same location, the “add to Item” shall be measured for each additional mound.
- SC25.11** The items for “collect specimen of suspected RIFA” shall be measured once for each Works Order as directed by the Maintenance Surveyor.
- SC25.12** The items for “add to Item for each additional specimen collection” shall only be measured as directed by the Maintenance Surveyor.
- SC25.13** The item for “reporting to relevant Government Authorities” shall be measured once only for the Works Order.

Rates for collection services of the suspected Red Imported Fire Ants

- SC25.14** The rates for “mark, cordon off and isolate possible infested zone” and “add to Item for each multiple suspected RIFA mound” shall include for : -
- (a) The provision of cordon line.
 - (b) Clear warning signs in both English and Chinese about the presence of suspected RIFA and the relevant pest control situation.
- SC25.15** The rates for “collect specimen of suspected RIFA” and “add to for each additional specimen collection” shall include for : -
- (a) Storage of specimen in an approved container and in 70% alcohol.
 - (b) Collection, handling and transporting all specimens of suspected RIFA to the Plant and Pesticides Regulatory Division of AFCD.
- SC25.16** The rates for “reporting to the relevant Government Authorities” shall include for : -
- (a) Completion and submission of necessary information in the appropriate forms to AFCD, Development Bureau and other relevant Government Authorities.

SPECIAL CONDITIONS

PART II - TREATMENT SERVICES ON RED IMPORTED FIRE ANTS

CONTROL SERVICES OF THE CONFIRMED RED IMPORTED FIRE ANTS

Measurement of control services of the confirmed Red Imported Fire Ants

- SC25.17** The item for “submit a proposal of controlling RIFA” shall be measured once only for the Works Order of treatment services on RIFA.
- SC25.18** The item for “clear and remove mulch from site” shall be measured for the infested area of the site as directed by the Maintenance Surveyor.
- SC25.19** The items for “pest control over infested area” shall be measured for the infested area of the site as directed by the Maintenance Surveyor.
- SC25.20** The item for “pest control to confirmed RIFA mounds” shall be measured where RIFA mounds are confirmed and as directed by the Maintenance Surveyor.
- SC25.21** The item for “submit written report after each controlling service” shall be measured for each controlling service completed.

Rates for control services of the confirmed Red Imported Fire Ants

- SC25.22** The rates for “submit a proposal of controlling RIFA” shall include for : -
- (a) Submission of proposal for controlling RIFA including but not limited to pest control methodology to individual mound treatment and/or over large infested area.
 - (b) Submission of working programme including pest control schedule and surveillance programme schedule.
 - (c) Submission of layout plan showing the location of pest control to be provided.
 - (d) Submission of details of the pesticides to be applied including Material Safety Data Sheet, application procedures with precautionary measures and ecological information.
- SC25.23** The rates for “clear and remove mulch from site” shall include for : -
- (a) Treating mulch with approved pest control methodology before removal.
 - (b) Making good disturbed surfaces to match existing.
- SC25.24** The rates for “pest control over large infested area” shall include for : -
- (a) The application of a pest control methodology approved by the Maintenance Surveyor.

SPECIAL CONDITIONS

PART II - TREATMENT SERVICES ON RED IMPORTED FIRE ANTS

CONTROL SERVICES OF THE CONFIRMED RED IMPORTED FIRE ANTS

Rates for control services of the confirmed Red Imported Fire Ants (Cont'd)

- SC25.25** The rates for “pest control up to five confirmed RIFA mounds” shall include for : -
- (a) The application of a pest control methodology approved by the Maintenance Surveyor.
 - (b) The application up to the first 5 number of confirmed RIFA mounds identified for the Works Order.

- SC25.26** The rates for “submit written report after each controlling service” shall include for : -
- (a) Reporting the effectiveness of each individual pest control.
 - (b) Reporting any new findings of RIFA mound.

SURVEILLANCE MONITORING OF THE CONFIRMED RED IMPORTED FIRE ANTS

Measurement of surveillance monitoring of the confirmed Red Imported Fire Ants

- SC25.27** The item for “carry out surveillance visit” shall be measured for the monitoring the effectiveness of RIFA eradication as directed by the Maintenance Surveyor.
- SC25.28** The item for “submit written report after each surveillance visit” shall be measured for each surveillance visit completed.

Rates for surveillance monitoring of the confirmed Red Imported Fire Ants

- SC25.29** The rates for “carry out surveillance visit up to five confirmed RIFA mound” shall include for : -
- (a) Carry out the visit to monitor the effectiveness of RIFA eradication up to the first 5 number of confirmed RIFA mounds.
- SC25.30** The rates for “submit written report after each surveillance visit” shall include for : -
- (a) Reporting the effectiveness of the RIFA eradication.
 - (b) Reporting any new findings of RIFA mound.

Item			Item
PART I - CONTROL TREATMENT ON PESTS AND TERMITES			
PEST CONTROL			
<i>Per square metre</i>		A \$	
25001	Provide pest/mosquito control over infested area for which the Contractor is not liable under his contractual obligations and when ordered by the Maintenance Surveyor.....	7.40	25001
TERMITE CONTROL			
<i>Per item</i>		A \$	
25002	Provide termite treatment in mounds and to timber skirting, floor boards, wall linings, door frames and architraves, cupboards and wardrobes and all other surfaces within an infested premise of enclosed and covered internal floor area n.e. 100 m ²	2,140.00	25002
25003	Add to Item 25002 for each additional 10 m ² or part thereof in area	250.00	25003
25004	Provide termite treatment to each existing tree including Old and Valuable Tree including applying approved termite colony toxicant to the infested area around the tree, applying chemical bait to in-ground bait station in soil and above ground bait station around infested area, all in accordance with the manufacturer's instructions.....	11,300.00	25004
<i>Per month</i>			
25005	Provide regular inspection and monitoring services of the termite bait stations to each existing tree including Old and Valuable Tree including applying approved chemical bait as required and preparation and submission of all necessary information and reports.....	1,800.00	25005
PART II - TREATMENT SERVICES ON RED IMPORTED FIRE ANTS			
PROTECTION OF EXISTING PLANTING			
<i>Per item</i>		A \$	
25006	Maintain and protect all existing planting in the controlling area.....	7,140.00	25006
COLLECTION SERVICES OF THE SUSPECTED RED IMPORTED FIRE ANTS			
<i>Each</i>		A \$	
25007	Mark, cordon off and isolate possible infested zone around single suspected Red Imported Fire Ant mound.....	2,028.00	25007
25008	Add to Item 25007 for each multiple suspected Red Imported Fire Ant mound.....	465.00	25008
25009	Collect specimen of suspected Red Imported Fire Ant.....	1,270.00	25009
25010	Add to Item 25009 for each additional specimen collection.....	703.00	25010
<i>Per item</i>			
25011	Reporting to relevant Government Authorities.....	1,810.00	25011

Item		A \$	Item
PART II - TREATMENT SERVICES ON RED IMPORTED FIRE ANTS (CONT'D)			
CONTROL SERVICES OF THE CONFIRMED RED IMPORTED FIRE ANTS			
	<i>Per item</i>		
25012	Submit a proposal of controlling Red Imported Fire Ant.....	3,000.00	25012
	<i>Per square metre</i>		
25013	Clear and remove mulch from Site.....	15.10	25013
25014	Pest control over infested area.....	3.00	25014
	<i>Per item</i>		
25015	Pest control up to five confirmed Red Imported Fire Ant mounds.....	1,510.00	25015
	<i>Each</i>		
25016	Add to Item 25015 for each subsequent confirmed Red Imported Fire Ant mound.....	300.00	25016
	<i>Per item</i>		
25017	Submit written report after each controlling service.....	1,510.00	25017
SURVEILLANCE MONITORING OF THE CONFIRMED RED IMPORTED FIRE ANTS			
	<i>Per item</i>		
25018	Carry out surveillance visit up to five confirmed Red Imported Fire Ant mounds.....	1,510.00	25018
	<i>Each</i>		
25019	Add to Item 25018 for each subsequent confirmed Red Imported Fire Ant mound.....	451.00	25019
	<i>Per item</i>		
25020	Submit written report after each surveillance visit.....	1,510.00	25020

Section 61

SITE SAFETY

SECTION 61

SITE SAFETY

SPECIAL CONDITIONS

Particular Specification	SC61.01	<p>This Section shall be read and used in conjunction with the Particular Specification for Site Safety and relevant Conditions of Contract adopted in the Contract.</p>
Particular Preamble	SC61.02	<p>Where no pre-priced rates are provided in this Section, the rates will be provided under individual Term Contract.</p> <p>For any rates to be provided and for pre-priced rates appearing in this Section, they shall be deemed to allow for the value of work in connection with meeting all statutory and contractual obligations in the upkeeping of safety and health in the execution of the Works and any other related obligations, liabilities, risks and profit. In the event that the rates have been insufficient or where there are any aspects where the methods of measurement provided hereunder do not measure any item or exclude the measurement of any item or part thereof, the difference in value shall be deemed to have been included in the Contract Percentages allowed for other Sections in the Schedule of Rates.</p> <p style="text-align: center;">PROVIDE SAFETY OFFICER</p> <p><u>Provide Safety Officer</u></p>
Measurement of provide Safety Officer	SC61.03	<p>The item for “provide Safety Officer” shall be measured for the period commencing from the date of appointment of the Safety Officer as approved by the Maintenance Surveyor or the date on which the Safety Officer commences his duty on the Site whichever is the later.</p> <p>No measurement shall be made for any Safety Officer employed by the Contractor over and above the minimum number of Safety Officers required under the Particular Specification for Site Safety.</p> <p>No measurement shall be made after the date for completion of the Works or extended date for completion of the Works or an earlier or later date notified by the Maintenance Surveyor.</p> <p>No measurement shall be made for any period of time in which the Safety Officer fails to discharge any of his duties.</p>

SPECIAL CONDITIONS

**Rates for provide
Safety Officer**

SC61.04

The rates for “provide Safety Officer” shall include for : -

- (a) Submission of the qualifications and experience of the proposed Safety Officer to the Maintenance Surveyor for approval.
- (b) Provision of sufficient number of Safety Officers in accordance with the Particular Specification for Site Safety and supporting staff to the Safety Officer.
- (c) Ensuring the fulfillment of the duties by the Safety Officer(s) in accordance with the Particular Specification for Site Safety to the satisfaction of the Maintenance Surveyor or his Representative.
- (d) Maintenance of the safety diary.

SITE SAFETY MANAGEMENT COMMITTEE

Attend Site Safety Management Committee

**Measurement
of attend
Site Safety
Management
Committee**

SC61.05

The measurement shall commence from the date of the first meeting of the Site Safety Management Committee until the date for completion of the Works or extended date for completion of the Works or an earlier or later date notified by the Maintenance Surveyor.

No measurement shall be made for any month in which the Contractor fails to hold and attend the Site Safety Management Committee meeting in accordance with the Contract, or fails to deal with any of the matters associated with such Committee in a satisfactory manner.

**Rates for
attend
Site Safety
Management
Committee**

SC61.06

The rates for “attend Site Safety Management Committee” shall include for : -

- (a) Attendance of the Site Safety Management Committee meetings and complete the agenda of the meeting for the month.
- (b) Arranging inspection of the Site by the members of the Site Safety Management Committee before the meeting for the month.
- (c) Providing necessary assistance for the proper functioning of the Site Safety Management Committee.
- (d) Submission of a monthly safety report for consideration at the meeting.

SPECIAL CONDITIONS

SITE SAFETY COMMITTEE

Attend Site Safety Committee

Measurement of attend Site Safety Committee

SC61.07

The measurement shall commence from the date of the first meeting of the Site Safety Committee until the date for completion of the Works or extended date for completion of the Works or an earlier or later date notified by the Maintenance Surveyor.

No measurement shall be made for any month in which the Contractor fails to hold or attend the Site Safety Committee meeting in accordance with the Contract, or fails to deal with any of the matters associated with the Site Safety Committee in a satisfactory manner.

Rates for attend Site Safety Committee

SC61.08

The rates for “attend Site Safety Committee” shall include for : -

- (a) Establishment of the Site Safety Committee.
- (b) Arranging and giving adequate notice to relevant parties of the Site Safety Committee meeting to be held for the month.
- (c) Attendance of the Site Safety Committee meetings.
- (d) Completion and distribution of minutes of meetings.

ARRANGE AND ATTEND WEEKLY SAFETY WALK

Arrange and Attend Weekly Safety Walk

Measurement of arrange and attend weekly safety walk

SC61.09

Only those safety walks conducted in accordance with Particular Specification for Site Safety during the period from the date of commencement of the Works until the date for completion of the Works or extended date for completion of the Works or an earlier or later date notified by the Maintenance Surveyor shall be measured.

No measurement shall be made for the weekly safety walk when any one of the following events occurs during that week : -

- (i) The Contractor has received Improvement Notice or Suspension Notice issued by the Labour Department under the Occupational Safety and Health Ordinance in respect of any activities on the Site; or
- (ii) The Maintenance Surveyor has suspended the progress of the Works or any part thereof due to any reason caused by any default on the part of the Contractor in failing to ensure safety and health; or
- (iii) The Maintenance Surveyor has given written notification to the Contractor requiring the Contractor to rectify any failure in the proper and full implementation of the Safety Plan and the Contractor has failed to rectify within a reasonable time; or
- (iv) The Contractor has failed to rectify the defects and deficiencies identified in the weekly safety walk within the agreed time.

SPECIAL CONDITIONS

**Rates for
arrange and
attend weekly
safety walk**

SC61.10

The rates for “arrange and attend weekly safety walk” shall include for : -

- (a) Arranging and giving adequate notice to relevant parties of the weekly safety walk.
- (b) Using a comprehensive checklist during the walk to identify any deficiencies noted in the safety provisions, recording the deficiencies in the summary table and rectifying such deficiencies subsequently within the agreed time.
- (c) Preparation of reports on safety walks and safety inspections conducted.
- (d) Implementation and upkeeping of all measures stipulated in the Particular Specification on Site Safety and the Safety Plan, and maintaining the effectiveness of all such provisions for the duration of the Contract.
- (e) Conduct of safety inspections including, but without limitation to, the followings : -
 - (i) scaffolding and safe access;
 - (ii) temporary electrical supply; and
 - (iii) site cleanliness.
- (f) Implementation of the decisions and recommendations made by the Site Safety Management Committee on matters of safety and health.

PROVIDE SAFETY TRAINING

Provide Safety Training in the form of Safety Training for Specified Trade Workers

**Measurement
of provide
Safety Training
in the form of
Safety Training
for Specified Trade
Workers**

SC61.11

The item for “provide safety training in the form of safety training for specified trade workers” shall be measured on a per worker basis subject to the production of a Specified Trade Safety Training Certificate (“Silver Card”) issued by the Construction Industry Council as evidence in accordance with Particular Specification for Site Safety. Payment shall be made for a worker attending Safety Certificate for Specified Trade Workers Course or its revalidation. No measurement will be made if :

- (a) the person who claims to attend the safety training for the specified trade workers for the first time had attended the same course for the same trade previously and was issued with a Specified Trade Safety Training Certificate; or
- (b) the course is attended before the skilled worker starts works on the Site; or
- (c) the course is attended after the skilled worker has left the Site.

SPECIAL CONDITIONS

Rates for provide Safety Training in the form of Safety Training for Specified Trade Workers

SC61.12

The rates for “provide safety training in the form of safety training for specified trade workers” shall include for : -

- (a) Arrangement of skilled workers to attend Safety Training Course for Construction Workers of Specified Trade organised by the Construction Industry Council.
- (b) Payment of the token allowance to skilled workers.
- (c) Preparation of training programme and records, and submission of certified monthly statements to the Maintenance Surveyor.
- (d) Administration in connection with (a), (b) and (c) above.

Provide Safety Training in the form of Site Specific Induction Training

Measurement of provide Safety Training in the form of Site Specific Induction Training

SC61.13

The item for “provide safety training in the form of site specific induction training” shall be measured for those within the period from the date of commencement of the Works until the date for completion of the Works or extended date for completion of the Works or an earlier or later date notified by the Maintenance Surveyor.

No measurement for the item on "provide safety training in the form of site specific induction training" will be made if the Maintenance Surveyor or his Representative is dissatisfied with the frequency, arrangements, numbers certified, relevance or quality of such training and the Contractor cannot provide any justification acceptable to the Maintenance Surveyor.

Rates for provide Safety Training in the form of Site Specific Induction Training

SC61.14

The rates for “provide safety training in the form of site specific induction training” shall include for : -

- (a) Site specific safety induction training conducted in accordance with Particular Specification for Site Safety.
- (b) The necessary facilities, trainers and demonstration equipment for complying with (a) above.
- (c) Preparation of the training programme and records, submission of certified monthly statements to the Maintenance Surveyor.
- (d) Administration in connection with (a), (b) and (c) above.

SPECIAL CONDITIONS

Provide Safety Training in the form of Tool Box Talks

Measurement of provide Safety Training in the form of Tool Box Talks

SC61.15

The item for “provide safety training in the form of tool box talks” shall be measured for those within the period from the date of commencement of the Works until the date for completion of the Works or extended date for completion of the Works or an earlier or later date notified by the Maintenance Surveyor shall be measured.

No measurement for "provide safety training in the form of tool box talks" will be made if the Maintenance Surveyor or his Representative is dissatisfied with the frequency, arrangements, numbers certified, relevance or quality of such talks and the Contractor cannot provide any justification acceptable to the Maintenance Surveyor.

No measurement shall be made if the number of individual workers who have attended the relevant safety training is less than 70% of the average number of workers working at the Site in that month. For the avoidance of doubt, the average number of workers working at the Site in a month shall be the quotient of the total number of man-days worked for the Contract in that month divided by the number of working days within that month.

Rates for provide Safety Training in the form of Tool Box Talks

SC61.16

The rates for “provide safety training in the form of tool box talks” shall include for :-

- (a) Conducting tool box talks in accordance with Particular Specification for Site Safety.
- (b) Providing necessary training of Safety Supervisors, foremen or gangers to conduct tool box talks.
- (c) Basing such talks on training kits published by the Hong Kong Construction Association Ltd., Occupational Safety and Health Council, or kits of comparable standard approved or advised by the Maintenance Surveyor.
- (d) Preparation of training programme and records, and submission of certified monthly statements to the Maintenance Surveyor.
- (e) Administration in connection with (a), (b), (c) and (d) above.

SPECIAL CONDITIONSPrevention of heat stroke at work in a hot environment

Measurement of prevention of heat stroke at work in a hot environment

SC61.17

The item shall be measured on the following conditions :

- (a) The item for "prevention of heat stroke at work in a hot environment" shall be made for each hot summer month (from May to September) during the period from the date of the commencement of the Works until the date for completion of the Works or extended date for completion of the Works or an earlier or later date notified by the Maintenance Surveyor.
- (b) No measurement shall be made for the prevention of heat stroke at work in a hot summer month if the Maintenance Surveyor or his representative is dissatisfied with the measures adopted for the prevention of heat stroke at work.

Rates for prevention of heat stroke at work in a hot environment

SC61.18

The rates for "prevention of heat stroke at work in a hot environment" shall include for : -

- (a) Providing measures for working in hot summer months in accordance with Particular Specification for Site Safety to the satisfaction of the Maintenance Surveyor.

Item			Item
SCHEDULE FOR PAY FOR SAFETY SCHEME			
(Note : - No pre-priced rates are provided in Items 61001 to 61004 and 61007 to 61009 inclusive in this Section. The rates of these items will be provided under individual Term Contract.			
The rates set out in this Section shall only be paid for, if ordered by the Maintenance Surveyor in writing and demonstrated compliance with the Particular Specification for Site Safety)			
		A \$	
<i>Per number-month</i>			
61001	Provide Safety Officer.....	-	61001
<i>Per month</i>			
61002	Attend Site Safety Management Committee.....	-	61002
61003	Attend Site Safety Committee.....	-	61003
<i>Per number-week</i>			
61004	Arrange and attend weekly safety walk.....	-	61004
<i>Per number</i>			
61005	Provide safety training in the form of safety training for specified trade workers - One day course.....	650.00	61005
61006	Provide safety training in the form of safety training for specified trade workers - Half day revalidation course.....	350.00	61006
<i>Per month</i>			
61007	Provide safety training in the form of site specific induction training.....	-	61007
61008	Provide safety training in the form of tool box talks.....	-	61008
<i>Per month</i>			
61009	Prevention of heat stroke at work in a hot environment.....	-	61009

Section 62

TRIP TICKET SYSTEM

SECTION 62

TRIP TICKET SYSTEM

SPECIAL CONDITIONS

Particular Specification	SC62.01	This Section shall be read and used in conjunction with the Particular Specification for Trip Ticket System and relevant Conditions of Contract adopted for the Contract.
Particular Preamble	SC62.02	Pre-priced rates appearing in this Section shall be deemed to allow for the value of work in connection with meeting all statutory and contractual obligations in ensuring proper disposal of construction and demolition materials generated from the Site to designated disposal ground under the Contract or other disposal grounds approved or as directed by the Maintenance Surveyor, and any other related obligations, liabilities, risks and profit. In the event that the rates are insufficient or where there are any aspects where the methods provided hereunder do not measure any item or exclude the measurement of any item or part thereof, the difference in value shall be deemed to have been included in the Contract Percentages allowed for other Sections in the Contract.
Measurement of complete site management plan for trip ticket system	SC62.03	The item for “complete site management plan for trip ticket system” shall be measured once for the whole Contract when the Maintenance Surveyor approves the site management plan.
Measurement of implementation of site management plan for trip ticket system	SC62.04	<p>The measurement of the “implementation of site management plan for trip ticket system” shall be the period of time commencing from the date of approval by the Maintenance Surveyor of the site management plan until all construction and demolition materials have been removed from the Sites, or an earlier or later date notified by the Maintenance Surveyor.</p> <p>No measurement shall be made for the “implementation of site management plan for trip ticket system” for any month during which there is any incident of improper disposal or major improper disposal as defined in Clauses 15 and 16 of the Particular Specification for Trip Ticket System, or late submission of the records as required in Clause 10 of the Particular Specification for Trip Ticket System, or there is no disposal of construction and demolition materials off the Site during the month.</p>
Rates for complete site management plan for trip ticket system	SC62.05	<p>The item for “complete site management plan for trip ticket system” shall include for : -</p> <ol style="list-style-type: none"> (a) Prepare the site management plan for trip ticket system to the satisfaction of the Maintenance Surveyor. (b) Distribute or inform all relevant parties details of the site management plan for trip ticket system. (c) Inform truck drivers engaged in the disposal of construction and demolition materials the requirements under the trip ticket system.

SPECIAL CONDITIONS

**Rates for
implementation of
site management
plan for trip ticket
system**

SC62.06

The item for the “implementation of site management plan for trip ticket system” shall include for :-

- (a) Review, update and revise the site management plan for trip ticket system taking into account the comments made by the Maintenance Surveyor or any other parties.
- (b) Assign staff and provide/operate/maintain/remove video recording system and other necessary facilities/equipment for overseeing and implementation of site management plan for trip ticket system.
- (c) Implement measures to ensure that trucks carrying construction and demolition materials from any Site proceed to the disposal grounds designated in the Contract or directed or approved by the Maintenance Surveyor to his satisfaction.
- (d) Devise and implement appropriate measures to ensure that the sorted recyclable materials, which are sorted on any Site for the purpose of recycling such materials, are delivered to a proper recycling outlet for processing.
- (e) Compile, submit and maintain disposal records.
- (f) Investigate and report on incidents of improper disposal and non-compliance with the trip ticket system.
- (g) Monitor performance of trip ticket system and implement improvement measures.
- (h) Implement additional measures to control disposal of construction and demolition materials to alternative disposal ground which the Maintenance Surveyor has approved.
- (i) Distribute revisions of the site management plan for trip ticket system to all relevant parties including the truck drivers engaged in delivery of construction and demolition materials for disposal.
- (j) Other requirements for implementation of the trip ticket system as stipulated in the Particular Specification clauses for Trip Ticket System.

Item	Item
SCHEDULE FOR PAY FOR TRIP TICKET SYSTEM	
<i>Per item</i>	
62001	62001
Complete Site Management Plan.....	A \$ 13,000.00 1,100.00
<i>Per month</i>	
62002	62002
Implementation of Site Management Plan.....	

