

SCHEDULE OF RATES

FOR TERM CONTRACTS FOR BUILDING WORKS

2013 EDITION

Volume 1
(Builder's Works)



ARCHITECTURAL SERVICES DEPARTMENT
HONG KONG

ARCHITECTURAL SERVICES DEPARTMENT

HONG KONG

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DISCLAIMER

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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 as listed below including all current amendments issued thereto and 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 Resisting Construction issued by Building Authority, Hong Kong.
 - (v) The Fresh Water Plumbing Maintenance Guide, Handbook on Plumbing Installation and Hong Kong Waterworks Standard Requirements For Plumbing Installation in Buildings issued by Water Supplies Department.
- (f) The General Specifications, Codes of Practice and other documents for building services installations as listed below, which are issued by Architectural Services Department or Electrical and Mechanical Services Department including all current amendments issued thereto and 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 Requirement 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 and Drainage Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xv) Code of Practice for the Electricity (Wiring) Regulations issued by Electrical and Mechanical Services Department.
- (xvi) Code of Practice for Energy Efficiency of Building Services Installation issued by Electrical and Mechanical Services Department.

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

- (f) (xvii) Code of Practice for Minimum Fire Services Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment issued by Fire Services Department.
- (xviii) Code of Practice for Lift Works and Escalator Works issued by Electrical and Mechanical Services Department.
- (xix) Testing and Commissioning Procedure for Electrical Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xx) 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.
- (xxi) Testing and Commissioning Procedure for Fire Services Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxii) 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.
- (xxiii) Testing and Commissioning Procedure for Liquefied Petroleum Gas Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxiv) Testing and Commissioning Procedure for Catering Equipment Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxv) 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.
- (xxvi) Testing and Commissioning Procedure for Broadcast Reception Installation in Government Buildings of the Hong Kong Special Administrative Region issued by Architectural Services Department.
- (xxvii) 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.
- (xxviii) Testing and Commissioning Procedure for Emergency Generator 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) (xxix) 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.
- (xxx) Testing and Commissioning Procedure for Plumbing and 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 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 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.

**Definitions
generally
(Cont'd)**

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

“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.
“m”	shall mean linear metre.
“m ² ”	shall mean square metre.
“m ³ ”	shall mean cubic metre.
“kg”	shall mean kilogram.
"B.S."	shall mean British Standard.
"DBH"	shall mean diameter at breast height of trees.
"EN"	shall mean European Standard.
“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.
“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 will 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.

Overtime**GR.04**

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 will be made for any overtime including : -

- (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.
- (b) Watchmen or security guard at any time.

Deductions for voids**GR.05**

Where a minimum area is defined for the deduction of voids, such minimum shall refer only to openings or voids detached from the boundaries of the space measured. Reductions of area caused by projections or recesses from the boundary of the area measured shall always be deducted irrespective of size.

Curved or circular works**GR.06**

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 will be paid for and any work curved to a radius greater than this limit shall be measured and priced as if straight and flat.

**Works executed
by Specialist
Sub-contractors,
sub-contractors,
etc.**

GR.07

Where appropriate throughout this Schedule and where specified in the Term Contract, the following categories of works shall be executed by : -

- (a) Specialist Sub-contractors included in the list of Approved Suppliers of Materials and Specialist Contractors for Public Works maintained by Development Bureau namely : -
- (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
 - (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

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

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

- (a)
 - (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
 - (xxxii) Supply and Installation of Pumpsets and Associated Pipework
 - (xxxiii) Supply and Installation of Water Treatment Plant
 - (xxxiv) Supply of Bituminous Pavement Materials and Construction of Special Bituminous Surfacing
 - (xxxv) Swimming Pool Water Treatment Installation
 - (xxxvi) Turn-key Interior Design and Fitting-out Works
 - (xxxvii) Uninterruptible Power Supply Installation
 - (xxxviii) Video Electronics Installation
- (b) Maintenance Surveyor's approved sub-contractors or applicators namely : -
 - (i) Medical Gas
 - (ii) Town Gas
 - (iii) Curtain Walling

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 and specification**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 and the like, they shall deem to be referred to the latest relevant and equivalent standards and specification current and published before the date of first 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.

**Schedule rates
(Cont'd)**

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

- (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 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) Provision and maintaining temporary access and road as G.S. Item 1.25 and making good to match existing.
- (j) Provision and maintaining temporary drainage system as G.S. Item 1.26 and making good to match existing.
- (k) Provision of drawings, operation manuals and tests on samples or finished works.
- (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.
- (m) Testing and certification including the employment of independent certification bodies wherever required or necessary.
- (n) Provision, erection, maintenance, alterations, 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 any 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 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 provide operation manuals of other proprietary hoardings and walkways systems not referred to in Section 10 - Steel and Metal Work; and

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

- (n) (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 latest requirements.

- (o) 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.
- (p) Provision of mechanical dump truck covers in accordance with Particular Specification for Mechanical Dump Truck Covers.
- (q) All superintendence, establishment charges, overhead, expenses and profit.
- (r) 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.
- (s) 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.
- (t) Any other expenses incurred in conforming with the Term Contract.
- (u) Reinstatement and making good surfaces disturbed.
- (v) Imperial equivalents wherever required or necessary.

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.

Rates for items not specifically mentioned in this Schedule

GR.11

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 Percentage 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 Percentage adjustment.
- (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 Percentage adjustment.

Adjustments made to basic rates and application of Contract Percentages

GR.12

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 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.

In all cases, the Schedule rates shall be applied in the valuation of works before applying any relevant Contract Percentages contained in the Form of Tender of the Term Contract.

The Contract Percentages including any percentage addition as contained in the Form of Tender 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.

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 will 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	<p>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 article, fitting or material, 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.</p> <p>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.</p>
"Take down ("Take up" or "Take out", etc.) and clear away"	GR.15	<p>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 :-</p> <ol style="list-style-type: none"> (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 article, fitting or material 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 by specialists. (f) Preparing edges, ends or surfaces of remaining material to receive junction 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. <p>The articles, fittings, or materials taken down shall become property of the Contractor. Unless otherwise specified, due allowance for credit has been considered in the Schedule rates where applicable.</p>

“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 article, fitting or material together with associated plugs, holdfasts, lugs, brackets and other fixings and all necessary cutting out and disposal.
- (d) Thoroughly cleaning, oiling and adjusting the article, fitting or material 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 by specialists.
- (g) Preparing edges, ends or surfaces of remaining material to receive junction 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.

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

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

- (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 by specialists.

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 will 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	<p>The term “Making good” shall be understood as including all labour and materials necessary to bring the disturbed area to the same face, 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.</p>
Daywork	GR.21	<p>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.</p>
“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 will be reimbursed a lump sum fee payment as included in Item 03063 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> <ul 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.

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

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

- (d) Obtaining approvals and permits from relevant utility companies or Government departments.
- (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 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 project or each location specified in the Works Order. Works executed in connection with the Utility Connection and Pavement Works will be measured separately as 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 document on such materials, products or works including certificates of origins, technical literatures and catalogues, compliance test reports, manufacturers' guarantees or warranties, samples and mock-ups of these materials, products or works and other document as 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.

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 on the make or origin of the materials or products; 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 literatures, 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, 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 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 of similar applications, technical literatures and catalogues, compliance test reports, manufacturers' guarantees or warranties, sub-contractors' / applicators' warranties and the like of the materials / products specified or approved 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, such basic costs and types of materials / products / works shall be ascertained by the Maintenance Surveyor; or 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 Item 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;

SPECIAL CONDITIONS**Particular
Preamble
(Cont'd)****SC01.02
(Cont'd)**

- (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.

SC01.03

The rates in this Section shall generally include for : -

- (a) Maintenance, repairs, service charges, tax, license 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; and
- (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 where such facilities are specifically stated in the Contract. Any item(s) of Contract Facilities that are stated in the Contract but not included in this Section, the Contractor is deemed to have allowed such item(s) in his Contract Percentage(s) for this and other Sections in the Schedule of Rates under the Contract.

The Contractor is not entitled to any payment when he fails to remove the Contract Facilities in accordance with Special Conditions Clause SC01.03(e) of this Section.

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.

SPECIAL CONDITIONS**LAND TRANSPORT****Measurement of
land transport
facilities
(Cont'd)****SC01.05
(Cont'd)**

In case where the period of the provision of land transport facilities provided for use is not in a whole month, or where no alternative replacement facilities are provided, the rates for land transport facilities shall be adjusted based on the number of working days basis (over the number of calendar days of the given month). The period of the provision of land transport facilities measured in calendar days shall exclude Saturdays, Sundays and/or public holidays immediately preceding or following the said period of provision.

No measurement and payment shall be made for any period of time during which there is no land transport and other alternative replacement facilities is provided for use under the Contract.

**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, in good working order that is eligible for reduction of the First Registration Tax. 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 and trips as specified in the Contract, during normal working hours and such other times when the Contractor is carrying out work including the time when requested by the Maintenance Surveyor or his Representatives for emergency situations, or for the discharge of their duties outside normal working hours and outside such other times when the Contractor is carrying out work.
- (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 purpose of journeys together with appropriate pedometer readings and distances travelled.
- (g) Maintaining effective comprehensive insurances covering passenger liability 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.

SPECIAL CONDITIONS**LAND TRANSPORT**

**Rates for
land transport
facilities
(Cont'd)**

**SC01.06
(Cont'd)**

- (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.

CONTRACT EQUIPMENT

**Measurement of
contract equipment
generally**

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 alternative replacement equipment is provided, the rates for contract equipment shall be adjusted based on the number of working days basis (over the total number of calendar days of the given month). The period of the provision of contract equipment measured in calendar days shall exclude Saturdays, Sundays and/or public holidays immediately preceding or following the said period of provision.

No measurement and payment shall be made for any period of time during which there is no contract equipment and other alternative replacement equipment is provided for use under the Contract.

**Rates for
contract equipment
generally**

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) License fees, connection charges, rental charges, service charges, insurance and the like.
- (d) Maintaining monthly report on usage.
- (e) Regular maintenance, repair and temporary replacement of the devices of similar function and configuration 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) Technical officer
- (c) Works supervisor (builder's work) and works supervisor (building services)
- (d) Quality control assistant (builder's work) and quality control assistant (building services)
- (e) Repair Call Centre staff

The rates for provisions of contract staff services shall be measured each and on a monthly basis from the date when the contract staff report 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 contract staff services are not provided in a whole month, or where no replacement is provided during the period when the contract staff is on leave, the rates for the contract staff services shall be adjusted based on the number of working days basis (over the total number of calendar days of the given month). The working period measured in calendar days shall exclude Saturdays, Sundays and/or public holidays immediately preceding or following the working period.

No measurement and payment shall be made for the period of time during which there are no contract staff services provided for use under the Contract.

No measurement and payment shall be made for the period of time during which the contract staff fails to discharge any of his or her duties to the satisfaction of the Maintenance Surveyor.

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.

SPECIAL CONDITIONS**CONTRACT STAFF SERVICES**

**Rates for
contract staff
services
(Cont'd)**

**SC01.10
(Cont'd)**

- (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. 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 including both 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.
- (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 mean of access is erected, or where the level is sloping, measured from the level immediately at the provision of the staging or the mean of access) with no other means of access available;
- (c) Submission of reports and photographic records to justify such reimbursement; and
- (d) The provision of the staging or means of access is made by the Contractor himself.

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 fulfillment of the conditions stated in sub-clauses (a) to (d) herein, payment for Special Attendances will only be made once irrespective of the number of Works Orders issued under such circumstance.

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

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 reimbursement 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		A \$	Item
CONTRACT FACILITIES			
Note : - The following Items 01001 to 01016 inclusive will 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>			
01001	Private car - fully air conditioned saloon car with seating capacity of not less than five seats (including driver)	22,100.00	01001
01002	MPV - fully air conditioned saloon car with seating capacity of not less than seven seats (including driver)	23,600.00	01002
CONTRACT EQUIPMENT			
<i>Per number-month</i>			
01003	Provision of facsimile machine (for A4 size).....	110.00	01003
01004	Provision of 3G mobile phone.....	230.00	01004
01005	Provision of computer facilities	250.00	01005
01006	Provision of monochrome laser-jet printer (for A4 size).....	160.00	01006
01007	Provision of colour inkjet printer (for A3 size).....	220.00	01007
01008	Provision of scanner	110.00	01008
01009	Provision of digital camera	70.00	01009
CONTRACT STAFF SERVICES			
<i>Per number-month</i>			
01010	Clerical support staff	11,600.00	01010
01011	Technical officer	16,000.00	01011
01012	Works supervisor (builder's work)	20,500.00	01012
01013	Works supervisor (building services).....	20,500.00	01013
01014	Quality control assistant (builder's work)	19,200.00	01014
01015	Quality control assistant (building services).....	19,200.00	01015
01016	Repair Call Centre staff	11,600.00	01016

Item	Item			
PAYMENT FOR SPECIAL ATTENDANCES				
Note : - Item 01017 will 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>				
01017	01017			
Payment for Special Attendances.....	<table border="1"> <tr> <td>A</td> </tr> <tr> <td>\$</td> </tr> <tr> <td>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. 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 roof shall be measured the overall flat plan area of the roof to be demolished and will 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)

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.

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 will be measured and paid for at the appropriate rates in Section 03 - Excavation of this Schedule.

When measuring "Demolish and clear away cockloft and the like", it shall include area of staircase or any part of the access.

Removal of asbestos containing materials shall be measured separately.

Measurement of single storey shed

SC02.03

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.

Measurement of asbestos containing corrugated sheeting

SC02.04

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.

Measurement of asbestos containing plaster

SC02.05

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.

Measurement of asbestos containing plaster boards, etc.

SC02.06

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.

SPECIAL CONDITIONS

**Rates for
demolition of
whole building
or part of
structures**

SC02.07

The rates for demolition of whole building or part of structures shall include for : -

- (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.
- (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 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 (n) 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) Watering debris as necessary to reduce dust nuisance to a minimum.
- (k) 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.

SPECIAL CONDITIONS

Rates for demolition of whole building or part of structures (Cont'd)	SC02.07 (Cont'd)	<ul style="list-style-type: none"> (l) Protecting areas adjacent to demolition works from damages resulting from such demolition. (m) Making good to buildings, structures, pavings, etc. and the like caused by the demolition of adjacent building or structure. (n) Provision of settlement monitoring points and reports as required. (o) Provision of full time safety officer and/or registered professional engineer when required for the demolition work. (p) Executing works to comply with statutory requirements.
Rates for demolition of roof	SC02.08	<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	SC02.09	<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	SC02.10	<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 the G.S. Item 2.52. (e) Provision of respirator and protective clothing for use by Maintenance Surveyor's Representative for inspection of the removal work.

SPECIAL CONDITIONS

Rates for removal of asbestos containing materials (Cont'd)	SC02.10 (Cont'd)	<ul style="list-style-type: none"> (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	SC02.11	<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	SC02.12	<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	SC02.13	<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	SC02.14	<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 02008 inclusive)			
<i>Per square metre</i>		A \$	
02001	Ground floor storey of building or structures (excluding slabs on grade).....	675.00	02001
02002	Suspended ground slab or cockloft of building or structures including staircase.....	282.40	02002
02003	Mezzanine floor of building or structures.....	678.90	02003
02004	First to fourth floor of building or structures.....	689.20	02004
02005	Additional floor from fifth floor and above (except roof) of building or structures.....	698.00	02005
02006	Roof (including all structures above roof slab) of building or structures.....	732.10	02006
02007	Ditto but other than concrete construction (steel, timber or others construction).....	53.10	02007
02008	Single storey shed, building, structure, etc. (other than concrete construction).....	105.50	02008
RELATED WORKS FOR REMOVAL OF ASBESTOS CONTAINING MATERIALS			
<i>Each</i>		A \$	
02009	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.)	13,097.70	02009
02010	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.)	11,642.40	02010
02011	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.....	392.90	02011
02012	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.....	2,037.40	02012
02013	Carry out environmental air sampling and analysis to measure the fibre concentration by an approved EPD Registered Asbestos Laboratory.....	272.90	02013
02014	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.)	2,728.70	02014

Item		A \$	Item
REMOVAL OF ASBESTOS CONTAINING MATERIALS			
<i>Each</i>			
02015	Take down and clear away asbestos containing fire-stopping material around electric cable running through wall and floor.....	1,819.10	02015
02016	Take down and clear away asbestos containing gasket and flexible joint in air duct of any size.....	1,819.10	02016
02017	Take down and clear away asbestos containing arc chute in electric switch box, including attendance by a qualified electrician.....	873.20	02017
<i>Per square metre</i>			
02018	Take down and clear away from Site asbestos containing roof insulation tiles.....	240.10	02018
02019	Ditto but asbestos containing corrugated or flat cement sheets fixed to a metal or timber frame.....	174.60	02019
02020	Ditto but asbestos containing plaster.....	385.70	02020
02021	Ditto but asbestos containing plaster boards, chalkboards, particle boards, etc. and the like fixed to wall or other structure.....	185.60	02021
02022	Ditto but asbestos containing vinyl tile and tile adhesive by low VOC mastic remover, including degreasing agent if any as recommended by manufacturer.....	207.40	02022
02023	Ditto but asbestos containing vinyl tile and adhesive including existing cement sand screeding.....	174.60	02023
02024	Ditto but asbestos containing cement grille block wall and cement panel wall.....	247.40	02024
02025	Ditto but asbestos containing insulation on calorifier or other surfaces.....	618.50	02025
<i>Per linear metre</i>			
02026	Take down and clear away from Site asbestos containing refuse chutes of any sizes.....	2,401.30	02026
02027	Ditto but asbestos containing lagging or in-situ and pre-moulded insulation to pipework of any sizes.....	1,746.40	02027
02028	Ditto but asbestos containing pipe or drain of any size.....	1,418.90	02028
ASBESTOS SURVEY			
<i>Per item</i>			
02029	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	7,640.30	02029
02030	Ditto but for total floor area 200 - 1,200 m ² of a building or structure.....	17,099.80	02030
02031	Extra over Item 02030 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.....	1,891.90	02031

Item	Item
ASBESTOS MANAGEMENT PLAN	
<i>Per item</i>	
02032	02032
Prepare an Asbestos Management Plan by an approved EPD Registered Asbestos Consultant on premises where an Asbestos Investigation Report is already available	5,457.40
02033	02033
Employ an approved EPD Registered Asbestos Consultant to manage the implementation of an Asbestos Abatement Plan. (Note: This item will only be paid for, if ordered by the Maintenance Surveyor in writing.)	21,829.50

A
\$

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 will 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, 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(x) and (xi).

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

When measuring "Extra over pipe trench excavation for excavating in brickwork, concrete, solid rock etc.", the net width of trench excavation measured shall be in accordance with Table B3.4.2 in the Specification for Plumbing and Drainage Installation 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 will 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.

SPECIAL CONDITIONS

Measurement of steel sheet piling (Cont'd)	SC03.02 (Cont'd)	<p>Extra over 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.</p> <p>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 will only be paid for, if ordered by the Maintenance Surveyor in writing.</p> <p>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.</p>
Measurement of earth, granular and hardcore filling	SC03.03	<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 filter membrane	SC03.04	<p>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 m².</p>
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 for excavating in solid rock" as defined in Special Conditions Clause SC03.09 herein below, will 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.

SPECIAL CONDITIONS

**Rates for
excavation items
(Cont'd)**

**SC03.05
(Cont'd)**

- (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 as required, 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.)
- (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 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 as required.
- (s) Settlement monitoring points.

SPECIAL CONDITIONS

Rates for “Extra for excavating in brickwork, concrete, etc.”	SC03.06	The rates for “Extra 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. (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 as required 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.

SPECIAL CONDITIONS

Rates for soil, hardcore, granular and graded granular filling (Cont'd)	SC03.08 (Cont'd)	<p>(l) Soil tests and in-situ tests including : -</p> <p>(i) Collect samples selected by the Maintenance Surveyor.</p> <p>(ii) Carrying out all tests of soil samples by the personnel of an approved independent firm using their own equipment and providing such labour and assistance as may be required.</p> <p>(iii) Preparation of test reports.</p> <p>(iv) Payment of all charges incurred.</p>
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 will 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> <p>(a) Welding, jointing and splicing.</p> <p>(b) Fabrication of non-standard make up piles.</p> <p>(c) Initial trenching and guide frames.</p> <p>(d) Temporary strutting and waling for driving.</p> <p>(e) Preparing and submitting details and drawings with method statement all in accordance with G.S. Items 4.02, 4.03, 4.04, 4.06, 4.07, 4.08, 4.15 and 4.16 and by Registered Structural Engineer if required.</p>

SPECIAL CONDITIONS

Rates for steel sheet piling (Cont'd)	SC03.11 (Cont'd)	<ul style="list-style-type: none"> (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 Installation 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																											
	Plant : -																											
	<i>Per item</i>	A \$																										
03001	Mobilization, maintenance and demobilization of piling plant, crane, compressor and other equipment necessary for the work.....	19,373.30	03001																									
	Supplying, handling, transporting, pitching, driving and withdrawing / left in sheet piles as G.S. Item 4.01 : -																											
	<i>Per kg</i>																											
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Design length (m)</th> </tr> <tr> <th>n.e. 10</th> <th>10 - 20</th> <th>20 - 30</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> <tr> <td style="text-align: center;">7.20</td> <td style="text-align: center;">7.90</td> <td style="text-align: center;">8.20</td> </tr> </tbody> </table>	Design length (m)			n.e. 10	10 - 20	20 - 30	A	B	C	\$	\$	\$	7.20	7.90	8.20											
Design length (m)																												
n.e. 10	10 - 20	20 - 30																										
A	B	C																										
\$	\$	\$																										
7.20	7.90	8.20																										
03002	Steel sheet piles.....		03002																									
	<i>Per linear metre</i>																											
03003	Extra over Item 03002 for corner piles.....	698.20	03003																									
03004	Extra over Item 03002 for junction piles.....	698.20	03004																									
	Sundries : -																											
	<i>Per linear metre</i>																											
03005	Burning off tops of sheet piles.....	220.50	03005																									
	<i>Each</i>																											
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="5">Diameter (mm)</th> </tr> <tr> <th>n.e. 100</th> <th>100 - 200</th> <th>200 - 300</th> <th>300 - 400</th> <th>400 - 500</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 style="text-align: center;">44.50</td> <td style="text-align: center;">89.00</td> <td style="text-align: center;">133.40</td> <td style="text-align: center;">201.00</td> <td style="text-align: center;">245.50</td> </tr> </tbody> </table>	Diameter (mm)					n.e. 100	100 - 200	200 - 300	300 - 400	400 - 500	A	B	C	D	E	\$	\$	\$	\$	\$	44.50	89.00	133.40	201.00	245.50	
Diameter (mm)																												
n.e. 100	100 - 200	200 - 300	300 - 400	400 - 500																								
A	B	C	D	E																								
\$	\$	\$	\$	\$																								
44.50	89.00	133.40	201.00	245.50																								
03006	Cutting or burning holes through sheet piling.....		03006																									
	(Note : - The above Items 03001 to 03006 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing)																											

Item

Item

GENERAL EXCAVATION

Per square metre

A
\$

03007 Excavate over Site n.e. 200 mm deep.....

28.70

03007

Per cubic metre

03008 Excavate over Site to reduce levels average exceeding 200 mm deep.....

165.60

03008

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 \$
179.80	201.30	224.10	323.90
182.50	210.10	259.00	394.50

Per cubic metre

03009 Excavate trenches for foundation.....

179.80

201.30

224.10

323.90

03009

03010 Excavate for foundations, manholes, pits, cesspits, etc., and the like.....

182.50

210.10

259.00

394.50

03010

Each

03011 Excavate for post holes n.e. 0.30 m³ including return, fill in and compact and remove surplus excavated material from Site.....

96.20

03011

A
\$

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)																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Not exceeding 150</th> <th style="width: 10%;">150 to 300</th> <th style="width: 10%;">300 to 450</th> <th style="width: 10%;">450 to 600</th> <th style="width: 10%;">600 to 900</th> <th style="width: 10%;">900 to 1,200</th> <th style="width: 10%;">1,200 to 1,500</th> <th style="width: 10%;">1,500 to 1,800</th> <th style="width: 10%;">Two pipes side by side each n.e. 150</th> <th style="width: 10%;">Three pipes side by side each n.e. 150</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> <th style="text-align: center;">E</th> <th style="text-align: center;">F</th> <th style="text-align: center;">G</th> <th style="text-align: center;">H</th> <th style="text-align: center;">I</th> <th style="text-align: center;">J</th> </tr> <tr> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> </tr> </thead> </table>												Not exceeding 150	150 to 300	300 to 450	450 to 600	600 to 900	900 to 1,200	1,200 to 1,500	1,500 to 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	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Not exceeding 150	150 to 300	300 to 450	450 to 600	600 to 900	900 to 1,200	1,200 to 1,500	1,500 to 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>																																									
03012	Trench n.e. 1.50 m deep and average 0.25 m deep.....	21.20	31.00	-	-	-	-	-	32.50	43.70	03012																														
03013	Ditto average 0.50 m deep.....	38.50	55.80	75.80	104.00	-	-	-	59.30	80.10	03013																														
03014	Ditto average 0.75 m deep.....	58.50	75.50	100.80	137.10	178.10	-	-	83.10	111.90	03014																														
03015	Ditto average 1.00 m deep.....	85.50	99.00	125.80	164.10	212.10	276.20	-	107.00	143.80	03015																														
03016	Ditto average 1.25 m deep.....	107.90	128.80	154.50	191.60	250.20	326.40	398.10	139.80	171.70	03016																														
03017	Ditto average 1.50 m deep.....	128.50	152.30	181.80	224.70	290.40	375.50	454.00	537.40	152.10	186.00	03017																													
03018	Trench 1.50 - 3.00 m deep and average 1.75 m deep.....	150.00	176.70	210.30	259.30	332.60	427.30	513.10	603.10	193.70	237.30	03018																													
03019	Ditto average 2.00 m deep.....	171.70	201.40	239.20	294.30	375.50	480.20	573.00	669.90	219.30	268.60	03019																													
03020	Ditto average 2.25 m deep.....	197.20	230.20	272.00	333.60	422.80	537.30	637.50	741.40	255.50	311.56	03020																													
03021	Ditto average 2.50 m deep.....	226.70	263.00	309.10	377.20	474.10	599.10	707.00	817.70	289.40	352.00	03021																													
03022	Ditto average 2.75 m deep.....	249.10	288.70	339.20	413.70	519.00	654.20	769.80	877.60	318.20	387.50	03022																													
03023	Ditto average 3.00 m deep.....	272.00	314.90	370.10	451.50	565.30	711.60	835.10	960.30	348.20	424.20	03023																													
03024	Trench 3.00 - 4.50 m deep and average 3.25 m deep.....	302.70	349.00	408.80	497.20	620.00	777.00	908.70	1,041.60	385.60	468.70	03024																													
03025	Ditto average 3.50 m deep.....	326.20	376.00	440.80	536.30	668.00	836.40	976.40	1,117.00	416.30	506.70	03025																													
03026	Ditto average 3.75 m deep.....	350.00	403.70	473.10	575.90	716.60	896.80	1,045.30	1,193.90	447.60	545.20	03026																													
03027	Ditto average 4.00 m deep.....	377.70	435.10	509.50	619.80	770.00	961.80	1,119.00	1,275.70	482.70	587.70	03027																													
03028	Ditto average 4.25 m deep.....	402.20	463.30	542.90	660.60	820.30	1,024.20	1,190.20	1,355.00	514.80	627.40	03028																													
03029	Ditto average 4.50 m deep.....	431.00	496.20	581.00	707.10	876.60	1,093.10	1,268.50	1,441.90	551.70	672.20	03029																													

Item		Item
	EXCAVATING IN BRICKWORK, CONCRETE, ROCK, ETC.	
	<i>Per cubic metre</i>	A \$
03030	Extra over either of Items 03007 to 03029 inclusive for excavating in chunam surfacing, cement rendering, masonry, brickwork, blockwork, bituminous surfacing, etc. and the like.....	39.20
03031	Ditto for excavating in plain concrete foundations, surface beds, etc.....	137.70
03032	Ditto for excavating in reinforced concrete foundations, surface beds, etc., including cutting reinforcement.....	232.90
03033	Ditto for excavating in solid rock as described in Special Conditions Clause SC03.09.....	281.10
03034	Ditto for excavating in solid rock with non-explosive demolition agent..... (Note : - This item will only be paid for, if ordered by the Maintenance Surveyor in writing.)	441.10
	SOIL FILLING	
	<i>Per cubic metre</i>	A \$
03035	Return, fill in and compact suitable excavated materials around foundations, etc., and the like.....	39.60
03036	Wheel, spread, level and compact suitable excavated materials in layers as filling to make up level.....	38.60
03037	Approved suitable filling materials including both general filling material or special filling material as G.S. Items 3.01(vii) and (viii) brought to Site from Contractor's own source, wheel, spread, level and compact in layers as filling around foundations, etc. and the like.....	98.80
03038	Ditto but as filling to make up level..... (Note : - The above Items 03037 to 03038 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)	87.50
	REMOVAL	
	<i>Per cubic metre</i>	A \$
03039	Load surplus or unsuitable excavated material and remove from Site.....	149.40
03040	Load spoil, debris, rubbish, etc., and the like not arising from the works and remove from Site..... (Note : - This item will only be paid for, if ordered by the Maintenance Surveyor in writing and the quantity agreed before removal commences)	165.40
	GRANULAR FILLING	
	<i>Per cubic metre</i>	A \$
03041	Wheel, spread, level and compact sand / fine aggregate in layers including blinding top surface with approved fine grade material.....	131.00
03042	Wheel, spread, level and compact granular filling of size 75 - 150 mm coarse aggregate in layers including blinding top surface with approved fine grade material.....	180.40
03043	Ditto but filling behind retaining walls.....	190.20

Item	Item
HARDCORE FILLING	
Hardcore size : 28 - 150 mm in single or multi-graded size(s)	
<i>Per cubic metre</i>	
03044	03044
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 grade material.....	A \$ 249.40
03045	03045
Ditto but in layers filled in behind retaining walls including hand packing where necessary.....	260.80
FILTER MEMBRANE	
Supply and lay thermally bonded non-woven filter membrane complying with the following specification : -	
<i>Per square metre</i>	
03046	03046
Filter membrane with pore size $\leq 300\mu\text{m}$; permeability (at 5cm head) $\leq 150 \text{ l/m}^2\text{s}$; wide width strip tensile strength $\geq 3.0 \text{ kN/m}$	A \$ 15.80
03047	03047
Ditto but with pore size $\leq 180\mu\text{m}$; permeability (at 5cm head) $\leq 130 \text{ l/m}^2\text{s}$; wide width strip tensile strength $\geq 6.0 \text{ kN/m}$	17.40
03048	03048
Ditto but with pore size $\leq 150\mu\text{m}$; permeability (at 5cm head) $\leq 100 \text{ l/m}^2\text{s}$; wide width strip tensile strength $\geq 8.0 \text{ kN/m}$	21.10
03049	03049
Ditto but with pore size $\leq 125\mu\text{m}$; permeability (at 5cm head) $\leq 75 \text{ l/m}^2\text{s}$; wide width strip tensile strength $\geq 12.5 \text{ kN/m}$	23.10
03050	03050
Ditto but with pore size $\leq 110\mu\text{m}$; permeability (at 5cm head) $\leq 65 \text{ l/m}^2\text{s}$; wide width strip tensile strength $\geq 14.5 \text{ kN/m}$	28.00
MISCELLANEOUS ITEMS	
<i>Per linear metre</i>	
03051	03051
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.....	A \$ 6.40
03052	03052
Ditto but 0.10 to 0.20 m^2	9.60
03053	03053
Add to Item 03052 for each additional 0.10 m^2 or part thereof sectional area.....	1.90
03054	03054
Clean out eaves gutter at any height and removing all debris from Site..... (Note : - This item will not be paid for if the gutter is required to be painted)	3.80

Item	Item
MISCELLANEOUS ITEMS (CONT'D)	
<i>Each</i>	
03055 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 \$ 3.80
03056 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.....	61.60
03057 Ditto but choked soil, waste or rainwater down pipe including heads, bends and other fittings.....	62.70
03058 Ditto but choked trap or soil or waste branch pipe to bath, W.C., basin, sink and other sanitary fittings.....	32.20
03059 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.....	43.80
03060 Add to Item 03059 for each additional 0.15 m ³ or part thereof internally.....	19.10
03061 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.....	19.10
03062 Add to Item 03061 for mixing 10% cement with the dry earth or sand before filling into the bag.....	6.10
UTILITY CONNECTION AND PAVEMENT WORKS	
(Note : - The following Item 03063 will only be paid for, if ordered by the Maintenance Surveyor in writing.)	
<i>Per item</i>	
03063 Lump sum fee for Utility Connection And Pavement Works.....	A \$ 8,000.00

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 will be separately measured and paid for at appropriate rates under relevant Sections of this Schedule.</p>

SPECIAL CONDITIONS

**Rates for
concrete
generally**

SC04.07

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 as required, 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)	SC04.07 (Cont'd)	<p>(p) Sampling of fresh concrete and finished concrete including taking core samples as required from the finished concrete works and tests on the same including all necessary security handling of core samples.</p> <p>(q) Filling core hole, tie bar holes with cement mortar or concrete of same strength to the parent concrete and making good.</p> <p>(r) Providing method statement for the replacement of condemned concrete and any remedial works which may be supervised by a Registered Structural Engineer.</p> <p>(s) All labours and equipment required at the specified locations including any necessary hoisting, craneage, scaffolding and temporary platforms, etc. for making test cores.</p> <p>(t) Removing from Site any concrete work failed to conform to the Specification.</p> <p>(u) Recording and submitting records for ready-mixed concrete.</p> <p>(v) Submitting details of mix design.</p> <p>(w) Control of alkali-aggregate reaction in concrete.</p> <p>(x) Use of recycled aggregate and/or recycled water in concrete, when required.</p>
Rates for plain concrete	SC04.08	<p>The rates for plain concrete shall further include for : -</p> <p>(a) Erecting, maintaining and removing formwork or falsework as required.</p> <p>(b) Additional volume of concrete for filling over-break or working space.</p>
Rates for reinforced concrete	SC04.09	<p>The rates for reinforced concrete shall further include for :-</p> <p>(a) Tamping around reinforcement.</p>
Rates for reinforcement	SC04.10	<p>The rates for reinforcement shall include for : -</p> <p>(a) Cleaning, cutting to length, bending (including cranks and hooked ends), hoisting, fixing and securely supporting in the required position.</p> <p>(b) Plastic cover spacers, spacer blocks, steel spacer rods, steel clips, steel chairs and annealed iron tying wire or tack welding.</p>

SPECIAL CONDITIONS

Rates for reinforcement (Cont'd)	SC04.10 (Cont'd)	<ul style="list-style-type: none"> (c) All requirements of sampling and testing including security handling, stock management on Site and removal of non-compliant re-bars. (d) Extra fabric reinforcement at laps. (e) Provision of all types of test certificates. (f) Submission of bar bending schedule.
Rates for epoxy coating to reinforcement	SC04.11	The rates for epoxy coating to reinforcement shall further include for compliance with the Specification.
Rates for formwork	SC04.12	<p>The rates for formwork shall include for : -</p> <ul style="list-style-type: none"> (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 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.

SPECIAL CONDITIONS**Rates for precast concrete****SC04.13**

The rates for precast concrete items shall include for : -

- (a) Conveying, lowering, hoisting and multi-handling within the Site or other locations as required.
- (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.

Rates for surface treatment to concrete**SC04.14**

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**SC04.15**

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 as required.
- (d) Trimming, bending, straightening and cleaning of reinforcement for connection of new reinforcement as required.
- (e) Providing keys for bonding of new surface.
- (f) Preparing and applying bonding agent or primer as required.
- (g) Making good all structures, surfaces and finishings disturbed to match existing.
- (h) Submission of method statements for approval.
- (i) Submission of records as required.

SPECIAL CONDITIONS

Rates for cutting chases, sinking, etc.

SC04.16

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

SC04.17

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 as required.
- (d) Making good all structures, surfaces and finishings disturbed to match existing.
- (e) Clearing away all debris arose.

Rates for underlay

SC04.18

The rates for underlay shall include for : -

- (a) Allowance for laps.

Rates for forming movement joints generally

SC04.19

The rates for movement joints shall generally include for : -

- (a) Supply of movement joint components including but not be limited to water stops, joint filler, bond breaker, back-up materials and sealant, all of which shall be of an approved proprietary make, as stated in G.S. Item 6.61.
- (b) Installation of movement joints strictly as specified in the Contract and in accordance with the manufacturer's recommendations.
- (c) 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.
- (d) Fixing joint filler to concrete with a bituminous adhesive prior to casting adjoining bay.
- (e) Pressing and finishing all sealants with a smooth regular surface.
- (f) Provision of warranty as specified in the Contract.

SPECIAL CONDITIONS

**Rates for
rebound
hammer tests**

SC04.20

The rates for rebound hammer tests shall include for :-

- (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 as required.
- (d) Recording and submitting records and test reports.

**Quality assurance
for structural
concrete**

SC04.21

All structural concrete shall be produced and supplied in accordance with the Quality Assurance requirement for Structural Concrete as stated in the Contract.

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.....					530.20	569.00	584.00	04001			
04002	Foundations.....					533.90	572.80	587.70	04002			
04003	Beds, paving slabs and the like.....					532.10	570.90	585.80	04003			
04004	Blinding under foundations.....					532.10	570.90	585.80	04004			
04005	Curbs, upstands, plinths and the like.....					582.70	621.50	636.40	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					621.10	638.30	644.20	668.50	698.80	728.50	04006
04007	Ground beams, tie beams and the like.....					625.40	647.80	648.50	672.80	703.10	732.80	04007
04008	Machine bases, thrust blocks and the like.....					628.50	645.70	651.60	675.90	706.20	735.90	04008
04009	Ground slabs or suspended slabs.....					629.70	646.90	652.80	677.10	707.40	737.10	04009
04010	Sloping suspended slabs.....					632.80	650.00	655.90	680.20	710.50	740.20	04010
04011	Walls.....					638.40	655.60	661.40	685.70	716.00	745.70	04011
04012	Retaining walls.....					647.00	664.20	670.10	694.40	724.70	754.30	04012
04013	Piers and columns.....					685.80	703.00	708.90	733.20	763.50	793.10	04013
04014	Beams.....					655.60	672.80	678.70	703.00	733.30	763.00	04014
04015	Fins and the like.....					659.90	677.10	683.00	707.30	737.60	767.30	04015
04016	Casings to structural steelwork.....					672.90	690.10	695.90	720.20	750.50	780.20	04016
04017	Stairs.....					707.40	724.60	730.40	754.70	785.00	814.70	04017
04018	Curbs, upstands and the like.....					651.30	668.50	674.40	698.70	729.00	758.60	04018
Extra over either of Items 04006 to 04018 inclusive for concrete in water retaining structures.....											10%	
Extra over either of Items 04006 to 04018 inclusive for pulverized fuel ash											2%	
Extra over either of Items 04006 to 04018 inclusive for concrete with recycled coarse aggregates.....											15%	

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>S</td> </tr> <tr> <td>328.00</td> </tr> </table>	A	S	328.00
A				
S				
328.00				
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>S</td> </tr> <tr> <td>890.80</td> </tr> </table>	A	S	890.80
A				
S				
890.80				
STEEL REINFORCEMENT				
<i>Per kg</i>				
04021	04021			
Mild steel reinforcement n.e. 16 mm diameter.....	<table border="1"> <tr> <td>A</td> </tr> <tr> <td>S</td> </tr> <tr> <td>8.90</td> </tr> </table>	A	S	8.90
A				
S				
8.90				
04022	04022			
Ditto exceeding 16 mm diameter.....	8.90			
04023	04023			
High tensile steel reinforcement 10 - 40 mm diameter.....	8.50			
04024	04024			
Fabric reinforcement lapped at joints.....	9.50			
Extra over either of Items 04021 to 04024 inclusive for epoxy coating including handling, cutting and bending, sampling and testing (as Specification).....				
(Note : - The above item will only be paid for, if ordered by Maintenance Surveyor in writing.)				
<table border="1"> <tr> <td>50%</td> </tr> </table>		50%		
50%				

Item	Sawn formwork	Wrot formwork	Item
	A \$	B \$	
FORMWORK			
<i>Per square metre</i>			
04025	186.10	-	04025
04026	202.60	211.20	04026
04027	198.80	207.40	04027
04028	205.10	213.70	04028
04029	202.60	211.20	04029
04030	199.90	208.50	04030
04031	220.20	228.70	04031
04032	202.60	211.20	04032
04033	193.60	202.10	04033
04034	201.20	209.80	04034
04035	199.90	208.50	04035
04036	220.20	228.70	04036
04037	148.10	156.70	04037
04038	116.40	125.00	04038
<i>Per linear metre</i>			
04039	23.40	24.60	04039
04040	38.00	39.20	04040
04041	54.90	59.20	04041
Add to either of Items 04025 to 04041 inclusive if formwork ordered by the Maintenance Surveyor in writing to produce rough board finish (as G.S. Item 6.73).....	-	50%	
Add to either of Items 04025 to 04041 inclusive if formwork ordered by the Maintenance Surveyor in writing to be left in position.....	20%	-	
Add to either of Items 04025 to 04041 inclusive if 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			Item															
	PRECAST REINFORCED CONCRETE																	
	Precast reinforced concrete Grade 20D or 20MPa placed in position with mortar or cast into concrete : -																	
	<i>Per cubic metre</i>	A \$																
04042	Cooking shelf, sink, partition, slabs and the like.....	1,531.00	04042															
04043	Lintols, beams, rafters, struts and columns, cills, strings, copings, cornices, kerbs, pier caps, pit covers and the like.....	1,408.50	04043															
04044	Planters, refuse bins and the like.....	1,125.50	04044															
04045	Fencing components, posts and the like.....	1,562.90	04045															
04046	Ventilators, grilles, grille panelled walls and the like.....	1,469.80	04046															
	Extra over either of Items 04042 to 04046 inclusive for concrete Grade 30D or 30MPa.....	6%																
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Take out and clear away</th> <th style="width: 33%;">Take out and set aside for re-use</th> <th style="width: 33%;">Fix only</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: right;">127.60</td> <td style="text-align: right;">114.80</td> <td style="text-align: right;">191.30</td> </tr> <tr> <td style="text-align: right;">178.60</td> <td style="text-align: right;">160.70</td> <td style="text-align: right;">267.90</td> </tr> <tr> <td style="text-align: right;">159.50</td> <td style="text-align: right;">144.10</td> <td style="text-align: right;">239.80</td> </tr> </tbody> </table>	Take out and clear away	Take out and set aside for re-use	Fix only	A \$	B \$	C \$	127.60	114.80	191.30	178.60	160.70	267.90	159.50	144.10	239.80	
Take out and clear away	Take out and set aside for re-use	Fix only																
A \$	B \$	C \$																
127.60	114.80	191.30																
178.60	160.70	267.90																
159.50	144.10	239.80																
	<i>Per cubic metre</i>																	
04047	Precast item laid or placed in position.....	127.60	04047															
04048	Ditto but cast into concrete (measured separately)	178.60	04048															
04049	Ditto built in or bedded in cement mortar	159.50	04049															
	SURFACE TREATMENT TO CONCRETE																	
	<i>Per square metre</i>	A \$																
04050	Treat surfaces with an approved liquid hardener to horizontal surfaces.....	23.50	04050															
04051	Ditto but to vertical or sloping surfaces.....	24.50	04051															
04052	Treat surfaces with carborundum grains to horizontal surfaces.....	12.20	04052															
04053	Ditto but vertical or sloping surfaces.....	13.10	04053															

Item			Item
FINISHINGS AND SUNDRY LABOURS ON NEW CONCRETE			
<i>Per square metre</i>		A \$	
04054	Float surface fair and even with a wood float including any additional cement required	13.40	04054
04055	Trowel surface hard and smooth with a steel trowel including ditto	18.30	04055
04056	Score surface with parallel anti-slip grooves approximately 15 mm wide x 15 mm deep at 100 mm centres	24.50	04056
04057	Punch small anti-slip holes in surface approximately 15 mm deep at 150 mm centres staggered	11.00	04057
04058	Heavily tamp surface to form corrugated non-slip finish	9.80	04058
04059	Damp proof course of bitumen sprayed or brushed on surface at the rate of 0.50 litre/m ²	22.90	04059
<i>Per linear metre</i>			
04060	Form channel n.e. 150 mm girth with rounded bottom finished to falls including angles, ends junctions, outlets, and similar labours and trowelling smooth	19.60	04060
04061	Ditto 150 - 300 mm girth	40.40	04061
	Add to either of Items 04060 to 04061 inclusive if curved on plan to a radius n.e. 3 m to the centre line	15%	
TAKING DOWN CONCRETE FOR ALTERATION WORKS			
Note :-			
(i) The following Items 04062 to 04063 inclusive 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 the Demolition Section of this Schedule.			
(ii) Diamond coring shall be measured separately if specifically ordered in writing by the Maintenance Surveyor.			
		Concrete of any grade	
		Plain concrete	Reinforced concrete
		A \$	B \$
04062	Take down or break out and clear away concrete structural elements in any position n.e. 150 mm thick	362.10	436.70
04063	Ditto exceeding 150 mm thick	406.80	493.30

Item	CUTTING AND SUNDRY LABOURS ON EXISTING CONCRETE	Concrete of any grade		Item
		Plain concrete	Reinforced concrete	
		A \$	B \$	
	<i>Per cubic metre</i>			
04064	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)	436.70	511.20	04064
	<i>Per square metre</i>			
04065	Hack surface or edge to provide key for new concrete	9.80	-	04065
04066	Cut parallel anti-slip grooves approximately 15 mm wide x 15 mm deep at 100 mm centres and make good	24.50	-	04066
04067	Cut small anti-slip holes in surface approximately 15 mm deep at 150 mm centres staggered and make good.....	14.70	-	04067
04068	Cut into concrete floor all over n.e. 25 mm deep, trim and level surface to receive screed	15.90	-	04068
04069	Ditto but 25 - 50 mm deep.....	30.60	40.40	04069
04070	Add to Item 04069 for each 25 mm deep or part thereof in excess of 50 mm.....	15.90	20.80	04070
04071	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)	22.10	-	04071
04072	Ditto but 25 - 50 mm deep.....	36.80	49.00	04072
04073	Add to Item 04072 for each 25 mm deep or part thereof in excess of 50 mm.....	15.90	20.80	04073
	<i>Per linear metre</i>			
04074	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	15.90	18.40	04074
04075	Ditto 0.0005 - 0.01 m ² sectional area	30.60	40.40	04075
04076	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	31.80	41.80	04076
04077	Ditto but 150 - 300 mm girth	53.90	63.90	04077
	Add to either of Items 04074 to 04077 inclusive if curved on plan to a radius n.e. 3.00 m to the centre line	20%	20%	
	Add to either of Items 04074 to 04077 inclusive if curved on plan to a radius 3.00 - 15.00 m to the centre line	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>		
04078	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)	7.40 9.80 04078
04079	Add to Item 04078 for each additional 25 mm or part of 25 mm in depth	3.70 4.90 04079
04080	Cut sinking as Item 04078 but 0.01 - 0.10 m ²	15.90 19.60 04080
04081	Add to Item 04080 for each additional 25 mm or part of 25 mm in depth	8.60 11.00 04081
04082	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	11.70 13.50 04082
04083	Ditto 0.0001 - 0.0002 m ³	16.50 18.40 04083
04084	Ditto 0.0002 - 0.002 m ³	28.80 34.60 04084
04085	Ditto 0.002 - 0.01 m ³	41.40 53.30 04085
04086	Ditto 0.01 - 0.05 m ³	76.10 95.20 04086
04087	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	11.10 13.50 04087
04088	Ditto 0.0001 - 0.0002 m ³	16.50 18.40 04088
DIAMOND CORING ON EXISTING CONCRETE		
<i>Per linear centimetre</i>		
04089	Core diameter n.e. 25 mm.....	3.90 04089
04090	Ditto 25 - 50 mm.....	4.50 04090
04091	Ditto 50 - 75 mm.....	5.30 04091
04092	Ditto 75 - 100 mm.....	6.40 04092
04093	Ditto 100 - 125 mm.....	8.00 04093
04094	Ditto 125 - 150 mm.....	10.20 04094
04095	Ditto 150 - 175 mm.....	12.20 04095
04096	Ditto 175 - 200 mm.....	13.80 04096
04097	Ditto 200 - 225 mm.....	17.50 04097
04098	Ditto 225 - 250 mm.....	22.90 04098
04099	Ditto 250 - 275 mm.....	27.70 04099
04100	Ditto 275 - 300 mm.....	31.70 04100
(Note : - The above Items 04089 to 04100 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)		

Item

Item

MOVEMENT JOINTS (CONT'D)

Point horizontal or vertical joint with one of the following joint sealants as ordered or approved proprietary made 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			
\$	\$	\$	\$	\$	\$	\$			
04109	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.....	9.00	12.80	20.40	31.90	60.40	-	-	04109
04110	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.....	7.60	10.60	16.50	25.50	47.40	39.60	78.00	04110
04111	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.....	9.80	13.60	21.30	33.30	62.60	52.70	102.10	04111
04112	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.....	7.50	10.00	14.70	21.80	39.60	33.60	63.30	04112
04113	Liquid polysulphide polymer joint sealant, including backing rod, for sealing joints of 5-50 mm wide in brickwork, floors, retaining walls, basements, subways and movement joints, 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 as required.....	16.00	23.30	37.10	58.90	84.40	94.60	135.30	04113

Item			Item																																			
	MOVEMENT JOINTS (CONT'D)																																					
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Diameter (mm)</th> </tr> <tr> <th>15</th> <th>20</th> <th>25</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> </tr> <tr> <td>17.20</td> <td>21.20</td> <td>24.60</td> </tr> </tbody> </table>	Diameter (mm)			15	20	25	A	B	C	\$	\$	\$	17.20	21.20	24.60																					
Diameter (mm)																																						
15	20	25																																				
A	B	C																																				
\$	\$	\$																																				
17.20	21.20	24.60																																				
	<i>Per linear metre</i>																																					
04114	Form movement joint with polyethylene foam backing rod.....	17.20	04114																																			
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="7">Joint size (mm)</th> </tr> <tr> <th>5 x 15</th> <th>5 x 25</th> <th>15 x 15</th> <th>15 x 25</th> <th>15 x 50</th> <th>25 x 25</th> <th>25 x 50</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> <td>G</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> <tr> <td>9.40</td> <td>13.70</td> <td>17.00</td> <td>22.40</td> <td>36.30</td> <td>33.30</td> <td>55.10</td> </tr> </tbody> </table>	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	\$	\$	\$	\$	\$	\$	\$	9.40	13.70	17.00	22.40	36.30	33.30	55.10	
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																																
\$	\$	\$	\$	\$	\$	\$																																
9.40	13.70	17.00	22.40	36.30	33.30	55.10																																
	<i>Per linear metre</i>																																					
04115	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.....	9.40	04115																																			
	REBOUND HAMMER TEST																																					
			<table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>A</td> </tr> <tr> <td>\$</td> </tr> <tr> <td>262.00</td> </tr> </tbody> </table>	A	\$	262.00																																
A																																						
\$																																						
262.00																																						
04116	Carry out rebound hammer test on existing concrete surface in accordance with BS EN 12504-2 including set up equipment, calibrate, carry out test and submit reports.....		04116																																			
	UNDERLAYS																																					
			<table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>A</td> </tr> <tr> <td>\$</td> </tr> <tr> <td>5.80</td> </tr> <tr> <td>10.50</td> </tr> <tr> <td>7.00</td> </tr> <tr> <td>12.60</td> </tr> </tbody> </table>	A	\$	5.80	10.50	7.00	12.60																													
A																																						
\$																																						
5.80																																						
10.50																																						
7.00																																						
12.60																																						
	<i>Per square metre</i>																																					
04117	Reinforced waterproof building paper laid on surfaces.....		04117																																			
04118	Ditto but fixed to edges of slabs or tops of walls with and including mastic		04118																																			
04119	0.08 mm Thick polythene sheet laid on surfaces.....		04119																																			
04120	Ditto but fixed to edges of slabs or tops of walls with and including mastic		04120																																			
	SUPPLY ONLY OF MATERIALS																																					
			<table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>A</td> </tr> <tr> <td>\$</td> </tr> <tr> <td>71.80</td> </tr> <tr> <td>71.80</td> </tr> <tr> <td>91.70</td> </tr> <tr> <td>95.50</td> </tr> <tr> <td>50.50</td> </tr> <tr> <td>99.40</td> </tr> </tbody> </table>	A	\$	71.80	71.80	91.70	95.50	50.50	99.40																											
A																																						
\$																																						
71.80																																						
71.80																																						
91.70																																						
95.50																																						
50.50																																						
99.40																																						
	<i>Per cubic metre</i>																																					
04121	40 mm Granite aggregate.....		04121																																			
04122	20 mm Ditto.....		04122																																			
04123	Granite fines.....		04123																																			
04124	Sand.....		04124																																			
	<i>Per 100 kg</i>																																					
04125	Ordinary Portland cement.....		04125																																			
04126	Coloured cement.....		04126																																			

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 will 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) Cutting and pinning ends and making good.
- (n) Mild steel rod reinforcement or bonding rods painted with two coats of bituminous paint, galvanised mild steel fabric reinforcement and the like.
- (o) Special bonding and tying for conduit installation.
- (p) Bonding to existing work.

SPECIAL CONDITIONS

Rates for brickwork and blockwork (Cont'd)	SC05.05 (Cont'd)	<ul style="list-style-type: none"> (q) Bonding to walls of different construction. (r) Protection to faced and fair faced work until completion of the Works. (s) Sundry items of like nature to any of the above. (t) 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 cutting and sundry labour on existing brickwork or blockwork	SC05.08	<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.	SC05.09	<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	SC05.10	<p>Glass block panelling can be found in Section 14 - Glazing of this Schedule.</p>

Item			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 : -		
	Per cubic metre	A \$	
05001	Solid brickwork exceeding one brick thick.....	911.80	05001
	Per square metre		
05002	Brick-on-edge wall.....	85.50	05002
05003	Ditto built honeycomb.....	69.00	05003
05004	Half brick wall.....	92.20	05004
05005	Ditto built honeycomb.....	76.70	05005
05006	One brick wall.....	167.90	05006
05007	One brick staining to wall.....	211.50	05007
05008	Ditto with mortar bed joints but open vertical joints.....	208.90	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.....	93.00	05009
05010	One brick lining ditto.....	169.70	05010
	Per linear metre		
05011	Brick-on-edge coping, upstand kerb or similar 75 mm wide including angles and ends.....	39.50	05011
05012	Ditto but 225 mm wide.....	61.20	05012
	Per square metre		
05013	Form cavity between brick walls, including providing and building in wall ties in accordance with G.S. items 9.11 and 9.36.....	13.70	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				
05014	68.00	91.50	109.90	05014
05015	86.50	121.60	149.30	05015
05016	168.00	237.70	308.90	05016
05017	19.20	24.40	37.30	05017
FACING BRICKWORK				
<i>Per square metre</i>				
05018			101.10	05018
05019			96.80	05019
05020			166.60	05020
05021			216.40	05021
05022			321.70	05022
05023			324.30	05023
			15%	
			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.....	47.40
05025	Ditto but 225mm wide.....	77.00
05026	Extra over brickwork for one brick axed arch in facing (or arch of purpose made bricks) jointing and pointing.....	92.50
	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.....	3,726.00
<i>Per square metre</i>		
05028	Brick-on-edge wall.....	284.90
05029	Half brick wall.....	402.70
05030	One brick wall.....	873.50
<i>Per square metre</i>		
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 25mm thick.....	288.20

Item		Item	
	PERFORATED CONCRETE BLOCKWORK		
	<i>Per square metre</i>	A \$	
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.....	110.80	05040
05041	90 mm Ditto but built honeycomb.....	73.80	05041
	SUNDRIES		
	<i>Per square metre</i>	A \$	
05042	Hack off and clear away existing glass bottling bonded in mortar and make good in cement mortar.....	37.80	05042
	<i>Per linear metre</i>		
	(Note : - The following Items 05043 and 05044 inclusive will not be paid for, if working on new works item.)		
05043	Fillet in cement/lime mortar or cement mortar n.e. 0.002 m ² sectional area.....	7.70	05043
05044	Add to Item 05043 for each additional 0.001 m ² or part thereof in sectional area.....	3.90	05044
	<i>Each</i>		
05045	Glass or cement "tell-tale" executed complete including inscribing in legible figures the date of fixing, and removing old "tell-tale" where necessary.....	17.10	05045
05046	Add to Item 05045 if cutting is necessary on stone or concrete wall for fixing.....	8.60	05046
	DAMP PROOF COURSE		
	<i>Per square metre</i>	A \$	
05047	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).....	104.00	05047

Item	A \$	Item
CUTTING AND SUNDRY LABOURS ON EXISTING BRICKWORK OR BLOCKWORK IN CEMENT OR CEMENT/LIME MORTAR		
(Note : - The following Items 05048 to 05078 inclusive will not be paid for, if working on new works item.)		
<i>Per cubic metre</i>		
05048	774.80	05048
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 "Extra for facing" all measured separately).....		
<i>Per square metre</i>		
05049	34.40	05049
Rake out joints 10 mm deep and re-point in cement or cement/lime mortar with a neat struck weathered or flush joint.....		
05050	38.70	05050
Level and prepare top of wall for raising.....		
05051	56.00	05051
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).....		
05052	47.30	05052
Add to Item 05051 for each additional 25 mm or part of 25 mm in depth.....		
05053	137.70	05053
Wedge and pin up top of wall to new soffit.....		
05054	86.10	05054
Bed corrugated roof sheeting on top of wall in cement mortar including pointing edges if required.....		
05055	111.90	05055
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).....		
05056	198.00	05056
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>		
05057	12.20	05057
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.....		
05058	16.60	05058
Ditto 150 - 300 mm wide.....		
05059	4.80	05059
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.....		
05060	4.60	05060
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 of this Schedule).....		
05061	10.90	05061
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.....		
05062	9.30	05062
Add to either of Items 05057 to 05061 inclusive of pointing in mastic or coloured cement mortar in lieu of cement mortar (per side pointed).....		
05063	10.00	05063
Point joint of all sizes with silicon mastic to metal/wood frames or sanitary appliance, etc.....		
05064	13.30	05064
Cut chase or rebate n.e. 0.0005 m ² section area (net size of chase or rebate required measured) in brickwork or blockwork and make good including pinning in and bedding and pointing in cement mortar to edges of slabs, cills, steps, pipes and similar items.....		
05065	19.60	05065
Ditto 0.0005 - 0.010 m ² sectional area.....		
05066	26.30	05066
Ditto 0.010 - 0.030 m ² sectional area.....		

Item		A S	Item
CUTTING AND SUNDRY LABOURS ON EXISTING BRICKWORK OR BLOCKWORK IN CEMENT OR CEMENT/LIME MORTAR (CONT'D)			
<i>Each</i>			
05067	Cut hole or sinking n.e. 0.01 m ² and 25 mm deep into surface of brickwork or blockwork including trimming and making good back face and edges. (net size of required sinking measured).....	9.50	05067
05068	Add to Item 05067 for each additional 25 mm or part of 25 mm deep.....	6.00	05068
05069	Cut sinking as Item 05067 but 0.01 - 0.10 m ²	18.90	05069
05070	Add to Item 05069 for each additional 25 mm or part 25 mm deep.....	11.20	05070
05071	Cut hole through brickwork or blockwork for pipe, airbrick or similar, n.e. 0.0001 m ³ (net size of pipe or article measured) and grout in or render round reveals in cement mortar (1:2) and make good one or both sides.....	6.00	05071
05072	Ditto 0.0001 - 0.0002 m ³	12.90	05072
05073	Ditto 0.0002 - 0.002 m ³	21.50	05073
05074	Ditto 0.002 - 0.01 m ³	30.10	05074
05075	Ditto 0.01 - 0.05 m ³	38.70	05075
05076	Cut out decayed or broken brick or block of any thickness and replace with new selected brick or block and joint in and point if required to match existing (in area where not more than seven adjacent bricks or one block is replaced) (any new plaster, etc., measured separately).....	34.40	05076
(Note : - Rates for ragbolts, rawbolts, etc., in Section 10 - Steel and Metal Work of this Schedule include for all mortices and grouting.)			
05077	Cut or drill mortice in brickwork or blockwork for dowel, baluster end, bracket end, fixing cramp, bolt or similar articles n.e. 0.0001 m ³ (net size of article or end measured) and grout in cement and sand (1:2) and make good.....	6.00	05077
05078	Ditto 0.0001 - 0.0002 m ³	12.90	05078
TAKING DOWN EXISTING BRICKWORK OR BLOCKWORK			
<i>Per cubic metre</i>			
05079	Take down and clear away wall in any position exceeding 225 mm thick.....	204.10	05079
<i>Per square metre</i>			
05080	Take down and clear away wall in any position n.e. 75 mm thick.....	19.10	05080
05081	Ditto 75 - 150 mm thick.....	28.70	05081
05082	Ditto 150 - 225 mm thick.....	51.00	05082

Item					Item	
FIXING RANGES, FIRE SURROUNDS, BOILERS AND SIMILAR						
		Take down and clear away	Take down and set aside for re-use	Fix only		
	<i>Each</i>	A \$	B \$	C \$		
05083	Free standing range or kitcheners, with single or double ovens, side or high-pressure boilers, and feed cistern if required.....	63.80	67.00	75.80	05083	
05084	Domestic boiler, copper, rice container or similar.....	41.50	43.40	52.10	05084	
05085	Range or kitcheners (not free-standing) with single or double ovens, side or high-pressure boilers, feed cistern if required.....	102.00	107.10	112.70	05085	
05086	Damper and frame, soot door, fire door, fireplace fret or similar (when not included with any of the above fittings).....	9.60	10.20	13.30	05086	
FIXING SUNDRY METAL WORK ITEMS						
	Fix or place in position (fixing material measured separately) :-	Take down and clear away	Take down and set aside for re-use	Fix only		
	<i>Each</i>	A \$	B \$	C \$		
05087	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	9.60	10.20	21.80	05087	
05088	Ditto 3 - 12 kg.....	19.10	20.40	26.50	05088	
05089	Ditto 12 - 24 kg.....	25.50	26.20	35.00	05089	
05090	Add to Item 05089 for each additional 12 kg or part thereof n.e. 100 kg.....	6.40	7.00	9.50	05090	
05091	Safe in any weight.....	414.60	435.60	535.10	05091	
SUPPLY ONLY OF MATERIALS						
	<i>Per 1,000</i>			A \$		
05092	Bricks.....			1,251.60	05092	
05093	Facing bricks.....			2,139.30	05093	
05094	Firebricks.....			3,070.70	05094	
		Thickness (mm)				
		75	100	140	190	220
	<i>Per 100</i>	A \$	B \$	C \$	D \$	E \$
05095	390 x 190 mm Solid concrete blocks.....	209.50	279.30	-	-	-
05096	390 x 190 mm Hollow concrete blocks.....	200.90	267.90	543.70	634.40	906.20

Section 06

MASONRY

SECTION 06

MASONRY

SPECIAL CONDITIONS

Drawings for rubble walling	SC06.01	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 and can be viewed on the ArchSD internet website via the pathway referred therein.
Measurement generally	SC06.02	<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 will be allowed for random rubble walling built curved on plan or battered.</p>
Measurement of squared rubble walls	SC06.03	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.
Measurement of extra over for fair face	SC06.04	<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>
Measurement of battered face	SC06.05	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.

SPECIAL CONDITIONS

Measurement of cutting opening through walls	SC06.06	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	SC06.07	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	SC06.08	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	SC06.09	<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) Oversailing and receding courses. (d) Rough and fair cutting and bonding at angles, intersections and the like. (e) Rough relieving and discharging arches. (f) Raking out joints for and pointing as the work proceeds. (g) Bedding and pointing frames, plates and the like. (h) Plumbing angles. (i) Forming reveals, returns, rounded, coved, moulded angles and the like. (j) 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).

SPECIAL CONDITIONS

Rates for all random and squared rubble walling, facework and fully dressed stone generally (Cont'd)	SC06.09 (Cont'd)	<ul style="list-style-type: none"> (k) Casing or protecting work with slurry, cleaning off and rubbing down on completion if required. (l) Bonding into existing work. (m) Marking for identification and delivery in any matching sequence. (n) Temporary protection and subsequent removal.
Rates for extra over random rubble walling for fair face	SC06.10	<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	SC06.11	<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	SC06.12	<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****SC06.13**

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, struck or recessed joints in cement and granite fines (1:3) mortar.

Rates for cutting opening through walls**SC06.14**

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**SC06.15**

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**SC06.16**

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)**

**SC06.16
(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.....	801.70	131.20	167.50	339.20	06001
	RANDOM RUBBLE WALLING SOLIDLY BEDDED AND JOINTED IN CEMENT MORTAR					
	<i>Per cubic metre</i>					
06002	Walling of any thickness.....	966.40	144.70	195.20	468.40	06002
06003	Hearthings or backing of any thickness to squared rubble face wall (measured separately).....	966.40	144.70	195.20	468.40	06003
	<i>Per square metre</i>				A \$	
06004	Extra over random rubble walling or hearthing for fair face in the form as sketch "A".....				11.20	06004
06005	Add to Item 06004 for battered face.....				40.90	06005
	Add to either of Items 06004 to 06005 inclusive for work built circular on plan to radius n.e. 1.50 m.....				20%	
	Ditto but 1.50 - 15.00 m.....				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.....	83.30	14.50	22.10	53.90	06006
06007	Ditto but as facing to brick, concrete or random rubble backing (measured separately) including bonding screed.....	115.30	14.10	20.40	72.50	06007
06008	Add to either of Items 06006 to 06007 inclusive for each additional 25 mm or part thereof in thickness	29.00	4.70	7.00	22.30	06008
06009	Extra over walling for battered face.....	33.30	-	-	14.00	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.....	97.90	15.70	24.60	58.50	06010
06011	Ditto but as facing to brick, concrete or random rubble hearthing or backing (measured separately).....	121.90	15.30	23.80	77.20	06011
06012	Add to either of Items 06010 to 06011 inclusive for each additional 25 mm or part thereof in thickness.....	31.40	5.10	7.80	24.20	06012
06013	Extra over walling for battered face.....	39.20	-	-	16.50	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.....	104.90	16.90	27.00	55.60	06014
06015	Ditto but as facing to brick, concrete or random rubble hearthing (measured separately).....	126.80	18.50	29.10	83.40	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).....	34.30	6.40	10.20	20.80	06016
06017	Extra over walling for battered face.....	42.00	-	-	17.70	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.....	79.00	42.30	42.30	42.30	06018
06019	Prepare surface finish as G.S. item 10.18 including allowance for additional thickening.....	231.20	120.60	120.60	120.60	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 \$		
	<i>Per square metre</i>						
06020	Ashlar walling or facing n.e. 100 mm thick.....	122.30	12.80	17.20	41.50	06020	
06021	Ditto 100 mm to 300 mm thick.....	244.60	24.90	35.10	82.90	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 06033 will 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 \$	
	<i>Per square metre</i>						
06022	Rake out joints not less than 15 mm deep and re-point with flush, struck, recessed or keyed joint as required in cement mortar.....	38.50	29.30	29.30	29.30	24.90	06022
06023	Redress face to wall where discoloured or badly stained by fine punching (any re-pointing required measured separately).....	-	27.30	27.30	27.30	30.40	06023
06024	Level and prepare top of wall for raising or to receive damp proof course.....	23.80	23.80	23.80	23.80	-	06024
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).....	88.40	119.30	119.30	119.30	185.30	06025
06026	Cut toothings not less than 100 mm deep and at not more than 300 mm centres vertically in face of existing wall.....	45.00	45.40	45.40	45.40	52.70	06026
	<i>Per linear metre</i>						
06027	Rake out single detached joint not less than 15 mm deep and re-point with flush, struck, recessed or keyed joint as required in cement mortar.....	5.10	5.10	5.10	5.10	5.10	06027
06028	Rake out from wall crack, etc., cut back edges as required and point with flush joint in cement mortar.....	7.70	7.70	7.70	7.70	7.70	06028
	<i>Each</i>					A \$	
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.....					8.00	06029
06030	Ditto 0.0001 - 0.0002 m ³					13.80	06030

Item		Thickness of stone (mm)				Item
		n.e. 150	150 - 300	300 - 450	450 - 600	
		A	B	C	D	
		\$	\$	\$	\$	
CUTTING AND SUNDRY LABOURS ON EXISTING STONE (CONT'D)						
	<i>Each</i>					
06031	Cut hole for pipe or similar article n.e. 0.004 m ²	17.20	34.70	51.90	69.40	06031
06032	Ditto 0.004 - 0.008 m ²	22.20	43.30	64.70	87.10	06032
06033	Ditto 0.008 - 0.017 m ²	34.70	69.70	104.70	139.40	06033
CUTTING LETTERS IN NEW OR EXISTING STONE						
		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.....	33.00	56.40	71.50	80.70	06034
06035	Cut Chinese character ditto.....	40.00	68.90	88.20	98.80	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 breadth 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 Alteration to Specialty Works.
Rates for roofing and waterproofing generally	SC07.03	<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) Forming and including movement joints, expansion joints and the like, and allowing for laps including side and end laps when required. (d) Allowing for cutting, waste and breakage including those at abutments, top edges, verges, hips and valleys. (e) Preparing, cleaning and protection of surfaces to receive roofing or waterproofing materials. (f) Fixing or laying to falls and currents. (g) Sealing at edges, joints and around intersections and projections. (h) All narrow widths and small areas. (i) Cleaning and priming to surfaces prior to applying roofing or waterproofing materials all in accordance with the manufacturer's instructions. (j) Cutting back existing roofing or waterproofing materials to provide joints for new roofing or waterproofing when required.

SPECIAL CONDITIONS

Rates for roofing and waterproofing generally (Cont'd)

SC07.03 (Cont'd)

- (k) Allowing all cutting, fitting, dressing and making good around rainwater outlets, pipes, flues, openings and the like.
- (l) Sampling and testing of roofing or waterproofing materials.
- (m) Providing shop drawings as necessary for the works.
- (n) 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.
- (o) Providing temporary drainage system throughout the progress of the work.
- (p) Making good affected areas to match existing.
- (q) Temporary protective measures, cleaning and removing all arisings.
- (r) Infra-red thermograph testing when required.
- (s) 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.
- (t) Leaving roof or floor clean, windproof and watertight on completion and cleaning out rainwater outlets and gutters.
- (u) Provision of manufacturer's guarantee and warranty.

CORRUGATED OR PROFILED SHEET ROOFING

Measurement of corrugated or profiled sheet roofing

SC07.04

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

SC07.05

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.

SPECIAL CONDITIONS

CORRUGATED OR PROFILED SHEET ROOFING

**Rates for
corrugated or
profiled sheet
roofing
(Cont'd)**

**SC07.05
(Cont'd)**

- (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 as required.
- (i) Forming sheets to required curvature on curved roofs.
- (j) In the case of proprietary steel/aluminium sheet roofing, provision of subgrit and purlin system to the roofing including design and submission of RSE calculations and shop drawings.
- (k) All necessary testing to ensure integrity and water-tightness of the whole roofing system.

PROPRIETARY GREEN ROOFING SYSTEM

**Measurement
of proprietary
green roofing
system**

SC07.06

Supply and installation of proprietary green roofing 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**

SC07.07

The rates for proprietary green roofing 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.
- (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.

SPECIAL CONDITIONS

PROPRIETARY GREEN ROOFING SYSTEM

Rates for proprietary green roofing system (Cont'd)

SC07.07 (Cont'd)

- (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.
- (f) Submission of shop drawings, working drawings and as-built drawings.
- (g) Submission of samples with composition report for growing mediums and groundcovers.
- (h) Provision of automatic irrigation system but excluding electrical installation (measured separately).
- (i) Submission of photographic records.
- (j) Establishment works after completion for a period of 12 months including replacement of vegetation upon failure of vegetation for becoming established.
- (k) Provision of warranty.
- (l) Submission of working programme.
- (m) Submission of maintenance and operation manual.