ANNEX 'A' -

DRAWING SCHEDULE AND DRAWINGS FOR

BUILDER'S WORKS

ANNEX 'A'

DRAWING SCHEDULE AND DRAWINGS FOR BUILDER'S WORKS

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
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Section 06 - Masonry

Note : The following drawing(s) relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -

General Specification for Building issued by Architectural Services Department

<http://www.archsd.gov.hk/en/publications-publicity/general-specification-for-building.aspx>

Page 10-5 of GS2017	Types of Rubble Walling
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Section 10 - Steel and Metal Work

Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -

Architectural Services Department, Architectural Standard Drawings

<http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx>

9711/A/A01	Type A hoarding - corrugated steel fence – general plans
9711/A/A02	Type A hoarding - corrugated steel fence – general notes
9711/A/A03	Type A hoarding - corrugated steel fence – construction details 1
9711/A/A04	Type A hoarding - corrugated steel fence – construction details 2
9711/A/A05	Type A hoarding - corrugated steel fence – construction details 3
9711/A/S01	Type A hoarding - corrugated steel fence – structural details 1
9711/A/S02	Type A hoarding - corrugated steel fence – structural details 2
9711/A/S03	Type A hoarding - corrugated steel fence – structural details 3
9711/A/S04	Type A hoarding - corrugated steel fence – structural details 4

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
Section 10 - Steel and Metal Work (Cont'd)		
Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -		
Architectural Services Department, Architectural Standard Drawings		
http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx		
	9711/B/A01	Type B hoarding - covered walkway – general plans
	9711/B/A02	Type B hoarding - covered walkway – general notes
	9711/B/A03	Type B hoarding - covered walkway – construction details 1
	9711/B/A04	Type B hoarding - covered walkway – construction details 2
	9711/B/A05	Type B hoarding - covered walkway – construction details 3
	9711/B/A06	Type B hoarding - covered walkway – construction details 4
	9711/B/A07	Type B hoarding - covered walkway – construction details 5
	9711/B/S01	Type B hoarding - covered walkway – structural details 1
	9711/B/S02	Type B hoarding - covered walkway – structural details 2
	9711/B/S03	Type B hoarding - covered walkway – structural details 3
	9711/B/S04	Type B hoarding - covered walkway – structural details 4
	9711/B/S05	Type B hoarding - covered walkway – structural details 5
	9711/C/A01	Type C hoarding - covered walkway with single deck catch platform - general plans
	9711/C/A02	Type C hoarding - covered walkway with single deck catch platform - general notes
	9711/C/A03	Type C hoarding - covered walkway with single deck catch platform - construction details 1
	9711/C/A04	Type C hoarding - covered walkway with single deck catch platform - construction details 2
	9711/C/A05	Type C hoarding - covered walkway with single deck catch platform - construction details 3
	9711/C/A06	Type C hoarding - covered walkway with single deck catch platform - construction details 4
	9711/C/A07	Type C hoarding - covered walkway with single deck catch platform - construction details 5

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
Section 10 - Steel and Metal Work (Cont'd)		
Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -		
Architectural Services Department, Architectural Standard Drawings		
http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx		
	9711/C/S01	Type C hoarding - covered walkway with single deck catch platform - structural details 1
	9711/C/S02	Type C hoarding - covered walkway with single deck catch platform - structural details 2
	9711/C/S03	Type C hoarding - covered walkway with single deck catch platform - structural details 3
	9711/C/S04	Type C hoarding - covered walkway with single deck catch platform - structural details 4
	9711/C/S05	Type C hoarding - covered walkway with single deck catch platform - structural details 5
	9711/D/A01	Type D hoarding - covered walkway with double deck catch platform - general plans
	9711/D/A02	Type D hoarding - covered walkway with double deck catch platform - general notes
	9711/D/A03	Type D hoarding - covered walkway with double deck catch platform - construction details 1
	9711/D/A04	Type D hoarding - covered walkway with double deck catch platform - construction details 2
	9711/D/A05	Type D hoarding - covered walkway with double deck catch platform - construction details 3
	9711/D/A06	Type D hoarding - covered walkway with double deck catch platform - construction details 4
	9711/D/A07	Type D hoarding - covered walkway with double deck catch platform - construction details 5
	9711/D/S01	Type D hoarding - covered walkway with double deck catch platform - structural details 1
	9711/D/S02	Type D hoarding - covered walkway with double deck catch platform - structural details 2
	9711/D/S03	Type D hoarding - covered walkway with double deck catch platform - structural details 3
	9711/D/S04	Type D hoarding - covered walkway with double deck catch platform - structural details 4

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
Section 10 - Steel and Metal Work (Cont'd)		
Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -		
Architectural Services Department, Architectural Standard Drawings		
http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx		
	9711/D/S05	Type D hoarding - covered walkway with double deck catch platform - structural details 5
	9711/E/A01	Type E hoarding– corrugated steel fence (surface– mounted footing) – general plans
	9711/E/A02	Type E hoarding– corrugated steel fence (surface– mounted footing) – general notes
	9711/E/A03	Type E hoarding– corrugated steel fence (surface– mounted footing) – construction details 1
	9711/E/A04	Type E hoarding– corrugated steel fence (surface– mounted footing) – construction details 2
	9711/E/A05	Type E hoarding– corrugated steel fence (surface– mounted footing) – construction details 3
	9711/E/S01	Type E hoarding– corrugated steel fence (surface– mounted footing) – structural details 1
	9711/E/S02	Type E hoarding– corrugated steel fence (surface– mounted footing) – structural details 2
	9711/E/S03	Type E hoarding– corrugated steel fence (surface– mounted footing) – structural details 3
	9711/E/S04	Type E hoarding– corrugated steel fence (surface– mounted footing) – structural details 4
	9711/F/A01	Type F hoarding - covered walkway (surface– mounted footing) – general plans
	9711/F/A02	Type F hoarding - covered walkway (surface– mounted footing) – general notes
	9711/F/A03	Type F hoarding - covered walkway (surface– mounted footing) – construction details 1
	9711/F/A04	Type F hoarding - covered walkway (surface– mounted footing) – construction details 2
	9711/F/A05	Type F hoarding - covered walkway (surface– mounted footing) – construction details 3
	9711/F/A06	Type F hoarding - covered walkway (surface– mounted footing) – construction details 4

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
Section 10 - Steel and Metal Work (Cont'd)		
Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -		
Architectural Services Department, Architectural Standard Drawings		
http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx		
	9711/F/A07	Type F hoarding - covered walkway (surface– mounted footing) – construction details 5
	9711/F/S01	Type F hoarding - covered walkway (surface– mounted footing) – structural details 1
	9711/F/S02	Type F hoarding - covered walkway (surface– mounted footing) – structural details 2
	9711/F/S03	Type F hoarding - covered walkway (surface– mounted footing) – structural details 3
	9711/F/S04	Type F hoarding - covered walkway (surface– mounted footing) – structural details 4
	9711/F/S05	Type F hoarding - covered walkway (surface– mounted footing) – structural details 5
	9711/G1/A01	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – general notes
	9711/G1/A02	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – plans
	9711/G1/A03	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – elevation
	9711/G1/A04	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – sections
	9711/G1/A05	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – construction details 1
	9711/G1/A06	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – construction details 2
	9711/G1/A07	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – construction details 3
	9711/G1/A08	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – construction details 4
	9711/G1/A09	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – sited on carriageway / narrow pavement
	9711/G1/S01	Type G1 hoarding - covered walkway with single deck catch platform (surface– mounted footing) – structural details 1

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
Section 10 - Steel and Metal Work (Cont'd)		
Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -		
Architectural Services Department, Architectural Standard Drawings		
http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx		
	9711/G1/S02	Type G1 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – structural details 2
	9711/G1/S03	Type G1 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – structural details 3
	9711/G1/S04	Type G1 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – structural details 4
	9711/G1/S05	Type G1 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – structural details 5
	9711/G2/A01	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – general notes
	9711/G2/A02	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – plans
	9711/G2/A03	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – elevation
	9711/G2/A04	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – sections
	9711/G2/A05	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – construction details 1
	9711/G2/A06	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – construction details 2
	9711/G2/A07	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – construction details 3
	9711/G2/A08	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – construction details 4
	9711/G2/S01	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – structural details 1
	9711/G2/S02	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – structural details 2
	9711/G2/S03	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – structural details 3
	9711/G2/S04	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – structural details 4

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
Section 10 - Steel and Metal Work (Cont'd)		
Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -		
Architectural Services Department, Architectural Standard Drawings		
http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx		
	9711/G2/S05	Type G2 hoarding - covered walkway with single deck catch platform (surface- mounted footing) – structural details 5
	9711/H1/A01	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – general notes
	9711/H1/A02	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – plans
	9711/H1/A03	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – elevation
	9711/H1/A04	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – sections
	9711/H1/A05	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – construction details 1
	9711/H1/A06	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – construction details 2
	9711/H1/A07	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – construction details 3
	9711/H1/A08	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – construction details 4
	9711/H1/A09	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – sited on carriageway / narrow pavement
	9711/H1/S01	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 1
	9711/H1/S02	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 2
	9711/H1/S03	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 3
	9711/H1/S04	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 4
	9711/H1/S05	Type H1 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 5

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
Section 10 - Steel and Metal Work (Cont'd)		
Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -		
Architectural Services Department, Architectural Standard Drawings		
http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx		
	9711/H2/A01	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – general notes
	9711/H2/A02	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – plans
	9711/H2/A03	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – elevation
	9711/H2/A04	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – sections
	9711/H2/A05	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – construction details 1
	9711/H2/A06	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – construction details 2
	9711/H2/A07	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – construction details 3
	9711/H2/A08	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – construction details 4
	9711/H2/S01	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 1
	9711/H2/S02	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 2
	9711/H2/S03	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 3
	9711/H2/S04	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 4
	9711/H2/S05	Type H2 hoarding - covered walkway with double deck catch platform (surface- mounted footing) – structural details 5

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
Section 10 - Steel and Metal Work (Cont'd)		
Attached in this Annex 'A'		
	PB(S)/97904/15B347 /D3/FP001	Internal hoarding - front view
	PB(S)/97904/15B347 /D3/FP002	Internal hoarding - sections
	PB(S)/97904/15B347 /D3/SW001	Internal hoarding - detail and sections
	PB(S)/97904/15B347 /D3/SW002	Internal hoarding - detail and sections
	PB(S)/97904/15B347 /D3/SW003	Internal hoarding - typical panel
	PB(S)/97904/15B347 /D3/SW004	Internal hoarding - typical panel
	PB(S)/97904/15B347 /D3/SW005	Internal hoarding - detail and sections of steel box
	PB(S)/97904/15B347 /D3/SW006	Internal hoarding - door frame and door panel
	PB(S)/97904/15B347 /D3/SW007	Internal hoarding - door frame and door panel
	Total 16 pages	Construction Industry Logo Guidelines issued in January 2011

Section 11 - Plastering and Finishes

Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -

Highways Department Standard Drawings - Section 5 Landscape Hard Works

http://www.hyd.gov.hk/en/publications_and_publicity/publications/technical_document/index.html

H 5136	Laying paving units with geogrid
H 5137	Permanent reinstatement of pavement - laying paving units with geogrid

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
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Section 12 - Roadwork and Cable Duct

Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -

Highways Department Standard Drawings - Section 1 Roads

http://www.hyd.gov.hk/en/publications_and_publicity/publications/technical_document/index.html

H 1101	Typical bituminous pavement construction
H 1102	Typical concrete pavement construction
H 1118	Precast concrete kerbs (Sheet 1 of 2)
H 1119	Precast concrete kerbs (Sheet 2 of 2)

Note : The following drawing(s) relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -

Architectural Services Department, Structural Standard Drawings

<http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx>

SD/026	Typical detail of external driveway and carpark ground slab on grade (5 of 5)
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Section 23 - Geotechnical Works

Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -

Civil Engineering and Development Department Standard Drawings

<https://www.cedd.gov.hk/eng/publications/standards-spec-handbooks-cost/stan-drawing/index.html>

C2104/1	Tree Ring (sheet 1 of 2)
C2104/2	Tree Ring (sheet 2 of 2)
C2106/1	Typical details of soil nail (Sheet 1 of 8)
C2106/2	Typical details of soil nail (Sheet 2 of 8)
C2106/3	Typical details of soil nail (Sheet 3 of 8)
C2106/4	Typical details of soil nail (Sheet 4 of 8)
C2106/5	Typical details of soil nail (Sheet 5 of 8)
C2106/6	Typical details of soil nail (Sheet 6 of 8)
C2106/7	Typical details of soil nail (Sheet 7 of 8)
C2106/8	Typical details of soil nail (Sheet 8 of 8)
C2202	Typical arrangement of rock dowel
C2205	Fixing of wire mesh to rock face

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
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Section 23 - Geotechnical Works (Cont'd)

Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -

Civil Engineering and Development Department Standard Drawings (Cont'd)

<https://www.cedd.gov.hk/eng/publications/standards-spec-handbooks-cost/stan-drawing/index.html>

C2302	Filter blanket for fill slope and filling details at slope crest
C2403	Typical arrangement of raking drains
C2404	Relief drain details
C2501/1	Temporary safety fence Type A (sheet 1 of 2)
C2501/2	Temporary safety fence Type A (sheet 2 of 2)
C2502/1	Temporary safety fence Type B (sheet 1 of 2)
C2502/2	Temporary safety fence Type B (sheet 2 of 2)

Note : The following drawing(s) relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -

Highways Department Standard Drawings - Section 2 Street Furniture

http://www.hyd.gov.hk/en/publications_and_publicity/publications/technical_document/index.html

H2112	Beam barriers - Corrugated beam
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Note : The following drawings relevant to this Section of the Schedule can be viewed on the internet website via the pathway referred therein : -

Architectural Services Department, Architectural Standard Drawings

<http://www.archsd.gov.hk/en/publications-publicity/miscellaneous.aspx>

7116_01	Display sign for man-made slopes / retaining walls (1 of 5)
7116_02	Display sign for man-made slopes / retaining walls (2 of 5)
7116_03	Display sign for man-made slopes / retaining walls (3 of 5)
7116_04	Display sign for man-made slopes / retaining walls (4 of 5)
7116_05	Display sign for man-made slopes / retaining walls (5 of 5)

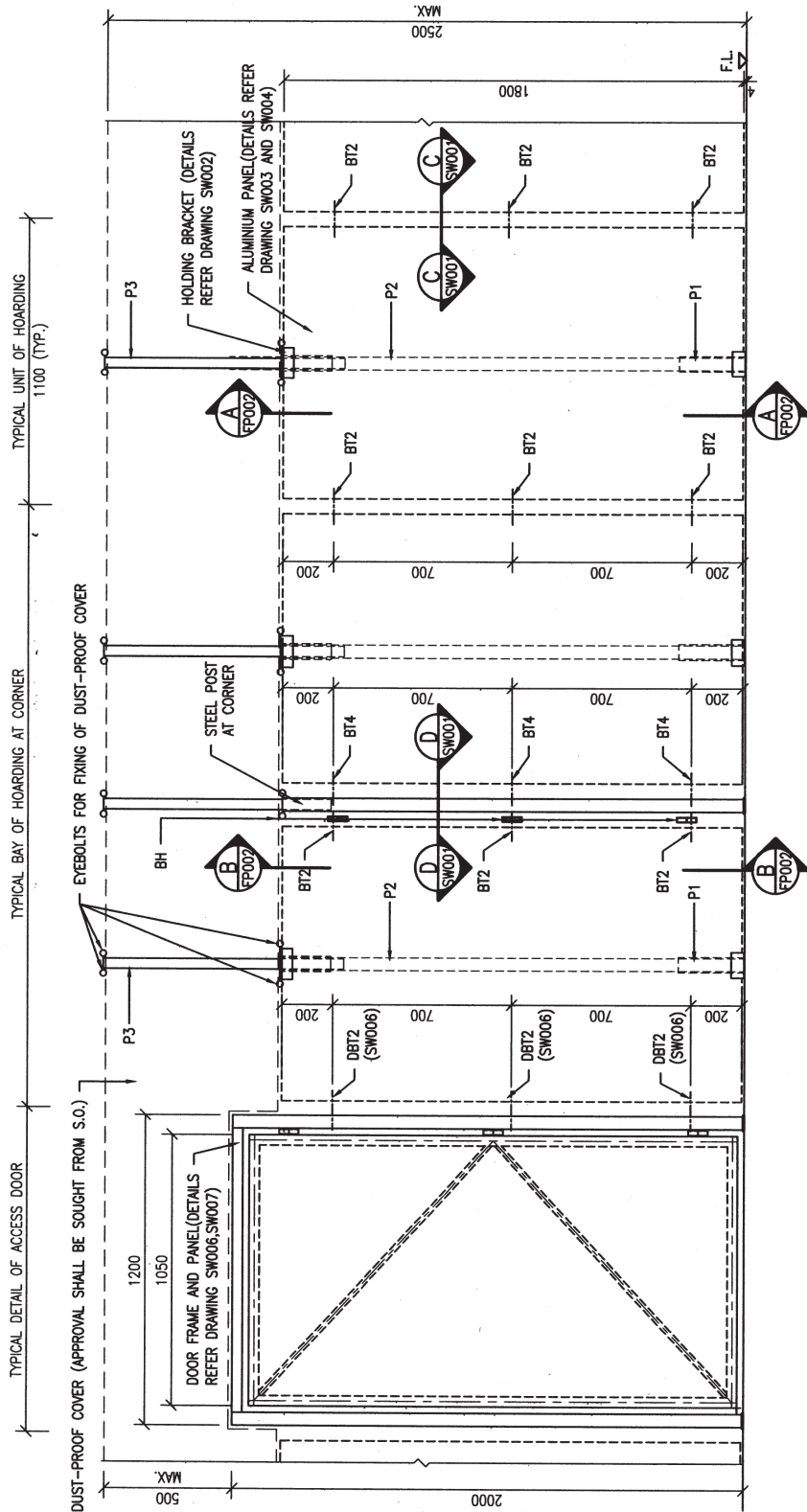
Attached in this Annex 'A'

Issued in SE Instruction No. 04/2012 by Structural Engineering Branch, Architectural Services Department

R1043/3	Soil nail (double corrosion protection with wire for TDR)
R1043/3-1	Soil nail (double corrosion protection without wire for TDR)

MEMBER SCHEDULE

MEMBER MARK	SIZE OF STEEL MEMBER
P1, HB	60 x 60 x 3.2mm THICK SHS
P2	50 x 50 x 3.2mm THICK SHS
P3	40 x 40 x 3.2mm THICK SHS
BT1	GRADE 4.6 M12 STEEL THROUGH BOLT
BT2	GRADE 4.6 M6 STEEL BOLT
BT3	HILTI HST3 M8 ANCHOR BOLT OR EQUIVALENT
BT4	GRADE 4.6 M6 STEEL THROUGH BOLT
BH	GMS BULLET HINGE (MIN. 9mm DIAMETER STEEL PIN)



TYPICAL FRONT VIEW

NOTES :

- ALL WORKS SHALL COMPLY WITH GENERAL SPECIFICATION FOR BUILDING 2012.
- ALL LEVEL SHOWN BE IN METRES AND OTHER DIMENSIONS SHOWN ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- ALL STRUCTURAL STEELWORK INCLUDING BOLTS, WASHERS, NUTS AND WELDED CONNECTIONS SHALL BE HOT DIP GALVANIZED TO BS EN ISO1461.
- INSTALLATION OF ANCHOR BOLTS SHALL STRICTLY FOLLOW THE MANUFACTURER'S SPECIFICATIONS.
- POWDER COATING TO ALL ALUMINIUM PANEL AND SUBMIT COLOUR SAMPLE TO S.O. FOR APPROVAL
- MANAGEMENT APPROACH IS ADOPTED TO LIMIT THE HORIZONTAL IMPOSED LOADS ON THE HOARDING.

no.	date	description
REVISION		
drawn		C. W. WONG
checked		S. Y. CHAN
approved		<i>[Signature]</i> 04/6/2016 H. Y. LEUNG Project Engineer <i>[Signature]</i> 24/6/2016 Y. F. CHEUNG
contract no.		
file no.		
project no.		
contract INTERNAL HOARDING		
drawing title FRONT VIEW		
drawing no.	scale	
PB(S)/97904/15B347/03/FP001	1 : 20	

office
**STRUCTURAL ENGINEERING
BRANCH**

**ARCHITECTURAL
SERVICES
DEPARTMENT**

NOTES :

- FOR GENERAL NOTES, SEE DRAWING PB(S)/97904/15B347/D3/FP001.

no.	date	description
REVISION		
drawn		C. W. WONG <i>CW</i>
checked		S. Y. CHAN <i>SY</i>
approved		<i>Y. Y. LEUNG</i> 24/6/2016 <small>Senior Structural Engineer (H. Y. LEUNG)</small> <i>Y. F. CHEUNG</i> 28/6/2016 <small>Project Engineer (Y. F. CHEUNG)</small>

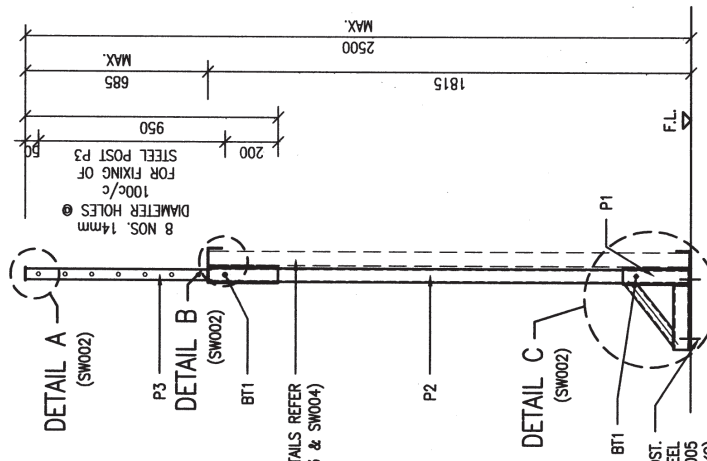
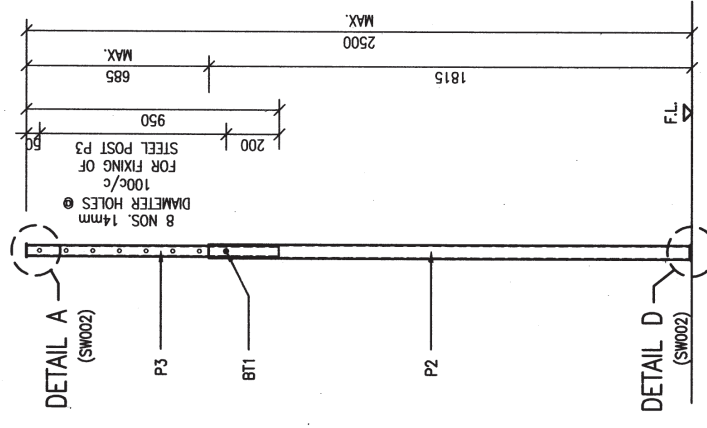
contract no.	
file no.	
project no.	

contract	INTERNAL HOARDING
drawing title	SECTIONS

drawing no.	PB(S)/97904/15B347/D3/FP002
scale	1 : 20

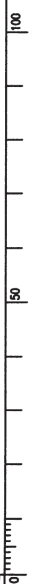
office
**STRUCTURAL ENGINEERING
 BRANCH**

**ARCHITECTURAL
 SERVICES
 DEPARTMENT**



ALUMINIUM PANEL (DETAILS REFER
 DRAWING SW003 & SW004)

ANCHOR BOLT FIXING FOR BASE FRAME AT ALTERNATE POST.
 IF ANCHOR BOLT FIXING IS NOT APPLICABLE, PROVIDE STEEL
 BOX FILLED WITH SAND BAGS REFER DRAWING SW005
 (SAND BAGS TOTAL WEIGHT = 75KG)



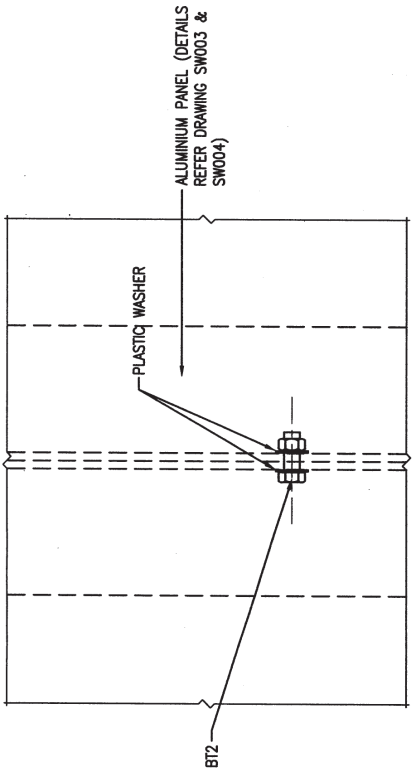
NOTES :

- 1. FOR GENERAL NOTES, SEE DRAWING PB(S)/97904/158347/03/FP001.

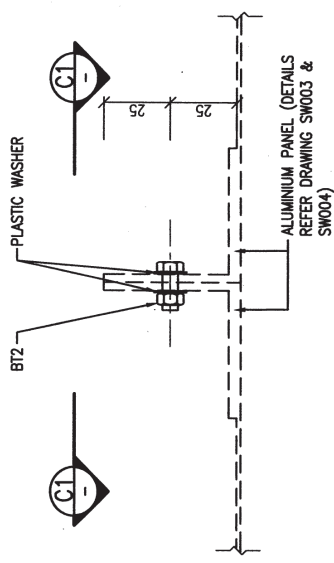
no.	date	description
REVISION		
drawn		C. W. WONG <i>CW</i>
checked		S. Y. CHAN <i>SY</i>
approved		<i>Alley</i> 24/6/2016 Project Engineer (N. Y. LEUNG) <i>Wong</i> 28/6/2016 Project Engineer (Y. F. CHEUNG)
contract no.		
file no.		
project no.		
contract		INTERNAL HOARDING
drawing title		DETAIL AND SECTIONS
drawing no.		
scale		1 : 2
PB(S)/97904/158347/03/SW001		

office
**STRUCTURAL ENGINEERING
BRANCH**

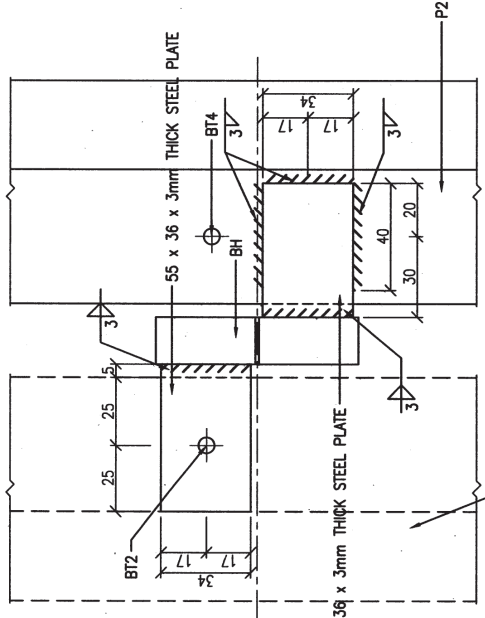
**ARCHITECTURAL
SERVICES
DEPARTMENT**

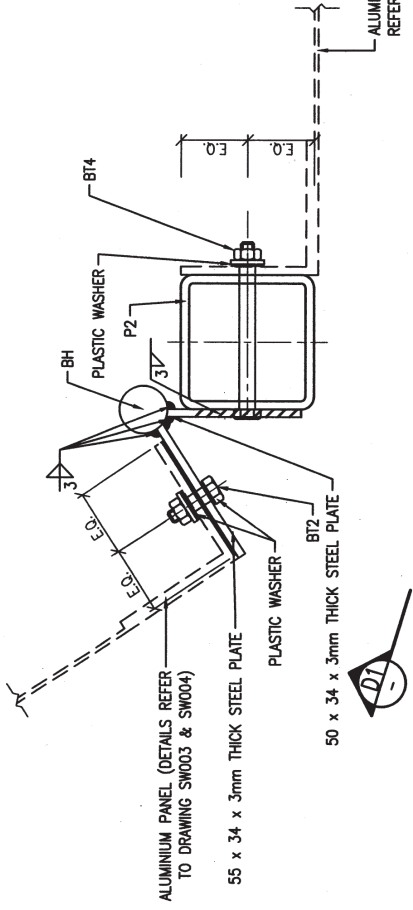
SEC. C1 - C1



SEC. C - C



SEC. D1 - D1



SEC. D - D

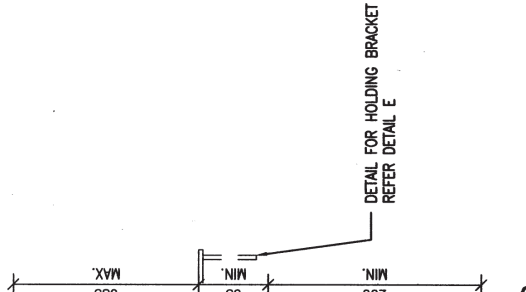


NOTES :
 1. FOR GENERAL NOTES, SEE DRAWING PB(S)/97904/15B347/03/FP001.

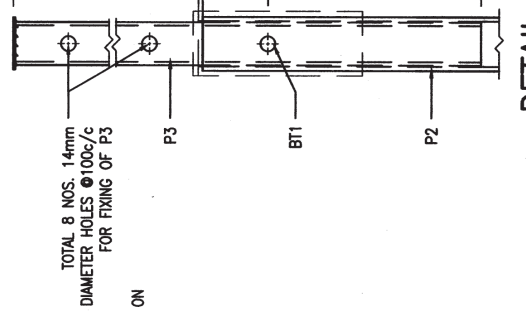
no.	date	description
REVISION		
drawn		C. W. WONG
checked		S. Y. CHAN
approved	24/6/2016	<i>(Signature)</i>
		Structural Engineer (M. Y. LEUNG)
		Chief Engineer (Y. F. CHEUNG)
contract no.		
file no.		
project no.		

contract INTERNAL HOARDING
 drawing title DETAIL AND SECTIONS
 drawing no. PB(S)/97904/15B347/03/SW002
 scale 1:2, 1:5, 1:10

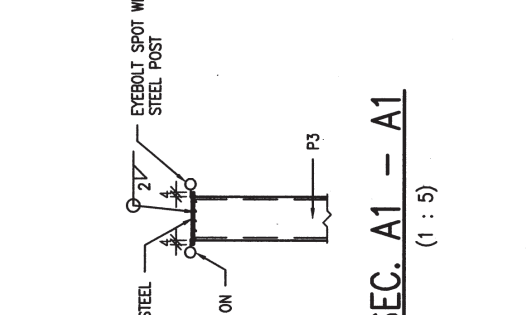
office **STRUCTURAL ENGINEERING BRANCH**
ARCHITECTURAL SERVICES DEPARTMENT



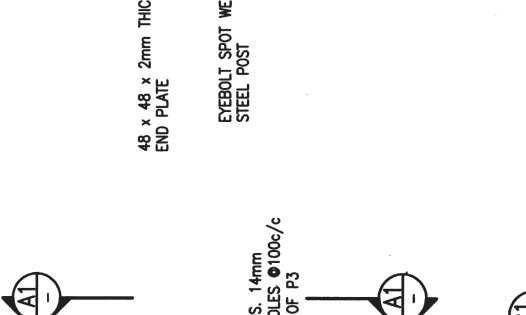
DETAIL B
(1 : 5)



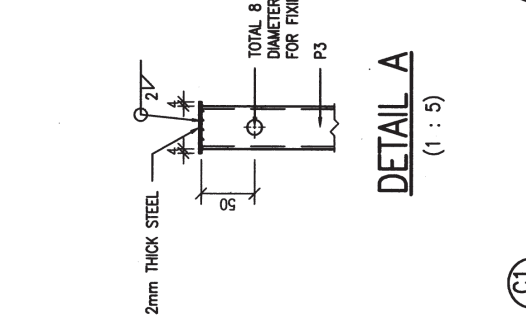
DETAIL D
(1 : 5)



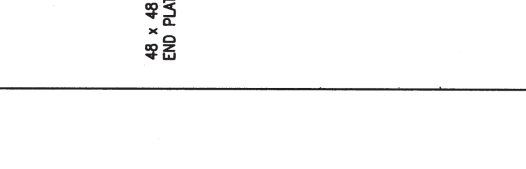
SEC. A1 - A1
(1 : 5)



DETAIL A
(1 : 5)



DETAIL C
(1 : 5)



SEC. C1 - C1
(1 : 5)

DETAIL E
(1 : 5)

SEC. E1 - E1
(1 : 5)

DETAIL E1
(1 : 2)

SEC. E2 - E2
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
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DETAIL E1 - E1
(1 : 5)

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DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

DETAIL E1 - E1
(1 : 5)

NOTES :

- FOR GENERAL NOTES, SEE DRAWING PB(S)/97904/158347/03/FP001.

no.	date	description
REVISION		
drawn		C. W. WONG
checked		S. Y. CHAN
approved		<i>[Signature]</i> 24/6/2016
Senior Structural Engineer (H. Y. LEUNG) Project Engineer (Y. F. CHEUNG)		
contract no.		

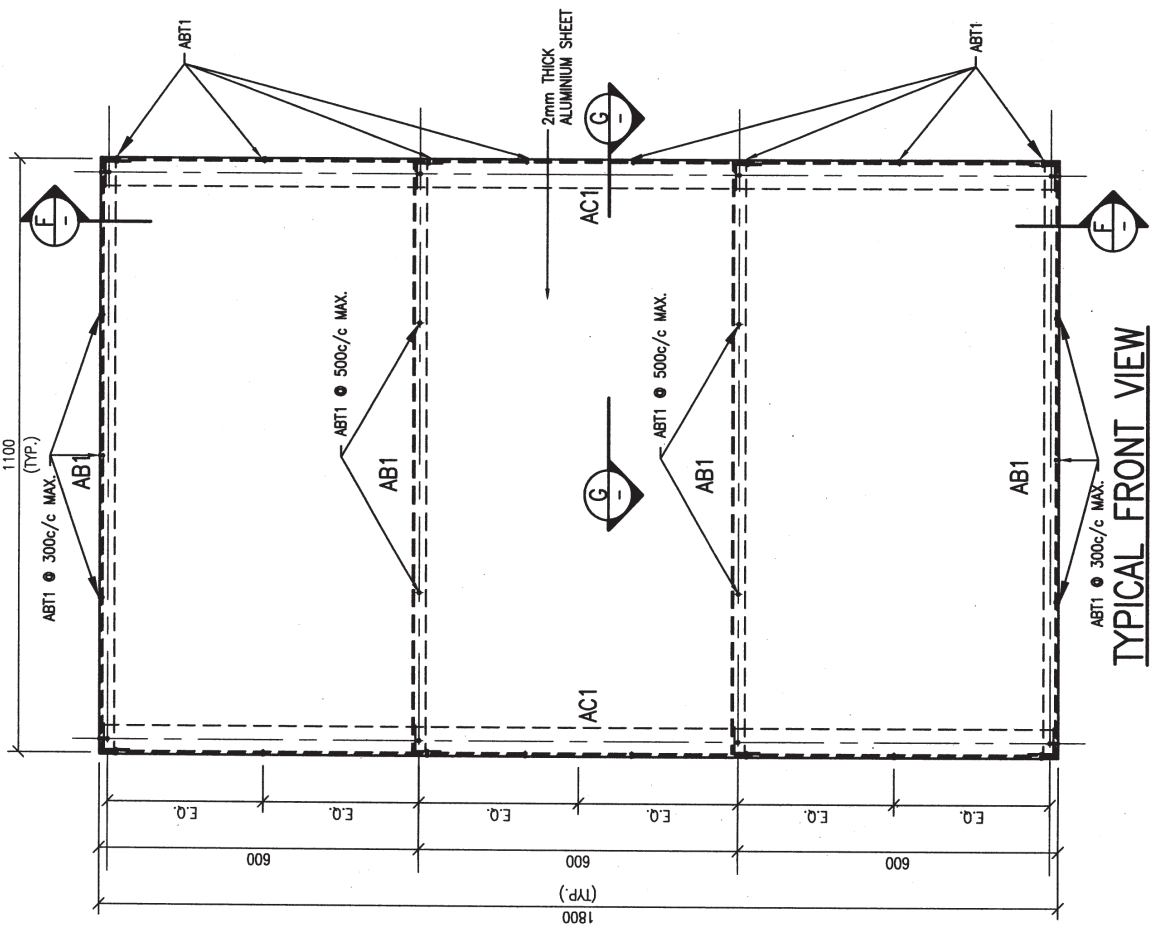
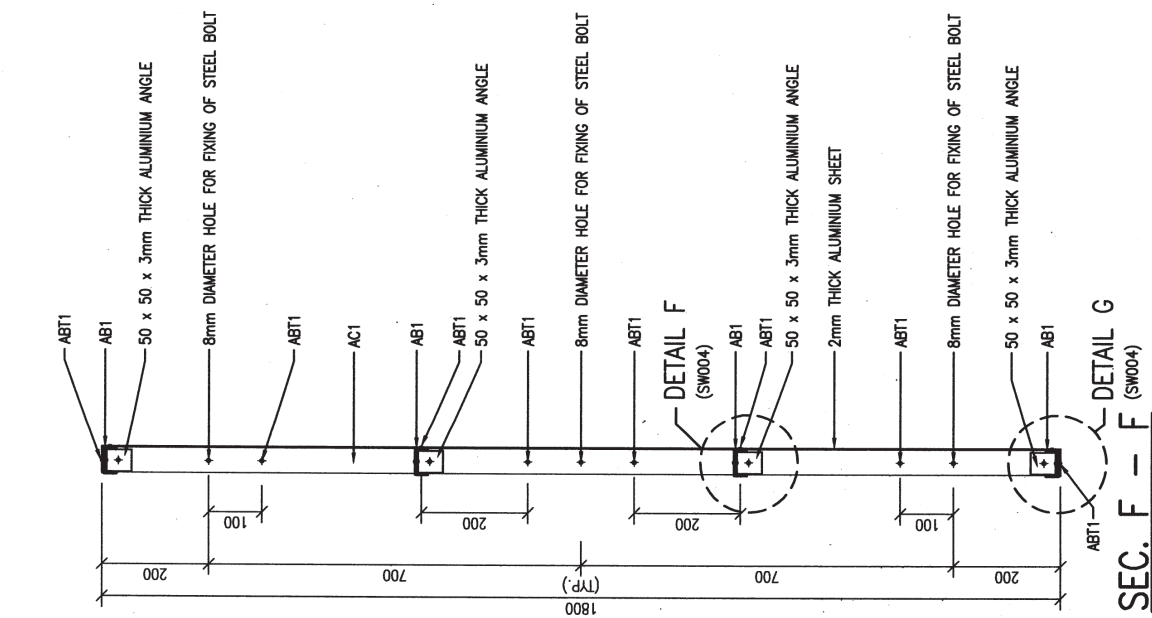
file no.	
project no.	
contract	INTERNAL HOARDING
drawing title	TYPICAL PANEL

drawing no.		scale
PB(S)/97904/158347/03/SW003		1 : 5 1 : 10

office
**STRUCTURAL ENGINEERING
 BRANCH**



ARCHITECTURAL
 SERVICES
 DEPARTMENT



MEMBER SCHEDULE

MEMBER MARK	SIZE OF ALUMINIUM MEMBER
AB1	50 x 25 x 3mm THICK ALUMINIUM CHANNEL
AC1	50 x 50 x 3mm THICK ALUMINIUM ANGLE
ABT1	4mm DIAMETER THICK ALUMINIUM RIVET



NOTES :

- FOR GENERAL NOTES, SEE DRAWING PB(S)/97904/15B347/03/FP001.

no.	date	description
REVISION		
drawn		C. W. WONG
checked		S. Y. CHAN
approved		<i>[Signature]</i> 24/6/2016 <small>Structural Engineer (H. Y. LEUNG) Project Engineer (Y. F. CHEUNG)</small>
contract no.		
file no.		
project no.		

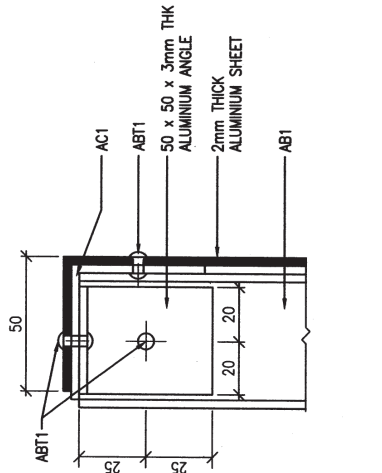
contract
INTERNAL HOARDING

drawing title
TYPICAL PANEL

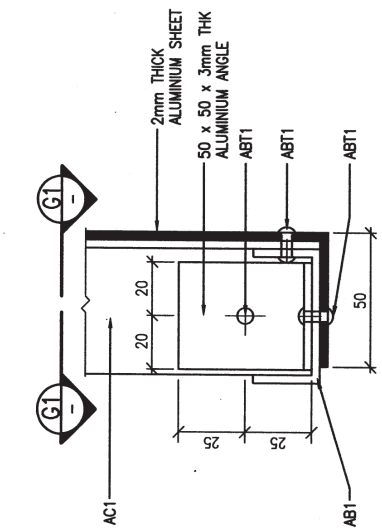
drawing no.
PB(S)/97904/15B347/03/SW004

scale
1 : 2

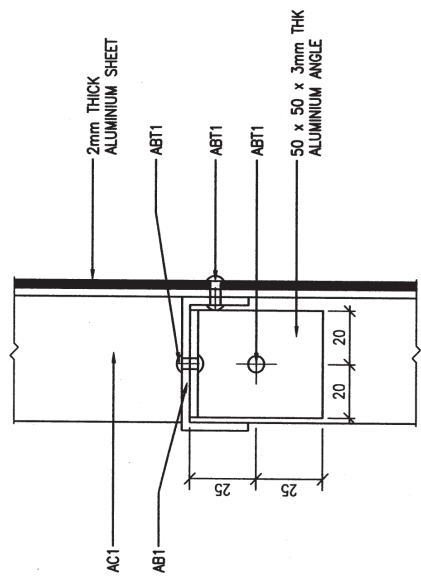
office
**STRUCTURAL ENGINEERING
BRANCH**



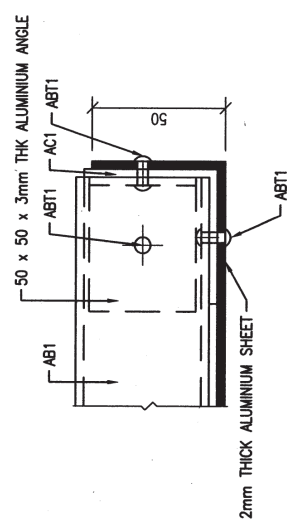
SEC. G1 - G1



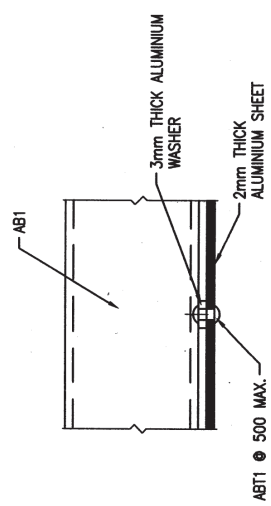
DETAIL G



DETAIL F



DETAIL J

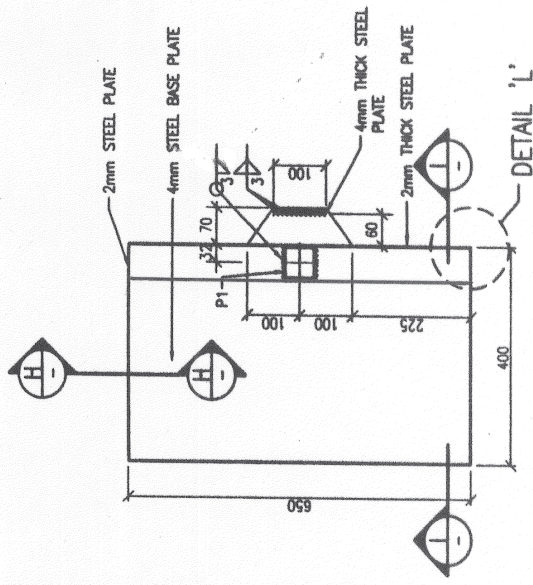


DETAIL H

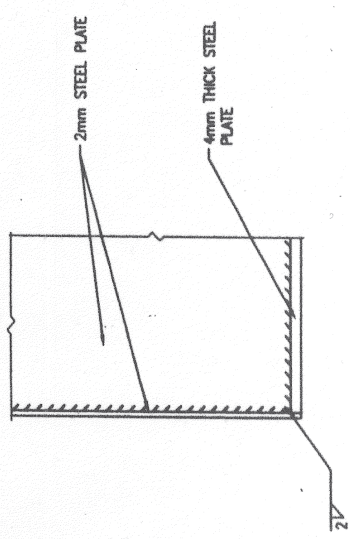


NOTES :
1. FOR GENERAL NOTES, SEE DRAWING PB(S)/97904/15B347/03/FP001.

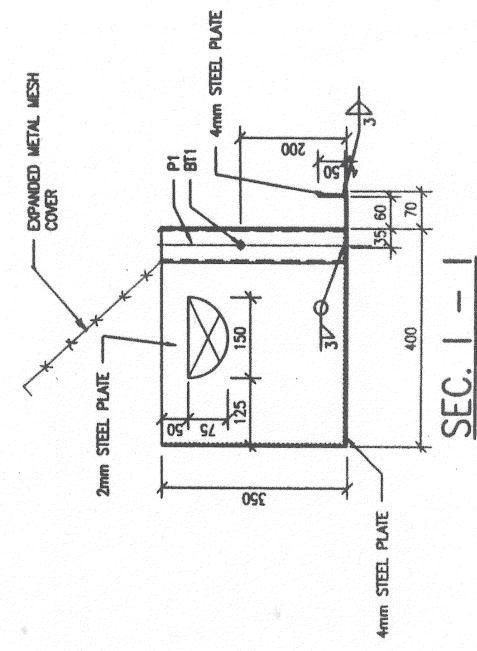
no.	date	description
REVISION		
drawn		C. W. WONG
checked		S. Y. CHAN
approved		<i>[Signature]</i>
designer		(H. Y. LOH)
checker		(Y. F. CHEUNG)
contract no.		
file no.		
project no.		
contract		INTERNAL HOARDING
drawing title		DETAIL AND SECTIONS OF STEEL BOX
drawing no.		PB(S)/97904/15B347/03/S3005
scale		1 : 2 1 : 10
office STRUCTURAL ENGINEERING BRANCH		
ARCHITECTURAL SERVICES DEPARTMENT		



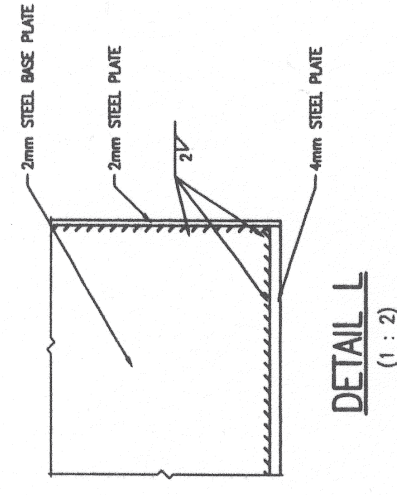
STEEL BOX PLAN VIEW



SEC. H - H
(1 : 2)



SEC. I - I
(1 : 2)



DETAIL L
(1 : 2)

NOTES :
 1. FOR GENERAL NOTES, SEE DRAWING PB(S)/97904/15B347/D3/FP001.

no.	date	description
REVISION		
drawn		C. W. WONG
checked		S. Y. CHAN
approved		<i>[Signature]</i> Head Structural Engineer (H. Y. LEUNG) Project Engineer (Y. F. CHEUNG)

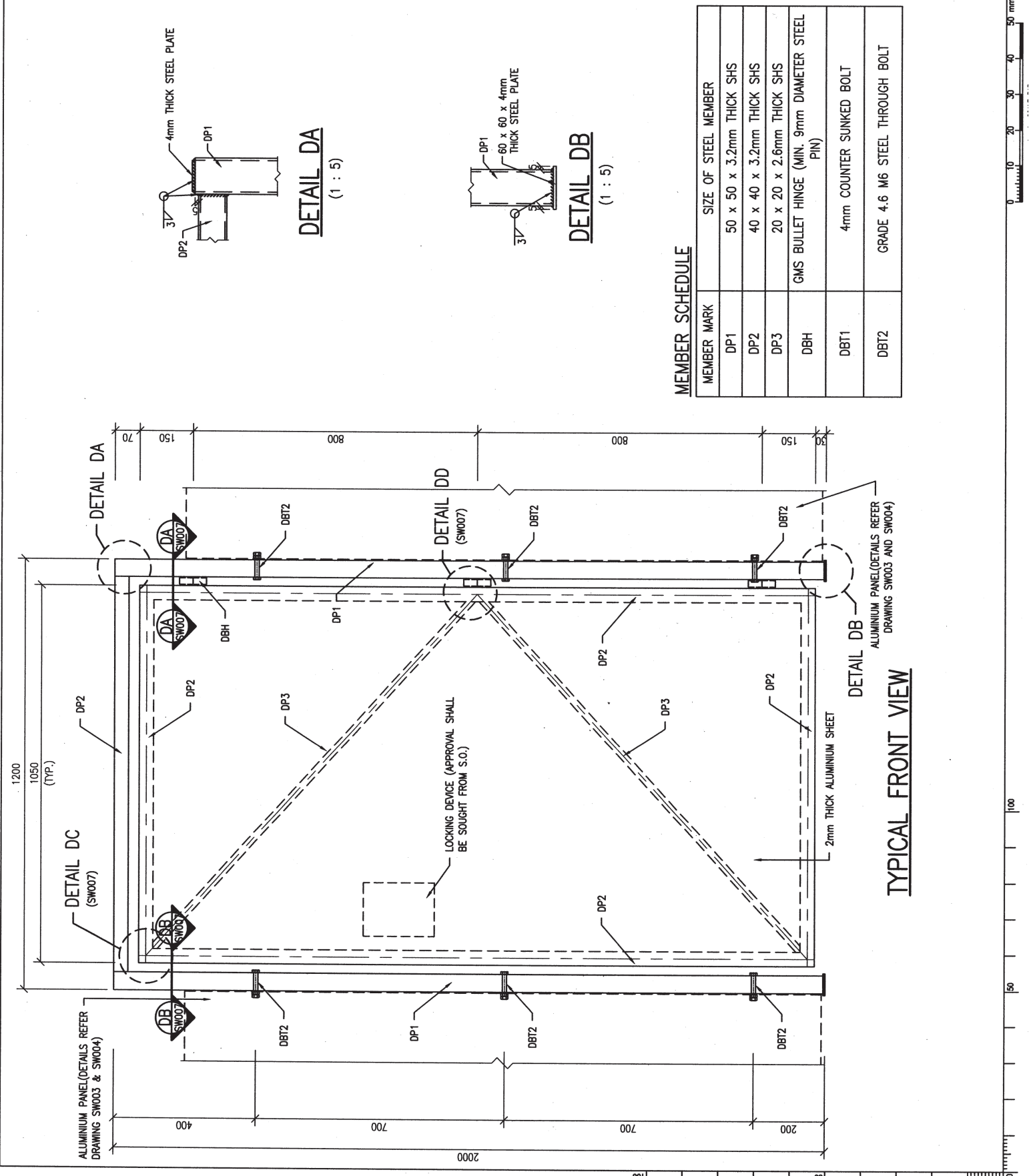
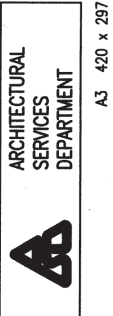
contract no. _____
 file no. _____
 project no. _____

contract INTERNAL HOARDING

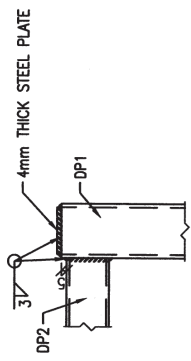
drawing title DOOR FRAME AND DOOR PANEL

drawing no. PB(S)/97904/15B347/D3/SW006
 scale 1 : 5
 1 : 10

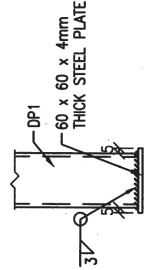
office STRUCTURAL ENGINEERING BRANCH



DETAIL DA
(1 : 5)



DETAIL DB
(1 : 5)



MEMBER SCHEDULE

MEMBER MARK	SIZE OF STEEL MEMBER
DP1	50 x 50 x 3.2mm THICK SHS
DP2	40 x 40 x 3.2mm THICK SHS
DP3	20 x 20 x 2.6mm THICK SHS
DBH	GMS BULLET HINGE (MIN. 9mm DIAMETER STEEL PIN)
DBT1	4mm COUNTER SUNKED BOLT
DBT2	GRADE 4.6 M6 STEEL THROUGH BOLT

TYPICAL FRONT VIEW

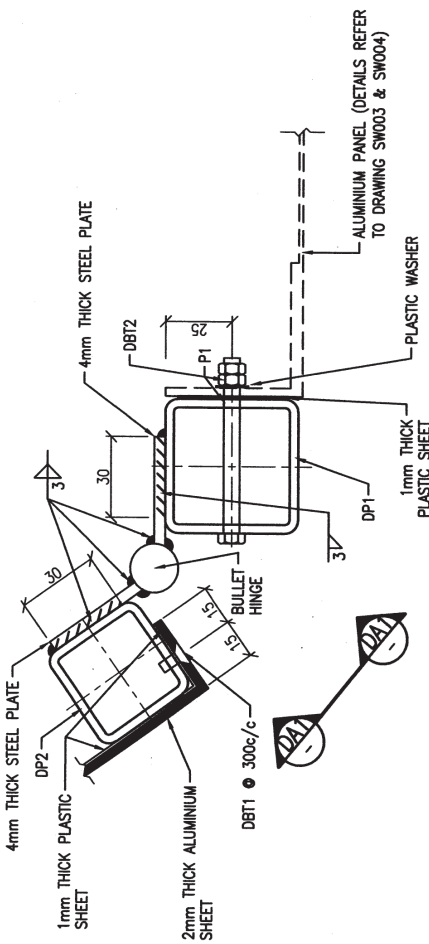
ALUMINIUM PANEL (DETAILS REFER DRAWING SW003 AND SW004)

ALUMINIUM PANEL (DETAILS REFER DRAWING SW003 & SW004)

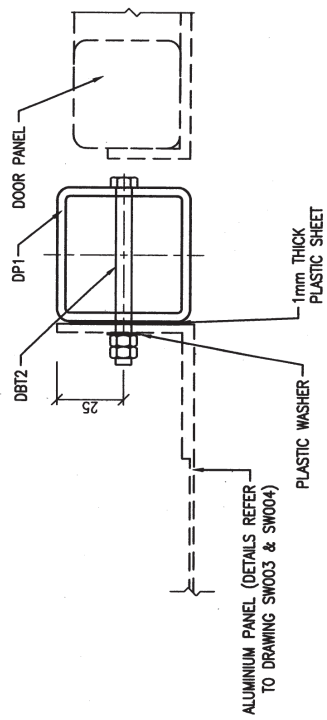
NOTES :

- FOR GENERAL NOTES, SEE DRAWING PB(S)/97904/15B347/D3/FP001.