BITUMEN FELT BUILT-UP AND BITUMINOUS EMULSION ROOFING

Measurement of bitumen felt built-up and bituminous emulsion roofing

SC07.08

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.

Rates for bitumen felt built-up and bituminous emulsion roofing

SC07.09

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.

SPECIAL CONDITIONS

BITUMEN FELT BUILT-UP AND BITUMINOUS EMULSION ROOFING

Rates for bitumen felt built-up and bituminous emulsion roofing (Cont'd)

SC07.09 (Cont'd)

- (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.

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

SC07.10

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.

MASTIC ASPHALT (ROCK ASPHALT) ROOFING

Measurement of strip off existing mastic asphalt roofing

SC07.11

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

SC07.12

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.

SPECIAL CONDITIONS

PROPRIETARY ROOFING SYSTEM AND FLOOR WATERPROOFING SYSTEM

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

SC07.13

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.

Rates for proprietary roofing system and floor waterproofing system

SC07.14

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

ROOF TILING AND INSULATION BOARD

Measurement of roof tiling and insulation board generally	SC07.15	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 m ² .
Rates for roof tiling and insulation board generally	SC07.16	<p>The rates for roof tiling and insulation board shall generally include for : -</p> <ul style="list-style-type: none"> (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. (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	SC07.17	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 sealants to roofing tiles as provided in G.S. Items 6.61, 6.62 and 18.120.
Screeds to roofing or tiling	SC07.18	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	SC07.19	<p>The rates for non-destructive test shall include for : -</p> <ul style="list-style-type: none"> (a) Constructing temporary dams to compartmentalize large roofs as required and subsequent removal. (b) Temporary blocking to all outlets flooding the roof, releasing water and subsequent removal of blockages.

SPECIAL CONDITIONS**NON-DESTRUCTIVE TEST**

**Rates for
non-destructive
test
(Cont'd)**

**SC07.19
(Cont'd)**

- (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

SC07.20

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	
PROFILED UNREINFORCED RIGID PVC SHEET 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>					
07001	0.80 mm Profiled unreinforced rigid PVC roofing sheet in any profile, colour and transparency fixed to timber framing (measured separately).....	76.20	3.80	5.70	24.40	07001
07002	Ditto but fixed to curved timber framing.....	76.40	4.20	6.30	26.30	07002
07003	0.80 mm Profiled unreinforced rigid pvc roofing sheet in any profile, colour and transparency fixed to steel framing (measured separately).....	77.60	4.00	6.00	25.60	07003
07004	Ditto but fixed to curved steel framing.....	77.90	4.20	6.30	26.80	07004
	<i>Each</i>				A \$	
07005	Cut hole through existing sheet roofing for pipes or articles in any size and thickness.....				6.80	07005
PROFILED GLASS-FIBRE REINFORCED PLASTIC (GRP) SHEET 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>					
07006	6 mm Profiled glass-fibre reinforced plastic (GRP) sheet roofing in any profile, colour and transparency fixed to timber framing (measured separately).....	143.90	8.30	12.80	51.60	07006
07007	Ditto but 8 mm thick.....	185.30	8.70	13.40	54.20	07007
07008	Ditto but 10 mm thick.....	226.70	9.10	14.00	56.80	07008
07009	Ditto but 12 mm thick.....	268.10	9.50	14.70	59.40	07009
07010	6 mm Profiled glass-fibre reinforced plastic (GRP) sheet roofing in any profile, colour and transparency fixed to curved timber framing (measured separately).....	144.90	9.10	14.00	56.80	07010
07011	Ditto but 8 mm thick.....	186.70	9.60	14.70	59.70	07011
07012	Ditto but 10 mm thick.....	228.50	10.00	15.40	62.50	07012
07013	Ditto but 12 mm thick.....	270.30	10.50	16.10	65.30	07013

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item	
PROFILED GLASS-FIBRE REINFORCED PLASTIC (GRP) SHEET ROOFING (CONT'D)							
<i>Per square metre</i>		A \$	B \$	C \$	D \$		
07014	6 mm Profiled glass-fibre reinforced plastic (GRP) sheet roofing in any profile, colour and transparency fixed to steel framing (measured separately).....	148.90	8.70	13.40	54.20	07014	
07015	Ditto but 8 mm thick.....	192.50	9.10	14.10	56.90	07015	
07016	Ditto but 10 mm thick.....	236.10	9.60	14.70	59.70	07016	
07017	Ditto but 12 mm thick.....	279.60	10.00	15.40	62.40	07017	
07018	6 mm Profiled glass-fibre reinforced plastic (GRP) sheet roofing in any profile, colour and transparency fixed to curved steel framing (measured separately).....	149.90	9.60	14.70	59.70	07018	
07019	Ditto but 8 mm thick.....	194.00	10.10	15.50	62.60	07019	
07020	Ditto but 10 mm thick.....	237.90	10.50	16.20	65.60	07020	
07021	Ditto but 12 mm thick.....	282.00	11.00	17.00	68.60	07021	
<i>Each</i>						A \$	
07022	Cut hole through existing sheet roofing for pipes or articles in any size and thickness.....					15.60	07022

Item					Item	
GALVANISED STEEL SHEET ROOFING						
Steel sheet roofing as G.S. Item 12.72 :-						
<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 \$	
07023	Corrugated steel sheet roofing n.e. 0.60 mm thick in any corrugation fixed to timber framing (measured separately).....	71.30	4.50	5.70	19.40	07023
07024	Ditto but 0.60 - 0.80 mm thick.....	75.70	4.60	5.90	20.00	07024
07025	Ditto but 0.80 - 1.00 mm thick.....	88.10	4.90	6.30	21.20	07025
07026	Corrugated steel sheet roofing n.e. 0.60 mm thick in any corrugation fixed to curved timber framing (measured separately).....	85.90	4.90	6.30	21.40	07026
07027	Ditto but 0.60 - 0.80 mm thick.....	93.90	5.10	6.50	22.00	07027
07028	Ditto but 0.80 - 1.00 mm thick.....	113.50	5.40	6.90	23.30	07028
07029	Corrugated steel sheet roofing n.e. 0.60 mm thick in any corrugation fixed to steel framing (measured separately).....	81.50	4.60	5.90	20.00	07029
07030	Ditto but 0.60 - 0.80 mm thick.....	89.50	4.70	6.10	20.60	07030
07031	Ditto but 0.80 - 1.00 mm thick.....	107.00	5.00	6.40	21.80	07031
07032	Corrugated steel sheet roofing n.e. 0.60 mm thick in any corrugation fixed to curved steel framing (measured separately).....	87.30	5.10	6.50	22.00	07032
07033	Ditto but 0.60 - 0.80 mm thick.....	96.30	5.20	6.70	22.70	07033
07034	Ditto but 0.80 - 1.00 mm thick.....	118.00	5.50	7.10	24.00	07034
<i>Each</i>						
07035	Cut hole through existing sheet roofing for pipes or articles in any size and thickness.....				13.50	07035

Item					Item	
	PROPRIETARY PROFILED STEEL SHEET ROOFING					
	Proprietary 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 :-					
		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 \$	
07036	0.47 mm Thick steel profiled sheeting fixed to timber framing.....	375.50	4.50	5.70	50.70	07036
07037	Ditto but fixed to curved timber framing.....	431.70	4.90	6.30	55.70	07037
07038	0.47 mm Thick steel profiled sheeting fixed to steel framing.....	375.70	4.60	5.90	52.20	07038
07039	Ditto but fixed to curved steel framing.....	434.70	5.10	6.50	57.40	07039
	Proprietary 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 steel profiled sheeting fixed to timber framing.....	419.40	4.60	5.90	52.20	07040
07041	Ditto but 0.65 mm thick.....	464.00	4.70	6.00	53.20	07041
07042	0.53 mm Thick steel profiled sheeting fixed to curved timber framing.....	422.00	4.90	6.30	55.70	07042
07043	Ditto but 0.65 mm thick.....	468.00	5.20	6.60	58.50	07043
07044	0.53 mm Thick steel profiled sheeting fixed to steel framing.....	419.40	4.60	5.90	52.20	07044
07045	Ditto but 0.65 mm thick.....	464.00	4.80	6.20	54.80	07045
07046	0.53 mm Thick steel profiled sheeting fixed to curved steel framing.....	423.20	5.10	6.50	57.40	07046
07047	Ditto but 0.65 mm thick.....	469.20	5.30	6.80	60.30	07047

Item					Item	
PROPRIETARY GALVANISED STEEL FLASHING, CAPPING, ETC.						
Proprietary steel profiled sheeting with XRW colourbond finish matching with proprietary steel sheet roofing fixing in fasteners or screws in accordance with the manufacturer's recommendations :-						
<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 \$	
07048	0.60 mm Thick steel flashing or capping n.e. 200 mm girth.....	102.90	1.30	1.30	26.50	07048
07049	Ditto 200 - 400 mm girth.....	154.00	2.60	3.20	39.80	07049
07050	Ditto 400 - 600 mm girth.....	189.40	3.80	7.00	45.40	07050
07051	Ditto 600 - 800 mm girth.....	236.70	6.40	8.90	49.90	07051
07052	Ditto 800 - 1000 mm girth.....	270.60	7.70	10.90	53.10	07052
	Add to either of Items 07048 to 07052 inclusive for curved works.....	10%	-	-	10%	
GALVANISED STEEL SHEET RIDGING, GUTTERS, ETC.						
1 mm Thick galvanized mild steel sheet (painting measured separately) :-						
<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 \$	
07053	Ridge or hip plain capping of approximately 450 mm girth with 75 mm roll, lapped 150 mm at end joints (measured net).....	64.00	4.50	6.40	16.90	07053
07054	Ditto but both edges corrugated, cut and scribed as necessary to suit sheet roofing (measured net).....	72.00	5.70	8.30	21.10	07054
07055	Half-octagonal shaped valley gutter of approximately 300 x 175 mm deep, lapped 150 mm at end joints (measured net).....	107.70	5.70	8.30	19.40	07055

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
		A	B	C	D	
		\$	\$	\$	\$	
ALUMINIUM SHEET ROOFING						
	<i>Per square metre</i>					
07056	Corrugated aluminium sheet roofing n.e. 0.60 mm thick in any corrugation and colour fixed to timber framing (measured separately)	298.30	3.80	5.10	15.20	07056
07057	Ditto but 0.60 - 0.80 mm thick.....	356.60	3.90	5.30	15.70	07057
07058	Ditto but 0.80 - 1.00 mm thick.....	443.90	4.20	5.60	16.60	07058
07059	Corrugated aluminium sheet roofing n.e. 0.60 mm thick in any corrugation and colour fixed to curved timber framing (measured separately).....	305.60	4.20	5.60	16.70	07059
07060	Ditto but 0.60 - 0.80 mm thick.....	371.10	4.30	5.80	17.20	07060
07061	Ditto but 0.80 - 1.00 mm thick.....	451.10	4.60	6.10	18.20	07061
07062	Corrugated aluminium sheet roofing n.e. 0.60 mm thick in any corrugation and colour fixed to steel framing (measured separately).....	299.10	3.90	5.30	15.70	07062
07063	Ditto but 0.60 - 0.80 mm thick.....	358.00	4.10	5.40	16.10	07063
07064	Ditto but 0.80 - 1.00 mm thick.....	445.30	4.30	5.70	17.10	07064
07065	Corrugated aluminium sheet roofing n.e. 0.60 mm thick in any corrugation and colour fixed to curved steel framing (measured separately).....	306.30	4.30	5.80	17.20	07065
07066	Ditto but 0.60 - 0.80 mm thick.....	372.60	4.50	6.50	17.70	07066
07067	Ditto but 0.80 - 1.00 mm thick.....	451.90	4.70	6.80	18.80	07067
	<i>Each</i>					
07068	Cut hole through existing sheet roofing for pipes or articles in any size and thickness.....				13.50	07068

Item					Item	
ALUMINIUM FLASHING, CAPPING, ETC.						
0.60 mm Thick aluminium colorbond finish matching with aluminium sheet roofing fixing in fasteners or screws :-						
<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 \$	
07069	0.60 mm Thick steel flashing or capping n.e. 200 mm girth.....	69.90	1.30	1.90	4.20	07069
07070	Ditto 200 - 400 mm girth.....	105.50	3.20	4.50	12.70	07070
07071	Ditto 400 - 600 mm girth.....	157.20	5.10	10.20	19.40	07071
07072	Ditto 600 - 800 mm girth.....	212.20	9.60	12.80	27.00	07072
07073	Ditto 800 - 1000 mm girth.....	265.20	10.20	14.70	33.80	07073
	Add to either of Items 07069 to 07073 inclusive for curved works.....	10%	-	-	10%	
ALUMINIUM SHEET RIDGING, GUTTERS, ETC.						
1.00 mm Thick aluminium colorbond finish fixing in fasteners or screws :-						
<i>Per linear metre</i>						
07074	Ridge or hip plain capping of approximately 450 mm girth with 75 mm roll, lapped 150 mm at end joints (measured net).....	131.00	4.50	6.40	16.90	07074
07075	Ditto but both edges corrugated, cut and scribed as necessary to suit sheet roofing (measured net).....	152.80	5.70	8.30	21.10	07075
07076	Half-octagonal shaped valley gutter of approximately 300 x 175 mm deep, lapped 150 mm at end joints (measured net).....	180.50	6.40	7.70	22.80	07076

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
		A \$	B \$	C \$	D \$	
PROPRIETARY STEEL/ALUMINIUM 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 :-					
	<i>Per square metre</i>					
07077	Roofing system.....	407.50	5.10	7.00	22.80	07077
	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 to DIN 18807 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 :-					
	<i>Per square metre</i>					
07078	Roofing system.....	3,373.00	19.10	21.10	70.10	07078
	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, 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 :-					
	<i>Per linear metre</i>					
07079	Drip flashing.....	298.30	5.70	7.70	25.30	07079
07080	Fascia flashing.....	400.20	6.40	8.30	27.00	07080
07081	Eave flashing.....	262.00	5.10	6.40	22.80	07081
07082	Toothed plate complete with foam filler at ridge.....	276.50	6.40	8.30	27.00	07082
07083	Fascia corner flashing, ridge flashing, verge flashing and the like.....	334.00	6.40	8.30	27.00	07083
07084	Fascia capping, ridge capping and the like.....	254.70	6.40	8.30	27.00	07084
	Proprietary profiled sheet roofing system 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 :-					
	<i>Per square metre</i>					
07085	Roofing system.....	422.00	5.10	7.00	22.80	07085

Item					Item	
	PROPRIETARY STEEL/ALUMINIUM SHEET ROOFING (CONT'D)					
	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 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 :-					
		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>					
07086	Drip flashing.....	232.90	5.70	7.70	25.30	07086
07087	Fascia flashing.....	349.30	6.40	8.30	27.00	07087
07088	Eave flashing.....	262.00	5.10	7.00	22.80	07088
07089	Toothed plate complete with foam filler at ridge.....	276.50	6.40	8.30	27.00	07089
07090	Fascia corner flashing, ridge flashing, verge flashing and the like.....	299.80	6.40	8.30	27.00	07090
07091	Fascia capping, ridge capping and the like.....	229.90	6.40	8.30	27.00	07091
	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 :-					
	<i>Per square metre</i>					
07092	Roofing panels.....	3,266.00	17.20	20.40	67.60	07092
	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, 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 :-					
	<i>Per linear metre</i>					
07093	Drip flashing.....	298.30	5.70	7.70	38.80	07093
07094	Fascia flashing.....	400.20	6.40	8.30	27.00	07094
07095	Eave flashing.....	262.00	5.10	7.00	22.80	07095
07096	Toothed plate complete with foam filler at ridge.....	276.50	6.40	8.30	27.00	07096
07097	Fascia corner flashing, ridge flashing, verge flashing and the like.....	334.00	6.40	8.30	27.00	07097
07098	Fascia capping, ridge capping and the like.....	254.70	6.40	8.30	27.00	07098

Item						
	<p>PROPRIETARY STEEL/ALUMINIUM SHEET ROOFING (CONT'D)</p> <p>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 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 all in accordance with manufacturer's recommendations, on site fabricated system to achieve a maximum thermal insulation U-value of 0.4W/m2K and minimum Weighted Sound Reduction Index of 31dB with test report showing the compliance to BS 5821 Part 3:1984 and minimum 10 years of material warranty is to be provided on completion : -</p>					
	<p><i>Per square metre</i></p>					
07099	Proprietary series insulated roofing system	2,488.60	20.40	25.50	84.50	07099
	<p><i>Per linear metre</i></p>					
07100	Flashing to fascia.....	262.00	7.00	8.30	27.00	07100
07101	Flashing to drip.....	342.00	5.70	7.70	24.50	07101
07102	Flashing to eave.....	266.30	5.10	7.00	22.80	07102
07103	Flashing to corner flashing, ridge flashing and verge flashing, etc.....	378.40	6.40	8.30	27.00	07103
07104	Flashing to capping, ridge capping and the like.....	283.80	6.40	8.30	27.00	07104
07105	Toothed plate complete with foam filler n.e. 1.00 m high.....	269.20	7.00	8.30	27.00	07105
07106	Gutter in any size.....	225.60	7.00	5.70	7.60	07106
	<p>PROPRIETARY GREEN ROOFING SYSTEM</p> <p>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 automatic irrigation system but excluding electrical installation (measured separately), submission of drawings, samples, photographic records, programme, maintenance and operation manual, provisions of 12-month establishment period, warranty as specified in Specification as adopted in the Contract and approved Registered Structural Engineer checking on calculation of loadings, all in accordance with the manufacturer's recommendation : -</p>					
	<p><i>Per square metre</i></p>					
07107	Proprietary green roofing system				1,673.60	07107

Item							Item	
BITUMEN FELT BUILT-UP ROOFING								
<i>Per square metre</i>								
Nominal weight								
1.8 kg/m ² 2.5 kg/m ²								
A B								
\$ \$								
07108	Underlayer of bitumen felt fixed to timber roof including nails.....	34.60	48.00					07108
07109	Ditto but laid on screed or concrete roof including primer and bonding.....	43.20	60.10					07109
07110	Subsequent underlayer of bitumen bonded to underlayer including bonding compound.....	43.20	60.10					07110
07111	Top layer bonded to underlayers with bonding compound.....	-	60.10					07111
<i>Per square metre</i>								
A								
\$								
07112	Surface dressing with stone chippings on and including base coat of bitumen compound.....			86.40				07112
REPAIRS TO EXISTING; BITUMEN FELT BUILT UP ROOFING								
<i>Per square metre</i>								
A								
\$								
07113	Strip off existing bitumen felt built-up roofing (any number of layers) fixed on timber battens.....			8.70				07113
07114	Ditto but laid on screed or concrete surfaces.....			12.10				07114
BITUMINOUS EMULSION ROOFING								
<i>Per square metre</i>								
		Concrete		Concrete,	Corrugated	Profiled	Bitumen	
		roof	vertical	Canton	steel	particle	felt built-	
		surface	surface	roof	roof	sheet	up roof	
		surface	surface	surface	surface	roof	surface	
		A	B	C	D	E	F	
		\$	\$	\$	\$	\$	\$	
07115	Apply wash coat, priming coat, two coats of approved bitumen emulsion.....	38.90	46.70	54.40	-	54.40	-	07115
07116	Ditto but with three coats of approved bitumen emulsion.....	50.60	58.30	66.10	-	66.10	-	07116
07117	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.....	70.00	77.80	93.30	-	93.30	-	07117
07118	Ditto but with three coats of approved bitumen emulsion to last as G.S. Item 12.32.....	77.80	93.30	101.00	-	101.00	-	07118
07119	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	-	-	-	-	-	70.00	07119
07120	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	-	-	-	77.80	-	-	07120

Item	Thickness of base coat		Item
	3 mm	5 mm	
	A \$	B \$	
BITUMINOUS EMULSION ROOFING (CONT'D)			
<i>Per square metre</i>			
07121	19.50	23.30	07121
07122	35.00	38.90	07122
07123	38.90	42.80	07123
REPAIRS TO EXISTING; BITUMINOUS EMULSION ROOFING			
<i>Per square metre</i>			
07124		7.80	07124
07125		10.80	07125
<i>Per linear metre</i>			
07126		23.30	07126
SOLAR PROTECTION			
<i>Per square metre</i>			
07127		27.20	07127
07128		23.30	07128
07129		23.30	07129
REPAIRS TO EXISTING; MASTIC ASPHALT ROOFING			
<i>Per square metre</i>			
07130		29.10	07130
<i>Each</i>			
07131		51.80	07131
07132		12.60	07132

Item					Item	
	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 \$	
07142	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).....	133.10	6.40	7.00	12.70	07142
07143	Ditto but bedded, jointed and pointed in hot bitumen.....	143.70	7.00	7.70	14.60	07143
	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 not 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 \$	
07144	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).....	192.00	6.40	7.00	19.50	07144
07145	Ditto but bedded, jointed and pointed in hot bitumen.....	206.40	7.00	7.70	34.10	07145
	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 \$	
07146	Extruded cellular polystyrene foam board laid on screed or concrete (measured separately).....		56.30	79.10	91.70	07146
	NON-DESTRUCTIVE TEST					
	<i>Each</i>				A \$	
07147	Flooding test in accordance with G.S. Item 12.117.....				4,286.20	07147
07148	Ditto for inspection of existing roofing system.....				4,421.40	07148

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 will 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 will 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.

SPECIAL CONDITIONS

CARPENTRY AND JOINERY WORK

Measurement generally	SC08.03	<p>All sizes and thicknesses shall be finished sizes and thicknesses.</p>
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 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>Where teak is supplied and fixed, it will 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. The area of any backsplash, bullnose, front apron and inlay or the like shall not be measured. No deduction shall be made for openings not exceeding 0.50 m².</p> <p>Backsplash, bullnose, front apron and inlay, 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> <ul 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.

SPECIAL CONDITIONS

**Rates generally
(Cont'd)**

**SC08.13
(Cont'd)**

- (e) Notching, cutting and fitting, drilling for screws and boring for bolts including counter-sinking screw, bolt heads and nuts, and pelleting when required.
- (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.
- (g) Narrow widths and small quantities.
- (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.
- (i) Forming tongued angles, chamfers, rebates, grooves and the like.
- (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.
- (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.

**Rates for
wrot
timber**

SC08.14

The rates for wrot timber shall further include for : -

- (a) Punching nail heads, counter sinking screws and the like.
- (b) Stopping and sanding to exposed surfaces.
- (c) Preparing surfaces for painting or polishing.
- (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, aneigre, citron, sapele or sycamore facing.

**Rates for
boarding and
flooring**

SC08.15

The rates for boarding and flooring shall further include for : -

- (a) Providing and fixing boards in matching widths of any face width required.
- (b) Cramping and wedging up if required.
- (c) Forming cross-tongued in lieu of tongued and grooved boarding if required.
- (d) In the case of tongued and grooved or cross-tongued boarding, ripping off tongue, cutting back grooves and planning edges flat and square exposed surfaces.

SPECIAL CONDITIONS

Rates for opening sashes, jalousies and doors

- SC08.16** The rates for opening sashes, jalousies and doors shall further include for : -
- (a) Hanging on hinges, rising butts, sliding track, pivots and the like (ironmongery measured separately).
 - (b) Glazing and glazing beads to framed, panelled and glazed doors.

Rates for forming observation or vent openings in timber doors

- SC08.17** The rates for forming observation or vent openings in timber doors shall further include for : -
- (a) Glazing, glazing beads, hardwood lippings and hardwood louvre blades, etc.

Rates for flush doors

- SC08.18** The rates for flush doors shall further include for : -
- (a) The use of plywood shall be luan faced internal quality.
 - (b) The use of beech, birch, cherry, chestnut, maple, ash, oak, pine, zen, teak, mahogany, walnut, aneigre, citron, sapele or sycamore facing, to flush doors where hardwood facing is specified.
 - (c) The use of any thickness of laminated plastic sheet to flush doors where laminated plastic sheet is specified.

Rates for proprietary fire resisting doors

- SC08.19** The rates for proprietary fire resisting doors shall further include for : -
- (a) Supply and installation in accordance with the manufacturer's instructions.
 - (b) 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.
 - (c) Providing and fixing door frames where required.
 - (d) Sealing edges with 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 test certificate, operation manual and manufacturer's guarantee as required by the Maintenance Surveyor for approval or as stated in the Contract.

SPECIAL CONDITIONS**Rates for
acoustic
doors****SC08.20**

The rates for acoustic doors shall further include for :-

- (a) Supply and installation in accordance with the manufacturer's instructions.
- (b) Providing and fixing all accessories, ironmongeries, sound proof/absorbing materials, etc. recommended by the manufacturer.
- (c) Providing and fixing door frames where required.
- (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 test certificate, 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) All straight or raking cutting and waste, holes and fittings.
- (b) Executing work in any position, at any height and on new or existing surfaces.
- (c) All staples, adhesive and the like.
- (d) Covering up and protecting.

SPECIAL CONDITIONS

**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 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.
- (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 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 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

The rates for proprietary acoustic panels shall further include for :-

- (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.

SPECIAL CONDITIONS

**Rates for
proprietary
sport
flooring
system**

SC08.25

The rates for proprietary sport flooring system shall further include for : -

- (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.

**Rates for
proprietary
solid
surfacing
material**

SC08.26

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

- (a) All accessories necessary for the works.
- (b) Pointing, jointing and sealing edges with sealant.
- (c) Forming holes for pipes, water taps, building services installations, basin, sink and the like.
- (d) Providing and fixing all necessary brackets for sinks, basins and the like.
- (e) Submission of catalogues, technical literature, samples, shop drawings and manufacturer's guarantee.

**Rates for
proprietary
anti-
ricochet
surfaces**

SC08.27

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

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

Item										Item	
	TEMPORARY BARRIERS										
					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.....	4,806.50	4,647.10	159.50						08001	
	<i>Per square metre</i>										
08002	25 mm Plywood covering.....	130.70	125.60	5.10						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 (m ²)						
					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
	<i>Per linear metre</i>				A \$	B \$	C \$	D \$	E \$	F \$	G \$
08003	Sawn hardwood scantlings.....	4.70	6.00	7.50	10.80	14.20	21.80	6.30			08003
08004	Wrot hardwood scantlings.....	8.20	11.90	16.80	26.40	36.90	60.90	20.00			08004
08005	Wrot softwood scantlings.....	8.90	12.90	18.20	28.70	40.10	66.00	21.60			08005
08006	Wrot teak scantlings.....	14.20	21.80	31.10	50.60	80.00	127.20	39.30			08006
	Add to either of Items 08003 to 08006 inclusive for scantlings bent to curve to radius n.e. 15 m during fixing by means of saw cuts, steam bending, etc.....										20%
	Ditto for scantlings cut curved from solid timber including dowelling and keying sections together.....										35%

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 sawn hardwood scantlings / wrot hardwood scantlings / wrot softwood scantlings / wrot teak scantlings.....	3.00	5.10	8.30	10.20	08007			
08008	Take down and set aside for re-use ditto.....	3.20	5.70	9.60	12.10	08008			
08009	Fix only ditto including making all joints.....	6.30	10.10	19.00	25.30	08009			
<i>Per square metre</i>									
		Sawn soft-wood	Sawn hard-wood	Sawn teak					
		A \$	B \$	C \$					
08010	Plane and sand down surface of existing scantlings in position to produce wrot face including punching nail heads as necessary.....	45.60	46.90	73.50		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.....	43.70	50.30	57.80	67.80	84.20	95.70	99.80	08011
08012	Wrot hardwood boarding.....	117.70	132.50	154.70	171.00	216.10	242.30	260.40	08012
08013	Ditto tongued and grooved.....	153.10	168.60	183.40	198.20	227.80	247.50	263.90	08013
08014	Ditto tongued, grooved and "V" or bead jointed one face.....	164.90	180.50	195.30	210.10	239.70	254.60	269.40	08014
08015	Ditto tongued, grooved and "V" or bead jointed both faces.....	167.10	183.30	198.80	214.30	245.40	260.80	276.40	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
\$	\$	\$	\$	\$	\$	\$
126.70	142.80	164.10	180.60	225.70	252.30	266.60
163.00	176.90	193.50	208.40	239.20	257.70	274.10
173.70	190.50	205.50	220.20	251.00	265.90	281.20
177.60	193.70	209.40	224.90	257.30	272.00	288.90
223.40	273.30	323.30	373.30	473.20	523.20	573.10
262.50	315.00	367.50	419.90	524.90	577.30	629.80
273.90	326.40	378.90	431.30	536.30	588.70	641.20
281.40	336.40	391.30	446.30	556.20	611.20	666.20

Per square metre

08016	Wrot softwood boarding.....	126.70	142.80	164.10	180.60	225.70	252.30	266.60	08016
08017	Ditto tongued and grooved.....	163.00	176.90	193.50	208.40	239.20	257.70	274.10	08017
08018	Ditto tongued, grooved and 'V' or bead jointed one face.....	173.70	190.50	205.50	220.20	251.00	265.90	281.20	08018
08019	Ditto tongued, grooved and 'V' or bead jointed both faces.....	177.60	193.70	209.40	224.90	257.30	272.00	288.90	08019
08020	Wrot teak boarding.....	223.40	273.30	323.30	373.30	473.20	523.20	573.10	08020
08021	Ditto tongued and grooved.....	262.50	315.00	367.50	419.90	524.90	577.30	629.80	08021
08022	Ditto tongued, grooved and "V" or bead jointed one face.....	273.90	326.40	378.90	431.30	536.30	588.70	641.20	08022
08023	Ditto tongued, grooved and "V" or bead jointed both faces.....	281.40	336.40	391.30	446.30	556.20	611.20	666.20	08023

Add to either of Items 08011 to 08023 inclusive for boarding bent to curve to radius n.e. 15 m during fixing by means of saw cuts, steam bending, etc.....

20%

Ditto for boarding cut curved from solid timber including dowelling and keying sections together.....

35%

Sawn hard-wood	Wrot hard-wood	Wrot teak
A	B	C
\$	\$	\$
46.90	32.90	51.90

Per square metre

08024	Plane and sand down surface of existing boarding in position to produce wrot face including punching nail heads as necessary.....	46.90	32.90	51.90	08024
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Item					Item	
	BOARDING (CONT'D)					
		Square edge boarding	Tongued and grooved boarding			
	<i>Per square metre</i>	A \$	B \$			
08025	Take down and clear away existing sawn hardwood / sawn softwood / sawn teak / wrot hardwood / wrot softwood / wrot teak boarding of any thickness.....	14.70	15.30		08025	
08026	Take down and set aside for re-use ditto.....	17.90	28.70		08026	
08027	Fix only ditto.....	69.70	101.30		08027	
	<i>Per linear metre</i>	Hard-wood A \$	Soft-wood B \$	Teak C \$		
08028	Forming rebate, groove, splay, chamfer, bead, rounded angle, tongue, flute, cove, moulding or similar labour on existing boarding in position.....	6.30	8.90	10.10	08028	
08029	Ditto but circular to radius n.e. 15.00 m.....	10.10	16.50	21.50	08029	
	STRIP FLOORING					
	<i>Per square metre</i>		Soft-wood A \$	Teak B \$		
08030	Flooring of 20 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.....		451.60	556.80	08030	
08031	Take up and clear away wood strip flooring (blockboard backing measured separately).....		21.10	21.10	08031	
08032	Take up and set aside for re-use wood strip flooring (ditto).....		31.90	31.90	08032	
08033	Lay only wood strip flooring (ditto).....		190.00	190.00	08033	
	WOOD BLOCK FLOORING					
	<i>Per square metre</i>		Thickness (mm)			
			20	25		
			Softwood			
			A \$	B \$		
			Teak			
			C \$	D \$		
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.....	162.50	189.40	188.20	227.30	08034
08035	Take up and clear away wood block flooring.....	12.80	16.00	16.00	19.10	08035
08036	Take up and set aside for re-use wood block flooring.....	17.90	21.10	21.10	24.20	08036
08037	Lay only wood block flooring.....	76.00	82.30	76.00	82.30	08037

Item		Hard-wood	Soft-wood	Teak	Item
	PARQUET FLOORING	A	B	C	
	<i>Per square metre</i>	\$	\$	\$	
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.....	95.40	102.40	107.20	08038
08039	Take up and clear away parquet flooring.....	10.90	14.00	14.00	08039
08040	Take up and set aside for re-use parquet flooring.....	16.00	21.10	21.10	08040
08041	Lay only parquet flooring.....	44.30	44.30	44.30	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.....			16.50	08042
	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 : -				
	<i>Per square metre</i>				
		Boarding thickness (mm)			
		n.e. 10	exc. 10		
		A	B		
		\$	\$		
08043	Laminated flooring.....	234.50	266.80		08043
08044	Take up and clear away laminated flooring complete with sub-flooring.....	23.30	23.30		08044
08045	Take up and set aside for re-use ditto.....	18.20	18.20		08045
08046	Fix only ditto.....	45.60	63.30		08046
	<i>Per linear metre</i>			A \$	
08047	Aluminium T-strip cover for expansion joint.....			97.00	08047
08048	Aluminium end edging strip.....			63.80	08048
08049	Laminated skirting n.e. 100 mm high.....			88.90	08049

Item						Item	
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) :-							
						Thickness (mm)	
						40 45 50 55 65	
						A B C D E	
						\$ \$ \$ \$ \$	
<i>Per square metre</i>							
08050	Fixed wrot hardwood sash including screwing to frame and bedding in white lead if required.....	385.80	401.70	417.20	433.60	464.70	08050
08051	Ditto but wrot softwood.....	526.10	549.70	573.50	598.70	646.00	08051
08052	Ditto but wrot teak.....	539.60	567.60	596.00	625.40	681.80	08052
08053	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 required.....	430.60	447.00	464.40	480.90	515.50	08053
08054	Ditto but wrot softwood.....	547.10	570.70	595.60	618.80	668.20	08054
08055	Ditto but wrot teak.....	598.60	628.40	659.80	689.40	751.60	08055
JALOUSIES							
<i>Per square metre</i>							
08056	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).....	485.70	498.50	510.50	521.90	545.40	08056
08057	Ditto but wrot softwood.....	621.30	636.30	652.90	669.00	702.00	08057
08058	Ditto but wrot teak.....	682.00	700.90	721.60	742.00	783.20	08058
08059	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).....	631.90	646.70	659.20	671.80	696.60	08059
08060	Ditto but wrot softwood.....	790.60	808.40	825.50	834.60	878.30	08060
08061	Ditto but wrot teak.....	847.90	869.90	891.60	901.80	957.60	08061
Add to either of Items 08050 to 08061 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).....						35%	

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) :-																																					
	<i>Per square metre</i>																																					
08062	Door square and flat both sides.....	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="5">Wrot hardwood</th> </tr> <tr> <th colspan="5">Overall door thickness (mm)</th> </tr> <tr> <th>40</th> <th>45</th> <th>50</th> <th>55</th> <th>65</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> <tbody> <tr> <td>452.60</td> <td>477.40</td> <td>497.50</td> <td>512.10</td> <td>555.00</td> </tr> </tbody> </table>					Wrot hardwood					Overall door thickness (mm)					40	45	50	55	65	A	B	C	D	E	\$	\$	\$	\$	\$	452.60	477.40	497.50	512.10	555.00		08062
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452.60	477.40	497.50	512.10	555.00																																		
	SOLID DOORS																																					
	<i>Per square metre</i>																																					
08063	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).....	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="5">Wrot hardwood</th> </tr> <tr> <th colspan="5">Overall door thickness (mm)</th> </tr> <tr> <th>40</th> <th>45</th> <th>50</th> <th>55</th> <th>65</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> <tbody> <tr> <td>479.40</td> <td>521.00</td> <td>560.90</td> <td>591.50</td> <td>669.60</td> </tr> </tbody> </table>					Wrot hardwood					Overall door thickness (mm)					40	45	50	55	65	A	B	C	D	E	\$	\$	\$	\$	\$	479.40	521.00	560.90	591.50	669.60		08063
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\$	\$	\$	\$	\$																																		
479.40	521.00	560.90	591.50	669.60																																		
	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) :-																																					
	<i>Per square metre</i>																																					
08064	Hollow core flush door covered both sides with 3.2 mm standard hardboard.....	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="5">Overall door thickness (mm)</th> </tr> <tr> <th>25</th> <th>30</th> <th>40</th> <th>45</th> <th>50</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> <tbody> <tr> <td>173.80</td> <td>190.20</td> <td>208.00</td> <td>247.50</td> <td>274.70</td> </tr> </tbody> </table>					Overall door thickness (mm)					25	30	40	45	50	A	B	C	D	E	\$	\$	\$	\$	\$	173.80	190.20	208.00	247.50	274.70		08064					
Overall door thickness (mm)																																						
25	30	40	45	50																																		
A	B	C	D	E																																		
\$	\$	\$	\$	\$																																		
173.80	190.20	208.00	247.50	274.70																																		
08065	Extra over Item 08064 for cover one side with 5 mm plywood.....	67.70	67.70	67.70	67.70	67.70	08065																															
08066	Extra over Item 08064 for cover one side with 5 mm hardwood faced plywood.....	61.10	61.10	61.10	61.10	61.10	08066																															
08067	Extra over Item 08064 for cover one side with laminated plastic sheet.....	70.90	70.90	70.90	70.90	70.90	08067																															
08068	Solid core flush door covered both sides with 3.2 mm standard hardboard.....	215.90	236.20	258.40	270.50	302.60	08068																															
08069	Extra over Item 08068 for cover one side with 5 mm plywood.....	67.70	67.70	67.70	67.70	67.70	08069																															
08070	Extra over Item 08068 for cover one side with 5 mm hardwood faced plywood.....	61.10	61.10	61.10	61.10	61.10	08070																															
08071	Extra over Item 08068 for cover one side with laminated plastic sheet.....	70.90	70.90	70.90	70.90	70.90	08071																															
08072	Add to either of Items 08062, 08063, 08064 and 08068 if door hung folding or in two heights including rebates, beads and additional thickness of edge fillet required.....	19.50	21.10	23.70	25.00	26.80	08072																															
	<i>Each</i>																																					
08073	Extra over either of Items 08064 to 08071 inclusive for forming observation or vent panel opening n.e. 0.20 m ² (net opening size) through hollow or solid core flush door.....	67.70	75.40	80.50	88.00	91.80	08073																															
08074	Ditto but opening 0.20 - 0.40 m ²	99.00	109.70	121.40	131.40	138.00	08074																															

Item		Fire rated period				Item
		½ hour	1 hour	1½ hours	2 hours	
		A	B	C	D	
		\$	\$	\$	\$	
PROPRIETARY FIRE RESISTING DOORS						
Supply and fix proprietary fire resisting timber doors tested in accordance with BS 476 : Pt. 20-23 including any finish :-						
<i>Per square metre</i> (door panel size measured net)						
08075	Single leaf fire resisting door without door frames.....	1,181.60	1,574.80	1,969.00	2,373.70	08075
08076	Ditto, with door frames.....	1,392.10	2,057.50	2,739.00	3,409.30	08076
08077	Double leaf fire resisting door without door frames.....	856.10	1,250.80	1,648.40	2,045.60	08077
08078	Ditto, with door frames.....	1,099.30	1,617.90	2,136.00	2,673.60	08078
<i>Per linear metre</i>						
08079	Smoke and intumescent seals, tested in accordance with BS 476 : Pt. 20 - 23.....	117.90	117.90	117.90	117.90	08079
<i>Each</i>						
08080	Extra over either of Items 08075 to 08078 inclusive for forming observation panel opening n.e. 0.20 m ² (net opening size) through fire resisting timber flush door	67.70	75.40	80.50	88.00	08080
08081	Ditto but opening 0.20 - 0.40 m ²	99.00	109.70	121.40	131.40	08081
<i>Each or per leaf</i>						
08082	Take down and clear away fire resisting door without door frames.....	14.70	14.70	14.70	14.70	08082
08083	Take down and clear away fire resisting door with and including door frames.....	21.70	21.70	21.70	21.70	08083
08084	Take down and set aside for re-use fire resisting door without door frames.....	33.80	33.80	33.80	33.80	08084
08085	Take down and set aside for re-use fire resisting door with and including door frames.....	59.30	59.30	59.30	59.30	08085
08086	Fix only fire resisting door without door frames.....	406.60	406.60	406.60	406.60	08086
08087	Fix only fire resisting door with and including door frames.....	867.70	867.70	867.70	867.70	08087
(Note :- The above Items 08075 to 08087 inclusive will only be paid for if ordered in writing by the Maintenance Surveyor.)						
ACOUSTIC DOORS						
Approved acoustic doors including any finish :-						
<i>Per square metre</i> (door panel size measured net)						
		Door				
		with frames	without frames			
		A	B			
		\$	\$			
08088	Single leaf acoustic door complete with acoustic seal assembly.....	5,836.80	5,338.20			08088
08089	Double leaf acoustic door complete with ditto.....	4,864.00	4,399.30			08089
08090	Take down and clear away acoustic door.....		25.30	16.50		08090
08091	Take down and set aside for re-use acoustic door.....		67.10	40.50		08091
08092	Fix only acoustic door.....	1,013.40	461.10			08092
(Note :- The above Items 08088 to 08092 inclusive will only be paid for, if ordered in writing by the Maintenance Surveyor.)						