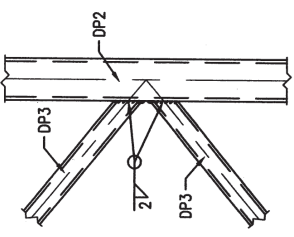
no.	date	description
REVISION		
drawn		C. W. WONG
checked		S. Y. CHAN
approved		<i>[Signature]</i> 24/6/2016 <small>Senior Structural Engineer (H. Y. LEUNG) Project Engineer (Y. F. CHEUNG)</small>
contract no.		
file no.		
project no.		
contract	INTERNAL HOARDING	
drawing title	DOOR FRAME AND DOOR PANEL	
drawing no.		
scale	1 : 2	
	PB(S)/97904/15B347/D3/SW007	
office STRUCTURAL ENGINEERING BRANCH ARCHITECTURAL SERVICES DEPARTMENT		



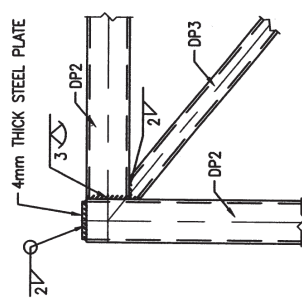
SEC. DA - DA
(1 : 2)



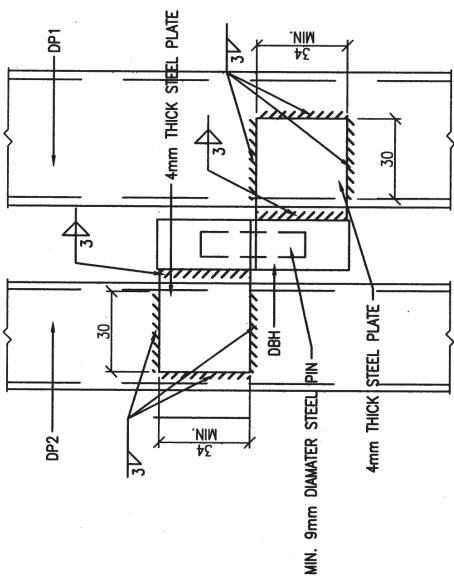
SEC. DB - DB
(1 : 2)



DETAIL DD
(ALUMINIUM SHEET NOT SHOWN FOR CLARITY)
(1 : 5)



DETAIL DC
(ALUMINIUM SHEET NOT SHOWN FOR CLARITY)
(1 : 5)



SEC. DA1 - DA1
(ALUMINIUM SHEET NOT SHOWN FOR CLARITY)
(1 : 2)



CONSTRUCTION INDUSTRY LOGO GUIDELINES

January 2011

Contents

The Logo
(Primary Version) (Not Applicable)
(Secondary Version)
(English Version)
(Chinese Version)
(Linear Version) (Not Applicable)
Brand Visual Elements
Pattern
Colours
Colour Usage
Colour Usage (Examples-1)
Colour Usage (Examples-2)
Minimum Clear Space And Size
Incorrect Usage
Typeface
Construction Ratio

The logo (Secondary Version)

The Construction Industry (CI) logo (secondary version) is the optional version. It is composed of three elements: the picture mark, the word mark and the slogan with white background. It should be used whenever meeting to certain marketing purposes.



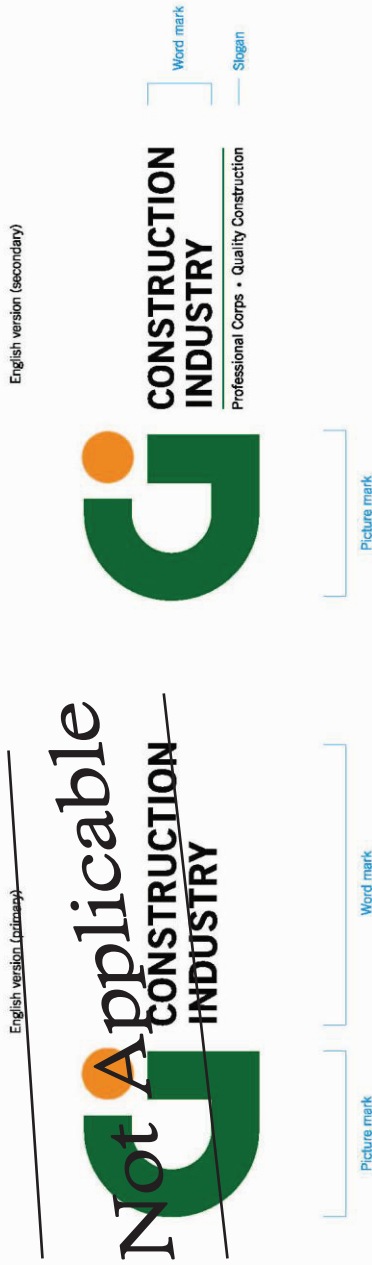
Construction Industry Logo Guidelines 2

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

The logo (English Version)

The Construction Industry (CI) logo (English version) is the optional version. It should be used whenever meeting to certain marketing purposes.



Construction Industry Logo Guidelines 3

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

The logo (Chinese Version)

The Construction Industry (CI) logo (Chinese version) is the optional version. It should be used whenever meeting to certain marketing purposes.

Chinese version (primary)



Picture mark

Word mark

Chinese version (secondary)



Picture mark

Word mark

Slogan

Construction Industry Logo Guidelines 4

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Brand Visual Elements

The Construction Industry (CI) brand includes various visual elements: the picture mark, the Chinese name, the English name and the slogan. They can be used separately whenever under certain graphical parameters or meeting certain marketing purposes. Please see (Applications) for reference.



Picture mark

建造業

Chinese name

CONSTRUCTION INDUSTRY

English name

專業團隊 · 優質建造

Professional Corps · Quality Construction

Slogan

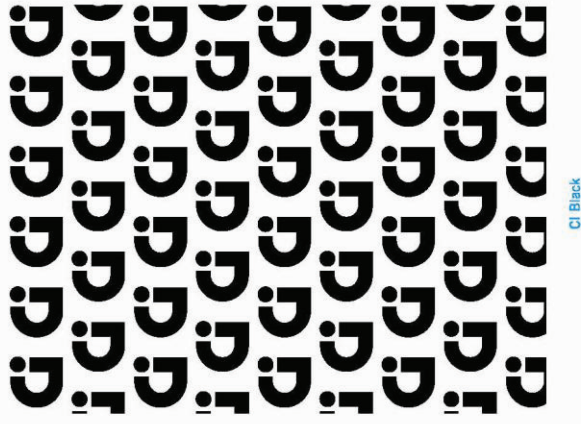
Construction Industry Logo Guidelines 6

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

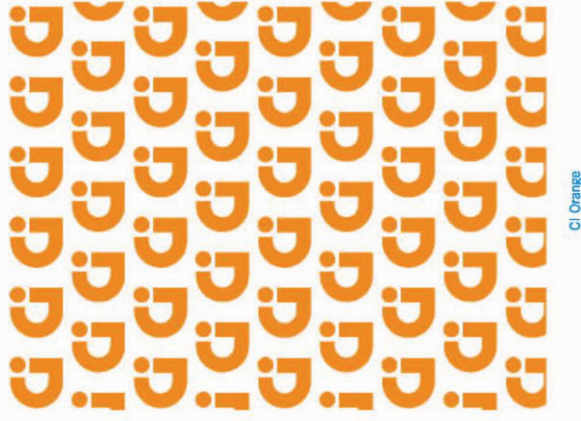
This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Pattern

The CI pattern is designed to enrich the visual identity of the Construction Industry brand. It could be used as background in CI Black or CI Orange and with their tints. It could be enlarged or reduced in size. The principle is to give a harmony impression as a whole. Please see (Applications) for reference.



CI Black



CI Orange

Construction Industry Logo Guidelines 7

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Colours

The Construction Industry (CI) logo is composed of Construction Industry (CI) Green, CI Orange and CI Black. It can be reproduced in process colour and pantone colour for printing. RGB for computer screen display and British Standard BS5252 for constructional related use.



CI Orange



Process: 60M, 100Y
RGB: 245R, 130G, 32B
Pantone: 151
British Standard BS5252: 06 E 53

CI Green



Process: 100C, 100Y, 35K
RGB: 0R, 121G, 58B
Pantone: 3415
British Standard BS5252: 14 E 56

CI Black



Process: 100K
RGB: 0R, 0G, 0B
Pantone: Black
British Standard BS5252: 00 E 53

Construction Industry Logo Guidelines 8

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Colour Usage

Apart from full colour logo, the CI logo can be reproduced in other colour options due to printing restrictions or certain marketing purposes required. The guidelines specified below is applicable to all versions of the CI logo, picture mark, Chinese/English name, slogan and pattern. Please see (Applications) for reference.



Single colour versions (positive black) can be applied if full colour logo cannot be used due to printing restrictions.



Special effects may be applied when it is necessary to present a premium look for the CI logo on packaging, souvenirs, etc. The logo can be created in special colours or coating (e.g. gold, silver and bronze).



Single colour versions (reversed white) can be applied if full colour logo cannot be used due to printing restrictions.



It is not suggested to apply special colours and effects (e.g. gold, silver and bronze coating) on the CI logo (secondary version) due to poor readability or slogan.



CI Orange and white on CI Green background can be applied for occasional and special use.



CI Orange, CI Green and white on dark background can be applied for occasional and special use.

Construction Industry Logo Guidelines 9

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Colour Usage (Examples-1)

The following examples are for demonstration only. The principle is to give a harmony impression and clarity of the logo as a whole.



Construction Industry Logo Guidelines 10

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Colour Usage (Examples-2)

The following examples are for demonstration only. The principle is to give a harmony impression and clarity of the logo as a whole.



Construction Industry Logo Guidelines 11

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Minimum Clear Space and Size

In order to preserve the visual clarity and integrity of the CI logo, always follow the minimum clear space guidelines which is the area surrounding the CI logo and is defined by "X" on this page.

Minimum size regulation protects legibility of the CI logo. Never reproduce the picture mark smaller than the size specified below.



Minimum clear space



Minimum clear space



Minimum size



Minimum size

Construction Industry Logo Guidelines 12

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Incorrect Usage

The CI logo should be kept in its original form, colour and principles in any cases. In order to preserve the aesthetic and clarity of the CI logo, please refer to the following examples which demonstrate the incorrect usages of the CI logo.



Do not change the relative size of the logo elements.



Do not distort the logo elements in any way.



Do not reposition the logo elements.



Do not drop shadow or add glowing on the logo.



Do not reproduce in colours other than those specified.



Do not reneate the logo with other typaraces.



Do not use borders or frames of any kind around the logo.



Do not outline the logo.



Do not change the original colour brightness.



Do not place the logo on a background which does not give a harmony or clarity as a whole.



Do not use the logo on busy images or photographic backgrounds that do not offer sufficient contrast.

Construction Industry Logo Guidelines 13

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Typeface

The primary English and Chinese typeface are Trade Gothic family and 蒙納黑體 respectively. These fonts should be used for print, web-based and all other productions applications by design consultants and printers.

The secondary English and Chinese typeface are Arial family and 黑體 respectively. These fonts should be used for PC applications.

Primary English Typeface (Printing and web-based Use)

Trade Gothic family:

Trade Gothic® Std Light

Trade Gothic® Std Light Oblique

Trade Gothic® Std Roman

Trade Gothic® Std Oblique

Trade Gothic® Std Bold No. 2

Trade Gothic® Std Bold No. 2 Oblique

Secondary English Typeface (PC Use)

Arial family:

Arial Regular

Arial Italic

Arial Bold

Arial Bold Italic

Primary Chinese Typeface (Printing and web-based Use)

蒙納黑體：

正線體

中黑體

黑體

粗黑體

Secondary Chinese Typeface (PC Use)

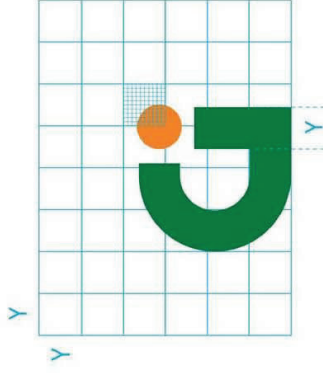
黑體

Construction Industry Logo Guidelines 14

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Construction Industry Logo



Picture mark

$3.5Y(w) \times 3.7Y(h)$
(To the nearest 1 decimal place)

Construction Industry Logo Guidelines 15

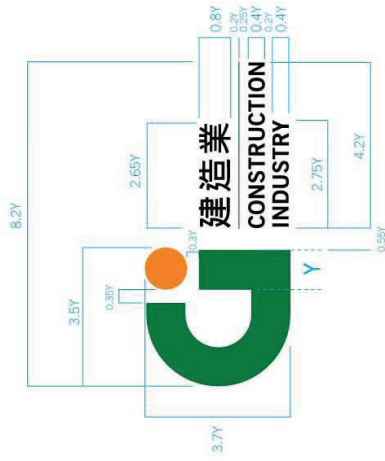
CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.

Supplement to Construction Industry (CI) Logo Guidelines dated January 2011

Relative Ratio

In order to preserve the visual clarity and the original form of the CI logo, always follow the relative size of the logo elements which is defined by "Y" on this page.



Picture mark + Work mark

Total size in ratio: 8.2Y(w) x 3.7Y(h)
(To the nearest 2 decimal places)

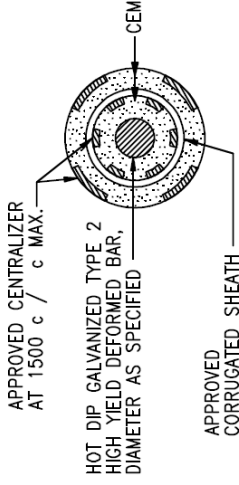
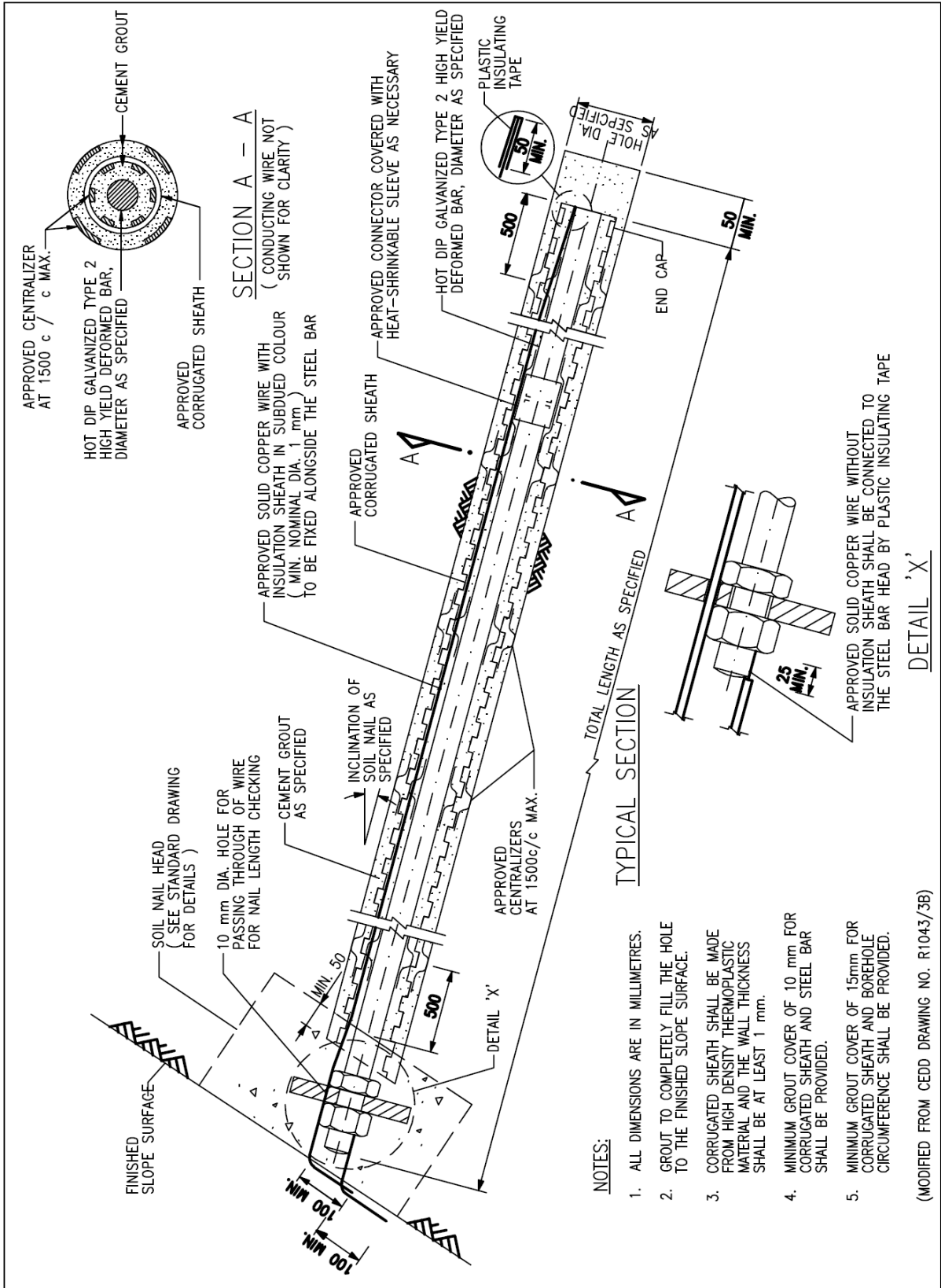


Picture mark + Work mark + Slogan

Total size in ratio: 10.56Y(w) x 3.7Y(h)
(To the nearest 2 decimal places)

CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

This CI logo shall be displayed alternately with the departmental logo on the hoardings installed. The Contractor shall confirm with the Supervising Officer on the space, size, colours and details of the logo.




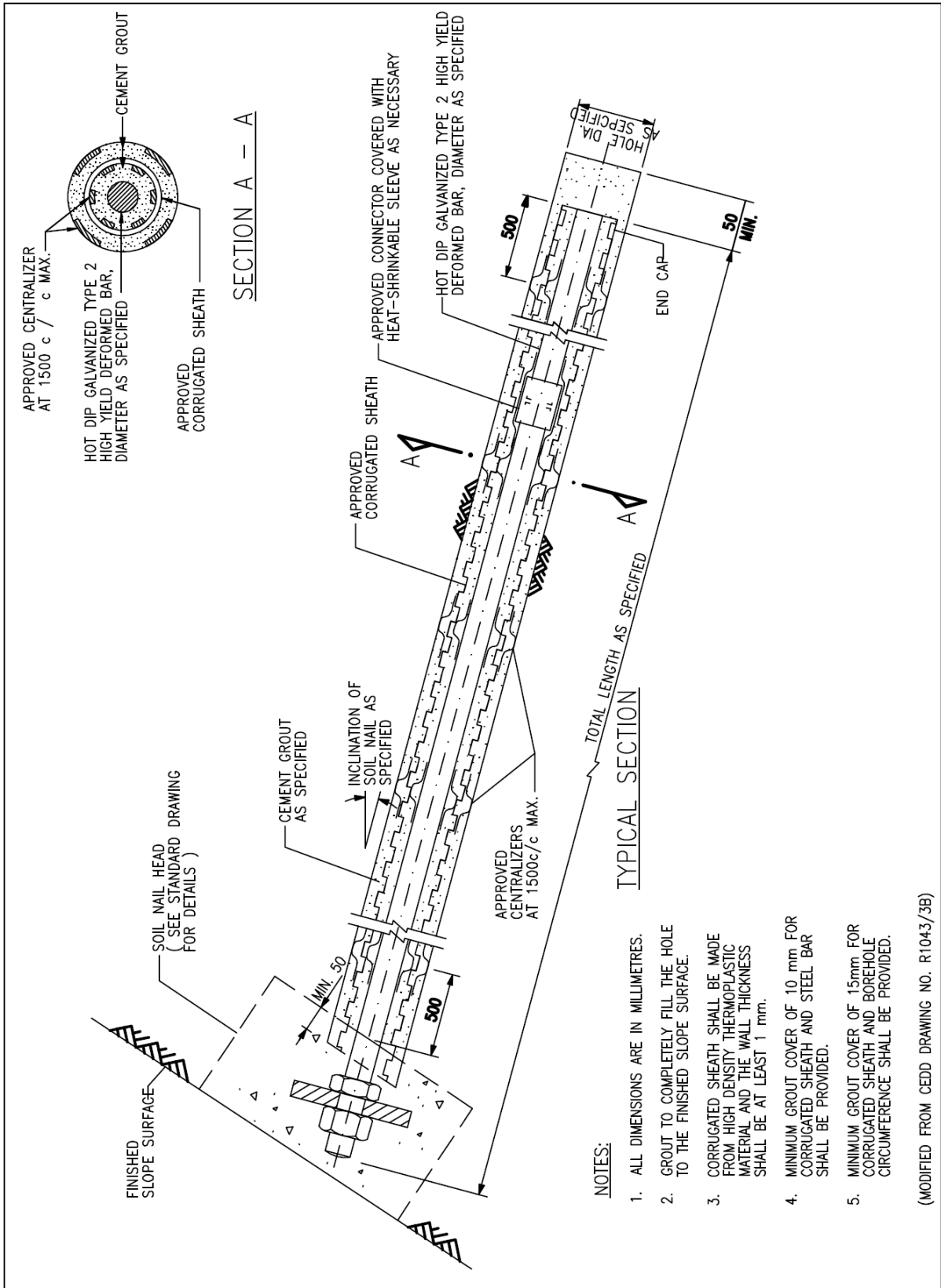
SECTION A - A
(CONDUCTING WIRE NOT SHOWN FOR CLARITY)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. GROUT TO COMPLETELY FILL THE HOLE TO THE FINISHED SLOPE SURFACE.
3. CORRUGATED SHEATH SHALL BE MADE FROM HIGH DENSITY THERMOPLASTIC MATERIAL AND THE WALL THICKNESS SHALL BE AT LEAST 1 mm.
4. MINIMUM GROUT COVER OF 10 mm FOR CORRUGATED SHEATH AND STEEL BAR SHALL BE PROVIDED.
5. MINIMUM GROUT COVER OF 15mm FOR CORRUGATED SHEATH AND BOREHOLE CIRCUMFERENCE SHALL BE PROVIDED.

(MODIFIED FROM CEDD DRAWING NO. R1043/3B)


title SOIL NAIL (DOUBLE CORROSION PROTECTION WITH WIRE FOR TDR)	date April 2012	drawing no. R1043/3	scale AS SHOWN
office STRUCTURAL ENGINEERING BRANCH		 ARCHITECTURAL SERVICES DEPARTMENT	



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. GROUT TO COMPLETELY FILL THE HOLE TO THE FINISHED SLOPE SURFACE.
3. CORRUGATED SHEATH SHALL BE MADE FROM HIGH DENSITY THERMOPLASTIC MATERIAL AND THE WALL THICKNESS SHALL BE AT LEAST 1 mm.
4. MINIMUM GROUT COVER OF 10 mm FOR CORRUGATED SHEATH AND STEEL BAR SHALL BE PROVIDED.
5. MINIMUM GROUT COVER OF 15mm FOR CORRUGATED SHEATH AND BOREHOLE CIRCUMFERENCE SHALL BE PROVIDED.