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 sash	Opening sash	Jalousie with fixed louvres	Jalousie with movable louvres	Solid door	Flush door	Cup-board door		
	A	B	C	D	E	F	G		
	\$	\$	\$	\$	\$	\$	\$		
08093	Take down (complete with ironmongery, sash cords, etc., required) and clear away.....	17.90	17.90	20.40	20.40	26.80	26.80	14.70	08093
08094	Take down and set aside for re-use.....	19.10	19.10	23.60	23.60	33.80	33.80	21.70	08094
08095	Fix only including screwing to frame and bedding in white lead if required.....	22.80	-	-	-	-	-	-	08095
08096	Hang only including fixing any sash cord, etc.....	-	18.70	23.30	23.30	37.20	37.20	23.10	08096
08097	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.....	-	11.90	14.80	14.80	18.70	18.70	14.80	08097
08098	Ditto but including taking down and afterwards re-fixing.....	-	57.80	72.40	72.40	106.80	106.80	68.60	08098
08099	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).....	-	26.00	26.00	26.00	26.00	-	-	08099
08100	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).....	38.30	38.30	74.10	74.10	20.30	-	-	08100
08101	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).....	123.90	123.90	205.10	205.10	126.70	-	-	08101
<i>Per linear metre</i>									
08102	Provide and fix new 16, 22 or 29 mm circumference white Manila or other approved sash cord.....							A \$ 8.00	08102
<i>Each</i>									
08103	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 will not be paid for, if removal of door fitting and making good have been measured elsewhere.)							13.10	08103

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 teak							
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			
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$			
<i>Per linear metre</i>														
08104	Width n.e. 50 mm.....	-	21.70	24.50	26.50	29.90	32.30	-	36.10	42.00	45.40	52.30	56.40	08104
08105	Width 50 - 100 mm.....	21.30	29.30	35.20	39.50	45.20	49.20	35.30	50.90	62.50	71.50	83.60	90.30	08105
08106	Width 100 - 150 mm.....	30.60	44.30	53.50	60.60	69.90	75.70	53.40	82.10	102.70	114.50	133.60	149.10	08106
08107	Width 150 - 200 mm.....	41.80	59.10	74.10	83.30	94.00	103.60	77.50	115.90	148.70	166.40	188.20	210.70	08107

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 softwood								
Thickness (mm)								
30	50	65	75	90	100			
A	B	C	D	E	F			
\$	\$	\$	\$	\$	\$			
<i>Per linear metre</i>								
08108	Width n.e. 50 mm.....	-	30.70	33.90	36.10	45.90	46.40	08108
08109	Width 50 - 100 mm.....	29.70	41.50	50.30	56.60	64.10	71.30	08109
08110	Width 100 - 150 mm.....	44.40	63.20	75.60	89.30	100.20	110.90	08110
08111	Width 150 - 200 mm.....	59.50	89.10	109.30	123.70	142.00	158.40	08111

Add to either of Items 08104 to 08111 inclusive for frames, etc., bent to curve to radius n.e. 15 m during fixing by means of saw cuts, steam bending, etc.....

20%

Ditto for frames, etc., cut circular from solid timber including dowelling and keying sections together.....

35%

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>Per linear metre</i>	A \$	
08112	Take down and clear away wrot hardwood / wrot softwood / wrot teak frames to windows, doors, exposed partition or panel frames, transoms, mullions, styles, rails or cills, etc., of any size.....	10.20	08112
08113	Take down and set aside for re-use ditto.....	16.50	08113
08114	Fix only ditto.....	18.20	08114
	<i>Each</i>	A \$	
08115	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).....	24.50	08115
08116	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).....	25.40	08116
	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> (door panel size measured flat)	A \$	
08117	Plastic folding door.....	218.60	08117
	SCREEN FABRIC		
	Screen fabric of 1.5 mm thick in any colours covered to panel or backing (panel or backing measured separately) : -		
	<i>Per square metre</i>	Supply and fix	Take down and clear away
		A \$	B \$
08118	Screen fabric.....	131.60	31.40
			08118

Item			Supply and fix	Take down and clear away	Item																																																																																										
	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>		A \$	B \$																																																																																											
08119	Synthetic leather covering with 5 mm foam.....		363.70	22.20	08119																																																																																										
08120	Synthetic leather covering without 5 mm foam.....		316.20	16.60	08120																																																																																										
	STAIRCASES																																																																																														
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5">Wrot hardwood</th> <th colspan="5">Wrot teak</th> </tr> <tr> <th colspan="5">Thickness (mm)</th> <th colspan="5">Thickness (mm)</th> </tr> <tr> <th>20</th> <th>25</th> <th>30</th> <th>40</th> <th>50</th> <th>20</th> <th>25</th> <th>30</th> <th>40</th> <th>50</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> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>08121</td> <td>Tread (including winder tread) with rounded nosing, grooved for risers and wedged, glued, blocked and fixed complete (exposed top surface area measured).....</td> <td>-</td> <td>-</td> <td>232.80</td> <td>304.40</td> <td>358.70</td> <td>-</td> <td>-</td> <td>405.20</td> <td>536.10</td> <td>637.60</td> <td>08121</td> </tr> <tr> <td>08122</td> <td>Riser (including winder riser) with rebated or tongued edges, and wedged, glued and fixed complete (exposed face area measured).....</td> <td>168.40</td> <td>197.90</td> <td>221.60</td> <td>-</td> <td>-</td> <td>289.90</td> <td>351.60</td> <td>394.10</td> <td>-</td> <td>-</td> <td>08122</td> </tr> </tbody> </table>					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	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$											08121	Tread (including winder tread) with rounded nosing, grooved for risers and wedged, glued, blocked and fixed complete (exposed top surface area measured).....	-	-	232.80	304.40	358.70	-	-	405.20	536.10	637.60	08121	08122	Riser (including winder riser) with rebated or tongued edges, and wedged, glued and fixed complete (exposed face area measured).....	168.40	197.90	221.60	-	-	289.90	351.60	394.10	-	-	08122			
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08121	Tread (including winder tread) with rounded nosing, grooved for risers and wedged, glued, blocked and fixed complete (exposed top surface area measured).....	-	-	232.80	304.40	358.70	-	-	405.20	536.10	637.60	08121																																																																																			
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	<i>Per square metre</i>																																																																																														
08123	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.....						Wrot hard - wood A \$	Wrot teak B \$																																																																																							
08123							59.00	89.10		08123																																																																																					
08124	Ditto ramped or circular.....						60.70	91.70		08124																																																																																					
08125	Ditto wreathed.....						62.30	93.70		08125																																																																																					
08126	Add to either of Items 08123 to 08125 inclusive for each additional 0.001 m ² or part thereof in sectional area.....						14.60	21.70		08126																																																																																					
08127	Handrail n.e. 0.004 m ² sectional area all as last described but moulded to detail.....						61.90	94.80		08127																																																																																					
08128	Ditto ramped or circular.....						63.80	97.10		08128																																																																																					
08129	Ditto wreathed.....						68.10	108.10		08129																																																																																					
08130	Add to either of Items 08127 to 08129 inclusive for each additional 0.001 m ² or part thereof in sectional area.....						16.60	25.40		08130																																																																																					
08131	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.....						61.90	86.50		08131																																																																																					

Item			Wrot hard- wood	Wrot teak	Item	
	SUNDRY ITEMS		A \$	B \$		
	<i>Per linear metre</i>					
08138	Curtain pole 40 mm to 50 mm diameter with ends turned to 65 mm diameter and fixing.....		69.40	103.70	08138	
	<i>Each</i>					
08139	Turned caps and knobs 25 mm diameter and fixing.....		15.30	18.70	08139	
08140	Ditto but 50 mm diameter.....		19.50	24.90	08140	
08141	Ditto but 75 mm diameter.....		27.90	37.50	08141	
08142	Hatpegs of any length or size, square, shaped or turned.....		12.20	14.80	08142	
08143	Square or rectangular blocks with chamfered edges n.e. 40 mm thick for latches, bell pushes, door stops and the like, and fixing		17.50	21.50	08143	
08144	Circular ditto.....		21.30	28.50	08144	
08145	25 mm Thick backboard to cistern n.e. 450 x 300 mm chamfered all round and fixing.....		50.30	-	08145	
	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 \$	
08146	Bore or cut round hole through hardwood or teak n.e. 25 mm thick.....		4.50	7.70	5.10	08146
08147	Add to Item 08146 for each additional 25 mm or part thereof in thickness.....		3.20	6.40	3.80	08147
08148	Cut square or rectangular hole through hardwood or teak n.e. 25 mm thick.....		5.10	7.70	5.70	08148
08149	Add to Item 08148 for each additional 25 mm or part thereof in thickness.....		3.80	5.10	4.50	08149
	<i>Each</i>				A \$	
08150	Cut oval shaped hole with rounded edges through timber or plywood for latrine seat.....				19.00	08150
08151	Cut dishes housing in timber for rifle butt and the like.....				9.60	08151
08152	Cut rounded notch in timber for rifle, revolver barrel and the like.....				3.80	08152
08153	Cut pointed or rounded head to fencing post.....				3.80	08153

Item						Item																					
	BUILDING BOARDS AND SUNDRY ITEMS																										
	PLYWOOD	<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="5">Thickness (mm)</th> </tr> <tr> <th>n.e. 6</th> <th>9</th> <th>12</th> <th>15</th> <th>18</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>					Thickness (mm)					n.e. 6	9	12	15	18	A	B	C	D	E	\$	\$	\$	\$	\$	
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A	B	C	D	E																							
\$	\$	\$	\$	\$																							
	<i>Per square metre</i>																										
08154	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.....	58.90	67.00	78.00	84.50	99.00	08154																				
08155	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.....	72.80	82.70	96.30	104.30	122.30	08155																				
	<i>Per square metre</i>																										
08156	Extra over either of Items 08154 to 08155 inclusive for hardwood facing including teak, beech, maple, oak, zen wood, aneigre wood, sycamore wood and similar facing of natural finish to one side of plywood.....						08156																				
						<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <tr> <td>A</td> </tr> <tr> <td>\$</td> </tr> <tr> <td>37.50</td> </tr> </table>	A	\$	37.50																		
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08157	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.....				92.40	128.90	08157																				
	PLASTERBOARD	<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="2">Thickness (mm)</th> </tr> <tr> <th>9</th> <th>18</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>B</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> </tbody> </table>					Thickness (mm)		9	18	A	B	\$	\$													
Thickness (mm)																											
9	18																										
A	B																										
\$	\$																										
	<i>Per square metre</i>																										
08158	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.....				64.10	69.00	08158																				
08159	Ditto in soffits, or any other sloping or horizontal position.....				70.50	75.10	08159																				
	FIBRE INSULATION BOARD	<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <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>																										
08160	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.....		53.20	56.80	68.90		08160																				

Item			Item																																
	BLOCKBOARD AND MEDIUM DENSITY FIBREBOARD (MDF)	<table border="1" style="width: 100%;"> <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. adhesive as G.S. 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. adhesive as G.S. 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																																	
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\$	\$	\$	\$																																
	<i>Per square metre</i>																																		
08161	Boarding in coverings, linings and similar position.....	84.50 97.30 67.30 77.40	08161																																
	WOOD CHIPBOARD	<table border="1" style="width: 100%;"> <thead> <tr> <th colspan="4">Thickness (mm)</th> </tr> <tr> <th>9</th> <th>12</th> <th>18</th> <th>32</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> <tbody> <tr> <td>50.30</td> <td>56.80</td> <td>65.60</td> <td>89.10</td> </tr> <tr> <td>-</td> <td>80.50</td> <td>93.30</td> <td>-</td> </tr> <tr> <td>-</td> <td>92.10</td> <td>113.70</td> <td>-</td> </tr> <tr> <td>-</td> <td>137.90</td> <td>153.00</td> <td>-</td> </tr> </tbody> </table>	Thickness (mm)				9	12	18	32	A	B	C	D	\$	\$	\$	\$	50.30	56.80	65.60	89.10	-	80.50	93.30	-	-	92.10	113.70	-	-	137.90	153.00	-	
Thickness (mm)																																			
9	12	18	32																																
A	B	C	D																																
\$	\$	\$	\$																																
50.30	56.80	65.60	89.10																																
-	80.50	93.30	-																																
-	92.10	113.70	-																																
-	137.90	153.00	-																																
	<i>Per square metre</i>																																		
08162	Wood chipboard fixed with nails, screws, or adhesive as ordered, in wall or ceiling lining, doors, or any other position.....		08162																																
08163	Ditto but faced for painting one side.....		08163																																
08164	Ditto but faced for painting both sides.....		08164																																
08165	Ditto but faced one side with and including laminated decorative plastic sheeting (Class VG or HG as specified)		08165																																
	LAMINATED PLASTIC DECORATIVE SHEETING	<table border="1" style="width: 100%;"> <thead> <tr> <th colspan="3">Thickness (mm)</th> </tr> <tr> <th>0.7</th> <th>1.0</th> <th>1.3</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>98.40</td> <td>142.10</td> <td>174.90</td> </tr> </tbody> </table>	Thickness (mm)			0.7	1.0	1.3	A	B	C	\$	\$	\$	98.40	142.10	174.90																		
Thickness (mm)																																			
0.7	1.0	1.3																																	
A	B	C																																	
\$	\$	\$																																	
98.40	142.10	174.90																																	
	Laminated plastic decorative sheeting fixed with adhesive to bench tops, doors or any other position : -																																		
	<i>Per square metre</i>																																		
08166	Standard laminated plastic decorative sheeting (Class HG or VG as specified).....		08166																																
	<i>Per square metre</i>																																		
08167	1.3 mm Thick laminated plastic decorative sheeting cigarette proof or chemical resistance.....		165.90 08167																																
08168	0.7 mm (Overall) thick laminated plastic decorative sheeting (raw finished wood grains series).....		201.10 08168																																
08169	Ditto (PU finished wood grains series).....		250.90 08169																																
08170	0.8 mm Thick laminated decorative sheeting faced with polished finish aluminium sheet fixed with adhesive to bench tops, doors or any position.....		196.50 08170																																
08171	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.....		335.50 08171																																
08172	Ditto brushed aluminium finish ditto.....		342.20 08172																																

Item

Item

PROPRIETARY COMPACT LAMINATE PANELS

(Note : - The following Item 08173 will 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
\$	\$	\$	\$	\$
356.60	524.10	641.70	934.20	1,189.10

08173 Proprietary compact laminate panels in any colours and finishes to form wall panels, partitions and cladding fixed in any position.....

08173

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 : -

Per square metre

08174 Acoustic panel system comprising 25 mm thick acoustic panel of high density rigid composite panel fibreglass of density no less than 48kg/m³ and covered with fabric of any thickness.....

A
\$

669.70

08174

08175 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.....

1,273.40

08175

08176 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.....

1,091.50

08176

08177 25 mm thick acoustic underlay.....

152.80

08177

08178 50 mm thick acoustic underlay.....

262.00

08178

Per linear metre

08179 Concealed friction fit or interlock PVC track system to wall or ceiling complete with all fixing accessories.....

A
\$

109.20

08179

Item		Thickness (mm)			Item
FLAT FIBROUS REINFORCED CEMENT SHEETING					
		5	6	12	
		A	B	C	
		\$	\$	\$	
<i>Per square metre</i>					
08180	Sheeting butt jointed and fixed to vertical or horizontal timber framing (measured separately) with 30 mm galvanized nails at 300mm centres around all edges.....	105.50	109.00	149.10	08180
08181	Ditto but fixed to flat or sloping soffits.....	111.50	115.60	155.50	08181
08182	Add to either of Items 08180 to 08181 inclusive if fixed with screws in lieu of nails.....	12.30	12.30	12.30	08182
08183	Add to ditto if fixed to steel framing (measured separately) with screws, or bolts, nuts and washers, including drilling steel and tapping if required.....	5.80	5.90	6.30	08183
<i>Per linear metre</i>					
08184	6 mm Thick fibrous reinforced cement cover strip 75 mm wide fixed at joints.....	9.70	10.10	13.50	08184
GLAZED FIBROUS REINFORCED CEMENT COLOURED SHEETING					
					A
					\$
08185	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.....				108.60
WOOD WOOL SLABS					
		Thickness (mm)			
		25	40	50	75
		A	B	C	D
		\$	\$	\$	\$
08186	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.....	60.00	96.00	120.00	162.00

Item		Girth of hole or opening (mm)			Item	
	SUNDRY LABOURS					
	(Note : - The following Items 08187 to 08188 inclusive will not be paid for, if working on new works item.)					
	<i>Each</i>	N.e. 150	150 - 300	Each addi- tional 100		
		A \$	B \$	C \$		
08187	Bore or cut round hole through any type of boarding or sheeting in any thickness.....	1.00	2.90	2.00	08187	
08188	Cut square or rectangular hole through any type of boarding or sheeting in any thickness.....	2.00	4.00	2.90	08188	
	GLASS FIBRE INSULATION					
	<i>Per square metre</i>					
		Uncompressed thickness (mm)				
		12	25	50		
		A \$	B \$	C \$		
08189	Glass fibre mat in rolls laid butt jointed on slab.....	-	14.90	21.20	08189	
08190	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).....	-	18.50	25.20	08190	
08191	Extra over glass fibre mat for faced on one side with aluminium foil.....	-	17.50	18.20	08191	
08192	Glass fibre resin bonded slabs laid butt jointed on slab under screed (measured separately).....	26.10	39.90	60.00	08192	
08193	Ditto but fixed with approved adhesive to slabs, face of walls, ducts, etc.....	40.10	54.00	73.50	08193	
08194	Extra over glass fibre resin bonded slab for faced on one side with aluminium foil.....	16.80	16.80	16.80	08194	
	FIRE RESISTING INSULATION BOARD					
	Fire resisting insulation board fixed to position (horizontally or vertically) in any form : -					
	<i>Per square metre</i>					
		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 \$
08195	30 mm thick.....	29.80	34.40	38.30	39.30	45.60
08196	50 mm thick.....	61.80	69.00	75.30	82.90	94.20
08197	75 mm thick.....	105.20	115.10	123.50	134.80	151.60
08198	100 mm thick.....	145.40	159.00	170.10	184.40	206.00

Item				Item	
	REPAIRS TO BUILDING BOARDS 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 \$	
08199	Detached solid or slat shelving complete with bearers and wood or steel brackets (top surface area of shelving measured).....	16.00	16.60	50.20	08199
08200	Plywood of any type or thickness, and in any position.....	12.10	12.80	48.90	08200
08201	Plasterboard ditto.....	12.10	12.80	49.00	08201
08202	Fibre or fire resisting insulating board ditto.....	10.20	10.90	40.50	08202
08203	Blockboard ditto.....	12.10	12.80	48.50	08203
08204	Wood chipboard ditto.....	12.10	14.70	48.50	08204
08205	Laminated plastic decorative sheeting ditto.....	10.20	12.10	54.80	08205
08206	Flat fibrous reinforced cement sheeting ditto.....	10.90	12.10	64.20	08206
08207	Glazed fibrous reinforced cement sheets ditto.....	10.90	12.10	59.20	08207
08208	Wood wool slabs of any thickness fixed to any position.....	12.80	14.70	26.80	08208
08209	Baize or fine felt fixed to any boarding in any position.....	6.40	7.00	35.40	08209
08210	Glass fibre insulation of any type and thickness laid on or fixed to any component.....	5.70	6.40	6.60	08210
08211	Notice and directory boards, pin board and the like fixed to or hung on wall or column.....	17.90	18.50	55.50	08211

Item	Supply and fix	Take down and clear away	Item	
	A \$	B \$		
PROPRIETARY SPORT HALL FLOORING SYSTEMS				
<i>Per square metre</i>				
08212	Proprietary sports flooring with 174 x 57 x 10 mm nominal thickness timber 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, grout all joint with mid-grey compound from the same manufacturer, machine sand the whole floor and apply polyurethane seal from the same manufacturer.....	856.90	7.00	08212
08213	Proprietary cushioned sleeper sports floor system enhanced with 12 mm exterior grade plywood subfloor, on 50 x 75 mm sleepers spruce at 300 mm centres, pine or fir, CCA pressure treated, cushion pad by the same manufacturer for increased shock absorption and added resiliency, finished with hard maple flooring 19 x 57 mm, tongue and groove joints, supplied by the same manufacturer, 6 mm polyethylene vapour barrier (measured separately), to DIN 18032 Part 2, including machine sanding and applying wood preservative on wood before fixing all as recommended by the manufacturer.....	1,019.30	8.30	08213
08214	Ditto but including applying three coats of polyurethane paint	1,172.20	8.30	08214
08215	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 ISO cushion pad by the same manufacturer, finished with hard maple flooring 19 x 57 mm, tongue and groove joints, supplied by the same manufacturer, 6 mm polyethylene vapour barrier (measured separately), to DIN 18032 Part 2, and include machine sanding and applying three coats of polyurethane paint and any necessary wood preservative on wood before fixing all as recommended by the manufacturer.....	1,263.90	8.30	08215
08216	Proprietary sports flooring system with first grade maple strip flooring of 19 x 57 mm, random length on two layers of 12 mm exterior grade plywood crossed and tacked with 19 mm thick pneumatic conical natural rubber pads at 300 mm centres affixed to the bottom, laid on 6 mm thick polyethylene sheet vapour barrier (measured separately) and include machine sanding and applying three coats of polyurethane paint and any necessary wood preservative on wood before fixing all as recommended by the manufacturer.....	1,256.20	8.30	08216
08217	Proprietary sports flooring system with 22 x 129 x 1830 / 3700 mm (L) solid beech floor board, to DIN 18032 Part 2, floor board weight 16.2 kg/m ² , tongue and groove joints, controlled equilibrium moisture content 8% (+/-2%) and factory finished with 2 coats of Iso-lacquer, fully sprung batten system with single layer battens from the same manufacturer including resilient rubber strips with integrated progressive shock absorption, 32 kg/m ³ sound absorption fiberglass blanket laid between battens, together with 0.20 mm PE-foil moisture barrier laid on sub-floor all as recommended by the manufacturer.....	1,361.20	8.30	08217
08218	Proprietary sports flooring system with 22 x 129 x 1830 / 3700 mm(L) solid beech floor board, to DIN 18032 Part 2, floor board weight 16.2 kg/m ² , tongue and groove joints, controlled equilibrium moisture content 8% (+/-2%) and factory finished with 2 coats of Iso-lacquer held together by clips by the same manufacturer on the underside, supported by an intermediate layer of 5 or 10 mm resilient foam of extruded polyethylene cellular plastic, together with 0.20 mm PE-foil moisture barrier laid on sub-floor all as recommended by the manufacturer.....	1,138.40	8.30	08218
<i>Per linear metre</i>				
08219	100 x 75 x 10 mm Thick 'L' shape vent cove rubber wall base skirting.....		187.90	08219
08220	12 x 100 mm Maple wood skirting with two coats of polyurethane paint.....		69.10	08220

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 (1988). 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>	
08221	08221
90 x 65 mm.....	A \$ 154.10
08222	08222
135 x 65 mm.....	221.30
08223	08223
180 x 65 mm.....	288.70
08224	08224
230 x 65 mm.....	362.40
08225	08225
180 x 90 mm.....	390.70
08226	08226
230 x 90 mm.....	485.90
08227	08227
280 x 90 mm.....	569.10
08228	08228
230 x 113 mm.....	641.80
08229	08229
280 x 113 mm.....	769.60
Add to either of Items 08221 to 08229 inclusive for members cut curved from solid timber including dowelling and keying sections.....	
20%	
Ditto for members bent to curve to radius n.e. 15.00 m during fixing by means of saw cuts, steaming bending, etc.....	
20%	
Ditto for members cut rounded or mopstick from solid timber including dowelling and keying sections.....	
35%	
<i>Per linear metre</i>	
08230	08230
Take down and clear away glue laminated timber in any size.....	A \$ 4.50
08231	08231
Take down and set aside for re-use ditto.....	5.10
08232	08232
Fix only ditto.....	48.10

Item								Item
	LANDSCAPE TIMBER							
	<i>Per cubic metre</i>							
08233	Wrot landscape timber scantling n.e. 0.02 m ² sectional area.....	19,423.70	25,222.90	16,765.20	17,735.10			08233
08234	Ditto exceeding 0.02 m ² sectional area.....	13,648.80	14,439.80	11,773.70	12,488.30			08234
	Add to either of Items 08233 to 08234 inclusive for members cut curved from solid timber dowelling and keying sections.....						20%	
	Ditto for members bent to curve to radius n.e. 15.00 m during fixing by means of saw cutting, steaming bending, etc.....						20%	
	Ditto for members cut rounded or mopstick from solid timber including dowelling and keying sections.....						35%	
	<i>Per cubic metre</i>							
08235	Take down and clear away landscape timber in any size.....			218.80	185.00			08235
08236	Take down and set aside for re-use ditto.....			368.00	305.50			08236
08237	Fix only ditto.....			1,271.80	1,059.00			08237
	RECYCLED PLASTIC LUMBER							
	Recycled plastic lumber, resistant to UV, vandal, impact, algae, moss and corrosion; and rot, splinter and crack proof :-							
	<i>Per cubic metre</i>							
08238	Recycled plastic lumber (if the total quantity measured in a single Works Order exceed 0.05 m ³).....			17,876.00	18,881.30			08238
	<i>Per linear metre</i>							
08239	Recycled plastic lumber (if the total quantity measured in a single Works Order n.e. 0.05 m ³).....			178.80	377.60			08239
	Add to either of Items 08238 to 08239 inclusive for recycled plastic lumber of specific quality.....						50%	
	<i>Per cubic metre</i>							
08240	Take down and clear away recycled plastic lumber in any size.....			218.80	185.00			08240
08241	Take down and set aside for re-use ditto.....			368.00	305.50			08241
08242	Fix only ditto including making all joints.....			1,271.80	1,059.00			08242

Item		Supply and fix	Item
	PROPRIETARY SOLID SURFACING MATERIALS		
	Counter top of proprietary solid surfacing material; non-porous surfacing material homogeneously composed of +1/3 acrylic resin (also known as PolyMethyl MethAcrylate or PMMA), and + 2/3 natural minerals composed of Aluminum TriHydrate (ATH) derived from bauxite, an ore from which aluminum is extracted; (Elongation : DIN 53 445 (ISO/DIS 527-78 0.36-0.49%) : -		
	<i>Per square metre</i>	A \$	
08243	12.3 mm Thick counter top.....	2,843.00	08243
	<i>Per linear metre</i>		
08244	Extra over Item 08243 for bull nose n.e. 50 mm wide.....	104.30	08244
08245	Ditto for backsplash n.e. 50 mm high.....	193.10	08245
08246	Ditto for backsplash 50 to 100 mm high	369.50	08246
08247	Ditto for front apron n.e. 100 mm high.....	192.30	08247
08248	Ditto for front apron 100 to 200 mm high.....	378.50	08248
08249	Ditto for front apron 200 to 300 mm high.....	557.20	08249
08250	Ditto for inlay n.e. 20 mm wide.....	304.80	08250
	<i>Each</i>		
08251	Extra over Item 08243 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).....	1,393.20	08251
08252	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).....	1,892.90	08252
08253	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).....	2,541.80	08253

Item	Item
PROPRIETARY SOLID SURFACING MATERIALS (CONT'D)	
Counter top of proprietary solid surfacing material, a homogeneous thermoset polymer alloy, comprised of both acrylic and polyester co-polymer components and filled with Aluminum TriHydrate (ATH) under the license of the diller corporation with hardness Rockwell M95 at ASTM test D785 and barcol 61 at ASTM test 2583; and complies with NSF-51, NEMA LD-3, ASTM tested : -	
	Supply and fix
	A \$
Per square metre	
08254	12.7 mm Thick counter top..... 2,573.80 08254
Per linear metre	
08255	Extra over Item 08254 for bull nose n.e. 50 mm wide..... 95.90 08255
08256	Ditto for backsplash n.e. 50 mm high..... 185.50 08256
08257	Ditto for backsplash 50 to 100 mm high 365.60 08257
08258	Ditto for front apron n.e. 100 mm high..... 189.90 08258
08259	Ditto for front apron 100 to 200 mm high..... 365.50 08259
08260	Ditto for front apron 200 to 300 mm high..... 552.70 08260
Each	
08261	Extra over Item 08254 for integral single bowl basin; oval shape; overall internal size : 432 mm x 346 mm x 146 mm deep..... 1,163.90 08261
08262	Ditto for integral single bowl basin; oval shape with one straight side; overall internal size : 381 mm x 267 mm x 146 mm deep..... 1,359.00 08262
08263	Ditto for integral single bowl basin; oval shape; overall internal size : 543 mm x 346 mm x 146 mm deep..... 2,039.50 08263
08264	Ditto for integral single sink; rectangular shape; internal size : 406 mm x 406 mm x 210 mm deep..... 1,169.60 08264
08265	Ditto for integral double sinks; rectangular shape; overall internal size : 838 (381 & 381) mm x 406 mm x 210 mm deep..... 2,641.60 08265
08266	Ditto for integral double sinks; rectangular shape; overall internal size : 787 (483 & 279) mm x 406 mm x 210 mm deep..... 2,641.60 08266
Proprietary solid surfacing material fixed to wall of various colour range and finish including curved corner, round edge, fixing bracket, accessories, cut holes, pointing, jointing and sealing edges with sealant, etc. : -	
Per square metre	
08267	12.7 mm Thick proprietary solid surfacing material fixed to wall of non-porous surfacing material, acrylic-modified based (ISSFA recommended), acrylic modified blinder (ISO-NPG type resin), Aluminum Hydroxide filler, non-toxic pigment, patented additives; and providing maximum protection to all hygiene areas by Nano Sliver Anti-bacterial Technology..... 2,361.90 08267
08268	12.3 mm Thick proprietary solid surfacing material fixed to wall of non-porous surfacing material homogeneously composed of +1/3 acrylic resin (also known as PolyMehtyl MethAcrylate or PMMA), and + 2/3 natural minerals composed of Aluminum TriHydrate (ATH) derived from bauxite, an ore from which aluminum is extracted. (Elongation : DIN 53 445 (ISO/DIS 527-78) 0.36-0.49%)..... 2,952.10 08268
08269	12.7 mm Thick proprietary solid surfacing material fixed to wall, a homogeneous thermoset polymer alloy, comprised of both acrylic and polyester co-polymer components and filled with Alumina Trihydrate (ATH) under the license of the diller corporation with hardness Rockwell M95 at ASTM test D785 and barcol 61 at ASTM test 2583; and complies with NSF-51, NEMA LD-3, ASTM test..... 2,891.20 08269

Item

Item

PROPRIETARY ANTI-RICOCHET SURFACES

Proprietary anti-ricochet tiles for flooring, walling and ceiling, size of 1000 mm x 500 mm (+/- 1%), thickness at 43 mm, weight approximately 35 kg/m²; can be fixed or loose laid, with 2-component polyurethane adhesive or with stainless steel screws to ceiling; tensile strength of approximately 1/mm² and the elongation at break is approximately 75% according to DIN 53 571; tear resistance at approximately 11 N/mm according to DIN 53 515 Graves; with heat resistance is up to 80°C, shortly up to 100°C; water permeability at 0.34 cm/s that comply with the standard of DIN 18 035 Part 6; stress at 20% compression at approximately 0.74 N/mm² according to DIN 53 577; can meet the fire resistance standard according to DIN 4102 Class B2; certified with the standard DIN EN ISO 9001:2000 and ISO 14001:2004 :-

Per square metre

08270 Proprietary anti-ricochet tile..... 1,289.30 12.80 46.60 84.20 08270

Each

08271 Proprietary anti-ricochet tile, total area not exceeding 0.50 m² of each Works Order..... 694.90 6.40 23.60 42.10 08271

Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only
A	B	C	D
\$	\$	\$	\$
1,289.30	12.80	46.60	84.20
694.90	6.40	23.60	42.10

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 and 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, 2008 Edition.