(MODIFIED FROM CEDD DRAWING NO. R1043/3B)

title SOIL NAIL (DOUBLE CORROSION PROTECTION WITHOUT WIRE FOR TDR)	date April 2012	drawing no. R1043/3-1	scale AS SHOWN
	office STRUCTURAL ENGINEERING BRANCH		 ARCHITECTURAL SERVICES DEPARTMENT

ANNEX 'B' -

GROUPING OF PLANT MATERIALS

ANNEX 'B' - GROUPING OF PLANT MATERIALS

Trees – Grouping

(1) Group A consists of :-

<i>Acacia auriculiformis</i>	耳果相思
<i>Acacia confusa</i>	台灣相思
<i>Acacia mangium</i>	大葉相思
<i>Bauhinia purpurea</i>	紅花羊蹄甲
<i>Bauhinia variegata</i>	宮粉羊蹄甲
<i>Bischofia polycarpa</i>	重陽木
<i>Bombax ceiba</i>	木棉
<i>Cassia fistula</i>	豬腸豆
<i>Casuarina equisetifolia</i>	木麻黃
<i>Delonix regia</i>	鳳凰木
<i>Elaeocarpus hainanensis</i>	水石榕
<i>Erythrina corallodendron</i>	龍牙花
<i>Erythrina variegata</i>	刺桐
<i>Eucalyptus camaldulensis</i>	赤桉
<i>Eucalyptus citriodora</i>	檸檬桉
<i>Eucalyptus robusta</i>	大葉桉
<i>Eucalyptus tereticornis</i>	細葉桉
<i>Eucalyptus torelliana</i>	毛葉桉
<i>Ficus altissima</i>	高山榕
<i>Ficus benjamina</i>	垂葉榕
<i>Ficus binnendijkii</i>	阿里垂榕
<i>Ficus elastica</i>	印度榕(印度橡樹)
<i>Ficus rumphii</i>	心葉榕(假菩提樹)
<i>Ficus subpisocarpa</i>	筆管榕
<i>Lagerstroemia speciosa</i>	洋紫薇(大花紫薇)
<i>Lophostemon confertus</i>	紅膠木
<i>Melaleuca quinquenervia</i>	白千層
<i>Mesua ferrea</i>	鐵力木
<i>Michelia x alba</i>	白蘭
<i>Peltophoru pterocarpum</i>	雙翼豆
<i>Plumeria obtusa</i>	鈍葉雞蛋花
<i>Plumeria rubra</i>	雞蛋花
<i>Salix babylonica</i>	垂柳
<i>Senna siamea</i>	鐵刀木
<i>Senna surattensis</i>	黃槐
<i>Spathodea campanulata</i>	火焰木
<i>Syzygium cumini</i>	海南蒲桃
<i>Syzygium jambos</i>	蒲桃
<i>Terminalia catappa</i>	欖仁樹
<i>Terminalia mantaly</i>	細葉欖仁

Trees – Grouping (Cont'd)

(2) Group B consists of :-

<i>Aleurites moluccana</i>	石栗
<i>Alnus japonica</i>	赤楊
<i>Bauhinia variegata</i> var. <i>candida</i>	白花羊蹄甲
<i>Callistemon rigidus</i>	紅千層
<i>Callistemon viminalis</i>	串錢柳
<i>Camptotheca acuminata</i>	喜樹
<i>Cananga odorata</i>	依蘭(依蘭香)
<i>Cassia siamea</i>	鐵刀木
<i>Cassia spectabilis</i>	美國槐
<i>Ceiba pentandra</i>	吉貝(爪哇木棉)
<i>Chorisia speciosa</i>	美人樹
<i>Chukrasia tabularia</i>	麻棟
<i>Crateva trifoliata</i>	鈍葉魚木
<i>Crateva unilocularis</i>	樹頭菜
<i>Dracontomelon duperreanum</i>	人面子
<i>Elaeocarpus apiculatus</i>	尖葉杜英
<i>Elaeocarpus balansae</i>	大葉杜英
<i>Elaeocarpus decipiens</i>	杜英
<i>Elaeocarpus sylvestris</i>	山杜英(膽八樹)
<i>Erythrina crista-galli</i>	雞公花
<i>Erythrina speciosa</i>	象牙花
<i>Erythrina variegata</i> 'Parcellii'	花葉刺桐
<i>Eucalyptus calophylla</i>	美葉桉
<i>Ficus benjamina</i> 'Variegata'	花葉垂榕
<i>Ficus religiosa</i>	菩提樹
<i>Firmiana simplex</i>	梧桐
<i>Glochidion hirsutum</i>	厚葉算盤子
<i>Grevillea banksii</i>	紅花銀樺
<i>Grevillea robusta</i>	銀樺
<i>Jacaranda mimosifolia</i>	藍花楹
<i>Khaya senegalensis</i>	非洲桃花心木(非洲棟)
<i>Koelreuteria bipinnata</i>	複羽葉欒樹
<i>Koelreuteria elegans</i>	台灣欒樹
<i>Ligustrum amamianum</i>	台灣女貞
<i>Machilus chekiangensis</i>	浙江潤楠(長序潤楠)
<i>Machilus gamblei</i>	黃心樹(芳槁潤楠)
<i>Machilus pauhoi</i>	刨花潤楠
<i>Magnolia grandiflora</i>	荷花玉蘭(洋玉蘭)
<i>Melia azedarach</i>	棟(苦棟)(森樹)
<i>Melicope pteleifolia</i>	密茱萸(三椏苦)
<i>Michelia champaca</i>	黃蘭
<i>Michelia macclurei</i>	醉香含笑
<i>Nauclea orientalis</i>	東方烏檀
<i>Pandanus tectorius</i>	露兜樹
<i>Pterocarpus indicus</i>	紫檀(牛血樹)
<i>Pterocarya stenoptera</i>	楓楊
<i>Schefflera actinophylla</i>	羅傘樹(澳洲大葉鴨腳木)
<i>Schima wallichii</i>	紅荷(峨眉木荷)

Trees – Grouping (Cont'd)(2) Group B consists of : - (Cont'd)

<i>Tabebuia chrysantha</i>	黃鐘木(黃花風鈴木)
<i>Tabebuia impetiginosa</i>	紅花風鈴木
<i>Tabebuia rosea</i>	洋紅風鈴木(玫瑰風鈴木)
<i>Tamarindus indica</i>	酸豆(羅望子)
<i>Tectona grandis</i>	柚木
<i>Tipuana tipu</i>	大班木
<i>Toona sinensis</i>	香椿
<i>Vernicia fordii</i>	油桐(三年桐)

(3) Group C consists of : -

<i>Adenanthera microsperma</i>	海紅豆
<i>Albizia saman</i>	兩荳樹
<i>Alstonia scholaris</i>	糖膠樹
<i>Artocarpus altilis</i>	麩包樹
<i>Artocarpus macrocarpus</i>	菠蘿密
<i>Bauhinia tomentosa</i>	黃花羊蹄甲
<i>Bixa orellana</i>	紅木(胭脂木)
<i>Brachychiton acerifolius</i>	槭葉蘋婆
<i>Cassia javanica</i>	爪哇決明
<i>Cassia javanica</i> var. <i>indochinensis</i>	節果決明
<i>Dillenia indica</i>	第倫桃
<i>Dracaena draco</i>	龍血樹(龍樹)
<i>Elaeocarpus angustifolius</i>	圓果杜英
<i>Erythrina caffra</i>	南非刺桐
<i>Firmiana simplex</i>	梧桐
<i>Garcinia spicata</i>	福木
<i>Garcinia subelliptica</i>	菲島福木
<i>Osmanthus fragrans</i>	桂花(木犀)
<i>Paulownia fortunei</i>	泡桐
<i>Paulownia tomentosa</i>	毛泡桐
<i>Salix babylonica</i> var. <i>Glandulipilosa</i>	腺毛垂柳
<i>Sophora japonica</i>	槐
<i>Swietenia mahogani</i>	桃花心木
<i>Xanthostemon chrysanthus</i>	金蒲桃

(4) Group D consists of : -

<i>Albizia lebbbeck</i>	大葉合歡
<i>Bischofia javanica</i>	秋楓
<i>Bridelia tomentosa</i>	土密樹
<i>Broussonetia papyrifera</i>	構樹
<i>Canarium album</i>	白欖
<i>Castanopsis fissa</i>	裂豆錐栗(鰲蒴)
<i>Celtis sinensis</i>	朴樹
<i>Celtis timorensis</i>	假玉桂
<i>Cerbera manghas</i>	海杧果
<i>Choerospondias axillaris</i>	南酸棗(酸棗)
<i>Cinnamomum burmannii</i>	陰香
<i>Cinnamomum camphora</i>	樟樹
<i>Cinnamomum parthenoxylon</i>	黃樟

Trees – Grouping (Cont'd)(4) Group D consists of : - (Cont'd)

<i>Cleistocalyx operculatus</i>	水翁
<i>Diospyros morrisiana</i>	羅浮柿
<i>Elaeocarpus chinensis</i>	中華杜英(野杜英)
<i>Ficus hirta</i>	粗葉榕(牛奶仔)
<i>Ficus hispida</i>	對葉榕(牛乳樹)
<i>Ficus microcarpa</i>	細葉榕
<i>Ficus pandurata</i>	琴葉榕
<i>Ficus variegata</i> var. <i>chlorocarpa</i>	青果榕
<i>Ficus virens</i> var. <i>sublanceolata</i>	大葉榕
<i>Gordonia axillaris</i>	大頭茶
<i>Hibiscus tiliaceus</i>	黃槿
<i>Ilex rotunda</i>	鐵冬青
<i>Ilex rotunda</i> var. <i>microcarpa</i>	小果鐵冬青
<i>Liquidambar formosana</i>	楓香(楓樹)
<i>Lithocarpus glaber</i>	柯
<i>Litsea glutinosa</i>	潺槁樹
<i>Litsea monopetala</i>	假柿樹
<i>Macaranga tanarius</i>	血桐
<i>Mallotus paniculatus</i>	白楸
<i>Microcos paniculata</i>	破布葉(布渣葉)
<i>Myrica rubra</i>	楊梅
<i>Phyllanthus emblica</i>	油甘子
<i>Pongamia pinnata</i>	水黃皮
<i>Rhus hypoleuca</i>	白背鹽膚木(白背漆)
<i>Rhus succedanea</i>	木蠟樹(野漆樹)
<i>Sapindus saponaria</i>	無患子(木患子)
<i>Sapium discolor</i>	山烏柏
<i>Sapium sebiferum</i>	烏柏
<i>Schefflera heptaphylla</i>	鵝掌柴(鴨腳木)
<i>Schima superba</i>	木荷(荷樹)
<i>Sterculia lanceolata</i>	假蘋婆
<i>Syzygium levinei</i>	山蒲桃(李萬蒲桃)
<i>Thespesia populnea</i>	繖楊(恒春黃槿)

(5) Group E consists of : -

<i>Alangium chinense</i>	八角楓
<i>Aporosa dioica</i>	銀柴(大沙葉)
<i>Archidendron clypearia</i>	猴耳環
<i>Bauhinia blakeana</i>	洋紫荊
<i>Camellia oleifera</i>	油茶
<i>Castanopsis fabri</i>	羅浮錐(白櫟)
<i>Cordia dichotoma</i>	破布木
<i>Cratoxylum cochinchinense</i>	黃牛木
<i>Cryptocarya chinensis</i>	厚殼桂
<i>Cryptocarya concinna</i>	黃果厚殼桂(黃果桂)
<i>Cyclobalanopsis championii</i>	嶺南青岡
<i>Cyclobalanopsis edithiae</i>	華南青岡

Trees – Grouping (Cont'd)

(5) Group E consists of : - (Cont'd)

<i>Cyclobalanopsis myrsinifolia</i>	小葉青岡
<i>Cyclobalanopsis neglecta</i>	竹葉青岡
<i>Dalbergia balansae</i>	南嶺黃檀
<i>Endospermum chinense</i>	黃桐
<i>Garcinia oblongifolia</i>	嶺南山竹子(黃牙果)
<i>Homalium cochinchinensis</i>	天料木
<i>Machilus breviflora</i>	短序潤楠(短花楠)
<i>Machilus thunbergii</i>	紅楠
<i>Machilus velutina</i>	絨毛潤楠
<i>Ormosia emarginata</i>	凹葉紅豆
<i>Oroxylum indicum</i>	木蝴蝶(千層紙)
<i>Osmanthus marginatus (O. sinensis)</i>	月桂
<i>Pistacia chinensis</i>	黃連木
<i>Prunus phaeosticta</i>	腺葉桂櫻
<i>Pyrus calleryana</i>	豆梨
<i>Reevesia thyrsoidea</i>	梭羅樹
<i>Symplocos glauca</i>	羊舌樹
<i>Syzygium hancei</i>	韓氏蒲桃(紅鱗蒲桃)
<i>Tetradium glabrifolium</i>	棟葉吳茱萸
<i>Tutcheria spectabilis</i>	石筆木
<i>Ulmus parvifolia</i>	榔榆
<i>Viburnum odoratissimum</i>	珊瑚樹

(6) Group F consists of : -

<i>Ailanthus fordii</i>	福氏臭椿
<i>Aquilaria sinensis</i>	土沉香(牙香樹、白木香)
<i>Camellia crapnelliana</i>	紅皮糙果茶(克氏茶)
<i>Camellia granthamiana</i>	大苞山茶(葛量洪茶)
<i>Litsea cubeba</i>	木薑子(山蒼樹)
<i>Rhodoleia championii</i>	紅花荷(吊鐘王)

(7) Group G consists of other tree species

Conifers – Grouping and Sizes

(i) The overall heights and groups are as follows:

	Small Conifer (overall height in mm)	Large Conifer (overall height in mm)	Extra-large Conifer (overall height in mm)
Group A	Upto 1500	1501-2700	Exceeding 2700
Group B	Upto 1500	1501-2100	Exceeding 2100
Group C	Upto 1500	1501-1800	Exceeding 1800
Group D	Upto 1500	1501-2100	Exceeding 2100

(ii) Conifers are divided into 4 groups by species:

Group A consists of : -

<i>Araucaria cunninghamii</i>	南洋杉(花旗杉)
<i>Araucaria heterophylla</i>	異葉南洋杉
<i>Cunninghamia lanceolata</i>	杉木
<i>Cupressus funebris</i>	柏木(垂柏)
<i>Glyptostrobus pensilis</i>	水松
<i>Keteleeria fortunei</i>	油杉
<i>Taxodium distichum</i>	落羽杉

Group B consists of : -

<i>Podocarpus macrophyllus</i>	羅漢松
<i>Thuja orientalis</i>	側柏

Group C consists of : -

<i>Juniperus chinensis</i>	圓柏
<i>Juniperus chinensis cv.Kaizuca</i>	龍柏
<i>Nageia nagi</i>	竹柏

Group D consists of other conifer species

Palms and Cycas – Grouping and Sizes

(i) The overall heights and groups are as follows:

	Small Palm (overall height in mm)	Medium Palm (overall height in mm)	Large Palm (overall height in mm)	Extra-large Palm (overall height in mm)
Group A	300-500	501-1000	1001-1500	Exceeding 1500
Group B	500-1000	1001-1500	1501-2500	Exceeding 2500
Group C	500-1000	1001-2000	2001-3000	Exceeding 3000
Group D	2000-3000	3001-4000	4001-5000	Exceeding 5000
Group E	500-1000	1001-1500	NA	NA
Group F	500-1000	1001-2000	2001-3000	Exceeding 3000

(ii) Palms are divided into 6 groups by species:

Group A consists of : -

Cycas revoluta
Zamia furfuracea

蘇鐵(鳳尾松)
美葉蘇鐵(牙買加蘇鐵)

Group B consists of : -

Arenga pinnata
Elaeis guineensis
Hyophorbe lagenicaulis
Hyophorbe verschaffeltii
Livistona chinensis
Neodypsis decaryi
Phoenix canariensis
Phoenix dactylifera
Phoenix hanceana
Phoenix sylvestris
Ravenala madagascariensis
Trachycarpus fortunei
Washingtonia robusta

桃椰(莎木)
油棕(油椰子)
酒瓶椰子
棍棒椰子
蒲葵
三角椰子
加拿利海棗
棗椰子(海棗)
刺葵(鳳凰棕)
銀海棗
旅人蕉
棕櫚
華盛頓葵

Palms and Cycas – Grouping and Sizes (Cont'd)

(ii) Palms are divided into 6 groups by species: (Cont'd)

Group C consists of : -

<i>Bismarckia nobilis</i>	霸王棕
<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)
<i>Caryota ochlandra</i>	魚尾葵
<i>Chrysalidocarpus lutescens</i>	散尾葵
<i>Phoenix roebelenii</i>	日本葵

Group D consists of : -

<i>Archontophoenix alexandrae</i>	假檳榔
<i>Areca triandra Roxb</i>	三藥檳榔
<i>Butia capitata Becc.</i>	布迪椰子
<i>Cocos nucifera</i>	椰子
<i>Roystonea regia</i>	王棕(大王椰子)
<i>Syagrus romanzoffiana</i>	金山葵(皇后葵)
<i>Wodyetia bifurcata</i>	狐尾椰子

Group E consists of : -

<i>Chamaedorea elegans</i>	袖珍椰子葵
<i>Chamaedorea erumpens</i>	竹莖椰子
<i>Chamaedorea humilis</i>	叢櫚(歐洲扇棕)
<i>Pritchardia gaudichaudii</i>	夏威夷椰子
<i>Rhapis excelsa</i>	棕竹
<i>Rhapis gracilis</i>	窄葉棕竹
<i>Rhapis humilis</i>	細葉拐仔棕(觀音棕竹)

Group F consists of other palm species

ANNEX 'C' -

TABLES OF METAL WEIGHTS, ETC.

ANNEX 'C' - TABLES OF METAL WEIGHTS, ETC.

<u>Table</u>	<u>Page</u>
1	Metric/Imperial equivalents..... C/2
2	Mass (Weight) of wire..... C/3
3	Mass (Weight) of sheet lead..... C/4
4	Mass (Weight) of sheet zinc..... C/4
5	Mass (Weight) of sheet metal..... C/5 - C/6
6	Mass (Weight) of metal plates..... C/7
7	Mass (Weight) of mild steel round bars..... C/8
8	Mass (Weight) of rolled steel square bars..... C/8
9	Mass (Weight) of rolled steel flat bars..... C/9
10	Mass (Weight) of black bolts and nuts..... C/10
11	Mass (Weight) of steel cup-headed rivets..... C/11
12	Mass (Weight) of rolled steel equal angles..... C/12
13	Mass (Weight) of rolled steel unequal angles..... C/12
14	Mass (Weight) of rolled steel universal beams..... C/13 - C/14
15	Mass (Weight) of rolled steel universal columns..... C/15
16	Mass (Weight) of rolled steel universal bearing piles..... C/16
17	Mass (Weight) of rolled steel joists with taper flanges..... C/17
18	Mass (Weight) of rolled steel structural tees cut from universal beams..... C/18 - C/19
19	Mass (Weight) of rolled steel structural tees cut from universal columns..... C/20
20	Mass (Weight) of rolled steel parallel flange channels..... C/21
21	Mass (Weight) of rolled steel equal flange tees with radiused root and toes..... C/21
22	Mass (Weight) of rolled steel circular hollow sections..... C/22
23	Mass (Weight) of rolled steel square hollow sections..... C/23
24	Mass (Weight) of rolled steel rectangular hollow sections..... C/24
25	Mass (Weight) of solid aluminium round bars..... C/25
26	Mass (Weight) of solid aluminium square bars..... C/25
27	Mass (Weight) of solid aluminium flats..... C/26
28	Mass (Weight) of aluminium equal angles..... C/27
29	Mass (Weight) of aluminium unequal angles..... C/27
30	Mass (Weight) of aluminium channels..... C/28
31	Mass (Weight) of aluminium tee sections..... C/29
32	Mass (Weight) of aluminium round hollow tubes..... C/30
33	Mass (Weight) of aluminium square hollow sections..... C/31
34	Mass (Weight) of aluminium rectangular hollow sections..... C/31
35	Mass (Weight) of stainless steel flat bars..... C/32
36	Mass (Weight) of stainless steel angles..... C/32
37	Mass (Weight) of stainless steel channels..... C/32
38	Mass (Weight) of stainless steel round tubes..... C/32
39	Mass (Weight) of stainless steel square hollow sections..... C/32
40	Mass (Weight) of stainless steel rectangular hollow sections..... C/32
41	Standard BRC fabrics square meshes..... C/33
42	Standard BRC fabrics rectangular meshes..... C/33
43	Mass (Weight) of steel sheet piles..... C/34
44	Mass (Weight) of steel chequer plate..... C/34

TABLE 1
METRIC/IMPERIAL EQUIVALENTS

Metric sizes or dimensions (millimetres)	Imperial equivalents (inches)
3	1/8
6	1/4
10	3/8
13	1/2
16	5/8
19	3/4
22	7/8
25	1
32	1-1/4
35	1-3/8
38	1-1/2
44	1-3/4
51	2
57	2-1/4
64	2-1/2
70	2-3/4
76	3
83	3-1/4
89	3-1/2
95	3-3/4
100	4
125	5
150	6
175	7
200	8
225	9
250	10
275	11
300	12
450	18
600	24
750	30
900	36
1,200	48

Examples : -

1. An imperial sized scantling measuring 2" x 3" shall be paid for as a 50 x 75 mm scantling.
2. An imperial sized tower bolt measuring 9" long shall be paid for as a 225 mm long tower bolt.

TABLE 2

MASS (WEIGHT) OF WIRE

Preferred diameter (mm)	S.W.G.	Gauge diameter (mm)	kg/100 m	
			Steel	Copper
	40	0.122	0.01	0.01
0.125			0.01	0.01
	39	0.132	0.01	0.01
	38	0.152	0.01	0.02
0.160			0.02	0.02
	37	0.173	0.02	0.02
	36	0.193	0.02	0.02
0.200			0.02	0.02
	35	0.213	0.03	0.03
	34	0.234	0.03	0.04
0.250			0.04	0.04
	33	0.254	0.04	0.04
	32	0.274	0.05	0.05
	31	0.295	0.05	0.06
0.300			0.06	0.06
	30	0.315	0.06	0.07
	29	0.345	0.07	0.08
	28	0.376	0.09	0.09
0.400			0.10	0.11
	27	0.417	0.11	0.11
	26	0.457	0.13	0.14
0.500			0.15	0.17
	25	0.508	0.16	0.17
	24	0.559	0.19	0.21
0.600			0.22	0.24
	23	0.610	0.23	0.25
0.700			0.30	0.32
	22	0.711	0.31	0.33
0.800			0.39	0.42
	21	0.813	0.41	0.44
0.900			0.50	0.54
	20	0.914	0.52	0.55

Preferred diameter (mm)	S.W.G.	Gauge diameter (mm)	kg/100 m	
			Steel	Copper
1.000			0.62	0.66
	19	1.016	0.64	0.68
1.200			0.89	0.95
	18	1.219	0.92	0.98
	17	1.422	1.25	1.34
1.600			1.58	1.69
	16	1.626	1.63	1.75
	15	1.829	2.06	2.21
2.000			2.47	2.64
	14	2.032	2.55	2.73
	13	2.337	3.37	3.61
2.500			3.85	4.13
	12	2.642	4.31	4.62
	11	2.946	5.35	5.74
3.000			5.55	5.95
	10	3.251	6.52	6.99
	9	3.658	8.25	8.85
4.000			9.87	10.58
	8	4.064	10.19	10.92
	7	4.470	12.32	13.21
	6	4.877	14.67	15.73
5.000			15.42	16.53
	5	5.385	17.89	19.17
	4	5.893	21.42	22.96
6.000			22.20	23.80
	3	6.401	25.27	27.09
	2	7.010	30.31	32.49
	1	7.620	35.81	38.39
8.000			39.47	42.32

Note :-

For mass of iron wire, multiply the mass of steel wire by 0.991.

For mass of brass wire, multiply the mass of steel wire by 1.072.

TABLE 3

MASS (WEIGHT) OF SHEET LEAD

Code number	Thickness (mm)	kg/m ² *	Colour marking
3	1.25	14.18	green
4	1.80	20.41	blue
5	2.24	25.40	red
6	2.50	28.36	black
7	3.15	35.72	white
8	3.55	40.26	orange

* Basic value : 11,450 kg/m³

TABLE 4

MASS (WEIGHT) OF SHEET ZINC

Metric thickness	Zinc gauge	Gauge thickness (mm)	kg/m ² *
	1	0.102	0.73
	2	0.152	1.09
	3	0.178	1.28
	4	0.203	1.46
0.25			1.80
	5	0.254	1.83
	6	0.273	1.97
0.30			2.16
	7	0.330	2.38
	8	0.381	2.74
0.40			2.88
	9	0.432	3.11
	10	0.483	3.48
0.50			3.60
	11	0.559	4.02
0.60			4.32
	12	0.635	4.57
0.70			5.04
	13	0.711	5.12
	14	0.787	5.67
0.80			5.76
0.90			6.48
	15	0.914	6.58
1.00			7.20
	16	1.041	7.50
	17	1.168	8.41
1.20			8.64
	18	1.295	9.32
	19	1.448	10.43
1.60	20	1.600	11.52
	21	1.778	12.80
2.00			14.40

* Basic value : 7,200 kg/m³

TABLE 5

MASS (WEIGHT) OF SHEET METAL

Metric thickness (mm)	S.W.G.	Gauge thickness (mm)	kg/m ² *			
			Steel	Stainless steel	Copper	Aluminium
	34	0.234	1.84	1.84	2.09	0.63
0.25			1.96	1.97	2.23	0.68
	33	0.254	1.99	2.00	2.27	0.69
	32	0.274	2.15	2.16	2.45	0.74
	31	0.295	2.31	2.32	2.64	0.80
0.30			2.35	2.36	2.68	0.81
	30	0.315	2.47	2.48	2.82	0.85
	29	0.345	2.71	2.72	3.08	0.93
	28	0.376	2.95	2.96	3.36	1.02
0.40			3.14	3.15	3.58	1.08
	27	0.417	3.27	3.29	3.73	1.13
	26	0.457	3.58	3.60	4.08	1.24
0.50			3.92	3.94	4.47	1.35
	25	0.508	3.98	4.00	4.54	1.38
	24	0.559	4.38	4.41	5.00	1.51
0.60			4.71	4.73	5.36	1.62
	23	0.610	4.78	4.81	5.45	1.65
0.70			5.49	5.52	6.26	1.89
	22	0.711	5.58	5.60	6.35	1.92
0.80			6.27	6.30	7.15	2.17
	21	0.813	6.38	6.41	7.27	2.20
0.90			7.06	7.09	8.04	2.44
	20	0.914	7.17	7.20	8.17	2.47
1.00			7.84	7.88	8.94	2.71
	19	1.016	7.97	8.01	9.08	2.75
1.20			9.41	9.46	10.73	3.25
	18	1.219	9.56	9.61	10.90	3.30
	17	1.422	11.15	11.21	12.71	3.85
1.60			12.55	12.61	14.30	4.33
	16	1.626	12.75	12.81	14.53	4.40
	15	1.829	14.34	14.41	16.35	4.95
2.00			15.69	15.76	17.88	5.41
	14	2.032	15.94	16.01	18.16	5.50
	13	2.337	18.33	18.42	20.89	6.33
2.50			19.61	19.70	22.35	6.77
	12	2.642	20.72	20.82	23.61	7.15
	11	2.946	23.11	23.22	26.33	7.97

TABLE 5 (CONT'D)

MASS (WEIGHT) OF SHEET METAL (CONT'D)

Metric thickness (mm)	S.W.G.	Gauge thickness (mm)	kg/m ² *			
			Steel	Stainless steel	Copper	Aluminium
3.00			23.53	23.64	26.81	8.12
	10	3.251	25.50	25.62	29.06	8.80
	9	3.658	28.69	28.83	32.70	9.90
4.00			31.37	31.52	35.75	10.83
	8	4.064	31.87	32.03	36.32	11.00
	7	4.470	35.06	35.23	39.95	12.10
	6	4.877	38.25	38.44	43.59	13.20
5.00			39.22	39.41	44.69	13.54
	5	5.385	42.23	42.44	48.13	14.58
	4	5.893	46.22	46.44	52.67	15.95
6.00			47.06	47.29	53.63	16.24
	3	6.401	50.20	50.45	57.21	17.33
	2	7.010	54.98	55.25	62.66	18.98
	1	7.620	59.76	60.05	68.11	20.63
8.00			62.74	63.05	71.50	21.66

* Basic value : Mild steel 7,843 kg/m³
 Stainless steel 7,881 kg/m³
 Copper 8,938 kg/m³
 Aluminium 2,707 kg/m³

For mass of iron sheeting, multiply the mass of steel sheeting by 0.991.
 For mass of brass sheeting, multiply the mass of steel sheeting by 1.072.
 For mass of sheeting galvanized on both sides, add 0.730 kg/m².

TABLE 6

MASS (WEIGHT) OF METAL PLATES

Metric thickness (mm)	Imperial thickness (inches)	Metric equivalents (mm)	kg/m ² *			
			Steel	Stainless steel	Copper	Aluminium
	1/16	1.59	12.47	12.53	14.21	4.30
1.60			12.55	12.61	14.30	4.33
2.00			15.69	15.76	17.88	5.41
3.00			23.53	23.64	26.81	8.12
	1/8	3.18	24.94	25.06	28.42	8.61
4.00			31.37	31.52	35.75	10.83
	3/16	4.76	37.33	37.51	42.54	12.89
5.00			39.22	39.41	44.69	13.54
6.00			47.06	47.29	53.63	16.24
	1/4	6.35	49.80	50.04	56.76	17.19
8.00			62.74	63.05	71.50	21.66
	3/8	9.53	74.74	75.11	85.18	25.80
10.00			78.43	78.81	89.38	27.07
12.00			94.12	94.57	107.26	32.48
	1/2	12.70	99.61	100.09	113.51	34.38
15.00			117.65	118.22	134.07	40.61
	5/8	15.88	124.55	125.15	141.94	42.99
18.00			141.17	141.86	160.88	48.73
	3/4	19.05	149.41	150.13	170.27	51.57
20.00			156.86	157.62	178.76	54.14
	7/8	22.23	174.35	175.19	198.69	60.18
25.00			196.08	197.03	223.45	67.68
	1	25.40	199.21	200.18	227.03	68.76

* Basic value :	Mild steel	7,843	kg/m ³
	Stainless steel	7,881	kg/m ³
	Copper	8,938	kg/m ³
	Aluminium	2,707	kg/m ³

For mass of iron sheeting, multiply the mass of steel sheeting by 0.991.

For mass of brass sheeting, multiply the mass of steel sheeting by 1.072.

For mass of sheeting galvanized on both sides, add 0.730 kg/m².

TABLE 7

**MASS (WEIGHT) OF
MILD STEEL ROUND BARS**

Preferred metric diameter (mm) BS 4449 : 2005 + A3 : 2016	Imperial sizes (inches)	Metric equivalents of imperial sizes (mm)	kg/m*
6			0.22
	1/4	6.350	0.25
8			0.40
	3/8	9.525	0.56
10			0.62
12			0.89
	1/2	12.700	0.99
	5/8	15.875	1.55
16			1.58
	3/4	19.050	2.24
20			2.47
	7/8	22.225	3.04
25			3.85
	1	25.400	3.98
	1-1/8	28.575	5.03
	1-1/4	31.750	6.21
32			6.31
	1-3/8	34.925	7.52
	1-1/2	38.100	8.95
40			9.86
	1-5/8	41.275	10.50
	1-3/4	44.450	12.18
	1-7/8	47.625	13.98
	2	50.800	15.90

TABLE 8

**MASS (WEIGHT) OF
ROLLED STEEL SQUARE BARS**

Recommended metric size (mm) BS EN 10059 : 2005	Imperial sizes (inches)	Metric equivalents of imperial sizes (mm)	kg/m*
	1/4	6.350	0.32
	5/16	7.938	0.49
	3/8	9.525	0.71
10			0.78
	7/16	11.112	0.97
12			1.13
	1/2	12.700	1.26
14			1.54
	9/16	14.288	1.60
	5/8	15.875	1.98
16			2.01
	11/16	17.462	2.39
18			2.54
	3/4	19.050	2.85
20			3.14
	13/16	20.638	3.34
	7/8	22.225	3.87
	15/16	23.812	4.45
25			4.91
	1	25.400	5.06
28			6.15
	1-1/8	28.575	6.40
	1-1/4	31.750	7.91
32			8.04
	1-3/8	34.925	9.57
35			9.62
	1-1/2	38.100	11.38
40			12.60
	1-5/8	41.275	13.36
	1-3/4	44.450	15.50
	1-7/8	47.625	17.80
	2	50.800	20.24

* Basic value : Mild steel 7,843 kg/m³

For mass of cast iron bars, multiply the mass of steel bars by 0.919.

For mass of wrought iron bars, multiply the mass of steel bars by 0.991.

For mass of brass bars, multiply the mass of steel bars by 1.072.

For mass of copper bars, multiply the mass of steel bars by 1.134.

TABLE 9
MASS (WEIGHT) OF ROLLED STEEL FLAT BARS

Width (mm)	kg/m*													
	Thickness (mm)													
	1	2	3	4	5	6	7	8	9	10	20	30	40	50
5	0.04	0.08	0.12	0.16	0.20	0.24	0.27	0.31	0.35	0.39	0.78	1.18	1.57	1.96
10	0.08	0.16	0.24	0.31	0.39	0.47	0.55	0.63	0.71	0.78	1.57	2.35	3.14	3.92
15	0.12	0.24	0.35	0.47	0.59	0.71	0.82	0.94	1.06	1.18	2.35	3.53	4.71	5.88
20	0.16	0.31	0.47	0.63	0.78	0.94	1.10	1.25	1.41	1.57	3.14	4.71	6.27	7.84
25	0.20	0.39	0.59	0.78	0.98	1.18	1.37	1.57	1.76	1.96	3.92	5.88	7.84	9.80
30	0.24	0.47	0.71	0.94	1.18	1.41	1.65	1.88	2.12	2.35	4.71	7.06	9.41	11.76
35	0.27	0.55	0.82	1.10	1.37	1.65	1.92	2.20	2.47	2.75	5.49	8.24	10.98	13.73
40	0.31	0.63	0.94	1.25	1.57	1.88	2.20	2.51	2.82	3.14	6.27	9.41	12.55	15.69
45	0.35	0.71	1.06	1.41	1.76	2.12	2.47	2.82	3.18	3.53	7.06	10.59	14.12	17.65
50	0.39	0.78	1.18	1.57	1.96	2.35	2.75	3.14	3.53	3.92	7.84	11.76	15.69	19.61
55	0.43	0.86	1.29	1.73	2.16	2.59	3.02	3.45	3.88	4.31	8.63	12.94	17.25	21.57
60	0.47	0.94	1.41	1.88	2.35	2.82	3.29	3.76	4.24	4.71	9.41	14.12	18.82	23.53
65	0.51	1.02	1.53	2.04	2.55	3.06	3.57	4.08	4.59	5.10	10.20	15.29	20.39	25.49
70	0.55	1.10	1.65	2.20	2.75	3.29	3.84	4.39	4.94	5.49	10.98	16.47	21.96	27.45
75	0.59	1.18	1.76	2.35	2.94	3.53	4.12	4.71	5.29	5.88	11.76	17.65	23.53	29.41
80	0.63	1.25	1.88	2.51	3.14	3.76	4.39	5.02	5.65	6.27	12.55	18.82	25.10	31.37
85	0.67	1.33	2.00	2.67	3.33	4.00	4.67	5.33	6.00	6.67	13.33	20.00	26.67	33.33
90	0.71	1.41	2.12	2.82	3.53	4.24	4.94	5.65	6.35	7.06	14.12	21.18	28.23	35.29
95	0.75	1.49	2.24	2.98	3.73	4.47	5.22	5.96	6.71	7.45	14.90	22.35	29.80	37.25
100	0.78	1.57	2.35	3.14	3.92	4.71	5.49	6.27	7.06	7.84	15.69	23.53	31.37	39.22
110	0.86	1.73	2.59	3.45	4.31	5.18	6.04	6.90	7.76	8.63	17.25	25.88	34.51	43.14
120	0.94	1.88	2.82	3.76	4.71	5.65	6.59	7.53	8.47	9.41	18.82	28.23	37.65	47.06
130	1.02	2.04	3.06	4.08	5.10	6.12	7.14	8.16	9.18	10.20	20.39	30.59	40.78	50.98
140	1.10	2.20	3.29	4.39	5.49	6.59	7.69	8.78	9.88	10.98	21.96	32.94	43.92	54.90
150	1.18	2.35	3.53	4.71	5.88	7.06	8.24	9.41	10.59	11.76	23.53	35.29	47.06	58.82
160	1.25	2.51	3.76	5.02	6.27	7.53	8.78	10.04	11.29	12.55	25.10	37.65	50.20	62.74
170	1.33	2.67	4.00	5.33	6.67	8.00	9.33	10.67	12.00	13.33	26.67	40.00	53.33	66.67
180	1.41	2.82	4.24	5.65	7.06	8.47	9.88	11.29	12.71	14.12	28.23	42.35	56.47	70.59
190	1.49	2.98	4.47	5.96	7.45	8.94	10.43	11.92	13.41	14.90	29.80	44.71	59.61	74.51
200	1.57	3.14	4.71	6.27	7.84	9.41	10.98	12.55	14.12	15.69	31.37	47.06	62.74	78.43
210	1.65	3.29	4.94	6.59	8.24	9.88	11.53	13.18	14.82	16.47	32.94	49.41	65.88	82.35
220	1.73	3.45	5.18	6.90	8.63	10.35	12.08	13.80	15.53	17.25	34.51	51.76	69.02	86.27
230	1.80	3.61	5.41	7.22	9.02	10.82	12.63	14.43	16.24	18.04	36.08	54.12	72.16	90.19
240	1.88	3.76	5.65	7.53	9.41	11.29	13.18	15.06	16.94	18.82	37.65	56.47	75.29	94.12
250	1.96	3.92	5.88	7.84	9.80	11.76	13.73	15.69	17.65	19.61	39.22	58.82	78.43	98.04
260	2.04	4.08	6.12	8.16	10.20	12.24	14.27	16.31	18.35	20.39	40.78	61.18	81.57	101.96
270	2.12	4.24	6.35	8.47	10.59	12.71	14.82	16.94	19.06	21.18	42.35	63.53	84.70	105.88
280	2.20	4.39	6.59	8.78	10.98	13.18	15.37	17.57	19.76	21.96	43.92	65.88	87.84	109.80
290	2.27	4.55	6.82	9.10	11.37	13.65	15.92	18.20	20.47	22.74	45.49	68.23	90.98	113.72
300	2.35	4.71	7.06	9.41	11.76	14.12	16.47	18.82	21.18	23.53	47.06	70.59	94.12	117.65
310	2.43	4.86	7.29	9.73	12.16	14.59	17.02	19.45	21.88	24.31	48.63	72.94	97.25	121.57
320	2.51	5.02	7.53	10.04	12.55	15.06	17.57	20.08	22.59	25.10	50.20	75.29	100.39	125.49
330	2.59	5.18	7.76	10.35	12.94	15.53	18.12	20.71	23.29	25.88	51.76	77.65	103.53	129.41
340	2.67	5.33	8.00	10.67	13.33	16.00	18.67	21.33	24.00	26.67	53.33	80.00	106.66	133.33
350	2.75	5.49	8.24	10.98	13.73	16.47	19.22	21.96	24.71	27.45	54.90	82.35	109.80	137.25
360	2.82	5.65	8.47	11.29	14.12	16.94	19.76	22.59	25.41	28.23	56.47	84.70	112.94	141.17
370	2.90	5.80	8.71	11.61	14.51	17.41	20.31	23.22	26.12	29.02	58.04	87.06	116.08	145.10
380	2.98	5.96	8.94	11.92	14.90	17.88	20.86	23.84	26.82	29.80	59.61	89.41	119.21	149.02
390	3.06	6.12	9.18	12.24	15.29	18.35	21.41	24.47	27.53	30.59	61.18	91.76	122.35	152.94
400	3.14	6.27	9.41	12.55	15.69	18.82	21.96	25.10	28.23	31.37	62.74	94.12	125.49	156.86
410	3.22	6.43	9.65	12.86	16.08	19.29	22.51	25.73	28.94	32.16	64.31	96.47	128.63	160.78
420	3.29	6.59	9.88	13.18	16.47	19.76	23.06	26.35	29.65	32.94	65.88	98.82	131.76	164.70
430	3.37	6.74	10.12	13.49	16.86	20.23	23.61	26.98	30.35	33.72	67.45	101.17	134.90	168.62
440	3.45	6.90	10.35	13.80	17.25	20.71	24.16	27.61	31.06	34.51	69.02	103.53	138.04	172.55
450	3.53	7.06	10.59	14.12	17.65	21.18	24.71	28.23	31.76	35.29	70.59	105.88	141.17	176.47
460	3.61	7.22	10.82	14.43	18.04	21.65	25.25	28.86	32.47	36.08	72.16	108.23	144.31	180.39
470	3.69	7.37	11.06	14.74	18.43	22.12	25.80	29.49	33.18	36.86	73.72	110.59	147.45	184.31
480	3.76	7.53	11.29	15.06	18.82	22.59	26.35	30.12	33.88	37.65	75.29	112.94	150.59	188.23
490	3.84	7.69	11.53	15.37	19.22	23.06	26.90	30.74	34.59	38.43	76.86	115.29	153.72	192.15
500	3.92	7.84	11.76	15.69	19.61	23.53	27.45	31.37	35.29	39.22	78.43	117.65	156.86	196.08

* Basic value : Mild steel 7,843 kg/m³

For mass of cast iron bars, multiply the mass of steel bars by 0.919.

For mass of wrought iron bars, multiply the mass of steel bars by 0.991.

For mass of brass bars, multiply the mass of steel bars by 1.072.

For mass of copper bars, multiply the mass of steel bars by 1.134.

For mass of lead bars, multiply the mass of steel bars by 1.454.

TABLE 10

MASS (WEIGHT) OF BS 4190 ISO METRIC BLACK BOLTS WITH NUTS

Length under head (mm)	Approximate mass in kilogrammes per 1,000 bolts complete including hexagon head and one nut each										
	Nominal size of bolt										
	M6	M8	M10	M12	M16	M20	M24	M30	M36	M42	M48
25	8.97	18.70	36.60	52.50	-	-	-	-	-	-	-
30	10.10	20.70	39.10	56.10	107.00	186.00	-	-	-	-	-
35	11.20	22.70	42.20	59.70	114.00	196.00	-	-	-	-	-
40	12.30	24.70	45.30	64.10	121.00	207.00	347.00	-	-	-	-
45	13.40	26.70	48.40	68.50	128.00	217.00	362.00	-	-	-	-
50	14.50	28.70	51.50	72.90	136.00	227.00	377.00	-	-	-	-
55	15.60	30.70	54.60	77.30	144.00	238.00	392.00	-	-	-	-
60	16.70	32.70	57.70	81.70	152.00	251.00	407.00	-	-	-	-
65	17.80	34.70	60.80	86.10	160.00	264.00	422.00	-	-	-	-
70	18.90	36.70	63.90	90.50	168.00	277.00	440.00	-	-	-	-
75	20.00	38.70	67.00	95.00	176.00	290.00	458.00	-	-	-	-
80	21.10	40.70	70.10	100.00	182.00	303.00	476.00	853.00	-	-	-
90	-	44.70	76.30	109.00	198.00	329.00	511.00	908.00	-	-	-
100	-	48.70	82.50	118.00	214.00	355.00	547.00	963.00	1,520.00	-	-
110	-	-	88.70	127.00	230.00	381.00	-	-	-	-	-
120	-	-	94.90	136.00	246.00	407.00	618.00	1,070.00	1,680.00	2,450.00	-
130	-	-	101.00	145.00	262.00	433.00	-	-	-	-	-
140	-	-	107.00	154.00	278.00	459.00	689.00	1,180.00	1,840.00	2,670.00	-
150	-	-	113.00	163.00	294.00	485.00	725.00	1,230.00	1,920.00	2,780.00	3,860.00
160	-	-	119.00	172.00	310.00	501.00	760.00	1,290.00	2,000.00	2,890.00	4,000.00
170	-	-	125.00	181.00	326.00	527.00	-	-	-	-	-
180	-	-	131.00	190.00	342.00	553.00	831.00	1,400.00	2,160.00	3,110.00	4,280.00
190	-	-	137.00	199.00	358.00	579.00	-	-	-	-	-
200	-	-	143.00	208.00	374.00	605.00	902.00	1,510.00	2,320.00	3,330.00	4,560.00
Add for extra nut per 1,000	2.32	4.82	10.90	15.90	30.80	60.30	103.00	216.00	369.00	610.00	924.00

Note :-

For mass of stainless steel bolts, multiply by the mass of black bolts by factor : 7881/7843

TABLE 11

MASS (WEIGHT) OF STEEL CUP-HEADED RIVETS

Length under head (mm)	Approximate mass in kilogrammes per 1,000						
	Diameter of rivet (mm)						
	10	12	16	20	22	24	27
25	21.50	31.90	-	-	-	-	-
30	24.60	36.30	71.00	125.00	-	-	-
35	27.70	40.80	78.80	137.00	-	-	-
40	30.80	45.20	86.70	149.00	186.00	238.00	-
45	33.80	49.70	94.60	162.00	201.00	255.00	-
50	36.90	54.10	103.00	174.00	216.00	273.00	-
55	40.00	58.50	110.00	186.00	231.00	291.00	-
60	43.10	63.00	118.00	199.00	246.00	309.00	386.00
65	46.20	67.40	126.00	211.00	261.00	326.00	408.00
70	49.30	71.80	134.00	223.00	276.00	344.00	431.00
75	52.30	76.30	142.00	236.00	291.00	362.00	453.00
80	55.40	80.70	150.00	248.00	306.00	380.00	476.00
90	-	89.60	166.00	273.00	335.00	415.00	521.00
100	-	98.50	181.00	297.00	365.00	451.00	566.00
110	-	-	197.00	322.00	395.00	486.00	611.00
120	-	-	213.00	347.00	425.00	522.00	656.00
130	-	-	-	371.00	455.00	557.00	700.00
140	-	-	-	396.00	485.00	593.00	745.00
150	-	-	-	-	514.00	628.00	790.00
160	-	-	-	-	554.00	664.00	835.00
170	-	-	-	-	574.00	699.00	880.00
180	-	-	-	-	604.00	735.00	925.00
190	-	-	-	-	-	770.00	970.00
200	-	-	-	-	-	806.00	1,050.00
Approx. mass in kg of 1,000 heads	6.10	9.70	23.60	50.60	66.80	95.50	116.20
Variation in mass of 1,000 rivets per mm of length	0.62	0.89	1.58	2.47	2.98	3.55	4.49

TABLE 12

MASS (WEIGHT) OF ROLLED STEEL
EQUAL ANGLES

Source: BS EN10056-1:2017, Table 1

Designation		Mass/unit length (kg/m)
Size (mm)	Thickness (mm)	
20 x 20	3	0.88
25 x 25	3	1.12
25 x 25	4	1.45
30 x 30	3	1.36
30 x 30	4	1.78
35 x 35	4	2.09
40 x 40	4	2.42
40 x 40	5	2.97
45 x 45	4.5	3.06
50 x 50	4	3.06
50 x 50	5	3.77
50 x 50	6	4.47
60 x 60	5	4.57
60 x 60	6	5.42
60 x 60	8	7.09
65 x 65	7	6.83
70 x 70	6	6.38
70 x 70	7	7.38
75 x 75	6	6.85
75 x 75	8	8.99
80 x 80	8	9.63
80 x 80	10	11.90
90 x 90	7	9.61
90 x 90	8	10.90
90 x 90	9	12.20
90 x 90	10	13.40
100 x 100	8	12.20
100 x 100	10	15.00
100 x 100	12	17.80
120 x 120	10	18.20
120 x 120	12	21.60
130 x 130	12	23.60
150 x 150	10	23.00
150 x 150	12	27.30
150 x 150	15	33.80
160 x 160	15	36.20
180 x 180	16	43.50
180 x 180	18	48.60
200 x 200	16	48.50
200 x 200	18	54.30
200 x 200	20	59.90
200 x 200	24	71.10
250 x 250	28	104.00
250 x 250	35	128.00

TABLE 13

MASS (WEIGHT) OF ROLLED STEEL
UNEQUAL ANGLES

Source: BS EN10056-1:2017, Table 2

Designation		Mass/unit length (kg/m)
Size (mm)	Thickness (mm)	
30 x 20	3	1.12
30 x 20	4	1.46
40 x 20	4	1.77
40 x 25	4	1.93
45 x 30	4	2.25
50 x 30	5	2.96
60 x 30	5	3.36
60 x 40	5	3.76
60 x 40	6	4.46
65 x 50	5	4.35
70 x 50	6	5.41
75 x 50	6	5.65
75 x 50	8	7.39
80 x 40	6	5.41
80 x 40	8	7.07
80 x 60	7	7.36
100 x 50	6	6.84
100 x 50	8	8.97
100 x 65	7	8.77
100 x 65	8	9.94
100 x 65	10	12.30
100 x 75	8	10.60
100 x 75	10	13.00
100 x 75	12	15.40
120 x 80	8	12.20
120 x 80	10	15.00
120 x 80	12	17.80
125 x 75	8	12.20
125 x 75	10	15.00
125 x 75	12	17.80
135 x 65	8	12.20
135 x 65	10	15.00
150 x 75	9	15.40
150 x 75	10	17.00
150 x 75	12	20.20
150 x 75	15	24.80
150 x 90	10	18.20
150 x 90	12	21.60
150 x 90	15	26.60
150 x 100	10	19.00
150 x 100	12	22.50
200 x 100	10	23.00
200 x 100	12	27.30
200 x 100	15	33.75
200 x 150	12	32.00
200 x 150	15	39.60

TABLE 14

MASS (WEIGHT) OF ROLLED STEEL UNIVERSAL BEAMS

Source: BS4-1:2005, Table 2

Section designation					Mass per unit length kg/m	Depth mm	Width mm
914	x	419	x	388	388.0	921.0	420.5
914	x	419	x	343	343.3	911.8	418.5
914	x	305	x	289	289.1	926.6	307.7
914	x	305	x	253	253.4	918.4	305.5
914	x	305	x	224	224.2	910.4	304.1
914	x	305	x	201	200.9	903.0	303.3
838	x	292	x	226	226.5	850.9	293.8
838	x	292	x	194	193.8	840.7	292.4
838	x	292	x	176	175.9	834.9	291.7
762	x	267	x	197	196.8	769.8	268.0
762	x	267	x	173	173.0	762.2	266.7
762	x	267	x	147	146.9	754.0	265.2
762	x	267	x	134	133.9	750.0	264.4
686	x	254	x	170	170.2	692.9	255.8
686	x	254	x	152	152.4	687.5	254.5
686	x	254	x	140	140.1	683.5	253.7
686	x	254	x	125	125.2	677.9	253.0
610	x	305	x	238	238.1	635.8	311.4
610	x	305	x	179	179.0	620.2	307.1
610	x	305	x	149	149.1	612.4	304.8
610	x	229	x	140	139.9	617.2	230.2
610	x	229	x	125	125.1	612.2	229.0
610	x	229	x	113	113.0	607.6	228.2
610	x	229	x	101	101.2	602.6	227.6
533	x	210	x	122	122.0	544.5	211.9
533	x	210	x	109	109.0	539.5	210.8
533	x	210	x	101	101.0	536.7	210.0
533	x	210	x	92	92.1	533.1	209.3
533	x	210	x	82	82.2	528.3	208.8
457	x	191	x	98	98.3	467.2	192.8
457	x	191	x	89	89.3	463.4	191.9
457	x	191	x	82	82.0	460.0	191.3
457	x	191	x	74	74.3	457.0	190.4
457	x	191	x	67	67.1	453.4	189.9
457	x	152	x	82	82.1	465.8	155.3
457	x	152	x	74	74.2	462.0	154.4
457	x	152	x	67	67.2	458.0	153.8
457	x	152	x	60	59.8	454.6	152.9
457	x	152	x	52	52.3	449.8	152.4

TABLE 14 (CONT'D)

MASS (WEIGHT) OF ROLLED STEEL UNIVERSAL BEAMS (CONT'D)

Source: BS4-1:2005, Table 2

Section designation					Mass per unit length kg/m	Depth mm	Width mm
406	x	178	x	74	74.2	412.8	179.5
406	x	178	x	67	67.1	409.4	178.8
406	x	178	x	60	60.1	406.4	177.9
406	x	178	x	54	54.1	402.6	177.7
406	x	140	x	46	46.0	403.2	142.2
406	x	140	x	39	39.0	398.0	141.8
356	x	171	x	67	67.1	363.4	173.2
356	x	171	x	57	57.0	358.0	172.2
356	x	171	x	51	51.0	355.0	171.5
356	x	171	x	45	45.0	351.4	171.1
356	x	127	x	39	39.1	353.4	126.0
356	x	127	x	33	33.1	349.0	125.4
305	x	165	x	54	54.0	310.4	166.9
305	x	165	x	46	46.1	306.6	165.7
305	x	165	x	40	40.3	303.4	165.0
305	x	127	x	48	48.1	311.0	125.3
305	x	127	x	42	41.9	307.2	124.3
305	x	127	x	37	37.0	304.4	123.4
305	x	102	x	33	32.8	312.7	102.4
305	x	102	x	28	28.2	308.7	101.8
305	x	102	x	25	24.8	305.1	101.6
254	x	146	x	43	43.0	259.6	147.3
254	x	146	x	37	37.0	256.0	146.4
254	x	146	x	31	31.1	251.4	146.1
254	x	102	x	28	28.3	260.4	102.2
254	x	102	x	25	25.2	257.2	101.9
254	x	102	x	22	22.0	254.0	101.6
203	x	133	x	30	30.0	206.8	133.9
203	x	133	x	25	25.1	203.2	133.2
203	x	102	x	23	23.1	203.2	101.8
178	x	102	x	19	19.0	177.8	101.2
152	x	89	x	16	16.0	152.4	88.7
127	x	76	x	13	13.0	127.0	76.0