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	<p>The rates for letter or number signs cut from plastic or metal sheet shall further include for :-</p> <ul style="list-style-type: none"> (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	<p>The rates for engraved plastic sign face shall further include for :-</p> <ul style="list-style-type: none"> (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	<p>The rates for acid etched stainless steel sign face shall further include for :-</p> <ul style="list-style-type: none"> (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	<p>Where ironmongery is obtained from Government stores or other designated suppliers, the rates for "Fix only" will be paid.</p>

Item		Supply and fix			Item
		Type A	Type B	Fix only	
		A	B	C	
	HINGES				
	<i>Per pair</i>				
09001	Butt hinges with or without nylon bushes n.e. 75 mm long.....	37.70	28.30	11.70	09001
09002	Ditto 75 - 125 mm long.....	64.10	48.10	14.60	09002
09003	Rising or falling butt hinges n.e. 75 mm long.....	64.50	-	14.60	09003
09004	Ditto 75 - 100 mm long.....	67.10	-	17.60	09004
09005	Backflap hinges n.e. 75 mm long.....	40.70	30.50	11.70	09005
09006	Counter hinges n.e. 75 mm long.....	55.20	-	7.30	09006
09007	Parliament hinges n.e. 75 mm long.....	87.70	-	17.60	09007
09008	Ditto 75 - 150 mm long.....	115.70	-	26.30	09008
09009	Cranked or semi-concealed cupboard hinges.....	84.20	63.20	8.80	09009
09010	Fully concealed cupboard hinges.....	30.50	22.90	8.80	09010
09011	Cross garnet or tee hinges up to 150 mm long.....	-	13.60	7.30	09011
09012	Ditto 150 - 300 mm long.....	-	27.80	10.20	09012
09013	Ditto 300 - 450 mm long.....	-	38.10	13.20	09013
09014	Ditto 450 - 600 mm long.....	-	45.40	17.60	09014
09015	Hook and ride hinges, local made heavy pattern, with hook riveted to plate up to 300 mm long.....	44.00	33.00	10.20	09015
09016	Ditto 300 - 600 mm long.....	62.80	47.10	14.60	09016
09017	Ditto 600 - 900 mm long.....	86.50	64.90	26.30	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.....	7.30	7.30	7.30	09018
09019	Single action spring hinges n.e. 75 mm.....	49.10	36.90	11.70	09019
09020	Ditto 75 - 150 mm long.....	68.10	51.10	14.60	09020
09021	Double action spring hinges n.e. 75 mm long.....	69.80	52.40	14.60	09021
09022	Ditto 75 - 150 mm long.....	106.60	80.00	14.60	09022
09023	Safety hinges n.e. 75 mm long.....	-	32.50	7.30	09023
09024	Ditto 75 - 150 mm long.....	-	45.80	10.20	09024
	<i>Per linear metre</i>				
09025	Piano hinge.....	39.00	-	14.60	09025

Item	Item												
	<table border="1"> <thead> <tr> <th colspan="3">Supply and fix</th> </tr> <tr> <th>Type A</th> <th>Type B</th> <th>Fix only</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>	Supply and fix			Type A	Type B	Fix only	A	B	C	\$	\$	\$
Supply and fix													
Type A	Type B	Fix only											
A	B	C											
\$	\$	\$											
	BOLTS												
	<i>Each</i>												
09026	Tower or barrel bolt n.e. 75 mm long..... 31.80 23.90 5.90 09026												
09027	Ditto 75 - 150 mm long..... 33.30 24.90 7.30 09027												
09028	Ditto 150 - 225 mm long..... 36.70 27.50 8.80 09028												
09029	Ditto 225 - 300 mm long..... 50.20 37.60 10.20 09029												
09030	Ditto 300 - 450 mm long..... 58.80 44.10 11.70 09030												
09031	Ditto 450 - 600 mm long..... 80.40 60.30 17.60 09031												
09032	Ditto 600 - 750 mm long..... 100.40 75.30 21.90 09032												
09033	Ditto 750 - 900 mm long..... 128.60 96.50 23.40 09033												
09034	Ditto 900 - 1,050 mm long..... 162.40 121.80 24.90 09034												
09035	Ditto 1,050 - 1,200 mm long..... 188.20 141.10 26.30 09035												
09036	Monkey tail bolt n.e. 500 mm long..... 78.50 58.90 14.60 09036												
09037	Ditto 500 - 1,200 mm long..... 162.40 121.80 21.90 09037												
09038	Flush bolt with sunk slide n.e. 75 mm long..... 51.00 - 17.60 09038												
09039	Ditto 75 - 150 mm long..... 57.60 - 20.50 09039												
09040	Ditto 150 - 300 mm long..... 93.60 - 26.30 09040												
09041	Lever flush bolt n.e. 75 mm long..... 59.70 - 21.90 09041												
09042	Ditto 75 - 150 mm long..... 69.10 - 21.90 09042												
09043	Ditto 150 - 300 mm long..... 112.10 - 26.30 09043												
09044	Ditto 300 - 600 mm long..... 162.70 - 36.60 09044												
09045	Indicating bolt..... 56.90 - 24.90 09045												
09046	Mortise dead bolt with indicator and long lever turn for handicap..... 285.40 - 24.90 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.....	12.60	-	7.30	09047		
09048	Bolt socket of any size for surface fixing.....	20.50	-	7.30	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.....	22.00	-	10.20	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.....	738.40	553.80	26.30	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.....	847.20	635.40	26.30	09051		
PANIC BOLTS							
<i>Each</i>							
		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	
		\$	\$	\$	\$	\$	
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.....	1,074.90	-	13.80	29.70	55.60	09052
09053	Ditto but to suit double leaf door.....	1,820.90	-	21.30	44.60	84.80	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.....	934.70	-	11.70	26.60	52.70	09054
09055	Ditto but to suit pair of doors.....	1,519.10	-	18.10	40.40	79.00	09055
09056	Add to either of Items 09054 to 09055 inclusive for cylinder locking device from outside.....	603.90	-	9.60	19.10	41.00	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, 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".....	2,404.50	1,803.40	40.40	91.40	175.50	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.....	4,203.10	3,152.30	40.40	91.40	175.50	09058

Item	LOCKES AND LATCHES	Supply and fix			Item
		Type A	Type B	Fix only	
		A \$	B \$	C \$	
	<i>Each</i>				
09059	Suffolk latch with 200 x 50 mm plate.....	-	73.90	21.90	09059
09060	Rim latch with case, staple and brass spring bolt.....	273.70	205.30	26.30	09060
09061	Upright mortice latch with brass spring bolt and striking plate.....	180.60	135.50	35.10	09061
09062	Horizontal ditto.....	188.30	141.20	35.10	09062
09063	Latch including knob set in stainless steel.....	64.00	-	26.30	09063
09064	Bathroom lock including knob set with push button on one side and emergency device on the other side.....	69.40	-	29.30	09064
09065	Lock including knob set with push button on one side and locking device on the other side.....	70.80	-	29.30	09065
09066	Combined latch and dead lock including knob set with thumb turn on one side and locking device on the other side.....	184.90	-	46.80	09066
09067	150 mm Rim dead lock with case, staple, brass bolt and three lever mechanism.....	91.00	68.20	26.30	09067
09068	150 mm Rim lock with case, staple, brass dead and spring bolt and three lever mechanism.....	91.00	68.20	26.30	09068
09069	Horizontal mortice dead lock with brass bolt, keeper and four lever mechanism.....	145.70	109.30	41.00	09069
09070	Ditto but with rebated fore-end.....	165.80	124.40	45.30	09070
09071	Upright mortice lock with brass dead and spring bolt, striking plate and four lever mechanism.....	160.80	120.60	45.30	09071
09072	Ditto but with rebated fore-end.....	237.20	177.90	58.50	09072
09073	Horizontal mortice lock with brass dead and spring bolt, striking plate and four lever mechanism.....	160.80	120.60	45.30	09073
09074	Ditto but with rebated fore-end.....	237.20	177.90	58.50	09074
09075	Cylinder rim night latch (reversible) with staple, brass bolt, cylinder, thumb slide, knob and three keys.....	176.50	132.30	43.90	09075
09076	Cylinder mortice night latch with brass bolt, cylinder, thumb turn and three keys.....	282.50	211.90	58.50	09076
09077	Flush cupboard, drawer or desk lock with four lever mechanism.....	-	38.00	23.40	09077
09078	Ditto but with four pin tumbler mechanism.....	47.90	35.90	23.40	09078
09079	Self locking flush cupboard, drawer or desk lock with brass spring bolt and four pin tumbler mechanism.....	52.10	39.10	23.40	09079
09080	50 mm Padlock with hardened steel shackle and four lever mechanism.....	33.80	25.40	2.90	09080
09081	75 mm Ditto.....	40.10	30.10	2.90	09081
09082	50 mm Padlock with hardened steel shackle and five pin tumbler mechanism.....	38.80	-	2.90	09082
09083	75 mm Ditto.....	61.60	-	2.90	09083

Item				Item	
	LOCKS AND LATCHES (CONT'D)				
		Supply and fix	Fix only		
	<i>Each</i>	A \$	B \$		
09084	Mechanical digital lock.....	882.80	51.20	09084	
09085	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.....	1,700.30	52.70	09085	
09086	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 ASNI A156.2 Series 4000, Grade 2, UL 3 Hour Fire Rating.....	261.40	36.60	09086	
	DOOR FURNITURE				
	Replacement parts only : -	Supply and fix			
		Type A	Type B	Fix only	
	<i>Each</i>	A \$	B \$	C \$	
09087	Key hole escutcheon.....	13.90	-	2.90	09087
09088	Ditto with cover.....	16.60	-	2.90	09088
09089	Single knob with rose if required.....	24.00	18.00	4.40	09089
09090	Single lever handle with cover plate if required.....	43.60	32.70	5.10	09090
09091	Set of knob furniture complete with roses or cover plates and spindle.....	28.40	21.30	8.80	09091
09092	Set of lever handles ditto.....	112.30	84.20	8.80	09092
	DOOR SEALS				
		Supply and fix	Fix only		
	<i>Per linear metre</i>	A \$	B \$		
09093	Aluminium door seal with neoprene inserts.....	91.70	8.80	09093	
09094	PVC door seal with neoprene inserts.....	83.40	8.80	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.....	877.90	-	87.80	09095
09096	Double action ditto.....	1,017.30	-	87.80	09096
09097	Spring action type floor door holder with rubber door stop.....	69.70	-	5.90	09097
09098	Door holder, clip pattern.....	-	35.70	5.90	09098
09099	40 mm Diameter rubber door stop.....	6.60	4.90	2.90	09099
09100	40 mm Ditto but with plate fixing.....	5.10	3.80	2.90	09100
09101	Door stopper, dome shape with rubber buffer, chrome plated.....	14.60	-	5.90	09101
09102	Overhead door closer, light duty non-hold open.....	157.70	118.30	36.60	09102
09103	Overhead door closer, heavy duty non-hold open.....	205.10	153.80	36.60	09103
09104	Extra over either of Items 09102 to 09103 inclusive with delayed action.....	68.40	51.30	-	09104
09105	Concealed door closer, light duty non-hold open.....	176.70	132.50	58.50	09105
09106	Concealed door closer, heavy duty non-hold open.....	231.70	173.80	58.50	09106
09107	Extra over either of Items 09105 to 09106 inclusive with delayed action.....	78.60	59.00	-	09107
FITTINGS FOR SASHES AND FANLIGHTS, ETC.					
	<i>Each</i>				
09108	75 mm Cleat hook.....	14.70	-	2.90	09108
09109	Spring catch with projecting ring and strike plate or staple.....	40.30	-	7.30	09109
09110	Staple only for spring catch.....	18.90	-	2.90	09110
09111	15 mm Internal diameter screw eye.....	9.40	-	2.90	09111
09112	Casement fastener with 115 mm handle and hook or mortice plate.....	37.70	28.20	7.30	09112
09113	200 mm Casement stay with two stud pins.....	29.30	22.00	10.20	09113
09114	250 mm Ditto.....	30.40	22.80	10.20	09114
09115	300 mm Ditto.....	31.40	23.60	10.20	09115
09116	Single stud pins.....	7.80	5.80	4.40	09116
09117	Sliding bar type casement stay n.e. 300 mm long.....	53.40	28.30	10.20	09117
09118	Ditto 300 - 600 mm long.....	71.00	53.20	16.10	09118
09119	Fanlight opener with 300 mm long rack and pinion, worm wheel, pulley and endless cord.....	175.50	-	14.60	09119
09120	Set of two sash pivots and sockets.....	81.60	-	19.00	09120

Item					Item	
FITTINGS FOR SLIDING SASHES, ETC. (CONT'D)						
Supply and fix						
Each						
		Type A	Type B	Fix only		
		A \$	B \$	C \$		
09121	15 mm Diameter sash rollers with frame and face plate.....	30.90	-	10.20	09121	
09122	20 mm Diameter ditto.....	34.60	-	10.20	09122	
09123	Sash axle pulley with brass face, galvanized steel frame and 40 mm diameter brass wheel.....	32.40	-	11.70	09123	
09124	Ditto but with 50 mm diameter brass wheel.....	50.30	-	13.20	09124	
09125	25 mm Internal diameter sash eye on plate.....	32.70	-	4.40	09125	
09126	Sash hook pattern lift on 50 mm plate.....	38.60	-	4.40	09126	
09127	Sash flush pattern lift size 75 x 40 mm overall.....	56.00	-	8.80	09127	
09128	Iron sash weight with hook or plate for cord attachment weighing 1.50 kg including providing and fixing cord.....	-	50.20	13.20	09128	
09129	Add for each additional 0.50 kg or part thereof in weight.....	-	13.20	2.90	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.....	-	249.90	30.70	09130	
09131	Ditto but for sash weighing 13 kg - 20 kg.....	-	284.00	33.60	09131	
09132	Ditto but for sash weighing 20 kg - 27 kg.....	-	288.50	38.00	09132	
WINDOW OPENERS						
Approved mechanical systems for the window remote control comprising all necessary fixing accessories all in accordance with the manufacturer's instructions :-						
Each						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
09133	Window opener for 1 sash high level window.....	980.60	10.60	13.80	14.60	09133
09134	Ditto but 2 sashes.....	1,452.10	19.10	27.60	32.20	09134
09135	Ditto but 3 sashes.....	1,833.40	30.80	41.40	48.30	09135
09136	Ditto but 4 sashes.....	2,257.90	41.40	55.20	62.90	09136
09137	Add to Item 09136 for each additional sash.....	467.40	10.60	13.80	14.60	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 :-						
Each						
09138	Window opener for 1 sash high level window.....	2,153.80	12.80	15.90	35.10	09138
09139	Ditto but 2 sashes.....	2,492.10	23.40	31.90	70.20	09139
09140	Ditto but 3 sashes.....	2,830.40	36.10	51.00	105.30	09140
09141	Ditto but 4 sashes.....	3,159.90	47.80	63.70	131.60	09141
09142	Add to Item 09141 for each additional sash.....	528.10	12.80	15.90	35.10	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.....	-	55.90	10.20	09143
09144	Bar clip 150 x 40 x 5 mm twice bent and three times holed for screws.....	80.10	60.10	5.90	09144
09145	Eye for movable louvre.....	14.10	10.60	2.90	09145
09146	8 mm Diameter butterfly headed thumb screw 150 mm long.....	26.00	-	2.90	09146
09147	Ditto but 200 mm long.....	32.30	-	4.40	09147
09148	50 x 50 x 3 mm Plate holed for thumb screw and four fixing screws.....	26.00	-	5.90	09148
09149	Ditto with tapped shoulder to receive 8 mm diameter screw.....	35.30	-	5.90	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.....	892.00	-	77.50	09150
	<i>Per linear metre</i>				
09151	Corner guard.....	284.90	213.70	43.90	09151
	<i>Each</i>				
09152	Local pattern "Magic Eye" observation eyehole fitting.....	47.00	-	5.90	09152
09153	Cupboard door pull knob.....	12.00	9.00	2.90	09153
09154	Ditto with 50 mm diameter back plate.....	17.40	-	2.90	09154
09155	Bales catch with plate size 28 x 10 mm.....	20.20	-	5.90	09155
09156	Ditto but plate size 40 x 15 mm.....	21.00	-	5.90	09156
09157	Ditto but plate size 50 x 20 mm.....	21.80	-	5.90	09157
09158	Magnetic door catch.....	23.50	17.70	5.90	09158
09159	Drawer, wardrobe or cupboard pull handle 100 mm long.....	32.20	24.20	7.30	09159
09160	Ditto but 150 mm long.....	37.60	28.20	7.30	09160
09161	Door pull handle 225 mm long.....	33.00	-	8.80	09161
09162	Ditto but 300 mm long.....	40.80	-	8.80	09162

Item	FITTINGS FOR DOORS AND CUPBOARDS (CONT'D)	Supply and fix			Item
		Type A	Type B	Fix only	
		A \$	B \$	C \$	
	<i>Each</i>				
09163	300 x 75 mm Finger plate.....	30.70	-	7.30	09163
09164	75 x 45 mm Flush pattern drop drawer handle.....	31.00	-	14.60	09164
09165	75 x 40 mm Flush pull handle.....	30.20	22.70	13.20	09165
09166	100 x 50 mm Ditto.....	31.10	23.30	13.20	09166
09167	75 x 40 mm Card holder frame.....	20.10	15.10	4.40	09167
09168	100 x 75 mm Ditto.....	23.20	17.40	4.40	09168
09169	150 x 100 mm Ditto.....	31.40	23.60	4.40	09169
09170	25 x 1.60 mm Hanging plate.....	34.90	-	2.90	09170
09171	40 x 1.60 mm Ditto.....	38.90	-	2.90	09171
09172	50 x 1.60 mm Ditto.....	42.80	-	2.90	09172
09173	50 mm Coat hook.....	12.40	-	2.90	09173
09174	100 mm Hat and coat hook.....	18.00	-	2.90	09174
09175	75 mm Combined hook and rubber door stop.....	26.90	-	2.90	09175
09176	25 mm Cup hook.....	7.80	-	2.90	09176
09177	50 mm Hook.....	18.60	13.90	2.90	09177
09178	100 x 75 mm Shelf bracket.....	-	13.70	8.80	09178
09179	150 x 125 mm Ditto.....	-	17.00	10.20	09179
09180	225 x 175 mm Ditto.....	-	20.20	11.70	09180
09181	300 x 250 mm Ditto.....	-	24.20	13.20	09181
09182	Cabin hook and eye n.e. 150 mm.....	35.70	26.70	11.70	09182
09183	Ditto but 150 - 300 mm.....	55.00	41.50	19.00	09183
09184	150 mm Double hinged cabin hook and eye.....	-	30.50	13.20	09184
09185	Eye for cabin hook.....	12.60	9.50	4.40	09185
09186	Hasp and staple n.e. 75 mm.....	-	9.40	7.30	09186
09187	Ditto but exceeding 75 mm.....	-	11.50	8.80	09187
09188	Solid drawn flat bar type hasp and staple n.e. 75 mm.....	11.60	8.70	7.30	09188
09189	Ditto but exceeding 75 mm.....	-	10.90	8.80	09189

Item		Supply and fix			Item
		Type A	Type B	Fix only	
		A	B	C	
		\$	\$	\$	
FITTINGS FOR DOORS AND CUPBOARDS (CONT'D)					
	<i>Each</i>				
09190	450 mm Hinged swing locking bar with pivot and plate, two hook plates and staple plate.....	82.20	-	26.30	09190
09191	600 mm Ditto.....	97.50	-	33.60	09191
09192	900 mm Ditto.....	116.40	-	36.60	09192
09193	Door chain complete with slider and 100 x 40 mm plate.....	42.20	31.70	13.20	09193
09194	Ditto but with 150 x 40 mm plate.....	49.50	37.10	13.20	09194
09195	Slide or upright single pulley (screw or frame and plate) with wheel n.e. 25 mm diameter.....	21.20	15.90	5.90	09195
09196	Ditto with wheel 25 - 50 mm diameter.....	23.70	17.80	5.90	09196
09197	Slide or upright double pulley (screw or frame and plate) with wheel n.e. 25 mm diameter.....	26.30	19.70	5.90	09197
09198	Ditto with wheel 25 - 50 mm diameter.....	31.40	23.50	5.90	09198
09199	Ash tray in any size, surface mounted.....	171.90	-	4.40	09199
09200	Litter bin, 250 x 250 x 350 mm high, surface mounted	550.70	-	14.60	09200
09201	Ditto, 400 x 400 x 550 mm high, surface mounted.....	1,215.40	-	17.60	09201
09202	Stud pin with socket for shelves.....	8.50	6.40	2.90	09202
	<i>Per pair</i>				
09203	Set of drawer slider 300 mm long.....	42.90	32.20	7.30	09203
09204	Add to Item 09203 for each additional 50 mm long or part thereof in length.....	5.10	3.80	2.90	09204
FIBRE TRACK, SLIDERS, ETC., FOR SMALL CUPBOARD AND GLASS SLIDING DOORS					
	<i>Per linear metre</i>				
09205	"Grooving-in" type track including cutting groove.....	29.90	22.50	10.20	09205
09206	"T" shaped track for surface fixing.....	30.20	22.60	7.30	09206
09207	Single channel including cutting groove if required.....	53.10	39.80	14.60	09207
09208	Double channel including ditto.....	56.20	42.20	14.60	09208
09209	Triple channel including ditto.....	64.20	48.10	14.60	09209
	<i>Each</i>				
09210	Slider of various sizes.....	11.60	8.70	2.90	09210

Item		Supply and fix			Item
	Sliding door gear as BS EN 1527 :-	Type A	Type B	Fix only	
	<i>Per linear metre</i>	A	B	C	
		\$	\$	\$	
09211	Track and fixed in bracket (measured separately).....	433.00	324.80	14.60	09211
09212	Add to Item 09211 for plugging and screwing direct to wall, beam, lintol and the like.....	33.20	24.90	21.90	09212
09213	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.....	234.30	175.70	42.40	09213
	<i>Each</i>				
09214	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.....	203.70	152.80	33.60	09214
09215	Add to Item 09214 for fixing with 8 mm rawbolt including drilling hole in concrete, brick, stone or other surface and make good.....	20.70	15.50	10.20	09215
09216	Ditto but with 12 mm rawbolt.....	28.30	21.20	13.20	09216
09217	Four wheel hanger and adjustable split sprons.....	198.00	148.50	23.40	09217
09218	Two wheel swivel hanger with nylon wheels concealed fixing.....	468.70	351.60	24.90	09218
09219	Four wheel swivel hanger with nylon wheels concealed fixing.....	285.40	214.00	24.90	09219
09220	Two wheel swivel end hanger face fixing.....	257.70	193.30	24.90	09220
09221	Two wheel swivel intermediate hanger face fixing.....	330.50	247.90	32.20	09221
09222	Brass roller guide light duty.....	46.60	35.00	10.20	09222
09223	Ditto face fixed heavy duty.....	136.90	102.70	13.20	09223
09224	Flush fold guide.....	74.30	55.70	16.10	09224
09225	Face fixed end fold guide.....	97.60	73.20	10.20	09225
09226	Face fixed intermediate fold guide.....	148.50	111.40	17.60	09226

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>						
09227	Metal curtain track including rails, brackets, hoods and accessories, operated manually or by cord.....	51.20	2.10	4.30	7.30	09227
09228	Metal valance rail including brackets at not more than 400 mm centres and thirteen hooks per linear metre	30.00	1.60	3.20	5.90	09228
09229	Approved hospital curtain tracks including ditto.....	384.10	3.20	5.30	43.90	09229
Replacement parts only : -						
<i>Each</i>						
09230	Bracket to metal curtain track.....	13.00	1.10	2.10	2.90	09230
09231	Double bracket at overlap to ditto.....	16.20	1.10	2.10	4.40	09231
09232	End stop to ditto.....	3.90	1.10	1.10	2.90	09232
09233	Runner to ditto including removing and replacing end stop as necessary.....	6.60	1.10	2.10	4.40	09233
09234	Bracket to metal valance rail.....	13.00	1.10	2.10	2.90	09234
09235	Hook to ditto.....	4.00	1.10	1.10	2.90	09235
<i>Per linear metre</i>						
09236	Cord operated metal curtain track with regular duty rail in baked enamelled finish for ceiling and wall mounting, one-way or two-way or multiple draw; the whole can withstand maximum fabric weight of at least 16 pounds for one-way draw, or at least 30 pounds for two-way draw; including all necessary brackets for top or face fixing, centre overlap and master slides, sliders and accessories (pulley set measured separately).....	54.10	2.10	4.30	8.80	09236
09237	Cord operated metal curtain track with double duty rail in baked enamelled finish for ceiling, wall and recessed mounting, extra strong and rugged deluxe traverse line and flange construction, one-way or two-way or multiple draw; the whole can withstand maximum fabric weight of at least 30 pounds for one-way draw, or at least 45 pounds for two-way and multiple draw; including all necessary brackets for top or face fixing, featuring with push-in style brackets for fast mounting, centre self-lubricating overlap and master slides, concealed cord, sliders and accessories (pulley set measured separately).....	56.50	1.80	3.60	8.80	09237
Replacement parts only : -						
<i>Each</i>						
09238	Pulley set complete with cords to regular or double duty rail.....	15.80	1.10	2.10	4.40	09238
09239	Bracket to regular or double duty rail.....	5.20	1.10	2.10	2.90	09239
09240	Slider for regular or double duty rail.....	4.10	1.10	1.10	2.90	09240
09241	Master slide to regular or double duty rail.....	4.40	1.10	1.10	2.90	09241
09242	Tension pulley.....	23.70	1.10	2.10	4.40	09242

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	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>	A \$	B \$	C \$	D \$	
09243	Plastic coated glass fibre mosquitoes or fly screens fixed to wood or metal frames with or without beads (beads measured separately).....	75.90	4.30	8.50	17.60	09243
09244	Brass mosquitoes or fly screens ditto.....	170.70	4.30	8.50	17.60	09244
09245	Aluminium mosquitoes or fly screens ditto.....	156.80	4.30	8.50	17.60	09245
09246	Stainless steel mosquitoes or fly screens ditto.....	296.00	4.30	8.50	17.60	09246
	(Note :- The above Item 09246A will 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>	A \$	B \$	C \$	D \$	
09247	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.....	532.30	4.30	8.50	17.60	09247
09248	Ditto but horizontal sliding roller type.....	527.80	3.60	7.20	17.60	09248
	SUNDRIES					
	<i>Per linear metre</i>	A \$	B \$	C \$	D \$	
09249	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.....	6.20	1.10	-	4.40	09249
09250	Plastic foam self adhesive strip size 15 x 3 mm fixed to window or door edge.....	17.10	1.10	-	4.40	09250
09251	Vinyl plastic handrail capping to 50 mm core rail.....	37.80	4.30	9.60	17.60	09251
09252	Rubber speed reduction ramp including end caps and anchor bolts.....	632.40	12.80	21.30	41.00	09252
	<i>Per set</i>					
09253	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.....	491.00	18.10	28.70	58.50	09253

Item			Take down and clear away	Take down and set aside for re-use	Item
	REPAIRS TO IRONMONGERY				
	<i>Each</i>		A \$	B \$	
09254	Group I type of article of ironmongery.....		5.10	8.40	09254
09255	Group II ditto.....		8.40	13.50	09255
09256	Group III ditto.....		26.90	59.00	09256
	<i>Each</i>			A \$	
09257	Oil, ease, adjust and re-secure of article of ironmongery of any types..... (Note : Item 09257 shall not be measured when either of Items 09258 to 09260 inclusive is ordered.)			2.90	09257
09258	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).....			36.50	09258
09259	Ditto but Group II article of ironmongery.....			55.50	09259
09260	Ditto but Group III article of ironmongery.....			161.50	09260
09261	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).....			19.00	09261
09262	Provide new keys to cylinder lock from pattern of old complete with ditto (ditto).....			13.10	09262

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	
		\$	\$	\$	\$	\$	
	<i>Each</i>						
09263	Translucent film signage to existing plastic, glass and metal surfaces.....	81.80	140.70	351.70	451.90	77.50	09263
	SILKSCREEN SIGNS						
	Silkscreen printed signs comprising graphics, logos, letters, numbers, Chinese characters, full stops, commas, and the like : -						
	<i>Each</i>						
09264	Silkscreen printing to existing plastic surfaces.....	51.80	84.30	164.20	250.10	71.60	09264
09265	Ditto to existing glass surfaces.....	51.80	84.30	164.20	250.10	71.60	09265
09266	Ditto to existing metal surfaces.....	51.80	84.30	164.20	250.10	71.60	09266
09267	Silkscreen printing with 3 mm thick white or coloured plastic sheet.....	72.80	120.70	244.80	354.70	91.50	09267
09268	Ditto but with 6 mm thick white or coloured plastic sheet.....	94.10	161.30	323.30	460.20	114.10	09268
09269	Ditto but with 10 mm thick white or coloured plastic sheet.....	121.10	208.00	430.40	613.40	152.50	09269
09270	Ditto but with 12.5 mm thick white or coloured plastic sheet.....	134.50	233.00	483.20	668.70	154.60	09270
09271	Silkscreen printing with 1.5 mm thick hairline stainless steel plate.....	107.70	183.40	374.60	527.90	127.80	09271
09272	Ditto but with 3 mm thick hairline stainless steel plate.....	164.20	283.10	584.90	814.10	191.00	09272
09273	Ditto but with 1.5 mm thick mirror finished stainless steel plate.....	109.90	185.30	378.70	533.40	128.90	09273
09274	Ditto but with 3 mm thick mirror finished stainless steel plate.....	166.30	286.40	586.40	814.10	189.90	09274
09275	Silkscreen printing with 1.5 mm thick aluminium plate.....	73.70	121.10	249.70	356.90	89.30	09275
09276	Ditto but with 3 mm thick aluminium plate.....	96.40	163.70	331.60	471.40	116.50	09276

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 \$	
09277	Clear, white or coloured acrylic sheet.....	113.20	226.40	339.60	452.80	94.30	09277
09278	Ditto but with matt finish.....	199.60	251.60	377.30	503.10	125.80	09278
09279	Clear, white or coloured acrylic sheet fixed with adhesive as laminated cover or backing sheet.....	169.80	283.00	396.20	509.40	94.30	09279
09280	Ditto but with matt finish.....	188.70	314.40	440.20	566.00	104.80	09280
	<i>Per linear metre</i>						
09281	Cutting only acrylic sheet for features, graphics, etc. other than those measured elsewhere.....	3.50	3.80	4.00	4.40	3.20	09281
		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 \$	
09282	Engraved plastic sign face complete with letters, numbers, characters, graphics, punctuations and the like, 3 mm thick.....	121.50	252.00	505.50	758.20	210.60	09282
09283	Ditto but 6 mm thick.....	143.30	297.70	600.20	882.70	236.40	09283
09284	Plastic sign complete with cut through letters, numbers, characters, graphics, punctuations and the like, 3 mm thick.....	181.30	303.30	606.50	758.80	136.80	09284
09285	Ditto but through 4.50 mm thick sheet	196.30	330.70	664.00	821.20	142.50	09285
09286	Ditto but through 6.00 mm thick sheet	212.60	357.00	720.10	882.40	148.10	09286
09287	Ditto but through 10.00 mm thick sheet	235.10	394.40	796.20	974.80	163.00	09287
09288	Ditto but through 12.50 mm thick sheet	258.80	435.60	879.90	1,078.30	180.90	09288

Item

Item

PLASTIC SIGNS (CONT'D)

Plastic signs in letter, number or Chinese character :-

		Height (mm)					
		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 \$	
09289	Letter or number cut from 3.00 mm thick sheet and fixed with adhesive	7.00	11.80	22.80	37.90	6.30	09289
09290	Ditto but from 4.50 mm thick sheet ditto	8.50	17.00	34.00	43.00	7.50	09290
09291	Ditto but from 6.00 mm thick sheet ditto.....	14.70	24.40	48.80	77.30	19.00	09291
09292	Ditto but from 10.00 mm thick sheet ditto	17.10	34.10	72.50	98.10	21.30	09292
09293	Ditto but from 12.50 mm thick sheet ditto	22.60	45.30	90.50	145.50	45.80	09293
09294	Chinese character cut from 3.00 mm thick sheet and fixed with adhesive	8.10	13.40	26.80	46.30	16.20	09294
09295	Ditto but from 4.50 mm thick sheet ditto	11.80	23.50	46.90	76.80	25.00	09295
09296	Ditto but from 6.00 mm thick sheet ditto.....	27.80	46.10	83.90	126.90	35.80	09296
09297	Ditto but from 10.00 mm thick sheet ditto.....	29.40	58.70	119.50	181.80	51.90	09297
09298	Ditto but from 12.50 mm thick sheet ditto	32.40	64.90	129.70	214.00	70.20	09298

		Height (mm)				
		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 \$	
09299	Letter or number cut from 8 mm thick plastic sheet with studs.....	366.30	554.50	742.70	156.80	09299
09300	Ditto but from 10.00 mm thick sheet.....	407.00	616.10	825.20	174.30	09300
09301	Ditto but from 12.50 mm thick sheet.....	530.20	805.00	981.60	147.20	09301
09302	Chinese characters cut from 8 mm thick plastic sheet with studs.....	535.30	791.60	1,047.80	213.50	09302
09303	Ditto but from 10.00 mm thick sheet.....	594.80	879.50	1,164.20	237.30	09303
09304	Ditto but from 12.50 mm thick sheet.....	803.90	980.30	1,266.70	248.60	09304

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
\$	\$	\$	\$	\$
3.40	5.10	8.40	10.10	1.30
6.70	10.10	20.20	21.90	1.40
10.10	15.20	27.00	30.40	2.70

Each

09305	Take down and clear away plastic sheet sign from any position.....	3.40	5.10	8.40	10.10	1.30	09305
09306	Take down and set aside for re-use ditto.....	6.70	10.10	20.20	21.90	1.40	09306
09307	Fix only ditto.....	10.10	15.20	27.00	30.40	2.70	09307

Each

		A	
		\$	
09308	Take down and clear away letters, numbers or Chinese characters of any size cut from plastic sheet from any position.....	3.40	09308
09309	Take down and set aside for re-use ditto.....	8.40	09309
09310	Fix only ditto.....	13.90	09310

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
\$	\$	\$	\$	\$	\$	\$	\$
21.00	41.10	83.60	119.90	166.00	212.20	258.30	30.70
30.40	60.90	125.60	168.50	295.40	344.60	383.30	32.20
26.60	53.30	109.80	196.50	283.30	370.00	456.70	57.80
52.30	104.80	214.00	276.10	346.50	417.70	487.60	58.80
30.40	68.00	139.10	239.50	339.90	440.30	540.70	83.70
60.10	111.90	235.20	335.80	436.50	537.10	637.70	83.90
48.60	86.50	171.20	311.20	451.30	591.30	731.40	116.70
96.60	150.40	287.80	451.20	638.00	790.20	942.40	126.80

Each

09311	Letter or number cut from 3.00 mm thick anodized aluminium sheet fixed with adhesive or screws	21.00	41.10	83.60	119.90	166.00	212.20	258.30	30.70	09311
09312	Ditto but from 6.00 mm thick sheet ditto	30.40	60.90	125.60	168.50	295.40	344.60	383.30	32.20	09312
09313	Chinese character cut from 3.00 mm thick anodized aluminium sheet fixed with adhesive or screws	26.60	53.30	109.80	196.50	283.30	370.00	456.70	57.80	09313
09314	Ditto but from 6.00 mm thick sheet ditto	52.30	104.80	214.00	276.10	346.50	417.70	487.60	58.80	09314
09315	Letter or number cut from 3.00 mm thick brass sheet fixed with adhesive or screws.....	30.40	68.00	139.10	239.50	339.90	440.30	540.70	83.70	09315
09316	Ditto but from 6.00 mm thick sheet ditto.....	60.10	111.90	235.20	335.80	436.50	537.10	637.70	83.90	09316
09317	Chinese character cut from 3.00 mm thick brass sheet fixed with adhesive or screws	48.60	86.50	171.20	311.20	451.30	591.30	731.40	116.70	09317
09318	Ditto but from 6.00 mm thick sheet ditto	96.60	150.40	287.80	451.20	638.00	790.20	942.40	126.80	09318

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		
		\$	\$	\$	\$		
09319	Letter or number cut from 8 mm thick aluminium sheet with studs including baked paint finish and screws.....	956.80	1,109.40	1,297.40	156.90	09319	
09320	Ditto but from 10 mm thick sheet.....	1,076.50	1,248.10	1,459.90	176.50	09320	
09321	Ditto but from 12 mm thick sheet.....	1,196.10	1,386.80	1,622.10	196.10	09321	
09322	Chinese characters cut from 8 mm thick aluminium sheet with studs including baked paint finish and screws.....	1,063.80	1,292.60	1,507.60	179.10	09322	
09323	Ditto but from 10 mm thick sheet.....	1,126.40	1,454.20	1,696.00	201.50	09323	
09324	Ditto but from 12 mm thick sheet.....	1,251.60	1,615.80	1,884.50	223.90	09324	
		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	
		\$	\$	\$	\$	\$	
09325	Acid etched stainless steel sign face, 1.5 mm thick.....	223.20	446.40	892.80	1,339.20	372.00	09325
09326	Take down and clear away metal signs from any position.....	2.10	3.20	6.40	7.40	0.90	09326
09327	Take down and set aside for re-use ditto.....	4.30	5.30	10.60	11.70	1.00	09327
09328	Fix only ditto.....	7.20	10.60	19.70	21.10	1.10	09328
	<i>Each</i>					A	
						\$	
09329	Take down and clear away letters, numbers or Chinese characters of any size cut from metal sheet from any position.....					5.30	09329
09330	Take down and set aside for re-use ditto.....					8.50	09330
09331	Fix only ditto.....					16.90	09331

Item

Item

HOLLOW METAL SIGNS

Hollow metal signs in letter, number or Chinese character :-

Height (mm)			
n.e. 500	500 - 750	750 -1000	Add to 1000mm for each additional 250mm or part thereof in height
A \$	B \$	C \$	D \$
359.90	539.70	719.60	163.00
449.80	674.60	899.60	202.30
314.80	472.30	629.70	146.30
393.60	590.40	787.20	181.40

Each

09332	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.....	359.90	539.70	719.60	163.00	09332
09333	Ditto but Chinese character.....	449.80	674.60	899.60	202.30	09333
09334	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.....	314.80	472.30	629.70	146.30	09334
09335	Ditto but Chinese character.....	393.60	590.40	787.20	181.40	09335

Size (m ²)				
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
A \$	B \$	C \$	D \$	E \$
1,889.10	2,991.10	3,542.00	4,093.00	409.70
1,619.20	2,563.70	3,036.10	3,508.30	351.10

Each

09336	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 and all necessary fixing accessories.....	1,889.10	2,991.10	3,542.00	4,093.00	409.70	09336
09337	Ditto but cut and formed from anodized aluminium sheet not less than 2 mm thick.....	1,619.20	2,563.70	3,036.10	3,508.30	351.10	09337

Add to either of Items 09332 to 09337 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	The standard 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 ArchSD internet website via the pathway referred therein.
Measurement of hoardings and walkways	SC10.02	<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 will be made for hoardings and walkways under any circumstances, with the following exceptions : -</p> <p>(a) Hoardings and walkways are specifically ordered by the Maintenance Surveyor in writing and stating that the hoarding and walkways 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 mentioned in sub-clause (a) above are subsequently used as preventive and protective measures by the Contractor himself, no payment will be made.</p> <p>The hoardings and walkways shall be measured the length on plan as fixed.</p> <p>No measurement or adjustment shall be made for concrete footings or anchor bolts.</p>
Measurement of enhanced treatment to hoardings	SC10.03	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	SC10.04	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 will 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	SC10.05	<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 will 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>

SPECIAL CONDITIONS

Measurement by weight	SC10.06	<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	SC10.07	<p>Structural steel work shall be paid only 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.</p>
Measurement of metal sections	SC10.08	<p>Metal sections shall be measured the length as fixed with square ends and the weight calculated.</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	SC10.09	<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	SC10.10	<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	SC10.11	<p>Except for holding down bolts for structural steelwork as stated in Special Conditions Clause SC10.30(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>

SPECIAL CONDITIONS

Measurement of collapsible gate	SC10.12	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.
Measurement of sundry repairs	SC10.13	<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	SC10.14	Corrugated and profiled sheet cladding (other than corrugated or profiled steel 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 m ² . Cladding to a radius not exceeding 15.00 m along the corrugation or profile shall be measured as "curved work".
Measurement of shutters	SC10.15	<p>Shutters shall be measured as the net area of the clear opening with reference to drawing or reference to manufacturer's catalogue excluding any enclosures to the shutter frames, linings, tracks, rails, hoods and the like.</p> <p>"Extra over" for wicket door shall be measured the overall size of door.</p>
Measurement of "Take down and set aside for re-use" of shutters for repairs	SC10.16	<p>"Take down and set aside for re-use" of existing shutters for repairs shall generally be measured as net affected area.</p> <p>The affected area means the damaged area including the individual module of each affected slat or panel.</p>
Measurement of cast iron, brass and copper	SC10.17	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	SC10.18	<p>Metal windows and doors shall generally be measured net area of the structural opening of the windows and doors as fixed.</p> <p>"Extra over" for opening sashes or doors shall be measured the overall size of the opening sashes or doors.</p> <p>Glazing to metal windows and doors shall be measured separately in Section 14 - Glazing of this Schedule.</p>

SPECIAL CONDITIONS

Measurement of “Take down and clear away” or “Take down and set aside for re-use” metal window or door	SC10.19	“Take down and clear away” or “Take down and set aside for re-use” of existing window and door shall generally be measured net area of the structural opening of the window and door as fixed. No separate measurement will be made for openable sash, ironmongery, fixing lugs, dowels, etc. and the like.
Measurement of galvanized steel works	SC10.20	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	SC10.21	Galvanizing, electro-plating and chromium 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 will be made for proprietary or factory manufactured products.
Measurement of “Zinc sprayed” or “Hot dipped” galvanizing	SC10.22	“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 in writing by the Maintenance Surveyor.
Measurement of proprietary composite aluminium cladding / panel linings	SC10.23	Composite aluminium cladding / panel linings shall be measured net on the area to be cladded or 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	SC10.24	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	SC10.25	Proprietary automatic swing and sliding doors shall be measured the plane area of the door panel.
Measurement of slotted angle, tubing and wire rope	SC10.26	Slotted angle, galvanized steel tubing and wire rope shall be measured the net length as fixed.
Measurement of fire resisting door set	SC10.27	Fire resisting door set shall be measured the plane area of the door panel.

SPECIAL CONDITIONS

Measurement of proprietary fire resisting partitions	SC10.28	<p>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 m². Finishes to the partition shall be measured separately.</p>
Measurement of wire netting, wire mesh, welded wire mesh, expanded metal and chain link fencing	SC10.29	<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>
Rates generally	SC10.30	<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, 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. (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 of prototypes as G.S. Item 17.14.

SPECIAL CONDITIONS**Rates generally
(Cont'd)****SC10.30
(Cont'd)**

- (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****SC10.31**

The rates for hoardings and walkways 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, wedges, plates, sheeting, bolts 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) 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****SC10.32**

The rates for temporary work - fire protection enclosure materials shall include for : -

- (a) Working at any level, floor and locations.
- (b) All steel sections adequate for the fire rated period.
- (c) Finishing all fire protective boarding, metal plates, steel sections, etc. and the like with intumescent paint, painting and colour coating.
- (d) All concrete footing, 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.

SPECIAL CONDITIONS

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

SC10.32 (Cont'd)

- (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

SC10.33

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 15.23 to 15.38.
- (j) Grouting to joints as required.
- (k) Protecting and making good existing surfaces disturbed.

Rates for structural steel works

SC10.34

The rates for structural steel works shall further include for : -

- (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 an approved specialist firm 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.

SPECIAL CONDITIONS

Rates for structural steel works (Cont'd)	SC10.34 (Cont'd)	<ul style="list-style-type: none"> (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	SC10.35	<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	SC10.36	<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	SC10.37	<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. (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).
Rates for collapsible gates	SC10.38	<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.

SPECIAL CONDITIONS

Rates for collapsible gates (Cont'd)	SC10.38 (Cont'd)	<ul style="list-style-type: none"> (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	SC10.39	<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	SC10.40	<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) Provision of sub-frames, backing frames and purlin system including design and submission of RSE structural calculations and shop drawings. (d) Forming and including joints and allowing for laps including side and end laps when required. (e) Allowing for cutting, waste and breakage. (f) Sealing at edges, joints and around intersections and projections. (g) All narrow widths and small areas. (h) Providing shop drawings as necessary for the works. (i) Making good affected areas to match existing. (j) Allowing all notching and fitting edges of sheets and mitring corners as required, and all mitred angles, junctions and ends. (k) 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. (l) Drilling holes to existing or new purlins of framing spaced at any interval for the fixing of corrugated and profiled sheet cladding. (m) Forming holes for pipes or articles.

SPECIAL CONDITIONS

Rates for corrugated and profiled sheet cladding (Cont'd)	SC10.40 (Cont'd)	<ul style="list-style-type: none"> (n) Recommended fixing method in accordance with the manufacturer's instructions. (o) Forming and including movement joints as required. (p) Forming sheets to required curvature.
Rates for tubular metal work	SC10.41	<p>The rates for tubular metal work shall further include for : -</p> <ul style="list-style-type: none"> (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.
Rates for stainless steel	SC10.42	<p>The rates for stainless steel shall further include for : -</p> <ul style="list-style-type: none"> (a) Items described as trim or cover strip shall include for cutting to length and mitred angles. (b) Finishing all welds, etc. to match the finish specified. (c) 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	SC10.43	<p>The rates for aluminium shall further include for : -</p> <ul style="list-style-type: none"> (a) Clear anodized 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	SC10.44	<p>The rates for wire netting, wire mesh, welded wire mesh, expanded metal and chain link fencing shall further include for : -</p> <ul style="list-style-type: none"> (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.

SPECIAL CONDITIONS

**Rates for
steel windows
and doors**

SC10.45

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.
- (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) Making good disturbed surfaces.
- (i) Protecting and cleaning.

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

SC10.46

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**

SC10.47

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.

SPECIAL CONDITIONS

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

**SC10.47
(Cont'd)**

- (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).
- (i) 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
curtain
walls**

SC10.48

The rates for curtain walls shall further include for : -

- (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. Item 16.07.
- (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.
- (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.

SPECIAL CONDITIONS

Rates for curtain walls (Cont'd)	SC10.48 (Cont'd)	<ul style="list-style-type: none"> (r) All tests, at field or in laboratories, and report work. (s) Sealing joints within curtain wall and joints to existing. (t) Provision of reports, manufacturer's guarantee, maintenance manuals and deed of warranty, if required. (u) Provision of anchors for gondola. (v) Provision of lightning protection. (w) Provision of Field or Site mock-up. (x) Provision of closure panel for venetian blind/shutter. (y) Provision of waterproofing/water-tightness. (z) Protection and cleaning.
Rates for ironmongery	SC10.49	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	SC10.50	<p>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 composite aluminium cladding. (b) Applying and installation of composite aluminium cladding panels to walls, bulkheads, ceiling soffits or any other locations. (c) Submission of structural design, calculations and drawings endorsed by a Registered Structural Engineer. (d) 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. (e) Submission of design drawings, working details and shop drawings for Maintenance Surveyor's approval prior to commencement of installation. (f) 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. (g) Submission of method statements related to jointing of components, programme for the work, erection and any remedial works. (h) All types of finishes to the cladding panels and bending to suit all shapes and configurations. (i) Support framework constructed of reinforcing members, backing materials, framing, stiffeners and the like of any materials. (j) Fixing, connections, angle brackets and provision of all types of anchorages including bolts, nuts and the like.

SPECIAL CONDITIONS**Rates for
proprietary
composite
aluminium
cladding
(Cont'd)****SC10.50
(Cont'd)**

- (k) Openable access doors, louvres and openings for building services installation.
- (l) Ironmongeries and fittings.
- (m) Forming opening around door and/or window.
- (n) Provision of anchorage for gondolas, where required.
- (o) Provision of waterproofing and water-tightness.
- (p) Provision of lightning protection.
- (q) Isolation of dissimilar metals, moving parts and provision of lubrication.
- (r) Support fire-saving insulation on galvanized steel support clips spaced at a maximum of 450 mm centres.
- (s) Preparation work to adjoining structure for attachment of cladding.
- (t) Sealing joints within cladding and joints to existing.
- (u) Concealed and exposed flashings, edge trims and the like.
- (v) Provision of all necessary test reports, maintenance manuals and manufacturer's guarantee.
- (w) Protection and cleaning.

**Rates for
proprietary
composite
aluminium
cladding to
ceiling****SC10.51**

Where the proprietary composite aluminium cladding is applied / installed at ceiling soffits, the rates for proprietary composite aluminium cladding shall further include for :-

- (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.

SPECIAL CONDITIONS

Rates for composite aluminium lining

SC10.52

The rates for composite aluminium lining shall further include for : -

- (a) Design, supply, fabrication and installation of aluminium lining for internal use.
- (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 Maintenance Surveyor's approval prior to commencement of installation.
- (d) Submission of samples and carrying out of mock-up erection.
- (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) Sealing joints within panels of linings and joints to existing.
- (p) Provision of all necessary test reports, maintenance manuals.
- (q) Protection and cleaning.

Rates for shutters

SC10.53

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.

SPECIAL CONDITIONS

**Rates for
shutters
(Cont'd)**

**SC10.53
(Cont'd)**

- (e) Making good disturbed surfaces.
- (f) Provision of connection to nearest power point by registered electrical workers for any electrically operated shutters.

**Rates for
fire resisting
roller shutters**

SC10.54

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 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 Fire Service Installation if Government Buildings, Architectural Services Department, and all accessories, ironmongeries and the like 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) Providing back up power supply.
- (f) Connecting to fire alarm system when required.
- (g) Finishing all surfaces as required.
- (h) Providing test certificate, operation manuals and manufacturer's guarantee.
- (i) Provision of connection to nearest power point by registered electrical workers for any electrically operated fire resisting roller shutters.

**Rates for
transparent
shutters**

SC10.55

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 manuals and manufacturer's guarantee.

SPECIAL CONDITIONS**Rates for fire resisting doors****SC10.56**

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 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) Making good disturbed surfaces.
- (h) Providing test certificate, operation manuals and manufacturer's guarantee.

Rates for proprietary automatic swing and sliding doors**SC10.57**

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) Finishing all surfaces as required.
- (h) Making good disturbed surfaces.
- (i) Providing test certificate, operation manuals and manufacturer's guarantee.
- (j) Provision of connection to nearest power point by registered electrical workers.

SPECIAL CONDITIONS

**Rates for
proprietary fire
resisting partitions**

SC10.58

The rates for proprietary fire resisting partitions shall further include for : -

- (a) Supply and installation in accordance with the manufacturer's instructions and in compliance with statutory requirements.
- (b) Cutting mortice or drilling in concrete, brick, stone or other surfaces as required.
- (c) Grouting into new or existing mortice or holes.
- (d) Finishing both sides of partition with fire resisting boarding/material.
- (e) Making good disturbed surfaces.
- (f) Providing test certificate, operation manuals and manufacturer's guarantee.

**Rates for
fibreglass
house and
planter**

SC10.59

The rates for fibreglass house and planter shall further include for : -

- (a) All necessary accessories recommended by the manufacturer.
- (b) Fixing to concrete base or steel support (measured separately) including anchor bolts.

G.S. clauses

SC10.60

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) Strong room doors - Section 22 - Internal Fittings and Fixtures.

Item								Item																																										
STEEL SHORING																																																		
The following Items 10001 to 10002 inclusive will only be paid in accordance with Special Conditions Clause SC10.05 :-								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.....	8.00	7.10						10001																																									
10002	Steel shoring to support existing building or structure.....	9.80	8.50						10002																																									
HOARDINGS AND WALKWAYS																																																		
The following Items 10003 to 10023 inclusive will only be paid in accordance with Special Conditions Clause SC10.02 :-								Erect, maintain, take down and clear away	Erect, maintain, and left-in position																																									
Note: The standard drawings for hoardings and walkways referred to in this Section are listed in Annex A - Drawing Schedule and Drawings of the Schedule and can be viewed on the ArchSD internet website via the pathway referred therein.								A \$	B \$																																									
<i>Per linear metre</i>																																																		
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.....	1,051.00	998.10						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.....	1,247.50	1,185.20						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.....	12,514.00	11,888.40						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.....	14,059.00	13,356.00						10006																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Erect, maintain, take down and clear away</th> <th colspan="3">Erect, maintain and left-in position</th> </tr> <tr> <th colspan="3">with walkway of minimum clear width</th> <th colspan="3">with walkway of minimum clear width</th> </tr> <tr> <th>1.1 m</th> <th>1.4 m</th> <th>2.0 m</th> <th>1.1 m</th> <th>1.4 m</th> <th>2.0 m</th> </tr> <tr> <th>A \$</th> <th>B \$</th> <th>C \$</th> <th>D \$</th> <th>E \$</th> <th>F \$</th> </tr> </thead> <tbody> <tr> <td>2,780.90</td> <td>2,919.90</td> <td>3,337.10</td> <td>2,641.80</td> <td>2,773.90</td> <td>3,170.20</td> </tr> <tr> <td>4,267.90</td> <td>4,481.30</td> <td>5,121.50</td> <td>4,054.50</td> <td>4,257.20</td> <td>4,865.40</td> </tr> <tr> <td>5,677.70</td> <td>5,961.50</td> <td>6,813.20</td> <td>5,393.80</td> <td>5,663.40</td> <td>6,472.60</td> </tr> </tbody> </table>									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			1.1 m	1.4 m	2.0 m	1.1 m	1.4 m	2.0 m	A \$	B \$	C \$	D \$	E \$	F \$	2,780.90	2,919.90	3,337.10	2,641.80	2,773.90	3,170.20	4,267.90	4,481.30	5,121.50	4,054.50	4,257.20	4,865.40	5,677.70	5,961.50	6,813.20	5,393.80	5,663.40	6,472.60
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																																															
1.1 m	1.4 m	2.0 m	1.1 m	1.4 m	2.0 m																																													
A \$	B \$	C \$	D \$	E \$	F \$																																													
2,780.90	2,919.90	3,337.10	2,641.80	2,773.90	3,170.20																																													
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5,677.70	5,961.50	6,813.20	5,393.80	5,663.40	6,472.60																																													
<i>Per linear metre</i>																																																		
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.....	2,780.90	2,919.90	3,337.10	2,641.80	2,773.90	3,170.20	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.....	4,267.90	4,481.30	5,121.50	4,054.50	4,257.20	4,865.40	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.....	5,677.70	5,961.50	6,813.20	5,393.80	5,663.40	6,472.60	10009																																										

Item								Item
HOARDINGS AND WALKWAYS (CONT'D)								
<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		
			1.1 m	1.4 m	2.0 m	1.1 m	1.4 m	2.0 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.....	2,974.00	3,122.70	3,568.80	2,825.30	2,966.50	3,390.40	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		
			1.35m	1.60m	1.85m	1.35m	1.60m	1.85m
			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.....	4,461.00	4,856.60	4,996.30	4,238.00	4,613.80	4,746.50	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.....	5,974.60	6,517.70	6,691.50	5,675.80	6,191.80	6,356.90	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		
			1.85m	2.43m	3.00m	1.85m	2.43m	3.00m
			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.....	4,996.30	5,749.00	6,488.80	4,746.50	5,461.60	6,164.30	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.....	6,691.50	7,699.60	8,690.30	6,356.90	7,314.70	8,215.80	10014

Item								Item
	HOARDINGS AND WALKWAYS (CONT'D)							
		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			
		1.1 m	1.4 m	2.0 m	1.1 m	1.4 m	2.0 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.....	24,139.70	25,346.70	28,967.60	22,936.70	24,079.30	27,519.30	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.....	30,589.80	32,119.30	36,707.80	29,060.30	30,519.40	34,872.40	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.....	30,589.80	32,119.30	36,707.80	29,060.30	30,519.40	34,872.40	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.....	23,174.10	24,332.80	27,808.90	22,015.40	23,116.20	26,418.50	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			
		1.35m	1.60m	1.85m	1.35m	1.60m	1.85m	
	<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.....	30,589.80	32,119.30	36,707.80	29,060.30	30,519.40	34,872.40	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.....	30,589.80	32,119.30	36,707.80	29,060.30	30,519.40	34,872.40	10020

Item					Item		
	TEMPORARY WORK - FIRE PROTECTION ENCLOSURE						
	The following Items 10028 to 10029 inclusive will only be paid in accordance with Special Conditions Clause SC10.04 :-						
	<i>Per square metre</i>						
10028	Temporary enclosure with fire protection material of 1 hour fire rated period.....		Erect, maintain, take down and clear away	Erect, maintain, and left-in position	10028		
			A \$	B \$			
10029	Ditto but 2 hour fire rated period.....		287.00	352.00	10028		
			682.00	783.00	10029		
	STRUCTURAL STEEL WORK						
	HOT ROLLED STEEL						
	<i>Per kg</i>						
			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 \$
10030	Round rods, square rods, flat bars, plates, angle sections, tee sections, universal beams, columns, channels or "I" joists.....	24.20	24.10	4.50	5.10	12.10	10030
10031	Rectangular, square or circular hollow sections.....	26.40	26.40	4.50	5.10	13.30	10031
10032	Fabricated small items n.e. 2 kg each.....	27.50	27.50	4.50	6.40	15.70	10032
	COLD ROLLED STEEL TO BS EN 10162						
	(Note : The following Items 10033 to 10035 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)						
	<i>Per kg</i>						
			Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
			A \$	B \$	C \$	D \$	
10033	Angle or tee sections, channels, lipped channels or lipped "Z" sections, non-standard purlin sections or other similar sections.....	29.30	4.50	5.10	12.10	10033	
10034	Rectangular, square or circular hollow sections.....	33.40	4.50	5.10	13.30	10034	
10035	Fabricated small items n.e. 2 kg each.....	35.40	4.50	6.40	15.70	10035	

Item		Size			Item	
		M16	M20	M24		
		A	B	C		
		\$	\$	\$		
STRUCTURAL STEEL WORK (CONT'D)						
HOLDING DOWN BOLTS						
	<i>Each</i>					
10036	Holding down bolt, Grade 4.6 to B.S. 7419, n.e. 300 mm long complete with nuts and washers	115.20	127.00	143.10	10036	
10037	Ditto but 300 - 450 mm long.....	150.30	160.60	179.30	10037	
10038	Ditto but 450 - 600 mm long.....	174.90	183.70	204.30	10038	
10039	Holding down bolt, Grade 8.8 to B.S. 7419, n.e. 300 mm long complete with nuts and washers	125.10	141.70	164.20	10039	
10040	Ditto but 300 - 450 mm long.....	162.20	176.70	203.40	10040	
10041	Ditto but 450 - 600 mm long.....	189.40	201.70	230.60	10041	
MILD STEEL						
ROLLED SECTIONS AND PLATE						
	<i>Per kg</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
10042	Round rods, square rods, flat bars, plates, chequer plates, angle sections, tee sections, universal beams, columns, channels or "I" joists.....	17.20	4.50	5.10	8.40	10042
10043	Rectangular, square or circular hollow sections.....	18.70	4.50	5.10	8.40	10043
SHEET METAL WORK						
	<i>Per kg</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
10044	Flat or formed sheet covering	23.00	3.20	3.80	7.60	10044
10045	Sheet lining to brick or concrete duct, sheet as ducting, pipes, gutters, funnels, hoods, chimney cowls, roof plates and the like.....	29.40	3.80	5.70	11.00	10045
10046	Ventilator formed to detail (gross weight measured)	32.20	3.80	6.40	11.00	10046
COLLAPSIBLE GATES						
	<i>Per kg</i>					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
10047	Mild steel collapsible gates, diamond pattern, welded and riveted connections.....	24.00	3.20	4.50	9.30	10047
10048	Ditto but galvanized.....	27.00	3.20	5.10	10.10	10048

Item		Thickness of metal (mm)				Item
		N.e. 3	3 - 6	6 - 12	12 - 20	
		A	B	C	D	
		\$	\$	\$	\$	
SUNDRY REPAIRS						
<i>Per linear metre</i>						
10049	Straight, raking or circular cutting on any type of metal including filing edges clean.....	2.10	2.70	4.80	7.60	10049
<i>Each</i>						
10050	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.....				11.80	10050
10051	Add to Item 10050 for each additional 25 mm thread length or part thereof in length				1.50	10051
10052	Cut off end of bolt or rod of upto 50 mm diameter for threading or re-threading.....				4.20	10052
10053	Drill hole of upto 50 mm diameter in metal n.e. 50 mm deep including countersinking if required.....				4.20	10053
10054	Add to Item 10053 for each additional 25 mm or part thereof in depth.....				0.80	10054
10055	Drill and tap hole in metal n.e. 50 mm deep.....				6.80	10055
10056	Add to Item 10055 for each additional 25 mm or part thereof in depth.....				2.50	10056
<i>Each</i>						
10057	Punch small hole for nail, screw and the like through any type of sheet metal not thicker than 3 mm.....				0.80	10057
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>						
10058	Fillet weld in lengths n.e. 300 mm at connections (net length of fillet measured - allowance made for angles, etc.).....				95.70	10058
10059	Fillet seam weld in lengths n.e. 300 mm at lapped joints (ditto).....				79.80	10059
10060	Single butt weld in lengths exceeding 300 mm at butt joints and connections (net length of joint measured on one face only).....				95.70	10060
10061	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).....				79.80	10061
<i>Each</i>						
10062	Spot weld end of wire or rod n.e. 12 mm diameter, or bar n.e. 50 mm girth, and the like.....				4.80	10062

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>					
10063	Round rods, square rods, flat bars, plates, chequer plates, angle sections, tee sections, universal beams, columns, channels or "I" joists.....	19.00	4.50	5.10	8.40	10063
10064	Rectangular, square or circular hollow sections excluding galvanized mild steel tubing.....	20.00	4.50	5.10	8.40	10064
10065	Water bar.....	22.00	3.20	4.50	9.30	10065
10066	Wall tie, frame holdfast, single piece ceiling hanger or bracket, and the like.....	26.10	5.10	7.00	11.80	10066
10067	Composite ceiling hanger, bracket and the like of two or more pieces including assembling, supplying and fixing nuts, bolts and washers, or welding.....	25.00	3.80	5.10	11.00	10067
10068	Chains, including hooks, rings, shackles, etc., complete.....	28.00	3.20	4.50	3.40	10068
10069	Flat / formed sheet covering.....	25.00	3.20	4.50	9.30	10069
10070	Perforated flat or formed sheet covering.....	19.00	3.20	4.50	9.30	10070
10071	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.....	34.00	3.80	6.40	11.00	10071
10072	Ventilator formed to detail (gross weight measured).....	37.00	3.80	6.40	10.60	10072
10073	Stopcock or meter box and the like with hinged or loose lid to detail (ironmongery measured separately).....	22.00	3.80	6.40	11.80	10073
	<i>Each</i>				A \$	
10074	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.....				8.80	10074
		Diameter (mm)				
		40	50	65	75	
	Thickness (mm)	1.00	1.00	1.26	1.26	
	<i>Each</i>	A \$	B \$	C \$	D \$	
10075	Single sided round toothed timber connector plate holed for bolt (measured separately) and fixing.....	6.50	6.80	7.20	7.40	10075
10076	Double sided ditto.....	9.20	9.50	9.90	10.30	10076

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 \$	
10077	Galvanised steel window medium sections.....	656.80	24.20	25.50	47.30	10077
10078	Extra over for openable portions.....	345.40	-	-	-	10078
10079	Galvanised steel window large (38 mm) sections.....	784.50	28.70	30.60	56.60	10079
10080	Extra over Item 10079 for openable portions.....	410.30	-	-	-	10080
10081	Galvanised steel door medium sections.....	565.70	22.30	23.00	42.20	10081
10082	Extra over Item 10081 for openable portions.....	293.10	-	-	-	10082
10083	Galvanised steel door large (38 mm) sections.....	673.00	26.10	27.40	50.70	10083
10084	Extra over Item 10083 for openable portions.....	348.40	-	-	-	10084
REPAIRS TO GALVANIZED STEEL WINDOWS AND DOORS						
<i>Per linear metre</i>						
					A \$	
10085	Coupling mullion for window complete with mastic for assembly.....				42.20	10085
10086	Coupling mullion for door or side light ditto.....				42.20	10086
10087	Coupling transom for window ditto.....				44.80	10087
10088	Coupling transom for door or side light with ventilator over ditto.....				47.40	10088
<i>Per square metre</i>						
10089	Take down and clear away openable sash, ventilator, window or door of any size or section including cutting hinges away from frame.....				10.10	10089
10090	Take down and set aside for re-use ditto.....				8.30	10090
10091	Fix only openable sash, ventilator, window or door of any size or section to existing frame including welding or riveting hinges.....				17.20	10091
<i>Each</i>						
10092	Oil only hinges and fittings to openable sash, ventilator, window or door.....				3.20	10092
10093	Weld joint, corner, etc., of sash, ventilator, window, door or frame.....				12.80	10093

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 STEEL SHEET CLADDING (FACE WORK OTHER THAN ROOFING)						
<i>Per square metre</i>						
10117	Corrugated steel sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to timber framing (measured separately).....	73.90	4.50	11.50	20.30	10117
10118	Ditto but 0.60 - 0.80 mm thick.....	77.90	4.50	12.10	21.10	10118
10119	Ditto but 0.80 - 1.00 mm thick.....	89.60	5.10	12.80	23.60	10119
10120	Corrugated steel sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to curved timber framing (measured separately).....	76.90	5.10	12.80	22.00	10120
10121	Ditto but 0.60 - 0.80 mm thick.....	80.30	5.10	13.40	22.80	10121
10122	Ditto but 0.80 - 1.00 mm thick.....	92.10	5.70	14.00	24.50	10122
10123	Corrugated steel sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to steel framing (measured separately).....	75.20	4.50	11.50	24.50	10123
10124	Ditto but 0.60 - 0.80 mm thick.....	78.50	4.50	12.10	25.30	10124
10125	Ditto but 0.80 - 1.00 mm thick.....	90.10	5.10	12.80	27.00	10125
10126	Corrugated steel sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to curved steel framing (measured separately).....	77.60	5.10	12.80	27.00	10126
10127	Ditto but 0.60 - 0.80 mm thick.....	78.50	5.10	13.40	28.70	10127
10128	Ditto but 0.80 - 1.00 mm thick.....	90.20	5.70	14.00	29.60	10128
<i>Per linear metre</i>						
10129	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).....	15.50	1.30	3.20	5.90	10129
10130	Ditto but 0.60 - 0.80 mm thick.....	16.90	1.30	3.20	5.90	10130
10131	Ditto but 0.80 - 1.00 mm thick.....	19.60	1.90	3.80	6.80	10131

Item					Item	
	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 \$	
10132	0.47 mm Thick proprietary profiled steel sheeting fixed to timber framing.....	344.80	3.80	8.30	16.10	10132
10133	Ditto but fixed to curved timber framing.....	350.10	4.50	8.90	17.70	10133
10134	0.47 mm Thick proprietary profiled steel sheeting fixed to steel framing.....	347.30	3.80	8.90	16.10	10134
10135	Ditto but fixed to curved steel framing.....	350.80	4.50	9.60	18.60	10135
	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>					
10136	0.53 mm Thick proprietary profiled steel sheet cladding fixed to timber framing.....	416.50	3.80	8.30	16.90	10136
10137	Ditto but 0.65 mm thick.....	468.10	4.50	8.90	17.70	10137
10138	0.53 mm Thick proprietary profiled steel sheet cladding fixed to curved timber framing.....	420.00	4.50	9.60	17.70	10138
10139	Ditto but 0.65 mm thick.....	472.10	4.50	10.20	19.40	10139
10140	0.53 mm Thick proprietary profiled steel sheet cladding fixed to steel framing.....	417.40	4.50	8.90	16.90	10140
10141	Ditto but 0.65 mm thick.....	469.20	4.50	9.60	17.70	10141
10142	0.53 mm Thick proprietary profiled steel sheet cladding fixed to curved steel framing.....	421.30	4.50	10.20	18.60	10142
10143	Ditto but 0.65 mm thick.....	473.00	4.50	10.20	19.40	10143
	<i>Each</i>				A \$	
10144	Cut hole through existing sheet cladding for pipes or articles in any size and thickness.....				17.10	10144

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 TUBING						
<i>Per linear metre</i>						
10145	15 mm Bore medium series galvanized tubing.....	27.50	1.90	2.60	6.80	10145
10146	20 mm Ditto.....	35.80	2.60	3.20	8.50	10146
10147	25 mm Ditto.....	50.40	3.20	3.80	11.00	10147
10148	32 mm Ditto.....	63.50	3.80	4.50	13.50	10148
10149	40 mm Ditto.....	74.80	5.10	5.70	17.70	10149
10150	50 mm Ditto.....	109.20	7.00	8.90	22.80	10150
10151	80 mm Ditto.....	182.20	9.60	11.50	29.60	10151
10152	100 mm Ditto.....	238.10	10.90	13.40	33.80	10152
10153	150 mm Ditto.....	348.90	12.80	15.30	39.70	10153
	Add to either of Items 10145 to 10153 inclusive for bending to radius n.e. 15.00 m.....	5%	-	-	-	
GALVANIZED STEEL WIRE ROPE, ETC.						
<i>Per linear metre</i>						
10154	3 mm Diameter flexible galvanized steel wire rope in flagstaff guys and the like including all binding and splicing, and splicing to existing rope.....	9.50	1.30	1.90	3.40	10154
10155	4 mm Ditto.....	9.80	1.30	1.90	3.40	10155
10156	6 mm Ditto.....	10.70	1.30	1.90	3.40	10156
10157	8 mm Ditto.....	11.50	1.90	1.90	4.20	10157
10158	10 mm Ditto.....	12.10	1.90	1.90	4.20	10158
<i>Each</i>						
10159	Galvanized steel sail thimble for rope n.e. 6 mm diameter.....	6.30	-	-	-	10159
10160	Ditto but exceeding 6 mm and n.e. 10 mm diameter.....	7.00	-	-	-	10160
10161	Galvanized wrought iron "D" shaped shackle with 6 mm diameter metal rod or bolt at centre of bow.....	13.90	1.30	1.90	4.20	10161
10162	Ditto but with 8 mm diameter metal rod or bolt at centre of bow.....	16.50	1.30	1.90	4.20	10162
10163	Ditto but with 10 mm diameter metal rod or bolt at centre of bow.....	16.50	1.90	1.90	4.20	10163
10164	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.....	40.10	3.80	4.50	8.50	10164
10165	Ditto but 475 mm long overall to take load of 2 tonnes.....	69.50	6.40	7.70	11.00	10165