TABLE 15

**MASS (WEIGHT) OF ROLLED STEEL
UNIVERSAL COLUMNS**

Source: BS4-1:2005, Table 3

Section designation				Mass per unit length kg/m	Depth mm	Width mm	
356	x	406	x	634	633.9	474.6	424.0
356	x	406	x	551	551.0	455.6	418.5
356	x	406	x	467	467.0	436.6	412.2
356	x	406	x	393	393.0	419.0	407.0
356	x	406	x	340	339.9	406.4	403.0
356	x	406	x	287	287.1	393.6	399.0
356	x	406	x	235	235.1	381.0	394.8
356	x	368	x	202	201.9	374.6	374.7
356	x	368	x	177	177.0	368.2	372.6
356	x	368	x	153	152.9	362.0	370.5
356	x	368	x	129	129.0	355.6	368.6
305	x	305	x	283	282.9	365.3	322.2
305	x	305	x	240	240.0	352.5	318.4
305	x	305	x	198	198.1	339.9	314.5
305	x	305	x	158	158.1	327.1	311.2
305	x	305	x	137	136.9	320.5	309.2
305	x	305	x	118	117.9	314.5	307.4
305	x	305	x	97	96.9	307.9	305.3
254	x	254	x	167	167.1	289.1	265.2
254	x	254	x	132	132.0	276.3	261.3
254	x	254	x	107	107.1	266.7	258.8
254	x	254	x	89	88.9	260.3	256.3
254	x	254	x	73	73.1	254.1	254.6
203	x	203	x	86	86.1	222.2	209.1
203	x	203	x	71	71.0	215.8	206.4
203	x	203	x	60	60.0	209.6	205.8
203	x	203	x	52	52.0	206.2	204.3
203	x	203	x	46	46.1	203.2	203.6
152	x	152	x	37	37.0	161.8	154.4
152	x	152	x	30	30.0	157.6	152.9
152	x	152	x	23	23.0	152.4	152.2

TABLE 16

**MASS (WEIGHT) OF ROLLED STEEL
UNIVERSAL BEARING PILES**

Source: BS4-1:2005, Table 4

Section designation					Mass per unit length kg/m	Depth mm	Width mm
356	x	368	x	174	173.9	361.4	378.5
356	x	368	x	152	152.0	356.4	376.0
356	x	368	x	133	133.0	352.0	373.8
356	x	368	x	109	108.9	346.4	371.0
305	x	305	x	223	222.9	337.9	325.7
305	x	305	x	186	186.0	328.3	320.9
305	x	305	x	149	149.1	318.5	316.0
305	x	305	x	126	126.1	312.3	312.9
305	x	305	x	110	110.0	307.9	310.7
305	x	305	x	95	94.9	303.7	308.7
305	x	305	x	88	88.0	301.7	307.8
305	x	305	x	79	78.9	299.3	306.4
254	x	254	x	85	85.1	254.3	260.4
254	x	254	x	71	71.0	249.7	258.0
254	x	254	x	63	63.0	247.1	256.6
203	x	203	x	54	53.9	204.0	207.7
203	x	203	x	45	44.9	200.2	205.9

TABLE 17

**MASS (WEIGHT) OF ROLLED STEEL
JOISTS WITH TAPER FLANGES**

Source: BS4-1:2005, Table 5

Section designation					Mass per unit length kg/m	Depth mm	Width mm
254	x	203	x	82	82.0	254.0	203.2
254	x	114	x	37	37.2	254.0	114.3
203	x	152	x	52	52.3	203.2	152.4
152	x	127	x	37	37.3	152.4	127.0
127	x	114	x	29	29.3	127.0	114.3
127	x	114	x	27	26.9	127.0	114.3
127	x	76	x	16	16.5	127.0	76.2
114	x	114	x	27	26.9	114.3	114.3
102	x	102	x	23	23.0	101.6	101.6
102	x	44	x	7	7.5	101.6	44.5
89	x	89	x	19	19.5	88.9	88.9
76	x	76	x	15	15.0	76.2	80.0
76	x	76	x	13	12.8	76.2	76.2

TABLE 18

**MASS (WEIGHT) OF ROLLED STEEL
STRUCTURAL TEES CUT FROM UNIVERSAL BEAMS**

Source: BS 4-1:2005 Table 6

Section designation	Mass per unit length kg/m	Cut from universal beams (See BS4-1:2005, Table 2) Section designation	Width mm	Depth mm
305 x 457 x 127	126.7	914 x 305 x 253	305.5	459.1
305 x 457 x 112	112.1	914 x 305 x 224	304.1	455.1
305 x 457 x 101	100.4	914 x 305 x 201	303.3	451.4
292 x 419 x 113	113.2	838 x 292 x 226	293.8	425.4
292 x 419 x 97	96.9	838 x 292 x 194	292.4	420.3
292 x 419 x 88	87.9	838 x 292 x 176	291.7	417.4
267 x 381 x 99	98.3	762 x 267 x 197	268.0	384.8
267 x 381 x 87	86.5	762 x 267 x 173	266.7	381.0
267 x 381 x 74	73.4	762 x 267 x 147	265.2	376.9
254 x 343 x 85	85.1	686 x 254 x 170	255.8	346.4
254 x 343 x 76	76.2	686 x 254 x 152	254.5	343.7
254 x 343 x 70	70.0	686 x 254 x 140	253.7	341.7
254 x 343 x 63	62.6	686 x 254 x 125	253.0	338.9
305 x 305 x 119	119.0	610 x 305 x 238	311.4	317.8
305 x 305 x 90	89.5	610 x 305 x 179	307.1	310.0
305 x 305 x 75	74.6	610 x 305 x 149	304.8	306.1
229 x 305 x 70	69.9	610 x 229 x 140	230.2	308.5
229 x 305 x 63	62.5	610 x 229 x 125	229.0	306.0
229 x 305 x 57	56.5	610 x 229 x 113	228.2	303.7
229 x 305 x 51	50.6	610 x 229 x 101	227.6	301.2
210 x 267 x 61	61.0	533 x 210 x 122	211.9	272.2
210 x 267 x 55	54.5	533 x 210 x 109	210.8	269.7
210 x 267 x 51	50.5	533 x 210 x 101	210.0	268.3
210 x 267 x 46	46.0	533 x 210 x 92	209.3	266.5
210 x 267 x 41	41.1	533 x 210 x 82	208.8	264.1
191 x 229 x 49	49.1	457 x 191 x 98	192.8	233.5
191 x 229 x 45	44.6	457 x 191 x 89	191.9	231.6
191 x 229 x 41	41.0	457 x 191 x 82	191.3	229.9
191 x 229 x 37	37.1	457 x 191 x 74	190.4	228.4
191 x 229 x 34	33.5	457 x 191 x 67	189.9	226.6

TABLE 18 (CONT'D)

**MASS (WEIGHT) OF ROLLED STEEL
STRUCTURAL TEES CUT FROM UNIVERSAL BEAMS (CONT'D)**

Source: BS 4-1:2005 Table 6

Section designation					Mass per unit length kg/m	Cut from universal beams (See BS4-1:2005,Table 2) Section designation				Width mm	Depth mm	
152	x	229	x	41	41.0	457	x	152	x	82	155.3	232.8
152	x	229	x	37	37.1	457	x	152	x	74	154.4	230.9
152	x	229	x	34	33.6	457	x	152	x	67	153.8	228.9
152	x	229	x	30	29.9	457	x	152	x	60	152.9	227.2
152	x	229	x	26	26.1	457	x	152	x	52	152.4	224.8
178	x	203	x	37	37.1	406	x	178	x	74	179.5	206.3
178	x	203	x	34	33.5	406	x	178	x	67	178.8	204.6
178	x	203	x	30	30.0	406	x	178	x	60	177.9	203.1
178	x	203	x	27	27.0	406	x	178	x	54	177.7	201.2
140	x	203	x	23	23.0	406	x	140	x	46	142.2	201.5
140	x	203	x	20	19.5	406	x	140	x	39	141.8	198.9
171	x	178	x	34	33.5	356	x	171	x	67	173.2	181.6
171	x	178	x	29	28.5	356	x	171	x	57	172.2	178.9
171	x	178	x	26	25.5	356	x	171	x	51	171.5	177.4
171	x	178	x	23	22.5	356	x	171	x	45	171.1	175.6
127	x	178	x	20	19.5	356	x	127	x	39	126.0	176.6
127	x	178	x	17	16.5	356	x	127	x	33	125.4	174.4
165	x	152	x	27	27.0	305	x	165	x	54	166.9	155.1
165	x	152	x	23	23.0	305	x	165	x	46	165.7	153.2
165	x	152	x	20	20.1	305	x	165	x	40	165.0	151.6
127	x	152	x	24	24.0	305	x	127	x	48	125.3	155.4
127	x	152	x	21	20.9	305	x	127	x	42	124.3	153.5
127	x	152	x	19	18.5	305	x	127	x	37	123.4	152.1
102	x	152	x	17	16.4	305	x	102	x	33	102.4	156.3
102	x	152	x	14	14.1	305	x	102	x	28	101.8	154.3
102	x	152	x	13	12.4	305	x	102	x	25	101.6	152.5
146	x	127	x	22	21.5	254	x	146	x	43	147.3	129.7
146	x	127	x	19	18.5	254	x	146	x	37	146.4	127.9
146	x	127	x	16	15.5	254	x	146	x	31	146.1	125.6
102	x	127	x	14	14.1	254	x	102	x	28	102.2	130.1
102	x	127	x	13	12.6	254	x	102	x	25	101.9	128.5
102	x	127	x	11	11.0	254	x	102	x	22	101.6	126.9
133	x	102	x	15	15.0	203	x	133	x	30	133.9	103.3
133	x	102	x	13	12.5	203	x	133	x	25	133.2	101.5

TABLE 19

**MASS (WEIGHT) OF ROLLED STEEL
STRUCTURAL TEES CUT FROM UNIVERSAL COLUMNS**

Source: BS 4-1:2005 Table 7

Section designation					Mass per unit length kg/m	Cut from universal beams (See BS4-1:2005,Table 2) Section designation					Width mm	Depth mm
406	x	178	x	118	117.5	356	x	406	x	235	394.8	190.4
368	x	178	x	101	100.9	356	x	368	x	202	374.7	187.2
368	x	178	x	89	88.5	356	x	368	x	177	372.6	184.0
368	x	178	x	77	76.4	356	x	368	x	153	370.5	180.9
368	x	178	x	65	64.5	356	x	368	x	129	368.6	177.7
305	x	152	x	79	79.0	305	x	305	x	158	311.2	163.5
305	x	152	x	69	68.4	305	x	305	x	137	309.2	160.2
305	x	152	x	59	58.9	305	x	305	x	118	307.4	157.2
305	x	152	x	49	48.4	305	x	305	x	97	305.3	153.9
254	x	127	x	66	66.0	254	x	254	x	132	261.3	138.1
254	x	127	x	54	53.5	254	x	254	x	107	258.8	133.3
254	x	127	x	45	44.4	254	x	254	x	89	256.3	130.1
254	x	127	x	37	36.5	254	x	254	x	73	254.6	127.0
203	x	102	x	43	43.0	203	x	203	x	86	209.1	111.0
203	x	102	x	36	35.5	203	x	203	x	71	206.4	107.8
203	x	102	x	30	30.0	203	x	203	x	60	205.8	104.7
203	x	102	x	26	26.0	203	x	203	x	52	204.3	103.0
203	x	102	x	23	23.0	203	x	203	x	46	203.6	101.5
152	x	76	x	19	18.5	152	x	152	x	37	154.4	80.8
152	x	76	x	15	15.0	152	x	152	x	30	152.9	78.7
152	x	76	x	12	11.5	152	x	152	x	23	152.2	76.1

TABLE 20

**MASS (WEIGHT) OF ROLLED STEEL
PARALLEL FLANGE CHANNELS**

Source: BS 4-1:2005 Table 8

Section designation					Mass per unit length kg/m	Depth mm	Width mm
430	x	100	x	64	64.4	430.0	100.0
380	x	100	x	54	54.0	380.0	100.0
300	x	100	x	46	45.5	300.0	100.0
300	x	90	x	41	41.4	300.0	90.0
260	x	90	x	35	34.8	260.0	90.0
260	x	75	x	28	27.6	260.0	75.0
230	x	90	x	32	32.2	230.0	90.0
230	x	75	x	26	25.7	230.0	75.0
200	x	90	x	30	29.7	200.0	90.0
200	x	75	x	23	23.4	200.0	75.0
180	x	90	x	26	26.1	180.0	90.0
180	x	75	x	20	20.3	180.0	75.0
150	x	90	x	24	23.9	150.0	90.0
150	x	75	x	18	17.9	150.0	75.0
125	x	65	x	15	14.8	125.0	65.0
100	x	50	x	10	10.2	100.0	50.0

TABLE 21

**MASS (WEIGHT) OF ROLLED STEEL
EQUAL FLANGE TEES WITH RADIUSSED ROOT AND TOES**

Source: BS EN 10055:1996

Designation	Mass kg/m	Cross-section cm ²	Height mm	Width mm	Thickness mm
T30	1.77	2.26	30	30	4
T35	2.33	2.97	35	35	4.5
T40	2.96	3.77	40	40	5
T50	4.44	5.66	50	50	6
T60	6.23	7.94	60	60	7
T70	8.32	10.6	70	70	8
T80	10.7	13.6	80	80	9
T100	16.4	20.9	100	100	11
T120	23.2	29.6	120	120	13
T140	31.3	39.9	140	140	15

TABLE 22

MASS (WEIGHT) OF ROLLED STEEL CIRCULAR HOLLOW SECTIONS

Source: BS-EN-10210-2:2006, Table B.1

Diameter (mm)	Thickness (mm)	Mass/unit length (kg/m)	Diameter (mm)	Thickness (mm)	Mass/unit length (kg/m)	Diameter (mm)	Thickness (mm)	Mass/unit length (kg/m)	
21.30	2.30	1.08	177.80	5.00	21.30	355.60	6.30	54.30	
	2.60	1.20		6.30	26.60		8.00	68.60	
	3.20	1.43		8.00	33.50		10.00	85.20	
26.90	2.30	1.40		10.00	41.40		12.50	106.00	
	2.60	1.56		12.50	51.00		14.20	120.00	
	3.20	1.87	193.70	5.00	23.30		16.00	134.00	
33.70	2.60	1.99		6.30	29.10		20.00	166.00	
	3.20	2.41		8.00	36.60		25.00	204.00	
	4.00	2.93		10.00	45.30		406.40	6.30	62.20
42.40	2.60	2.55		12.50	55.90			8.00	78.60
	3.20	3.09	14.20	62.90	10.00	97.80			
	4.00	3.79	16.00	70.10	12.50	121.00			
48.30	2.60	2.93	219.10	5.00	26.40	14.20		137.00	
	3.20	3.56		6.30	33.10	16.00		154.00	
	4.00	4.37		8.00	41.60	20.00		191.00	
	5.00	5.34		10.00	51.60	25.00		235.00	
60.30	2.60	3.70		12.50	63.70	30.00		278.00	
	3.20	4.51		14.20	71.80	40.00		361.00	
	4.00	5.55		16.00	80.10	457.00	6.30	70.00	
	5.00	6.82		20.00	98.20		8.00	88.60	
76.10	2.60	4.71		244.50	5.00		29.50	10.00	110.00
	3.20	5.75			6.30		37.00	12.50	137.00
	4.00	7.11	8.00		46.70		14.20	155.00	
	5.00	8.77	10.00		57.80		16.00	174.00	
88.90	3.20	6.76	12.50		71.50		20.00	216.00	
	4.00	8.38	14.20		80.60		25.00	266.00	
	5.00	10.30	16.00		90.20		30.00	316.00	
	6.30	12.80	20.00		110.70		40.00	411.00	
101.60	3.20	7.77	273.00		25.00	135.00	508.00	6.30	77.90
	4.00	9.63			5.00	33.00		8.00	98.60
	5.00	11.90		6.30	41.40	10.00		123.00	
	6.30	14.80		8.00	52.30	12.50		153.00	
	8.00	18.50		10.00	64.90	14.20		173.00	
114.30	10.00	22.60		12.50	80.30	16.00		194.00	
	3.20	8.77		14.20	90.60	20.00		241.00	
	4.00	10.90		16.00	101.00	25.00		298.00	
	5.00	13.50		20.00	125.00	30.00		354.00	
	6.30	16.80		25.00	153.00	40.00		462.00	
139.70	8.00	21.00	323.90	5.00	39.30	50.00	565.00		
	10.00	25.70		6.30	49.30	610.00	6.30	93.80	
	12.50	39.20		8.00	62.30		8.00	119.00	
	4.00	13.40		10.00	77.40		10.00	148.00	
	5.00	16.60		12.50	96.00		12.50	184.00	
6.30	20.70	14.20		108.50	14.20		209.00		
8.00	26.00	16.00		121.00	16.00		234.00		
10.00	32.00	20.00		150.00	20.00		291.00		
12.50	39.20	25.00		184.00	25.00		361.00		
168.30	4.00	16.20					30.00	429.00	
	5.00	20.10			40.00		562.00		
	6.30	25.20			50.00	691.00			
	8.00	31.60							
	10.00	39.00							
12.50	48.00								

TABLE 23

MASS (WEIGHT) OF ROLLED STEEL SQUARE HOLLOW SECTIONS

Source: BS-EN-10210-2:2006, Table B.2

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)	Size (mm)	Thickness (mm)	Mass/unit length (kg/m)	
40 x 40	2.60	3.00	160 x 160	5.00	24.10	
	3.20	3.61		6.30	30.10	
	4.00	4.39		8.00	37.60	
	5.00	5.28		10.00	46.30	
50 x 50	2.60	3.81		12.50	56.60	
	3.20	4.62		14.20	63.30	
	4.00	5.64		16.00	70.20	
	5.00	6.85		180 x 180	5.00	27.30
	6.30	8.31			6.30	34.00
60 x 60	2.60	4.63			8.00	42.70
	3.20	5.62			10.00	52.50
	4.00	6.90			12.50	64.40
	5.00	8.42		14.20	72.20	
	6.30	10.30		16.00	80.20	
	8.00	12.50		200 x 200	5.00	30.40
70 x 70	3.20	6.63			6.30	38.00
	4.00	8.15	8.00		47.70	
	5.00	9.99	10.00		58.80	
	6.30	12.30	12.50		72.30	
	8.00	15.00	14.20		81.10	
80 x 80	3.20	7.63	16.00	90.30		
	4.00	9.41	220 x 220	6.30	41.90	
	5.00	11.60		8.00	52.70	
	6.30	14.20		10.00	65.10	
	8.00	17.50		12.50	80.10	
90 x 90	4.00	10.70		14.20	90.10	
	5.00	13.10		16.00	100.00	
	6.30	16.20	250 x 250	6.30	47.90	
	8.00	20.10		8.00	60.30	
100 x 100	4.00	11.90		10.00	74.50	
	5.00	14.70		12.50	91.90	
	6.30	18.20		14.20	103.00	
	8.00	22.60	16.00	115.00		
	10.00	27.40	260 x 260	6.30	49.90	
120 x 120	5.00	17.80		8.00	62.80	
	6.30	22.20		10.00	77.70	
	8.00	27.60		12.50	95.80	
	10.00	33.70		14.20	108.00	
	12.50	40.90	16.00	120.00		
140 x 140	5.00	21.00	300 x 300	6.30	57.80	
	6.30	26.10		8.00	72.80	
	8.00	32.60		10.00	90.20	
	10.00	40.00		12.50	112.00	
	12.50	48.70		14.20	126.00	
150 x 150	5.00	22.60	16.00	141.00		
	6.30	28.10	350 x 350	8.00	85.40	
	8.00	35.10		10.00	106.00	
	10.00	43.10		12.50	131.00	
	12.50	52.70		14.20	148.00	
	14.20	58.90		16.00	166.00	
16.00	65.20	400 x 400		10.00	122.00	
			12.50	151.00		
			14.20	170.00		
			16.00	191.00		
			20.00	235.00		

TABLE 24

MASS (WEIGHT) OF ROLLED STEEL RECTANGULAR HOLLOW SECTIONS

Source: BS-EN-10210-2:2006, Table B.3

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)	Size (mm)	Thickness (mm)	Mass/unit length (kg/m)	
50 x 30	2.60	3.00	180 x 100	4.00	16.90	
	3.20	3.61		5.00	21.00	
	4.00	4.39		6.30	26.10	
	5.00	5.28		8.00	32.60	
60 x 40	2.60	3.81		10.00	40.00	
	3.20	4.62		12.50	48.70	
	4.00	5.64	200 x 100	4.00	18.20	
	5.00	6.85		5.00	22.60	
6.30	8.31	6.30		28.10		
80 x 40	3.20	5.62		8.00	35.10	
	4.00	6.90		10.00	43.10	
	5.00	8.42		12.50	52.70	
	6.30	10.30	16.00	65.20		
90 x 50	3.20	6.63	200 x 120	6.30	30.10	
	4.00	8.15		8.00	37.60	
	5.00	9.99		10.00	46.30	
	6.30	12.30		12.50	56.60	
100 x 50	3.20	7.13	250 x 150	6.30	38.00	
	4.00	8.78		8.00	47.70	
	5.00	10.80		10.00	58.80	
	6.30	13.30		12.50	72.30	
100 x 60	3.20	7.63		14.20	81.10	
	4.00	9.41		16.00	90.30	
	5.00	11.60	260 x 180	6.30	41.90	
	6.30	14.20		8.00	52.70	
8.00	17.50	10.00		65.10		
120 x 60	4.00	10.70		12.50	80.10	
	5.00	13.10		14.20	90.10	
	6.30	16.20		16.00	100.00	
	8.00	20.10	300 x 200	6.30	47.90	
10.00	24.30	8.00		60.30		
120 x 80	4.00	11.90		10.00	74.50	
	5.00	14.70		12.50	91.90	
	6.30	18.20		14.20	103.00	
	8.00	22.60		16.00	115.00	
140 x 80	10.00	27.40	350 x 250	6.30	57.80	
	140 x 80	4.00		13.20	8.00	72.80
		5.00		16.30	10.00	90.20
		6.30		20.20	12.50	112.00
8.00		25.10		14.20	126.00	
150 x 100	10.00	30.60		16.00	141.00	
	400 x 200	4.00	15.10	8.00	72.80	
		5.00	18.60	10.00	90.20	
		6.30	23.10	12.50	112.00	
8.00		28.90	14.20	126.00		
10.00		35.30	16.00	141.00		
12.50		42.80	450 x 250	8.00	85.40	
160 x 80	4.00	14.40		10.00	106.00	
	5.00	17.80		12.50	131.00	
	6.30	22.20		14.20	148.00	
	8.00	27.60		16.00	166.00	
10.00	33.70	500 x 300		10.00	122.00	
12.50	40.90		12.50	151.00		
			14.20	170.00		
			16.00	191.00		
			20.00	235.00		

TABLE 25

MASS (WEIGHT) OF SOLID ALUMINIUM ROUND BARS

Diameter (mm)	Mass/unit length (kg/m)
5.00	0.054
6.35	0.086
6.73	0.097
7.14	0.109
7.92	0.134
8.74	0.162
9.14	0.178
9.52	0.193
10.31	0.226
11.10	0.263
11.89	0.301
12.70	0.344
14.27	0.434
15.06	0.484
15.87	0.537

Diameter (mm)	Mass/unit length (kg/m)
17.45	0.649
19.05	0.772
19.84	0.838
20.62	0.906
21.44	0.979
22.22	1.052
23.80	1.207
25.40	1.375
26.97	1.552
28.19	1.694
28.58	1.740
30.15	1.936
31.75	2.147
33.32	2.366
34.92	2.598

Diameter (mm)	Mass/unit length (kg/m)
35.99	2.760
36.50	2.838
38.10	3.092
44.45	4.210
46.99	4.656
47.62	4.832
50.80	5.497
52.98	6.207
57.15	6.959
60.32	7.753
63.50	8.590
69.85	10.387
76.20	12.359

TABLE 26

MASS (WEIGHT) OF SOLID ALUMINIUM SQUARE BARS

Size (mm)	Mass/unit length (kg/m)
6.35	0.109
7.92	0.171
9.52	0.244

Size (mm)	Mass/unit length (kg/m)
12.19	0.403
12.70	0.438
15.88	0.682

Size (mm)	Mass/unit length (kg/m)
19.05	0.984
22.22	1.341
25.40	1.750

TABLE 27

**MASS (WEIGHT) OF SOLID
ALUMINIUM FLATS**

Size (mm)	Mass/unit length (kg/m)
6.35 x 3.18	0.054
9.52 x 2.36	0.061
9.52 x 3.18	0.082
9.52 x 6.35	0.016
10.10 x 2.01	0.055
11.10 x 3.96	0.118
11.10 x 6.35	0.190
12.70 x 1.57	0.054
12.70 x 2.36	0.080
12.70 x 3.18	0.109
12.70 x 4.75	0.164
12.70 x 6.35	0.219
14.00 x 3.00	0.113
15.88 x 1.57	0.067
15.88 x 2.36	0.101
15.88 x 3.18	0.137
15.88 x 4.75	0.204
15.88 x 6.35	0.272
15.88 x 9.52	0.409
17.45 x 3.18	0.150
17.45 x 4.75	0.223
17.45 x 6.35	0.301
18.24 x 8.74	0.427
18.64 x 4.37	0.219
19.05 x 1.57	0.082
19.05 x 2.36	0.122
19.05 x 3.18	0.164
19.05 x 4.75	0.246
19.05 x 6.35	0.329
19.05 x 9.07	0.491
19.99 x 3.00	0.162
22.22 x 3.18	0.192
22.22 x 6.35	0.381
22.22 x 9.52	0.574
23.80 x 3.18	0.205
23.80 x 6.35	0.409
23.80 x 9.52	0.615
24.99 x 8.00	0.543
25.40 x 1.57	0.109
25.40 x 2.36	0.162
25.40 x 3.18	0.219
25.40 x 4.75	0.327
25.40 x 6.35	0.438
25.40 x 7.92	0.546
25.40 x 9.52	0.656
25.40 x 12.70	0.875
25.40 x 15.88	1.094

Size (mm)	Mass/unit length (kg/m)
25.40 x 19.05	1.312
25.58 x 3.18	0.242
25.58 x 6.35	0.491
31.75 x 1.60	0.138
31.75 x 3.18	0.274
31.75 x 4.75	0.409
31.75 x 6.35	0.546
31.75 x 9.52	0.820
31.75 x 12.70	1.089
34.92 x 3.18	0.301
34.92 x 6.35	0.582
34.92 x 9.52	0.903
34.92 x 12.70	1.204
38.10 x 1.57	0.162
38.10 x 2.36	0.244
38.10 x 3.18	0.327
38.10 x 4.75	0.490
38.10 x 6.35	0.656
38.10 x 9.52	0.982
38.10 x 12.70	1.310
38.10 x 15.88	1.640
38.10 x 19.05	1.964
38.10 x 25.40	2.625
41.28 x 3.18	0.356
41.28 x 6.35	0.711
41.28 x 9.52	1.065
44.45 x 3.18	0.382
44.45 x 6.35	0.765
44.45 x 9.52	1.149
44.45 x 12.70	1.531
50.80 x 1.57	0.217
50.80 x 3.18	0.438
50.80 x 4.75	0.655
50.80 x 6.35	0.875
50.80 x 9.52	1.312
50.80 x 12.70	1.750
50.80 x 15.88	2.188
57.15 x 2.29	0.354
57.15 x 3.18	0.492
57.15 x 6.35	0.984
57.15 x 9.52	1.476
57.15 x 12.70	1.969
57.15 x 19.05	2.952
59.44 x 3.56	0.573
63.37 x 19.30	3.319
63.50 x 1.57	0.271
63.50 x 2.36	0.406

Size (mm)	Mass/unit length (kg/m)
63.50 x 3.18	0.546
63.50 x 6.35	1.094
63.50 x 9.52	1.644
63.50 x 12.70	2.188
63.50 x 19.05	3.281
69.85 x 3.18	0.601
69.85 x 4.75	0.952
69.85 x 6.35	1.204
69.85 x 9.52	1.804
69.85 x 12.70	2.406
69.85 x 15.88	3.008
76.20 x 1.57	0.324
76.20 x 3.18	0.658
76.20 x 6.35	1.312
76.20 x 9.52	1.969
76.20 x 12.70	2.619
76.20 x 19.05	3.938
82.55 x 3.18	0.665
82.55 x 6.35	1.423
82.55 x 12.70	2.844
88.90 x 3.18	0.765
88.90 x 6.35	1.531
88.90 x 9.52	2.296
88.90 x 12.70	3.063
95.25 x 3.18	0.821
95.25 x 6.35	1.641
95.25 x 9.52	2.461
95.25 x 12.70	3.281
101.60 x 3.18	0.875
101.60 x 6.35	1.750
101.60 x 9.52	2.619
101.60 x 31.75	8.750
114.30 x 2.03	0.629
114.30 x 6.35	1.969
114.30 x 9.52	2.952
114.30 x 12.70	3.929
127.00 x 6.35	2.188
127.00 x 9.52	3.289
127.00 x 12.70	4.375
127.00 x 19.05	6.563
133.35 x 6.35	2.274
139.70 x 6.35	2.406
146.05 x 6.35	2.490
152.40 x 3.18	1.302
152.40 x 6.35	2.625
152.40 x 9.52	3.938

TABLE 28

MASS (WEIGHT) OF
ALUMINIUM EQUAL ANGLES

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
9.52	1.19	0.058
9.52	1.57	0.076
12.70	1.02	0.067
12.70	1.19	0.079
12.70	1.57	0.101
12.70	2.36	0.147
12.70	3.18	0.192
15.88	1.57	0.129
15.88	3.18	0.244
15.88	4.75	0.351
19.05	1.19	0.119
19.05	1.57	0.156
19.05	2.39	0.231
19.05	3.18	0.301
20.22	1.17	0.124
22.22	3.18	0.356
25.40	1.19	0.161
25.40	1.57	0.210
25.40	2.36	0.308
25.40	3.18	0.409
25.40	6.35	0.766
28.58	3.18	0.464
31.75	1.57	0.266
31.75	3.18	0.521
31.75	6.35	0.967
34.92	3.18	0.574
38.10	1.57	0.318
38.10	3.18	0.629
38.10	4.75	0.918
38.10	6.35	1.202
44.45	3.18	0.738
44.45	6.35	1.421
50.00	3.00	0.789
50.00	5.00	1.290
50.80	1.60	0.432
50.80	2.36	0.635
50.80	3.18	0.845
50.80	4.75	1.244
50.80	6.35	1.640
63.50	3.18	1.066
63.50	6.35	2.068
63.50	7.92	2.564
76.20	6.35	2.502
80.01	5.99	2.504
80.01	10.01	4.073

TABLE 29

MASS (WEIGHT) OF
ALUMINIUM UNEQUAL ANGLES

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
12.70 x 6.35	3.18	0.137
15.88 x 12.70	3.18	0.219
19.05 x 6.35	3.18	0.190
19.05 x 9.52	3.18	0.219
19.05 x 12.70	1.19	0.100
19.05 x 12.70	1.57	0.129
19.05 x 12.70	3.18	0.247
22.22 x 12.70	1.19	0.109
22.22 x 12.70	3.18	0.274
25.40 x 12.70	1.19	0.119
25.40 x 12.70	1.57	0.158
25.40 x 12.70	2.36	0.231
25.40 x 12.70	3.18	0.301
25.40 x 19.05	3.18	0.356
31.75 x 12.70	1.19	0.140
31.75 x 12.70	1.57	0.183
31.75 x 12.70	2.36	0.272
31.75 x 12.70	3.18	0.186
31.75 x 19.05	2.08	0.275
31.75 x 19.05	3.18	0.409
31.75 x 25.40	3.18	0.464
38.10 x 11.10	1.57	0.204
38.10 x 12.70	1.19	0.161
38.10 x 12.70	1.27	0.170
38.10 x 12.70	1.57	0.210
38.10 x 12.70	2.36	0.311
38.10 x 12.70	3.18	0.409
38.10 x 19.05	2.36	0.354
38.10 x 19.05	3.18	0.464
38.10 x 25.40	1.57	0.265
38.10 x 25.40	2.36	0.391
38.10 x 25.40	3.18	0.521
38.10 x 31.75	3.18	0.574
44.45 x 12.70	1.57	0.234
44.45 x 12.70	3.18	0.464
44.45 x 25.40	1.57	0.292
44.45 x 25.40	2.36	0.432
44.45 x 25.40	3.18	0.574
47.72 x 15.88	3.18	0.516
50.80 x 12.70	1.19	0.202
50.80 x 12.70	1.57	0.265
50.80 x 12.70	2.36	0.391
50.80 x 12.70	3.18	0.519
50.80 x 19.05	3.18	0.574
50.80 x 25.40	1.57	0.318
50.80 x 25.40	3.18	0.626
50.80 x 38.10	3.18	0.729
63.50 x 12.70	2.54	0.507
63.50 x 25.40	3.18	0.740
63.50 x 38.10	6.35	1.637
76.20 x 12.70	1.60	0.379
76.20 x 12.70	2.36	0.555
76.20 x 25.40	3.18	0.847
76.20 x 31.75	3.18	0.903
88.90 x 25.40	6.35	1.845
88.90 x 44.45	3.18	1.122

TABLE 30

MASS (WEIGHT) OF ALUMINIUM CHANNELS

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
7.14 x 5.16	1.19	0.049
7.39 x 5.99	1.29	0.051
7.77 x 5.54	1.52	0.065
7.92 x 12.70	1.57	0.129
9.53 x 9.53	1.19	0.085
9.53 x 9.53	1.57	0.109
11.94 x 15.24	2.36	0.239
12.70 x 9.53	1.57	0.122
12.70 x 9.53	3.18	0.219
12.70 x 12.70	1.57	0.149
12.70 x 12.70	2.36	0.214
12.70 x 19.05	1.57	0.202
12.70 x 19.05	2.36	0.293
12.70 x 19.05	3.18	0.384
14.23 x 4.75	2.36	0.122
15.87 x 3.96	1.57	0.087
15.88 x 12.70	3.18	0.301
15.88 x 15.88	1.57	0.190
15.88 x 15.88	1.60	0.192
15.88 x 25.40	3.18	0.519
17.45 x 11.10	3.18	0.286
19.05 x 9.53	1.57	0.149
19.05 x 9.53	2.54	0.228
19.05 x 12.70	1.19	0.137
19.05 x 12.70	2.54	0.271
19.05 x 19.05	1.57	0.231
19.05 x 19.05	3.18	0.437
19.05 x 38.10	3.18	0.763
22.22 x 12.79	1.19	0.147
25.40 x 12.70	1.57	0.202
25.40 x 19.05	2.36	0.379
25.40 x 25.40	3.18	0.601
25.40 x 38.10	3.18	0.818
31.75 x 12.70	1.19	0.180
31.75 x 12.70	3.40	0.466
31.75 x 25.40	2.36	0.498
31.75 x 25.40	3.18	0.656
31.75 x 41.28	3.18	0.930

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
34.92 x 6.35	1.57	0.190
38.10 x 12.70	1.57	0.257
38.10 x 12.70	2.36	0.376
38.10 x 19.05	3.18	0.602
38.10 x 25.40	1.57	0.366
38.10 x 38.10	3.18	0.930
38.10 x 69.85	1.78	0.841
44.45 x 15.88	3.18	0.602
44.45 x 25.40	3.18	0.766
50.80 x 12.70	1.14	0.229
50.80 x 12.70	1.57	0.311
50.80 x 12.70	2.36	0.457
50.80 x 12.70	3.18	0.601
50.80 x 25.40	1.57	0.419
50.80 x 25.40	2.03	0.537
50.80 x 25.40	3.18	0.812
50.80 x 25.40	9.50	1.186
50.80 x 50.80	3.18	1.257
53.97 x 6.53	1.57	0.271
57.15 x 12.70	1.57	0.445
63.50 x 12.70	2.36	0.580
63.50 x 15.88	3.18	0.766
63.50 x 22.22	3.18	0.875
63.50 x 38.10	3.18	1.147
70.00 x 25.00	3.00	0.928
76.20 x 12.70	1.60	0.427
76.20 x 12.70	2.36	0.620
76.20 x 12.70	3.18	0.818
76.20 x 25.40	2.36	0.783
76.20 x 25.40	3.18	1.040
76.20 x 38.10	2.54	1.015
76.20 x 44.45	2.36	1.028
95.25 x 25.40	3.18	2.689
100.00 x 20.00	1.75	0.649
101.60 x 25.40	2.03	0.817
101.60 x 38.10	3.18	1.473
127.00 x 69.85	3.18	2.232

TABLE 31

MASS (WEIGHT) OF ALUMINIUM TEE SECTIONS

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
12.70 x 12.70	3.18	0.190
15.88 x 15.88	3.18	0.245
19.05 x 19.05	1.57	0.156
19.05 x 19.05	3.18	0.305
19.05 x 31.75	3.18	0.409
25.40 x 19.05	1.57	0.180
25.40 x 25.40	1.57	0.211
25.40 x 25.40	3.18	0.409
25.40 x 30.15	1.57	0.231
25.40 x 31.75	3.18	0.466
25.40 x 38.10	1.57	0.262
25.40 x 38.10	3.18	0.519
28.58 x 38.10	3.18	0.549
31.75 x 19.05	2.08	0.275
31.75 x 25.40	3.18	0.466
38.10 x 25.40	2.39	0.396
38.10 x 25.40	3.96	0.641
38.10 x 38.10	3.18	0.629
38.10 x 38.10	6.35	1.201
50.80 x 19.05	3.18	0.574
50.80 x 25.40	3.18	0.629
50.80 x 38.10	3.18	0.738
50.80 x 50.80	4.75	1.247

TABLE 32

MASS (WEIGHT) OF ALUMINIUM ROUND HOLLOW TUBES

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
10.31	1.27	0.098
12.29	1.45	0.134
12.70	1.22	0.122
12.70	1.57	0.149
13.34	1.57	0.159
15.65	1.42	0.173
15.88	1.57	0.235
15.88	2.03	0.239
18.01	1.50	0.211
19.05	1.24	0.180
19.05	1.57	0.235
19.05	2.03	0.295
19.05	2.36	0.336
19.05	3.18	0.429
19.99	4.50	0.594
20.00	1.50	0.236
21.49	3.51	0.552
22.23	1.57	0.277
22.23	2.03	0.349
23.01	1.50	0.277
23.01	5.00	0.768
23.50	1.50	0.281
23.50	3.81	0.678
24.13	3.18	0.567
25.40	1.24	0.256
25.40	1.91	0.381
25.40	2.03	0.405
25.40	2.36	0.464
25.40	3.18	0.601
25.91	1.27	0.266
26.19	1.09	0.234
26.49	3.25	0.643
26.97	2.39	0.493
26.97	5.94	1.052
27.00	4.90	0.905
27.20	1.60	0.350
28.58	1.47	0.339
28.58	2.49	0.554
29.01	8.99	1.534
29.06	4.57	0.954
29.11	5.41	1.082
29.11	7.01	1.305
29.36	6.35	1.246
30.99	9.00	1.686
31.24	2.74	0.664
31.75	1.47	0.379
31.75	1.57	0.408

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
31.75	2.03	0.515
31.75	3.18	0.774
31.75	4.75	1.085
31.75	6.35	1.360
32.99	1.52	0.405
33.02	6.35	1.429
33.35	3.18	0.820
34.93	1.47	0.420
34.93	2.79	0.790
34.93	3.18	0.851
34.93	4.75	1.222
34.93	4.95	0.689
34.93	6.35	1.531
34.93	7.14	1.692
35.00	1.50	0.466
38.10	3.25	0.966
38.10	1.57	0.490
38.10	2.36	0.719
38.10	2.64	0.798
38.10	3.18	0.945
38.10	5.08	1.430
38.10	6.17	1.677
38.10	8.74	2.186
38.99	7.98	2.089
39.37	9.37	2.378
39.67	6.35	1.802
40.13	9.07	2.400
41.28	4.70	1.461
41.28	5.94	1.793
41.28	10.34	2.723
42.85	1.57	0.558
42.93	6.93	2.124
43.99	8.00	2.429
44.45	1.57	0.579
44.45	3.18	1.115
44.45	4.06	1.399
44.45	6.02	1.610
44.45	6.73	2.164
44.45	8.74	2.633
44.45	14.22	3.664
44.45	15.88	3.866
45.24	1.98	0.731
45.72	2.03	0.749
45.72	2.34	0.865
47.63	3.66	1.371
47.63	4.75	1.722
47.63	7.32	2.509

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
47.75	6.60	2.292
48.21	5.61	2.037
48.26	1.91	0.753
49.99	4.04	4.750
50.50	13.23	4.204
50.80	1.57	0.661
50.80	3.18	1.289
50.80	5.38	2.067
50.80	7.92	2.869
50.80	9.39	3.286
50.80	13.41	4.229
50.80	14.30	4.445
50.93	4.00	1.583
50.93	7.49	2.769
51.00	11.99	3.985
51.00	16.76	4.686
51.56	6.09	2.336
51.56	8.31	3.034
51.99	10.00	3.542
51.99	11.99	4.048
52.50	1.50	0.652
52.50	16.00	4.973
52.98	15.49	4.947
53.26	2.03	0.878
53.98	6.99	3.542
54.00	2.24	0.991
54.00	2.26	0.991
54.48	2.59	1.140
54.51	2.29	1.018
55.88	16.51	5.540
57.15	3.86	1.801
57.51	1.50	0.716
58.93	11.48	4.642
58.98	11.99	7.405
60.96	5.84	2.716
60.96	9.83	4.239
60.96	8.26	3.670
61.11	2.36	1.183
63.50	1.60	0.844
63.50	3.13	0.143
63.50	6.99	3.329
76.20	2.36	1.487
76.20	4.76	2.897
76.20	20.32	9.676
101.60	6.35	5.155
127.00	12.70	12.369

TABLE 33

**MASS (WEIGHT) OF ALUMINIUM
SQUARE HOLLOW SECTIONS**

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
9.54	1.57	0.135
12.88	1.20	0.150
12.70	1.57	0.244
15.88	1.20	0.191
18.24	3.18	0.519
19.05	1.20	0.232
19.05	1.57	0.296
19.05	2.36	0.428
25.40	1.40	0.364
25.40	1.60	0.415
25.40	2.03	0.515
25.40	2.36	0.589
25.40	3.18	0.765
30.00	2.00	0.604
31.75	2.03	0.655
38.10	1.57	0.623
38.10	2.03	0.795
38.10	3.18	1.205
44.45	2.39	1.091
46.62	3.18	1.531
50.00	2.00	1.044
50.80	2.03	1.074
50.80	2.36	1.241
63.50	3.18	2.056
76.20	3.18	2.516
80.00	2.49	2.092

TABLE 34

**MASS (WEIGHT) OF ALUMINIUM
RECTANGULAR HOLLOW SECTIONS**

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
12.70 x 9.85	1.59	0.165
25.40 x 12.70	1.60	0.302
25.40 x 12.70	1.20	0.232
31.75 x 19.05	2.36	0.591
36.10 x 19.05	2.36	0.673
38.10 x 25.40	1.40	0.461
38.10 x 25.40	2.03	0.655
38.10 x 25.40	2.54	0.811
47.63 x 23.80	3.18	1.122
50.00 x 40.00	2.00	0.933
50.80 x 25.40	1.40	0.557
50.80 x 25.40	1.57	0.624
50.80 x 25.40	2.03	0.795
50.80 x 25.40	2.36	0.917
50.80 x 38.10	1.60	0.744
50.80 x 38.10	2.03	0.935
50.80 x 38.10	2.36	1.016
63.50 x 31.75	2.36	1.161
63.50 x 38.10	2.54	1.327
63.50 x 38.10	3.18	1.652
69.85 x 31.75	3.18	1.641
76.20 x 25.40	1.80	0.957
76.20 x 25.40	2.36	1.241
76.20 x 38.10	3.18	1.860
76.20 x 44.45	1.80	1.143
76.20 x 44.45	2.36	1.439
76.20 x 44.45	3.18	1.958
76.20 x 50.80	2.36	1.567
76.20 x 50.80	3.18	2.076
80.00 x 20.00	2.00	1.045
80.00 x 40.00	2.00	1.258
80.00 x 50.00	2.50	1.688
82.55 x 28.58	2.36	1.360
100.00 x 40.00	2.50	1.823
101.60 x 25.40	1.80	1.205
101.60 x 25.40	2.03	1.354
101.60 x 25.40	2.36	1.567
101.60 x 38.10	3.18	2.292
101.60 x 44.45	1.80	1.391
101.60 x 44.45	1.98	1.529
101.60 x 44.45	2.36	1.813
101.60 x 44.45	3.18	2.403
101.60 x 60.33	2.36	2.015
127.00 x 25.40	2.36	1.894

TABLE 35

**MASS (WEIGHT) OF STAINLESS
STEEL FLAT BARS**

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
19.05	3.00	0.450
19.05	6.00	0.901
25.40	3.00	0.601
25.40	6.00	1.201
31.80	3.00	0.751
31.80	3.60	0.901
31.80	6.00	1.802
50.80	6.00	2.402

TABLE 36

**MASS (WEIGHT) OF STAINLESS
STEEL ANGLES**

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
9.52 x 9.52	1.00	0.142
12.70 x 12.70	1.00	0.192
19.05 x 19.05	1.00	0.292
25.40 x 25.40	1.00	0.392
12.70 x 25.40	1.00	0.293
38.10 x 38.10	3.00	1.731

TABLE 37

**MASS (WEIGHT) OF STAINLESS
STEEL CHANNELS**

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
9.52 x 9.52	0.50	0.109
9.52 x 9.52	0.80	0.170
12.70 x 12.70	0.50	0.146
12.70 x 12.70	0.80	0.230
12.70 x 19.05	0.50	0.171
12.70 x 25.40	0.50	0.196
12.70 x 38.10	0.50	0.246
12.70 x 50.80	0.50	0.296
12.70 x 76.20	0.50	0.396
12.70 x 101.60	0.80	0.791

TABLE 38

**MASS (WEIGHT) OF STAINLESS
STEEL ROUND TUBES**

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
9.52	0.80	0.173
12.70	1.00	0.290
15.87	0.80	0.298
19.05	1.00	0.447
19.05	1.20	0.530
25.40	1.00	0.604
25.40	1.50	0.888
31.75	1.00	0.761
31.75	1.50	1.123
38.10	1.50	1.359
44.45	1.50	1.595
50.80	1.50	1.831
60.32	1.50	2.184

TABLE 39

**MASS (WEIGHT) OF STAINLESS
STEEL SQUARE HOLLOW SECTIONS**

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
19.05	1.00	0.569
25.40	1.00	0.769
12.70	1.00	0.369
19.05	1.00	0.569
25.40	1.20	0.915
31.75	1.20	1.156
38.10	1.20	1.396
50.80	1.20	1.876

TABLE 40

**MASS (WEIGHT) OF STAINLESS STEEL
RECTANGULAR HOLLOW SECTIONS**

Size (mm)	Thickness (mm)	Mass/unit length (kg/m)
12.70 x 25.40	1.00	0.569
15.87 x 31.75	1.20	0.855
25.40 x 38.10	1.20	1.156
25.40 x 50.80	1.20	1.396
38.10 x 76.20	1.50	2.631
44.45 x 76.20	1.50	2.782
50.80 x 101.60	2.00	4.678

TABLE 41

STANDARD BRC FABRICS
SQUARE MESHES

BRC reference number	BS 4483 or SS-32 reference number	Main wire		Cross wire		Cross Sectional Area		Mass per unit area (kg/m ²)
		Size (mm)	Spacing (mm)	Size (mm)	Spacing (mm)	Main mm ² /m	Cross mm ² /m	
D 13	-	13.00	100.00	13.00	100.00	1,327.00	1,327.00	20.84
D 12	-	12.00	100.00	12.00	100.00	1,131.00	1,131.00	17.76
D 11	-	11.00	100.00	11.00	100.00	950.00	950.00	14.92
D 10	-	10.00	100.00	10.00	100.00	785.00	785.00	12.32
D 9	-	9.00	100.00	9.00	100.00	636.00	636.00	9.98
D 8	-	8.00	100.00	8.00	100.00	503.00	503.00	7.90
D 7	-	7.00	100.00	7.00	100.00	385.00	385.00	6.04
D 6	-	6.00	100.00	6.00	100.00	283.00	283.00	4.44
D 5	-	5.00	100.00	5.00	100.00	196.00	196.00	3.08
D 4	-	4.00	100.00	4.00	100.00	126.00	126.00	1.98
A 13	-	13.00	200.00	13.00	200.00	664.00	664.00	10.42
A 12	-	12.00	200.00	12.00	200.00	566.00	566.00	8.88
A 11	-	11.00	200.00	11.00	200.00	475.00	475.00	7.46
A 10	A 393	10.00	200.00	10.00	200.00	393.00	393.00	6.16
A 9	-	9.00	200.00	9.00	200.00	318.00	318.00	4.99
A 8	A 252	8.00	200.00	8.00	200.00	252.00	252.00	3.95
A 7	A 193	7.00	200.00	7.00	200.00	193.00	193.00	3.02
A 6	A 142	6.00	200.00	6.00	200.00	142.00	142.00	2.22
A 5	A 98	5.00	200.00	5.00	200.00	98.00	98.00	1.54
E 13	-	13.00	150.00	13.00	150.00	885.00	885.00	13.89
E 12	-	12.00	150.00	12.00	150.00	754.00	754.00	11.84
E 11	-	11.00	150.00	11.00	150.00	634.00	634.00	9.95
E 10	-	10.00	150.00	10.00	150.00	524.00	524.00	8.23
E 9	-	9.00	150.00	9.00	150.00	424.00	424.00	6.67
E 8	-	8.00	150.00	8.00	150.00	335.00	335.00	5.27
N 6	-	6.00	100.00	6.00	75.00	283.00	377.00	5.18

TABLE 42

STANDARD BRC FABRICS
RECTANGULAR MESHES

BRC reference number	BS 4483 or SS-32 reference number	Main wire		Cross wire		Cross Sectional Area		Mass per unit area (kg/m ²)
		Size (mm)	Spacing (mm)	Size (mm)	Spacing (mm)	Main mm ² /m	Cross mm ² /m	
B 13	-	13.00	100.00	10.00	200.00	1,327.00	393.00	13.50
B 12	B 1131	12.00	100.00	8.00	200.00	1,131.00	252.00	10.90
B 11	-	11.00	100.00	8.00	200.00	950.00	252.00	9.43
B 10	B 785	10.00	100.00	8.00	200.00	785.00	252.00	8.14
B 9	-	9.00	100.00	8.00	200.00	636.00	252.00	6.97
B 8A	-	8.00	150.00	7.00	200.00	335.00	193.00	4.14
B 8	B 503	8.00	100.00	8.00	200.00	503.00	252.00	5.93
B 7	B 385	7.00	100.00	7.00	200.00	385.00	193.00	4.53
B 6	B 283	6.00	100.00	7.00	200.00	283.00	193.00	3.73
B 5	B 196	5.00	100.00	7.00	200.00	196.00	193.00	3.05
C 10	C 785	10.00	100.00	6.00	400.00	785.00	70.80	6.72
C 9	C 636	9.00	100.00	6.00	400.00	636.00	70.80	5.55
C 8	C 503	8.00	100.00	5.00	400.00	503.00	49.00	4.34
C 7	C 385	7.00	100.00	5.00	400.00	385.00	49.00	3.41
C 6	C 283	6.00	100.00	5.00	400.00	283.00	49.00	2.61

TABLE 43

MASS (WEIGHT) OF
STEEL SHEET PILES

Type	Mass per pile (kg/m)	Mass per wall width (kg/m ²)
FSP-I _A	35.50	88.80
FSP-II	48.00	120.00
FSP-II _A	43.20	108.00
FSP-III	60.00	150.00
FSP-III _A	58.40	146.00
FSP-III _L	68.00	138.00
FSP-IV	76.10	190.00
FSP-IV _A	74.00	185.00
FSP-IV _L	87.50	175.00
FSP-V _L	105.00	210.00
FSP-VI _L	120.00	240.00
YSP-I	36.50	91.20
YSP-U ₅	35.50	88.80
YSP-II	48.00	120.00
YSP-U ₉	43.20	108.00
YSP-III	60.00	150.00
YSP-U ₁₅	58.40	146.00
YSP-IV	76.10	190.00
YSP-U ₂₃	74.00	185.00
YSP-V	105.00	250.00

TABLE 44

MASS (WEIGHT) OF STEEL CHEQUER PLATE

Thickness on plain mm (t)	Projected thickness (inclusive of raised pattern) mm	Approximate weight kg/m ²
3.0	4.5	28.7
4.5	6.0	40.5
6.0	7.5	52.2
8.0	9.5	67.9
10.0	11.5	83.6
12.5	14.0	103.1