Item			Take down and clear away	Fix only	Item	
REPAIRS TO GRATES, RANGES, ETC.						
			A	B		
			\$	\$		
10166	Oven or side boiler		55.50	171.40	10166	
10167	Set of front bars, bottom grating, pair of iron fire cheeks, oven door, damper rod, soot door, smoke box, register plane, falling door, etc.		7.00	21.10	10167	
STAINLESS STEEL						
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			
		A	B	C	D	E
		\$	\$	\$	\$	\$
10168	Chequer plate.....	74.90	-	6.40	7.00	16.10
10169	Flat or formed sheet covering.....	67.90	78.70	7.00	8.30	13.50
10170	Perforated flat or formed sheet covering.....	50.30	58.30	5.70	8.30	13.50
10171	Sheet as pipes, gutters, funnels, hoods, chimney cowls, roof plates and the like.....	84.40	117.40	8.30	10.20	20.30
10172	Ventilator formed to detail (gross weight measured).....	79.40	110.40	8.30	8.90	16.90
METAL SECTIONS						
		Supply and fix			Fix only	
		AISI 304	AISI 316			
		A	B	C		
		\$	\$	\$		
10173	Round rods, square rods, flat bars, plates, angle sections, tees, channels and other similar sections.....			71.70	77.80	13.50
10174	Rectangular, square or circular hollow sections			81.70	82.00	14.40
Per square metre						
10175	Add to either of Items 10168 to 10174 inclusive for Finish No. 4 - polished with fine grit or hair line finish.....			6.20	10.30	-
10176	Add to either of Items 10168 to 10174 inclusive for Finish No. 8 - mirror finish.....			15.50	25.90	-
(Note : - The above Items 10168 to 10174 inclusive for stainless steel in grade AISI 316 will only be paid for, if ordered by the Maintenance Surveyor in writing.)						
					A	
					\$	
10177	Take down and clear away any of the above sections (Items 10168 to 10174 inclusive).....					4.50
10178	Take down and set aside for re-use (ditto).....					5.70

Item						Item		
	STAINLESS STEEL (CONT'D)							
	METAL SECTIONS (CONT'D)							
		Supply and fix		Take down and clear away	Take down and set aside for re-use	Fix only		
		AISI 304	AISI 316					
	<i>Each</i>	A	B	C	D	E		
		\$	\$	\$	\$	\$		
10179	Flange plate to 25 mm diameter tubing.....	21.30	32.00	1.30	1.90	4.20	10179	
10180	Ditto but to 38 mm diameter tubing.....	28.70	43.10	1.90	2.60	5.10	10180	
10181	Ditto but to 50 mm diameter tubing.....	34.70	52.10	1.90	2.60	5.90	10181	
10182	Ditto but to 75 mm diameter tubing.....	44.10	66.20	2.60	3.20	6.80	10182	
10183	Add to either of Items 10179 to 10182 inclusive for Finish No. 4 - polished with fine grit or hair line finish	3.00	4.80	-	-	-	10183	
10184	Add to either of Items 10179 to 10182 inclusive for Finish No. 8 - mirror finish.....	7.50	11.10	-	-	-	10184	
	(Note : - The above Items 10179 to 10182 inclusive for stainless steel in grade AISI 316 will only be paid for, if ordered by the Maintenance Surveyor in writing)							
	BOLTS AND ANCHOR BOLTS FOR ISOLATED REPAIRS							
	(Note : Items 10185 to 10191 inclusive shall only be measured when they are required for replacement in isolated repair items as stipulated in Special Conditions Clauses SC10.11 and SC10.39.)							
		Supply and fix						
		Stainless steel AISI 304	Mild steel					
	<i>Per kg</i>	A	B					
		\$	\$					
10185	Bolt with nut and washer.....	56.60	17.40			10185		
		Nominal diameter of shank (mm)						
		6	8	10	12	16	20	
	<i>Each</i>	A	B	C	D	E	F	
		\$	\$	\$	\$	\$	\$	
10186	Steel ragbolt n.e 150 mm long overall.....	6.80	8.40	10.00	11.50	14.40	18.70	10186
10187	Ditto but 150 - 300 mm long overall.....	7.30	9.10	10.80	12.00	15.20	19.70	10187
10188	Steel ragbolt (loose bolt or bolt projecting type) n.e. 150 mm long overall.....	5.80	7.10	8.50	12.30	23.70	34.80	10188
10189	Ditto but 150 - 300 mm long overall.....	8.30	10.20	12.10	15.00	25.90	42.60	10189
10190	Non-drilling or self drilling anchor bolt of any length.....	5.70	6.40	7.80	9.20	13.10	17.90	10190
10191	Stud anchor bolt of any length.....	7.00	7.20	7.70	10.30	16.10	25.70	10191

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
		A	B	C	D	
		\$	\$	\$	\$	
ALUMINIUM SHEET CLADDING (FACE WORK OTHER THAN ROOFING)						
<i>Per square metre</i>						
10192	Corrugated aluminium sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to timber framing (measured separately).....	313.30	4.20	8.50	15.20	10192
10193	Ditto but 0.60 - 0.80 mm thick.....	374.40	4.50	8.90	17.70	10193
10194	Ditto but 0.80 - 1.00 mm thick.....	473.70	5.10	9.60	19.40	10194
10195	Corrugated aluminium sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to curved timber framing (measured separately).....	317.70	5.10	9.60	19.40	10195
10196	Ditto but 0.60 - 0.80 mm thick.....	376.10	5.10	9.60	20.30	10196
10197	Ditto but 0.80 - 1.00 mm thick.....	475.20	5.10	10.20	22.00	10197
10198	Corrugated aluminium sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to steel framing (measured separately).....	316.50	4.50	8.90	17.70	10198
10199	Ditto but 0.60 - 0.80 mm thick.....	374.80	5.10	9.60	18.60	10199
10200	Ditto but 0.80 - 1.00 mm thick.....	474.00	5.10	9.60	20.30	10200
10201	Corrugated aluminium sheet cladding n.e. 0.60 mm thick in any corrugation and colour fixed to curved steel framing (measured separately).....	318.20	5.10	9.60	20.30	10201
10202	Ditto but 0.60 - 0.80 mm thick.....	376.50	5.10	10.20	21.10	10202
10203	Ditto but 0.80 - 1.00 mm thick.....	475.70	5.70	10.90	22.80	10203
<i>Per linear metre</i>						
10204	Drip or flashing n.e. 0.60 mm and up to 150 mm girth fixed over door or window head, lapped 150 mm at end laps (measured net).....	33.40	1.30	3.20	5.90	10204
10205	Ditto but 0.60 - 0.80 mm thick.....	38.40	1.90	3.20	5.90	10205
10206	Ditto but 0.80 - 1.00 mm thick.....	48.00	1.90	3.20	6.80	10206

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
ALUMINIUM						
SHEET METAL WORK						
<i>Per kg</i>		A \$	B \$	C \$	D \$	
10207	Chequer plate.....	49.60	5.70	7.00	16.90	10207
10208	Flat or formed sheet covering.....	51.80	5.70	7.70	15.20	10208
10209	Perforated flat or formed sheet covering.....	38.40	5.70	7.70	15.20	10209
10210	Sheet as pipes, gutters, funnels, hoods, chimney cowls, roof plates and the like.....	60.00	8.90	11.50	27.90	10210
10211	Ventilator formed to detail (gross weight measured).....	64.00	7.70	9.60	22.80	10211
10212	Round rods, square rods, flat bars, plates, angle sections, tees, channels or similar sections.....	71.70	5.70	7.70	38.90	10212
10213	Rectangular, square or circular hollow sections.....	71.40	5.70	7.70	39.70	10213
10214	Segmental or moulded edge trim in any thickness.....	52.60	7.70	9.60	19.40	10214
Add to either of Items 10207 to 10214 inclusive for bronze or black anodized finish in lieu of clear anodized finish.....					5%	
Add to either of Items 10207 to 10214 inclusive for powder coated or fluorocarbon coated finish in lieu of clear anodized finish.....					12%	
ALUMINIUM WINDOWS AND GLAZED DOORS						
Aluminium windows and glazed doors (all glazing measured separately) :-						
<i>Per square metre</i>		A \$	B \$	C \$	D \$	
10215	Aluminium window in clear anodized finish	1,384.80	19.10	19.80	50.70	10215
10216	Extra over ditto for openable portions.....	249.30	-	-	-	10216
10217	Aluminium door in clear anodized finish.....	1,273.50	17.20	17.90	44.80	10217
10218	Extra over ditto for openable portions.....	202.80	-	-	-	10218
Add to either of Items 10215 to 10218 inclusive for bronze or black anodized finish in lieu of clear anodized finish.....					5%	
Add to either of Items 10215 to 10218 inclusive for powder coated or fluorocarbon coated finish in lieu of clear anodized finish.....					12%	

Item			Item																				
REPAIRS TO ALUMINIUM WINDOWS AND DOORS																							
<i>Per linear metre</i>		A \$																					
10219	Coupling mullion for window complete with mastic for assembly.....	42.20	10219																				
10220	Coupling mullion for door or side light ditto.....	42.20	10220																				
10221	Coupling transom for window ditto.....	44.80	10221																				
10222	Coupling transom for door or side light with ventilator over ditto.....	47.40	10222																				
10223	Positive pressure neoprene gasket seal.....	8.30	10223																				
10224	Neoprene wiping primary seal.....	12.86	10224																				
10225	Glazing gasket for fixing.....	6.30	10225																				
<i>Per square metre</i>																							
10226	Take down and clear away openable sash, ventilator, window or door of any size or section including cutting hinges away from frame.....	10.10	10226																				
10227	Take down and set aside for re-use ditto.....	8.30	10227																				
10228	Fix only openable sash, ventilator, window or door of any size or section to existing frame including welding or riveting hinges.....	17.20	10228																				
<i>Each</i>																							
10229	Oil only hinges and fittings to openable sash, ventilator, window or door.....	3.20	10229																				
10230	Weld joint, corner, etc., of sash, ventilator, window, door or frame.....	12.80	10230																				
<table border="1" style="margin-left: auto;"> <thead> <tr> <th style="width: 15%;">Supply and fix</th> <th style="width: 15%;">Take down and clear away</th> <th style="width: 15%;">Take down and set aside for re-use</th> <th style="width: 15%;">Fix only</th> <th style="width: 40%;"></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> <td></td> </tr> </thead> <tbody> <tr> <td style="text-align: right;">18.70</td> <td style="text-align: right;">3.20</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">10.10</td> <td>10231</td> </tr> <tr> <td style="text-align: right;">21.60</td> <td style="text-align: right;">3.30</td> <td style="text-align: right;">5.40</td> <td style="text-align: right;">12.70</td> <td>10232</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 \$		18.70	3.20	4.50	10.10	10231	21.60	3.30	5.40	12.70	10232
Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only																				
A \$	B \$	C \$	D \$																				
18.70	3.20	4.50	10.10	10231																			
21.60	3.30	5.40	12.70	10232																			
<i>Per linear metre</i>																							
10231	Aluminum glazing bar of any diameters.....	18.70	10231																				
10232	Aluminum channel bead fixed to existing window and door.....	21.60	10232																				
Add to either of Items 10231 to 10232 inclusive for bronze or black anodized finish in lieu of clear anodized finish.....			5%																				
Add to either of Items 10231 to 10232 inclusive for powder coated or fluorocarbon coated finish in lieu of clear anodized finish.....			12%																				

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
BRASS						
<i>Per kg</i>		A \$	B \$	C \$	D \$	
10256	Casting, trimmed from mould, rough filed, drilled and countersunk as required.....	81.60	4.50	5.10	11.00	10256
10257	Ditto but fine filed, buffed and polished, drilled and countersunk, turned, threaded and brazed as required	92.10	4.50	5.10	11.00	10257
10258	Strip set in screed or paving as dividing strip.....	89.60	4.50	5.10	9.30	10258
10259	Ditto but bent in addition at expansion joints.....	106.40	4.50	5.10	10.10	10259
10260	Flat or formed sheet covering.....	92.60	4.50	5.10	9.30	10260
10261	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.....	108.30	9.60	12.10	23.60	10261
10262	Ventilator formed to detail (gross weight measured).....	105.30	8.90	11.50	21.10	10262
COPPER						
<i>Per kg</i>		A \$	B \$	C \$	D \$	
10263	Casting, trimmed from mould, rough filed, drilled and countersunk as required, including making pattern and preparing mould	110.00	4.50	5.10	11.00	10263
10264	Ditto but fine filed, buffed and polished, drilled and countersunk, turned, threaded and brazed as required	114.00	4.50	5.10	11.00	10264
10265	Flat or formed sheet covering.....	125.70	4.50	5.10	9.30	10265
10266	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.....	141.50	9.60	12.10	24.50	10266
10267	Ventilator formed to detail (gross weight measured).....	137.50	8.90	11.50	22.00	10267

Item					Item	
ROLLER SHUTTERS						
Supply and fix manually operated roller shutters to suit any structural opening by an approved roller shutter manufacturer : -						
<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 \$	
10268	Galvanised mild steel rolling shutter Type K2 or B2.....	1,243.00	158.80	204.10	401.10	10268
10269	Extra over for wicket door.....	1,244.60	-	-	-	10269
10270	Stainless steel rolling shutter, Finish No. 4 - polished with fine grit or hair line finish.....	2,527.40	158.80	204.10	401.10	10270
10271	Extra over for wicket door.....	1,876.50	-	-	-	10271
10272	Stainless steel rolling shutter, Finish No. 8 - mirror finish.....	2,895.10	158.80	204.10	401.10	10272
10273	Extra over for wicket door.....	2,144.70	-	-	-	10273
10274	Stainless steel link grilles shutters Type 12F.....	2,136.90	158.80	204.10	401.10	10274
10275	Stainless steel semi-grilles shutters, Finish No. 4 - polished with fine grit or hair line finish.....	2,343.60	158.80	204.10	401.10	10275
10276	Ditto but Finish No. 8 - mirror finish.....	2,692.10	158.80	204.10	401.10	10276
10277	Aluminium rolling shutters Type OEC2 or EK2, clear anodized.....	1,348.00	158.80	204.10	401.10	10277
10278	Extra over for wicket door.....	2,527.40	-	-	-	10278
10279	Aluminium rolling shutters Type OEC2 or EK2, bronze anodized.....	1,470.50	158.80	204.10	401.10	10279
10280	Extra over for wicket door.....	2,697.00	-	-	-	10280
10281	Aluminium link grilles shutters Type 12F.....	1,455.20	158.80	204.10	401.10	10281
10282	Aluminium semi-grilles shutters, clear anodized.....	1,629.50	158.80	204.10	401.10	10282
10283	Ditto but bronze anodized.....	1,723.30	158.80	204.10	401.10	10283

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
ROLLER SHUTTERS (CONT'D)						
	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>	A \$	B \$	C \$	D \$	
10284	Galvanised mild steel rolling shutter Type K2 or B2.....	1,563.40	197.70	255.10	506.70	10284
10285	Extra over for wicket door.....	1,244.60	-	-	-	10285
10286	Stainless steel rolling shutter, Finish No. 4 - polished with fine grit or hair line finish.....	4,184.20	197.70	255.10	506.70	10286
10287	Extra over for wicket door.....	1,876.50	-	-	-	10287
10288	Stainless steel rolling shutter, Finish No. 8 - mirror finish.....	4,412.70	197.70	255.10	506.70	10288
10289	Extra over for wicket door.....	2,113.90	-	-	-	10289
10290	Stainless steel link grilles shutters Type 12F.....	3,540.20	197.70	255.10	506.70	10290
10291	Stainless steel semi-grilles shutters, Finish No. 4 - polished with fine grit or hair line finish.....	3,764.00	197.70	255.10	506.70	10291
10292	Ditto but Finish No. 8 - mirror finish.....	4,092.90	197.70	255.10	506.70	10292
10293	Aluminium rolling shutters Type OEC2 or EK2, clear anodized.....	1,970.20	197.70	255.10	506.70	10293
10294	Extra over for wicket door.....	2,466.20	-	-	-	10294
10295	Aluminium rolling shutters Type OEC2 or EK2, bronze anodized.....	2,103.00	197.70	255.10	506.70	10295
10296	Extra over for wicket door.....	2,691.30	-	-	-	10296
10297	Aluminium link grilles shutters Type 12F.....	2,090.90	197.70	255.10	506.70	10297
10298	Aluminium semi-grilles shutters, clear anodized.....	2,251.70	197.70	255.10	506.70	10298
10299	Ditto but bronze anodized.....	2,439.40	197.70	255.10	506.70	10299
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 in powder coated finish, complete with housing, track mechanism and accessories, by an approved roller shutter manufacturer : -					
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
10300	Transparent security roller shutter.....	2,131.20	210.50	293.40	481.30	10300
10301	Extra over for wicket door.....	2,680.60	-	-	-	10301

Item						Item
	SUNDRIES FOR SHUTTERS (CONT'D)					
	Replacement parts only : - (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 \$	
10325	Slat for aluminium link grilles shutters Type 12F.....	661.90	102.10	133.90	266.00	10325
10326	Slat for aluminium semi-grilles shutters, clear anodized.....	689.30	102.10	133.90	266.00	10326
10327	Ditto but bronze anodized.....	728.60	102.10	133.90	266.00	10327
	METAL LOUVRE FRAMES					
	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>					
				Supply and fix		
				Galvanized steel with aluminium lacquer or stove baked enamel finish	Plain or anodized aluminium	
				A \$	B \$	
10328	Set of two frames with clips for three 100 mm wide glass blades (285 mm overall height).....			163.60	223.90	10328
10329	Add to Item 10328 for each additional clip (each additional 90 mm in overall height) or part thereof in height.....			31.20	50.20	10329
10330	Set of two frames with clips for two 150 mm wide glass blades (300 mm overall height).....			179.20	245.00	10330
10331	Add to Item 10330 for each additional clip (each additional 140 mm in overall height) or part thereof in height.....			54.60	86.00	10331
10332	Set of two frames with clips for two 225 mm wide glass blades (440 mm overall height).....			226.70	341.50	10332
10333	Add to Item 10332 for each additional clip (each additional 200 mm in overall height) or part thereof in height.....			75.10	128.80	10333
	<i>Per linear metre</i>					
10334	Top weather strip to louvres.....			73.70	99.30	10334
10335	Bottom ditto.....			76.80	99.30	10335
	<i>Per linear metre</i>					
				Take down and clear away	Take down and set aside for re-use	Fix only
				A \$	B \$	C \$
10336	Set of two frames with clips as above described (net height of each set of two frames measured).....			12.80	26.20	63.30
10337	Top or bottom weather strip.....			3.20	5.70	14.40

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 \$							
10338	36 x 36 x 1.80 mm Slotted angle section in brackets, shelving racks, stands and the like.....							38.40	3.80	7.70	18.60	10338						
10339	40 x 40 x 2.00 mm Ditto.....							42.40	3.80	7.70	18.60	10339						
10340	62 x 41 x 2.00 mm Ditto.....							44.50	3.80	7.70	18.60	10340						
10341	66 x 45 x 2.50 mm Ditto.....							53.10	3.80	7.70	18.60	10341						
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 \$									
10342	Galvanized iron wire netting lapped 75 mm at joints and bedded in floor screeds, paving, etc.....							9.20	9.00	8.40	8.00	7.80	-	-	5.10	10342		
10343	Ditto but fixed to walls, wall lining or other vertical surfaces as key for plaster or screed.....							10.90	10.70	10.10	9.70	9.40	-	-	6.80	10343		
10344	Ditto but fixed to soffits, or sides and soffits of beams as key for plaster or screeds.....							12.60	12.30	11.80	11.40	11.10	-	-	8.50	10344		
10345	Ditto but fixed to timber, concrete or steel posts or framing (measured separately) in fencing, gates, shelving, grilles, panels and the like							14.30	14.00	13.50	13.10	12.80	2.60	4.50	9.30	10345		
		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 \$							
10346	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.....							52.70	49.70	53.70	54.20	35.20	36.30	37.80	3.20	6.40	13.50	10346

Item											Item			
	STEEL NETTING, MESH AND EXPANDED METAL (CONT'D)													
		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						
		\$	\$	\$	\$	\$	\$	\$						
10347	Galvanized steel welded wire mesh fixed to timber 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).....	34.00	32.20	30.00	29.20	2.60	4.50	9.30			10347			
		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	
		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				
		A	B	C	D	E	F	G	H	I	J	K		
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
10348	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).....	294.90	395.40	151.90	264.60	488.60	605.60	232.60	405.40	2.60	4.50	9.30	10348	
		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						
		\$	\$	\$	\$	\$	\$	\$						
10349	Steel wire mesh fixed to timber, concrete or steel post framing (measured separately) in fencing, gates, shelving, grilles, panels and the like (measured net).....	41.60	43.80	39.10	39.70	2.60	4.50	9.30			10349			
10350	Ditto but galvanized (ditto).....	43.80	45.70	40.80	41.40	3.20	5.10	10.10			10350			

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				
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$	F \$	G \$	H \$	
10355	Galvanized steel chain link fencing fixed to concrete, timber or steel posts	25.90	26.20	33.60	43.30	57.00	2.60	4.50	9.30	10355
10356	Ditto but stainless steel chain link fencing.....	104.20	102.80	111.40	134.50	154.00	2.60	4.50	9.30	10356
CHAIN LINK FENCING										
		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					
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$	F \$	G \$		
10357	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	34.80	41.50	32.80	55.90	2.60	4.50	9.30	10357	
BARBED WIRE OR TAPE										
						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 \$	
10358	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).....					3.90	0.60	1.30	3.40	10358
10359	Ditto but with sets of four barbs at 75 mm centre (measured straight).....					4.90	0.60	1.30	3.40	10359
10360	Extra over either of Items 10358 to 10359 inclusive for forming into coils of any diameter.....					4.90	-	-	4.20	10360
10361	Extra over either of Items 10358 to 10359 inclusive for hand weaving into woven mat.....					4.90	-	-	4.20	10361
10362	Proprietary stainless steel razor barbed wire fence top and steel posts with any diameter coils including all necessary stainless steel wire (measured straight).....					19.50	2.60	4.50	10.10	10362
10363	Proprietary stainless steel barbed wire fence top and steel posts with any diameter coils including all necessary stainless steel wire (measured straight).....					19.50	2.60	4.50	10.10	10363

Item						Item
FIXING BOLTS FOR ISOLATED REPAIRS TO SECURITY FENCING						
(Note : Items 10364 to 10369 inclusive shall only be measured when they are required for replacement in isolated repair to security fencing as stipulated in Special Conditions Clauses SC10.11 and SC10.39.)		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 \$	
10364	Fixing bolt with shear nuts and washers 6 mm diameter.....	7.80	1.90	2.60	4.20	10364
10365	Ditto but 8 mm diameter.....	9.20	1.90	2.60	4.20	10365
10366	Ditto but 10 mm diameter.....	11.20	2.60	1.90	5.10	10366
10367	Ditto but 12 mm diameter.....	13.00	2.60	1.90	5.10	10367
10368	Ditto but 16 mm diameter.....	17.90	2.60	3.20	5.90	10368
10369	U-bolt, hot dip galvanized with clamp plate and security shear nut.....	38.00	2.60	3.20	5.90	10369
GALVANIZING, ELECTRO-PLATING AND CHROMIUM PLATING						
		Zinc sprayed	Electro plated	Hot dipped	Chromium plated	
<i>Each</i>		A \$	B \$	C \$	D \$	
10370	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.....	6.80	7.60	8.60	19.40	10370
10371	Ditto but brass or copper articles.....	-	-	-	16.00	10371
<i>Per kg</i>						
10372	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.....	4.80	5.50	6.20	17.20	10372
10373	Ditto but exceeding 13 kg ditto.....	2.50	2.80	3.10	8.80	10373

Item	Item
PROPRIETARY FIRE PROTECTION ENCLOSURE AND CEILING	
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 : -	Supply and fix A \$
<i>Per square metre</i>	
10374 Proprietary fire protection enclosure of non-combustible composite panel of fibre reinforced cement, mechanically bonded to punched steel sheet on both surfaces, 1 hour fire rated period (finishes measured separately).....	1,323.60 10374
10375 Ditto but 2 hours fire rated period (ditto).....	1,374.60 10375
10376 Ditto but 4 hours fire rated period (ditto).....	1,464.30 10376
10377 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 fire rated period (finishes measured separately).....	729.80 10377
10378 Ditto but 2 hours fire rated period (ditto).....	1,023.60 10378
10379 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 fire rated period (finishes measured separately).....	1,172.10 10379
10380 Proprietary fire protection enclosure of non-combustible matrix engineered mineral boards, 1 hour fire rated period (finishes measured separately).....	483.30 10380
10381 Ditto but 2 hours fire rated period (ditto).....	602.40 10381
10382 Ditto but 4 hours fire rated period (ditto).....	759.00 10382
10383 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 fire rated period (finishes measured separately).....	1,286.50 10383
10384 Ditto but 2 hours fire rated period (ditto).....	1,328.20 10384
10385 Ditto but 4 hours fire rated period (ditto).....	1,417.90 10385
10386 Take down and clear away any type of fire protection enclosure or ceiling system.....	92.50 10386

Item		Fire rated period				
		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 fire rated period tested in accordance with BS 476 : Parts 20-23 : - (Cont'd)						
	<i>Each</i>					
10396	Extra over either of Items 10393 to 10394 inclusive for forming observation panel n.e. 0.10 m ²	135.50	135.50	156.90	235.30	10396
10397	Ditto but 0.10 - 0.20 m ²	338.70	338.70	392.20	588.30	10397
10398	Ditto but 0.20 - 0.40 m ²	541.90	541.90	627.40	941.20	10398
Approved fire resisting glazed doors and frame set of fire rated period tested in accordance with BS 476 : Parts 20-23 comprising fire resisting clear tempered glass panels and mirror finished stainless steel door frames : -						
	<i>Per square metre</i> (Door panel size measured net)					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
10399	Single leaf door, 1 hour fire rated period with fire resisting clear tempered glass panels.....	5,813.40	18.50	18.50	35.50	10399
10400	Ditto but double leaf door.....	5,473.30	16.60	16.60	32.10	10400
10401	Single leaf door, 2 hours fire rated period with fire resisting clear tempered glass panels.....	8,151.20	19.80	19.80	38.90	10401
10402	Ditto but double leaf door.....	7,688.80	18.50	18.50	35.50	10402
FIRE RESISTING 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>					
10403	Approved glazed partition with 6 mm thick fire resisting clear tempered glass with 1 hour fire rated period.....	1,736.30	45.30	69.50	135.10	10403
10404	Ditto but with 12 mm thick fire resisting clear tempered glass with 1 hour fire rated period.....	2,025.80	52.90	81.00	156.20	10404

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
		A \$	B \$	C \$	D \$	
FIRE RESISTING PARTITIONS (CONT'D)						
	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 manufacturer's instructions and complying with BS 476 : Parts 20-24 : -					
	<i>Per square metre</i>					
10405	Proprietary fire resisting partition wall, 1 hour fire rated period.....	314.60	33.80	44.60	84.40	10405
10406	Ditto, but 2 hours fire rated period.....	393.90	33.80	44.60	84.40	10406
	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>					
10407	Proprietary fire resisting partition comprising non-combustible composite panel of fibre reinforced cement, mechanically bonded to punched steel sheet, 1 hour fire rated period (finishes measured separately).....	1,622.70	63.10	96.90	185.80	10407
10408	Ditto but 2 hours fire rated period (ditto).....	1,673.60	63.10	96.90	185.80	10408
10409	Ditto but 4 hours fire rated period (ditto).....	1,942.80	63.10	96.90	185.80	10409
10410	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 fire rated period (finishes measured separately).....	902.30	80.40	100.80	241.50	10410
10411	Ditto but 2 hours fire rated period (ditto).....	1,044.20	80.40	100.80	241.50	10411
10412	Ditto but 4 hours fire rated period (ditto).....	1,284.30	80.40	100.80	241.50	10412
10413	Proprietary fire resisting partition comprising non-combustible matrix engineered mineral boards, 1 hour fire rated period, with or without lining (finishes measured separately).....	817.60	80.40	100.80	211.10	10413
10414	Ditto but 2 hours fire rated period (ditto).....	937.90	80.40	100.80	211.10	10414
10415	Ditto but 4 hours fire rated period (ditto).....	1,132.60	80.40	100.80	211.10	10415
10416	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 fire rated period, with or without lining (finishes measured separately).....	1,677.20	80.40	100.80	211.10	10416
10417	Ditto but 2 hours fire rated period (ditto).....	1,746.40	80.40	100.80	211.10	10417
10418	Ditto but 4 hours fire rated period (ditto).....	2,015.60	80.40	100.80	211.10	10418

Item						Item	
	FIRE RESISTING SHUTTERS						
	Approved fire resisting shutters comprising steel framing tested in accordance with BS 476: Parts 20-24 : -	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 \$		
10419	Fire resisting drop shutter, 2 hours fire rated period	4,225.10	108.40	131.40	346.20	10419	
10420	Ditto but 4 hours fire rated period (ditto).....	4,995.40	108.40	131.40	346.20	10420	
10421	Fire resisting slide shutter, 2 hours fire rated period.....	11,285.10	108.40	131.40	346.20	10421	
	PROPRIETARY FIRE RESISTING LOUVRES						
	Proprietary fire resisting louvres, tested in accordance with BS476 comprising steel framing and all accessories in accordance with the manufacturer's recommendations and provision of connection to nearest power point by registered electrical workers: -	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 \$		
10422	Proprietary fire resisting louvre, 2 hours fire rated period.....	8,716.90	108.40	131.40	346.20	10422	
	FIRE RESISTING ROLLER SHUTTERS						
	Fire resisting roller shutters tested in accordance with BS 476 : Parts 20-24 comprising framing and shutter hood : -	Supply and fix		Take down and clear away	Take down and set aside for re-use	Fix only	
		Fire rated period					
		1 hour	2 hours				
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$	
10423	Fire resisting roller shutter, galvanized mild steel, manually operated.....	1,396.70	1,982.20	158.80	208.60	405.30	10423
10424	Fire resisting roller shutter, galvanized mild steel, electrically operated including provision of connection to nearest power point by registered electrical workers.....	1,773.00	1,923.40	198.40	260.90	506.70	10424
10425	Fire resisting roller shutter, stainless steel, manually operated.....	2,185.10	2,238.40	158.80	208.60	405.30	10425
10426	Fire resisting roller shutter, stainless steel, electrically operated including provision of connection to nearest power point by registered electrical workers.....	2,759.30	2,851.20	198.40	260.90	506.70	10426

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	Item
	CURTAIN WALLS					
	Design, supply, fabricate and install glazed/unglazed aluminium curtain wall including framing components and sub-frames :-					
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
10427	Aluminium curtain wall.....	1,564.30	185.60	364.80	878.20	10427
10428	Ditto but circular on plan.....	1,801.40	199.00	391.60	937.30	10428
10429	Extra over either of Items 10427 to 10428 inclusive for openable portion.....	124.10	14.00	33.20	64.20	10429
10430	Extra over either of Items 10427 to 10428 inclusive for louvres.....	271.60	28.70	67.00	129.20	10430
	Design, supply, fabricate and install glazed/unglazed stainless steel curtain wall including framing components and sub-frames :-					
	<i>Per square metre</i>					
10431	Stainless steel curtain wall.....	2,348.30	177.90	327.80	785.30	10431
10432	Ditto but circular on plan.....	2,780.90	191.30	352.10	844.40	10432
10433	Extra over either of Items 10431 to 10432 inclusive for openable portion.....	187.70	23.00	49.70	97.10	10433
10434	Extra over either of Items 10431 to 10432 inclusive for louvres.....	387.90	37.00	83.60	160.40	10434
	PROPRIETARY COMPOSITE ALUMINIUM CLADDING					
	Design, supply, fabricate and install proprietary composite aluminium cladding all in accordance with the manufacturer's instructions :-					
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
10435	Cladding minimum 3 mm thick internally.....	1,272.90	186.20	329.70	413.80	10435
10436	Ditto but circular on plan.....	1,336.50	195.80	360.30	447.50	10436
10437	Cladding minimum 3 mm thick externally.....	1,371.80	198.40	352.70	439.10	10437
10438	Ditto but circular on plan.....	1,440.40	209.20	384.60	472.90	10438
	COMPOSITE ALUMINIUM LINING					
	Design, supply, fabricate and install composite aluminium lining all in accordance with the manufacturer's instructions :-					
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
10439	Lining minimum 3 mm thick as internal infill panelling.....	885.00	95.70	127.60	211.10	10439
10440	Ditto but circular on plan.....	916.80	100.40	133.90	221.70	10440

Item								Item
	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 \$
10441	Proprietary automatic swing door; single leaf door.....	16,939.70						10441
10442	Ditto but double leaf door.....	16,299.40						10442
10443	Proprietary automatic sliding door; single leaf door.....	20,374.20						10443
10444	Ditto but double leaf door.....	19,908.50						10444
	STRONG ROOM DOORS AND FRAMES							
	Supply and fix strong room door and frame, complete with all boltwork, locking, anti-explosive protection and fire protection, in accordance with G.S. Item 22.50 :-							Supply and fix
	<i>Per square metre</i>							A \$
			Take down and clear away	Take down and set aside for re-use	Fix only			
			B \$	C \$	D \$			
10445	Single leaf Treasury Grade "C" door.....	17,209.30	134.60	247.50	793.80			10445
10446	Ditto but Treasury Grade "D".....	15,303.30	113.50	209.20	675.50			10446
10447	Ditto but Treasury Grade "E".....	12,622.10	93.10	170.90	456.80			10447
	(Note :- The above Items 10445 to 10447 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)							
	FIBREGLASS HOUSE AND PLANTER							
	Fibreglass house equipped with windows, door, louvres and all necessary accessories in accordance with the manufacturer's instructions :-							Supply and fix
	<i>Per set</i>							A \$
			Take down and clear away	Take down and set aside for re-use	Fix only			
			B \$	C \$	D \$			
10448	Combinable house size 1520 x 1220 x 2250 mm high and sun cover size 2400 x 1500 x 150 mm high.....	7,696.10	354.60	318.90	613.10			10448
10449	Guard house size 1250 x 1250 x 2100 mm high and sun cover size 1800 x 1500 x 150 mm high.....	7,076.90	281.90	255.10	487.20			10449
10450	Guard house size 3460 x 1520 x 2350 mm high and sun cover size 3800 x 1800 x 150 mm high.....	17,371.60	959.90	892.90	1,655.10			10450
	Fibreglass planters with galvanized mild steel framing in any colour finish and all necessary accessories in accordance with the manufacturer's instructions :-							Supply and fix
	<i>Each</i>							A \$
10451	Planter size 1200 x 1200 x 1200 mm high.....	4,325.40	149.20	133.90	257.60			10451

Item			Item
SUPPLY ONLY OF MATERIALS			
MILD STEEL			
	<i>Per kg</i>	A \$	
10452	Square rods or flat bars, plates, angle sections, tee sections.....	9.50	10452
GALVANIZED MILD STEEL			
	<i>Per kg</i>	A \$	
10453	Flat bars, round rods, square rods, plates, angle sections, tee sections and chequer plates.....	10.60	10453
STAINLESS STEEL			
	<i>Per kg</i>	AISI 304	AISI 316
		A \$	B \$
10454	Square or flat bars, round bars, square or rectangular hollow tubes, hollow circular tubes, equal or unequal angle, tee or channel sections	50.20	77.20
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) :-			
	<i>Per kg</i>	A \$	
10455	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.....	9.50	10455
10456	Ditto but exceeding 6.0 kg in weight each.....	9.10	10456
NON FERROUS METAL			
	<i>Per kg</i>	A \$	
10457	Extruded aluminium sections with clear anodized finish in square or flat bars, round bars, square or rectangular hollow tubes, hollow circular tubes, equal or unequal angle, tee or channel sections.....	41.00	10457
Approved stove enamelled slotted steel angel section complete with fixing screws, bolts, nuts washers and corner stiffeners :-			
	<i>Per linear metre</i>		
10458	36 x 36 x 1.8 mm Slotted angle section.....	22.50	10458
10459	40 x 40 x 2.00 mm Ditto.....	27.00	10459
10460	62 x 41 x 2.00 mm Ditto.....	29.80	10460
10461	66 x 45 x 2.50 mm Ditto.....	39.10	10461

Item

Item

SUPPLY ONLY OF MATERIALS (CONT'D)

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 \$
	229.70	234.00	302.40

Per square metre

10462 Proprietary expanded metal for security fencing with hot dip galvanized finish..... 10462

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 \$
	18.90	19.10	27.50	38.50	54.00

Per square metre

10463 Galvanized iron wire chain link fencing..... 10463

Wire (mm)	3.00	3.00	2.50	2.50
Mesh (mm)	75	50	40	25
	A \$	B \$	C \$	D \$
	28.80	36.50	26.60	52.80

Per square metre

10464 P.V.C. coated galvanized steel chain link fencing..... 10464

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 ArchSD internet website via the pathway referred therein.</p> <p>This Section shall generally be read and used in conjunction with the Specification adopted in the Contract.</p>
Measurement generally	SC11.02	<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 tiling	SC11.03	<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 floor tiles described as anti-slip shall have suitably embossed surface or with surface treated with carborundum or similar grit to comply with relevant standards as stated in G.S. Item 18.103. (c) Measurement of ceramic floor and wall tiles shall include glazed or unglazed tiles of engobed, matt, non-slip or similar properties.
Measurement of mouldings	SC11.04	<p>Mouldings and moulded cornices shall be measured the net length on wall or beam face by the net visible girth.</p>
Measurement of skirting	SC11.05	<p>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.</p>
Measurement of hack out and replace tile in isolated patches	SC11.06	<p>Each isolated patch is defined as the isolated surface required for tile replacement up to a maximum of 10 number of tiles and area not exceeding 0.50 m².</p>
Measurement of suspended ceiling systems	SC11.07	<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>Sheet metal or wooden bulkheads shall be measured separately and paid for at the appropriate rates under applicable Work Sections in this Schedule.</p>

SPECIAL CONDITIONS

Measurement of raised accessed flooring	SC11.08	Raised accessed flooring shall be measured over the net area covered including air grilles, access openings and the like.
Measurement of carpeting	SC11.09	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	SC11.10	Entrance matting shall be measured the net area fixed. Forming matt well shall be measured elsewhere in this Schedule.
Rates generally	SC11.11	<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. (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 between different types of materials and joints between new and existing surfaces including wire netting as G.S. Item 18.14. (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.

SPECIAL CONDITIONS

Rates for proprietary plaster and screeds

SC11.12

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 manufacturer's guarantee.

Rates for metal lathing and wire netting

SC11.13

The rates for metal lathing and wire netting 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 circular cutting and waste.

Rates for screeds and in-situ finishes

SC11.14

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.

Rates for proprietary waterproofing protective screeds

SC11.15

The rates for proprietary waterproofing protective 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 manufacturer's guarantee.

SPECIAL CONDITIONS

Rates for acoustic plaster or fire resisting cementitious fireproofing plaster	SC11.16	<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 manufacturer's guarantee.
Rates for terrazzo	SC11.17	<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 terrazzo tiles	SC11.18	<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 on floor tiles.
Rates for tiling, slabs or paving blocks	SC11.19	<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. (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, likewise, matt, non-slip or polished finishes.

SPECIAL CONDITIONS

**Rates for
“Extra over”
for rounded
edge tiles,
skirting tiles
and the like**

SC11.20

The rates for “Extra over” for rounded edge tiles, skirting tiles and the like shall further include for : -

- (a) All internal and external corner tiles, corner end tiles and the like.

**Rates for
flexible tiles
and sheet
finishes, or
rubber tiles
and sheet
finishes**

SC11.21

The rates for flexible tiles and sheet finishes, or rubber tiles and sheet finishes shall further include for : -

- (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) Preheating process with preheating tools as required.
- (d) Any welding joints between sheets including approved P.V.C. welding rods.
- (e) Treating surfaces of tiles or sheets as G.S. Item 18.140.
- (f) Execution by approved specialist contractor.

**Rates for
swimming
pool tiles**

SC11.22

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**

SC11.23

The rates for pavers shall 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 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 the G.S. Items 6.42.3 (xiii) and 8.22 for designed concrete mixes and prescribed concrete mixes respectively, when required.

SPECIAL CONDITIONS

Rates for stone or marble slabs / tiles and resin stone slabs	SC11.24	<p>The rates for stone or marble slabs/tiles and resin stone slabs 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 grout. (c) Preparing and applying one coat of wax polish to wall slabs or two coats non-slip, matt emulsion polish 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) All joints between different types of materials and joints between new and existing materials. (h) Flushing up around pipes, floor drains, outlets and the like. (i) Covering up and protecting. (j) Providing one coat of approved sealer at back of stone paving or slabs. (k) Submission of design and calculations endorsed by Registered Structural Engineer for fixing of stone or marble slabs and resin stone slabs to vertical or sloping surfaces. (l) Unless otherwise stated, natural stone or marble are of origin from China or Asian countries (other than Japan).
Rates for division strips	SC11.25	<p>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.</p>
Rates for suspended ceiling systems	SC11.26	<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 suspension framing, edge trims, runners, hangers and the like, and fixing to concrete soffits and the like. (b) All cutting and narrow widths. (c) Unless otherwise stated, any drop length from soffits. (d) Forming openings and trimming around pipes, conduits, power points and the like and including extra supports and trimmers for same.

SPECIAL CONDITIONS

Rates for suspended ceiling systems (Cont'd)

SC11.26 (Cont'd)

- (e) Trimming around sprinkler and detector heads, air grilles, light fittings, access panels and the like and including extra supports and trimmers for same.
- (f) Additional framing and supports etc. to bridge across ducts and the like.
- (g) Submission of catalogues, technical literature, data and the like on the suspended ceiling systems.
- (h) Submission of design drawings, working details and shop drawings for Maintenance Surveyor's approval prior to commencement of installation.
- (i) Submission of test certificates and manufacturer's guarantee.

Rates for "Extra over" for forming openings

SC11.27

The rates for "Extra over" for forming openings shall further include for : -

- (a) Additional trimmer/suspension, stiffening plates, brackets, etc.
- (b) Sealing edges.

Rates for raised accessed flooring

SC11.28

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 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

SC11.29

The rates for carpeting 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) Proprietary release bond agent, approved sealants, tapes, adhesive, carpet grippers and seaming cement, where necessary.

SPECIAL CONDITIONS

Rates for carpeting or carpeting with underlays generally (Cont'd)	SC11.29 (Cont'd)	<ul style="list-style-type: none"> (f) 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. (j) Provision of protective treatment and cleaning. (k) Provision of test certificates, manufacturer's guarantee and the like for carpet and underlays.
Rates for carpet tiles	SC11.30	<p>The rates for carpet tiles shall further include for : -</p> <ul style="list-style-type: none"> (a) Treating surfaces with approved protective treatment.
Rates for entrance matting	SC11.31	<p>The rates for entrance matting shall include for : -</p> <ul style="list-style-type: none"> (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	SC11.32	<p>The rates for taking down existing plaster, paving, tiling, etc., shall include for : -</p> <ul style="list-style-type: none"> (a) Cutting back edges of the retaining work. (b) Cutting and clearing away steel lathing of 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**

SC11.33

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**

SC11.34

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

Item		Supply and fix			Item	
	METAL LATHING AND NETTING					
		Plain expanded type 1.6kg/m ²	Ribbed expanded type 2.25kg/m ²	Wire netting 0.9 mm dia. x 50 mm mesh		
	<i>Per square metre</i>	A \$	B \$	C \$		
11001	Vertical or horizontal surfaces.....	27.60	35.60	15.70	11001	
11002	Soffits or sloping soffits including beams and the like.....	28.60	36.60	16.60	11002	
	SAND BEDDING	Thickness (mm)				
		25 50				
	<i>Per square metre</i>	A \$	B \$			
11003	Sand bedding to receive paving slab or block, pavers, etc.....		16.40	24.10	11003	
	LIGHTWEIGHT FLOOR AND ROOF SCREEDS	Thickness (mm)				
		40 50 65 75				
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
11004	Cement and vermiculite (1:8 by volume) roofing screed.....	85.40	104.50	142.60	161.70	
11005	Cement and vermiculite (1:6 by volume) floor screed	83.40	102.00	139.10	157.70	
11006	Air entrained screed having a dry density of not more than 1,200 kg/m ³	97.30	119.30	163.40	185.40	
	CEMENT PAVING, FLOOR SCREEDS, ETC.	Cement and sand (1:3) or cement and granite fines (1:3)				
		Thickness (mm)				
		15 20 25 30 40				
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$
11007	Paving or floor screeds.....	30.00	33.20	36.30	39.50	45.80
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	40.10	42.80	46.70	49.40	56.00
11009	Extra over either of Items 11007 to 11008 inclusive for approved admixture of hardener and/or dust proofer.....	17.30	21.50	25.60	29.80	38.10
11010	Extra over either of Items 11007 to 11008 inclusive for approved admixture of waterproofing.....	5.00	5.40	6.70	7.10	8.80
11011	Extra over either of Items 11007 to 11008 inclusive for approved colour cement or pigments.....	4.70	5.70	6.60	8.00	9.90

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
\$	\$

Per square metre

11012	Paving or floor screeds.....	47.70	53.80	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.....	51.60	57.70	11013
11014	Extra over either of Items 11012 to 11013 inclusive for approved admixture of hardener and/or dust proofer.....	29.90	38.90	11014
11015	Extra over either of Items 11012 to 11013 inclusive for approved admixture of waterproofing.....	11.50	15.10	11015
11016	Extra over either of Items 11012 to 11013 inclusive for approved coloured cement or pigments.....	10.30	12.30	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.....	26.80	29.60	33.10	36.10	42.20	48.60	57.50	11017
11018	Screed to treads and risers, strings, sides and top of upstand kerbs, sides and bottom of channels and sinkings and the like.....	29.00	32.10	35.80	38.90	45.90	53.40	62.80	11018

Per square metre

ROOF SCREEDS

Per square metre

11019	Screed on roofs.....	29.00	32.00	35.80	38.90	45.90	53.40	62.80	11019
11020	Screed to treads and risers, strings, sides and top of upstand kerbs, sides and bottom of channels and sinkings and the like.....	31.50	34.70	35.80	42.00	49.30	57.20	67.20	11020

LEVELLING SKIM COAT

Per square metre

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)	A	\$	20.40	11021
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Item		Average thickness (mm)				Item
		3 - 5	5 - 8	8 - 10	10 - 12	
		A	B	C	D	
		\$	\$	\$	\$	
PROPRIETARY FLOOR SCREED SYSTEM						
	<i>Per square metre</i>					
11022	Proprietary light duty self-levelling floor screed.....	112.20	127.20	134.30	155.40	11022
11023	Proprietary medium duty self-levelling floor screed.....	134.60	153.20	164.60	180.60	11023
11024	Proprietary heavy duty self-levelling floor screed.....	163.70	178.30	226.30	263.40	11024
11025	Proprietary super duty self-levelling floor screed.....	229.50	256.10	294.70	329.30	11025
11026	Proprietary light duty floor screed (with laying to fall property).....	118.00	134.10	139.90	152.60	11026
11027	Proprietary medium duty floor screed (ditto).....	138.60	157.30	169.00	184.30	11027
11028	Proprietary heavy duty floor screed (ditto).....	209.80	238.30	274.30	302.20	11028
11029	Proprietary super duty floor screed (ditto).....	231.60	263.60	303.40	351.30	11029
	<i>Per square metre</i>					
11030	Heavy duty mechanical scrubbling to existing surface				25.50	11030
	<i>Per linear metre</i>					
11031	Point movement joint with rubber granular based material and binder				15.30	11031
PROPRIETARY WATERPROOFING PROTECTIVE SCREEDS						
	Proprietary waterproof protective screeding including mixing of 1 part of proprietary waterproofing and bonding styrene butadiene 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 as required : -					
	<i>Per square metre</i>					
11032	20 mm Thick on floors				75.30	11032
11033	Add to Item 11032 for each additional 5 mm or part thereof in thickness				11.90	11033
11034	10 mm Thick on walls, columns, vertical surfaces or top of benchings				55.20	11034
11035	Add to Item 11034 for each additional 5 mm or part thereof in thickness				9.80	11035
11036	10 mm Thick on soffits or sloping soffits including beams and the like				62.00	11036
11037	Add to Item 11036 for each additional 5 mm or part thereof in thickness				9.80	11037

Item

Item

PROPRIETARY WATERPROOFING PROTECTIVE SCREEDS (CONT'D)

Proprietary prepacked polymer modified waterproof fast-setting heavy duty floor screed including bond coat/primer, all in strict accordance with manufacturer's instructions. The material is manufactured from a blend of non-shrink cements, rapid hardening fillers and waterproofing admixtures. It shall achieve a monolithic bond to cementitious substrates and will accept heavy traffic within two hours of placement. The compressive strength shall be greater than 40 MPa at 28 days and the bond strength slant shear shall be of 22 MPa at 28 days :-

Supply and fix
A
\$

Per square metre

11038 20 mm Thick on floors 379.70 11038

11039 Add to Item 11038 for each additional 5 mm or part thereof in thickness 81.00 11039

(Note :- The above Items 11032 to 11039 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)

RENDERING OR BACKING SCREEDS

Cement and sand (1:3) screed to :-

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
\$	\$	\$	\$	\$	\$	\$	\$
22.00	24.00	26.10	28.10	23.30	25.60	27.90	30.10
23.20	25.60	27.90	30.20	26.20	28.90	31.70	34.50
0.40	1.20	1.70	2.30	0.50	1.20	2.00	2.60

Per linear metre

11040 Skirting with square, splayed, rounded or rebated top edge, and square, splayed or coved bottom 22.00 24.00 26.10 28.10 23.30 25.60 27.90 30.10 11040

11041 Ditto but to open string or stepped wall string at side of stairs..... 23.20 25.60 27.90 30.20 26.20 28.90 31.70 34.50 11041

11042 Extra over either of Items 11040 to 11041 inclusive for approved coloured cement or pigments..... 0.40 1.20 1.70 2.30 0.50 1.20 2.00 2.60 11042

Cement and sand (1:3) or cement and granite fines (1:3) rendering to :-

Thickness (mm)			
10	15	20	25
A	B	C	D
\$	\$	\$	\$
27.20	30.60	34.30	37.60
29.60	33.20	36.80	40.20
3.20	4.00	5.10	6.20
3.30	4.70	6.10	7.10

Per square metre

11043 Walls, columns, vertical surfaces, top of benchings or under cupboards..... 27.20 30.60 34.30 37.60 11043

11044 Soffits or sloping soffits including beams and the like..... 29.60 33.20 36.80 40.20 11044

11045 Extra over either of Items 11043 to 11044 inclusive for approved admixture of waterproofing..... 3.20 4.00 5.10 6.20 11045

11046 Extra over either of Items 11043 to 11044 inclusive for approved coloured cement or pigments..... 3.30 4.70 6.10 7.10 11046

Cement and sand (1:4) or cement and granite fines (1:4) rendering to :-

Thickness (mm)			
10	15	20	25
A	B	C	D
\$	\$	\$	\$
23.90	26.60	29.30	32.00

Per square metre

11047 On surfaces between grounds to receive fitments (no deduction for grounds)..... 23.90 26.60 29.30 32.00 11047

Item							Item
	INTERNAL LIME PLASTER						
		5 mm first coat	10 mm first coat	5 mm finish-ing coat	Two coats		
	<i>Per square metre</i>	A	B	C	D		
		\$	\$	\$	\$		
11048	On walls, columns or vertical surfaces	-	24.10	22.10	46.10	11048	
11049	On soffits or sloping soffits including beams and the like	24.00	-	28.00	52.10	11049	
	GYPHUM 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			
	<i>Per square metre</i>	A	B	C			
		\$	\$	\$			
11050	On walls, columns or vertical surfaces	-	40.30	-		11050	
11051	On soffits or sloping soffits including beams and the like surfaces.....	-	46.20	-		11051	
11052	On walls, columns or vertical surfaces of expanded metal lathing (measured separately).....	-	-	42.40		11052	
11053	On soffits or sloping soffits including beams and the like, surfaces of expanded metal lathing (measured separately).....	-	-	48.20		11053	
11054	On walls, columns or vertical plasterboard surfaces	29.90	-	-		11054	
11055	On soffits or sloping soffits including beams and the like, plasterboard surfaces.....	35.80	-	-		11055	
	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		
	<i>Per linear metre</i>	A	B	C	D		
		\$	\$	\$	\$		
11056	Moulding or moulded cornice	25.20	33.30	44.50	56.70	11056	
11057	Ditto but circular on plan to radius n.e. 7.50 m	37.20	47.80	65.00	80.80	11057	
11058	Preformed cornices.....	63.90	72.00	80.40	88.20	11058	
11059	Ditto but circular on plan to radius n.e. 7.50 m.....	72.30	81.50	92.30	101.60	11059	

Item			Item																					
	<p>ACOUSTIC AND CEMENTITIOUS FIREPROOFING PLASTER</p> <p>(Note : - The following Items 11060 to 11063 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)</p> <p>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 : -</p> <p><i>Per square metre</i></p>	<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;">105.50</td></tr> </table>	A	\$	105.50	11060																		
A																								
\$																								
105.50																								
11060	On walls, columns, vertical surfaces, soffits or sloping soffits including beams and the like																							
	<p>Prepare and spray cementitious fireproofing plaster on the following structural steel surfaces in accordance with manufacturer's recommendation : -</p> <p><i>Per square metre</i></p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><th colspan="3">Fire rated period</th></tr> <tr><th>1 hour</th><th>2 hours</th><th>4 hours</th></tr> <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> <tr><td style="text-align: center;">172.80</td><td style="text-align: center;">203.70</td><td style="text-align: center;">329.20</td></tr> <tr><td style="text-align: center;">172.80</td><td style="text-align: center;">320.20</td><td style="text-align: center;">387.10</td></tr> <tr><td style="text-align: center;">291.10</td><td style="text-align: center;">436.60</td><td style="text-align: center;">727.70</td></tr> </table>	Fire rated period			1 hour	2 hours	4 hours	A	B	C	\$	\$	\$	172.80	203.70	329.20	172.80	320.20	387.10	291.10	436.60	727.70	11061
Fire rated period																								
1 hour	2 hours	4 hours																						
A	B	C																						
\$	\$	\$																						
172.80	203.70	329.20																						
172.80	320.20	387.10																						
291.10	436.60	727.70																						
11061	Interior concealed structural steel surfaces with spray-texture finish.....																							
11062	Interior exposed structural steel surfaces with spray-texture or trowelled smooth finish.....																							
11063	Exterior exposed structural steel surfaces with spray-texture or trowelled smooth finish.....																							
	<p>PROPRIETARY WALL PLASTER FOR SQUASH COURT</p> <p>Prepare and apply proprietary plaster for squash court in accordance with the manufacturer's instruction : -</p> <p><i>Per square metre</i></p>	<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;">1,303.20</td></tr> </table>	A	\$	1,303.20	11064																		
A																								
\$																								
1,303.20																								
11064	On walls, columns, vertical surfaces, soffits or sloping soffits including beams and the like																							
	<p>EXTERNAL RENDERING</p> <p><i>Per square metre</i></p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><th>First coat</th><th>Finish- ing coat</th><th>Two coats render- ing</th></tr> <tr><td style="text-align: center;">10</td><td style="text-align: center;">10</td><td style="text-align: center;">20</td></tr> <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> <tr><td style="text-align: center;">35.10</td><td style="text-align: center;">43.60</td><td style="text-align: center;">78.60</td></tr> <tr><td style="text-align: center;">42.00</td><td style="text-align: center;">47.40</td><td style="text-align: center;">82.20</td></tr> </table>	First coat	Finish- ing coat	Two coats render- ing	10	10	20	A	B	C	\$	\$	\$	35.10	43.60	78.60	42.00	47.40	82.20	11065			
First coat	Finish- ing coat	Two coats render- ing																						
10	10	20																						
A	B	C																						
\$	\$	\$																						
35.10	43.60	78.60																						
42.00	47.40	82.20																						
11065	On walls, columns or vertical surfaces																							
11066	On soffits or sloping soffits including beams and the like																							

Item						Item
	EXPOSED AGGREGATE RENDERING (SHANGHAI PLASTER)	20 mm Thick				
	Exposed aggregate rendering applied in two coats as G.S. Item 18.55 :-	Colour				
	<i>Per square metre</i>	Dark	Medium	White		
		A	B	C		
		\$	\$	\$		
11067	On walls, columns or vertical surfaces	76.00	78.00	87.50	11067	
11068	On soffits or sloping soffits including beams and the like.....	82.10	93.60	84.00	11068	
	GRANOLITHIC FINISH					
	Granolithic paving, etc., of the mix and finish required :-	Mix A (Trowelled)		Mix B (Trowelled)		
	<i>Per square metre</i>	Thickness (mm)		Thickness (mm)		
		15	20	15	20	
		A	B	C	D	
		\$	\$	\$	\$	
11069	On floors.....	48.40	56.80	54.50	65.10	11069
11070	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.....	54.40	63.00	60.40	70.40	11070
11071	On walls, columns or vertical surfaces.....	-	60.00	-	67.50	11071
11072	Add to either of Items 11069 to 11071 inclusive for rubbed finish	38.00	38.00	38.00	38.00	11072
11073	Extra over either of Items 11069 to 11071 inclusive for paving, etc., hardened with approved liquid hardener and/or dust proofer.....	10.80	14.00	10.80	14.00	11073
11074	Extra over either of Items 11069 to 11071 inclusive for approved coloured cement or pigments.....	5.80	7.50	5.80	7.50	11074
	Granolithic paving, etc., of the mix and finish required :-	Mix C (Washed)		Mix D (Washed)		
	<i>Per square metre</i>	Thickness (mm)		Thickness (mm)		
		15	20	15	20	
		A	B	C	D	
		\$	\$	\$	\$	
11075	On floors.....	63.50	73.40	70.20	81.90	11075
11076	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	71.30	81.60	78.70	90.70	11076
11077	On walls, columns or vertical surfaces.....	-	77.60	-	86.40	11077
11078	Extra over either of Items 11075 to 11077 inclusive for paving, etc., hardened with approved liquid hardener and/or dust proofer.....	10.60	14.00	10.60	14.00	11078
11079	Extra over either of Items 11075 to 11077 inclusive for approved coloured cement or pigments.....	6.70	8.40	6.70	8.40	11079

Item									Item
GRANOLITHIC FINISH (CONT'D)									
Granolithic paving, etc., of the mix and finish required :-									
<i>Per linear metre</i>									
	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	
	\$	\$	\$	\$	\$	\$	\$	\$	
11080	7.50	15.50	23.00	30.90	8.00	16.50	25.90	35.40	11080
11081	8.00	16.10	24.30	33.10	8.30	18.80	27.60	38.00	11081
11082	2.90	5.80	8.90	11.50	2.80	5.80	8.60	11.50	11082
11083	9.80	20.80	30.90	42.80	10.50	23.00	34.60	47.80	11083
11084	10.10	21.40	31.40	45.50	10.90	24.20	36.70	50.20	11084
11085	1.10	2.00	2.90	3.90	1.10	2.00	2.80	4.00	11085
11086	0.50	1.40	2.10	2.90	0.70	1.40	2.40	3.30	11086
<i>Per linear metre</i>									
	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	
	\$	\$	\$	\$	\$	\$	\$	\$	
11087	0.40	0.80	1.20	1.70	0.40	0.80	1.30	1.90	11087

Item				Item	
TERRAZZO WORK					
		Type A (white or coloured cement)	Type B (white or coloured cement)	Type C (white or coloured cement)	
		A \$	B \$	C \$	
	<i>Per square metre</i>				
11088	25 mm Thick on floors	103.60	103.30	103.10	11088
11089	25 mm Thick on treads of stairs	108.00	108.00	108.00	11089
11090	15 mm Thick to risers and ends of stair, sides and top of upstand kerbs, sides and bottom of channels and sinkings, and the like	109.60	109.50	109.20	11090
11091	20 mm Thick on walls, columns or vertical surfaces including 1 coat of wax polish on finished surface.....	127.10	126.70	126.40	11091
11092	15 mm Thick to tops, sides, soffits and edges of shelves, working slabs, sinks, cills and the like	112.00	111.70	111.40	11092
	<i>Per linear metre</i>				
11093	20 mm Thick skirting n.e. 75 mm high with splayed, rounded or rebated top edge, and square, splayed or coved bottom including 1 coat of wax polish on finished surface.....	11.30	11.30	11.30	11093
11094	Ditto but 75 - 150 mm high	24.50	24.40	24.40	11094
11095	Ditto but 150 - 225 mm high	42.50	42.50	42.40	11095
11096	Ditto but 225 - 300 mm high.....	58.50	58.50	58.30	11096
	Add to either of Items 11093 to 11096 inclusive for labour forming open string or stepped wall string at side of stairs	20%	20%	20%	

Item					Item	
CERAMIC AND QUARRY FLOOR TILES						
Ceramic floor tiles and quarry floor tiles in any colour : -						
Thickness (mm)						
n.e. 9.5 exceeding 9.5						
	Tile size	n.e. 0.36 m ²	Exceeding 0.36 m ²	n.e. 0.36 m ²	Exceeding 0.36 m ²	
		A	B	C	D	
		\$	\$	\$	\$	
11097	Tiling on floors.....	161.20	170.90	176.30	186.10	11097
11098	Ditto but to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like	165.10	176.60	180.20	191.90	11098
11099	Extra over either of Items 11097 to 11098 inclusive for slip resistant tiles satisfying the standard as set out in G.S. Item 18.184.....	9.50	9.50	9.50	9.50	11099
<i>Per linear metre</i>						
11100	Extra over Item 11098 for stair tread tile.....	6.40	6.40	6.40	6.40	11100
11101	Skirting 100 mm high with rounded top edges and coved bottom.....	44.40	-	49.60	-	11101
11102	Ditto but 150 mm high.....	55.80	-	62.60	-	11102
11103	Ditto but 200 mm high.....	72.00	-	79.70	-	11103
	Add to either of Items 11101 to 11103 inclusive for labour forming open string or stepped wall string at side of stairs.....	20%	-	20%	-	
<i>Per square metre</i>						
11104	Lay only tiling on floors.....	65.50	71.40	65.50	71.40	11104
11105	Lay only tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like.....	69.40	77.20	69.40	77.20	11105
11106	Rake out joints between tiles and point in natural or coloured cement and sand grout on existing tiled surface.....	29.50	28.20	29.50	28.20	11106
11107	Hack out and replace tiling on floor in isolated patches and point to match existing.....	172.70	182.50	187.80	197.60	11107
Add to either of Items 11097 to 11098 inclusive, Items 11101 to 11103 inclusive and Item 11107 for ceramic and quarry floor tiles of specific quality.....					65%	

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. 0.05 m ² Exceeding 0.05 m ² n.e. 0.05 m ² Exceeding 0.05 m ²						
A B C D						
\$ \$ \$ \$						
11108	Tiling on floors.....	118.80	85.00	190.60	162.90	11108
11109	Tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like	125.80	90.20	198.10	166.70	11109
<i>Per linear metre</i>						
11110	Extra over for tile with rounded edge.....	9.30	13.10	7.70	9.40	11110
11111	Skirting 100 mm high with rounded top edges and coved bottom.....	33.00	35.20	44.10	46.90	11111
11112	Ditto but 150 mm high.....	47.50	50.30	64.10	68.20	11112
11113	Ditto but 200 mm high.....	61.10	63.50	82.10	86.20	11113
Add to either of Items 11111 to 11113 inclusive for labour forming open string or stepped wall string at side of stairs.....						
		20%	20%	20%	20%	
<i>Per square metre</i>						
11114	Lay only tiling on floors.....	43.70	31.00	43.70	31.00	11114
11115	Lay only tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like	49.50	34.90	49.50	34.90	11115
TERRAZZO FLOOR TILES						
Terrazzo floor tiles to BS EN 13748 in any size, colour and surface finish :-						
Thickness (mm)						
20 30						
A B						
\$ \$						
11116	Tiling on floors.....			147.20	166.10	11116
11117	Tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like			154.10	175.50	11117
<i>Per linear metre</i>						
11118	Extra over Item 11117 for stair tread tile.....			20.80	21.90	11118
11119	Skirting 100 mm high with rounded top edges and coved bottom.....			38.70	43.20	11119
11120	Ditto but 150 mm high.....			50.00	55.50	11120
11121	Ditto but 200 mm high.....			63.10	68.90	11121
Add to either of Items 11119 to 11121 inclusive for labour forming open string or stepped wall string at side of stairs.....						
				20%	20%	

Item		Thickness (mm)		Item	
		20	30		
		A	B		
		\$	\$		
	TERRAZZO FLOOR TILES (CONT'D)				
	Terrazzo floor tiles to BS EN 13748 in any size, colour and surface finish : - (Cont'd)				
	<i>Per square metre</i>				
11122	Lay only tiling on floors.....	43.10	49.00	11122	
11123	Lay only tiling to treads and risers of stairs, sides and top of upstand kerbs, sides and bottom of channels and the like	49.90	56.80	11123	
11124	Hack out and replace tiling on floor in isolated patches and point to match existing.....	152.20	174.40	11124	
	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>				
		Thickness (mm)			
		6	9	12	
		A	B	C	
		\$	\$	\$	
11125	Tiling on floors.....	107.10	146.10	179.70	11125
11126	Tiling to walls, columns and vertical surfaces.....	108.70	147.70	181.30	11126
11127	Tiling to ceilings	110.20	149.40	182.90	11127
11128	Lay only tiling on floors.....	32.60	32.60	32.60	11128
11129	Ditto to walls, columns and vertical surfaces.....	33.60	33.60	33.60	11129
11130	Ditto to ceilings.....	35.60	35.60	35.60	11130

Item

Item

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 :-

Thickness (mm)		
2.5	2	3.2
Semi-flexible p.v.c. tiles	Unbacked flexible vinyl tiles	Lino-leum tiles
A	B	C
\$	\$	\$
134.60	111.70	189.20
144.40	119.80	199.10
36.30	36.30	36.30
41.20	41.20	41.20

Per square metre

11131	Tiling on floors.....	134.60	111.70	189.20	11131
11132	Tiling to treads and risers of stairs.....	144.40	119.80	199.10	11132
11133	Lay only tiling on floors.....	36.30	36.30	36.30	11133
11134	Lay only tiling to treads and risers of stairs.....	41.20	41.20	41.20	11134

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
A	B	C	D	E
\$	\$	\$	\$	\$
-	171.00	179.90	288.20	378.40
-	182.20	192.30	305.20	400.30
160.10	-	-	-	-
-	49.90	49.90	53.80	61.60
-	55.80	55.80	59.70	71.40
74.30	-	-	-	-

Per square metre

11135	Sheeting on floors.....	-	171.00	179.90	288.20	378.40	11135
11136	Sheeting to treads and risers of stairs.....	-	182.20	192.30	305.20	400.30	11136
11137	Sheeting to walls.....	160.10	-	-	-	-	11137
11138	Lay only sheeting on floors.....	-	49.90	49.90	53.80	61.60	11138
11139	Lay only sheeting to treads and risers of stairs.....	-	55.80	55.80	59.70	71.40	11139
11140	Lay only sheeting to walls.....	74.30	-	-	-	-	11140

Item			Vinyl tiles 2 mm thick	Vinyl sheet 2 mm thick	Item
	FLEXIBLE TILES OR SHEET FINISHES (CONT'D)				
	Supply and lay in any colour and patterns : -				
	<i>Per square metre</i>		A \$	B \$	
11141	Homogeneous vinyl flooring, heavy contact calendered and pressed sheet, fully flexible with PU reinforcement.....		145.50	194.70	11141
11142	Antistatic homogeneous vinyl flooring with acid resisting property, electrical resistance : 10 ⁴ ohms to 10 ⁶ ohms.....		240.10	275.60	11142
11143	Antistatic homogeneous vinyl flooring with acid resisting property, electrical resistance : 10 ⁴ ohms to 10 ⁶ ohms including all necessary copper strip or other conductive media.....		269.20	360.20	11143
11144	Antistatic homogeneous vinyl safety flooring in sheet form, patterned co-ordinated with clean surface treatment, abrasion and slip resistance including cross-linked polyurethane reinforcement.....		-	498.40	11144
	(Note : - The above Items 11141 to 11144 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)				
	<i>Per linear metre</i>			A \$	
11145	Preformed flexible P.V.C. skirting 100 mm high coved bottom and rounded or bevelled at top edge.....			49.70	11145
11146	'L' shape PVC skirting of size 100 x 45 x 2 mm thick.....			48.50	11146
11147	Cove former and capping strip for vinyl roll-up skirting.....			78.20	11147
11148	Vinyl heavy duty safety roll-up skirting.....			69.20	11148
11149	PVC stair nosing 75 x 34 mm.....			84.20	11149
	<i>Per square metre</i>				
11150	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.....			43.10	11150
11151	Ditto but sheeting on floors.....			58.70	11151
11152	Ditto but sheeting to walls.....			86.90	11152
11153	Scrub, clean and apply two coats wax polish with machine buffed on floors.....			6.80	11153
11154	Scrub, clean and apply sealer and two coats machine applied polish on floors.....			8.70	11154
	<i>Per linear metre</i>				
11155	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			5.10	11155

Item		Thickness (mm)		Item	
		4	4		
		tiles	sheet		
		A	B		
		\$	\$		
	RUBBER TILES AND SHEET				
	Supply and lay as G.S. Item 18.135 in any size, colour and patterns :-				
	<i>Per square metre</i>				
11156	Tiling/Sheeting on floors.....	352.90	409.90	11156	
11157	Tiling/Sheeting to treads and risers of stairs.....	374.40	435.10	11157	
11158	Lay only tiling/sheeting on floors.....	29.70	48.20	11158	
11159	Lay only tiling/sheeting to treads and risers of stairs.....	34.60	56.00	11159	
	<i>Per square metre</i>		A		
			\$		
11160	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.....		36.30	11160	
11161	Ditto but sheeting on floors.....		48.90	11161	
11162	Scrub, clean and apply two coats wax polish with machine buffed on floors.....		6.80	11162	
11163	Scrub, clean and apply sealer and two coats machine applied polish on floors.....		7.50	11163	
	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	
		\$	\$	\$	
11164	Tiling on floors.....	120.70	141.10	147.30	11164
11165	Tiling on walls or columns.....	120.80	144.10	155.90	11165
11166	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	129.80	154.20	164.60	11166
	<i>Per linear metre</i>				
11167	Extra over for setting one row of tiles on splay at internal angle or junction of floor and wall tiling and the like.....	3.20	3.20	3.20	11167
11168	Skirting n.e. 75 mm high, with square top edge and square or splay bottom edge.....	8.70	9.60	9.90	11168
11169	Ditto but 75 - 150 mm high.....	13.40	16.00	17.10	11169
11170	Ditto but 150 - 225 mm high.....	18.10	22.40	24.30	11170
11171	Ditto but 225 - 300 mm high.....	22.70	28.80	31.50	11171
	Add to either of Items 11168 to 11171 inclusive for labour forming open string or stepped wall string at side of stairs.....	20%	20%	20%	

Item						Item	
	MOSAIC FLOOR AND WALL TILES (CONT'D)						
	Supply and lay as G.S. Item 18.110 but of any colour, size and surface finish : - (Cont'd)						
		Glass mosaic tile	Glazed ceramic mosaic tile	Unglazed vitreous mosaic tile			
	<i>Per square metre</i>	A \$	B \$	C \$			
11172	Lay only tiling on floors.....	40.20	40.20	40.20		11172	
11173	Lay only tiling on walls or columns.....	43.10	43.10	43.10		11173	
11174	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	47.00	47.00	47.00		11174	
11175	Rake out joints between tiles and point in natural or coloured cement and sand grout on existing tiled surface	40.50	40.50	40.50		11175	
	CERAMIC WALL TILES						
	Ceramic wall tiles in any colour and surface finish : -						
		Thickness (mm)					
		n.e. 9.5		exceeding 9.5			
		n.e. 0.05 m ²	Exceed- ing 0.05 m ²	n.e. 0.05 m ²	Exceed- ing 0.05 m ²		
	<i>Per square metre</i>	A \$	B \$	C \$	D \$		
11176	Tiling on walls, columns, cills, top and edges of slabs, surfaces of fitment and the like.....	148.10	142.20	166.30	160.40	11176	
11177	Lay only tiling on walls, columns, cills, top edges of slabs and the like.....	56.80	50.90	56.80	50.90	11177	
11178	Rake out joints between tiles and point in natural or coloured cement and sand grout on existing tiled surface	31.80	29.50	31.80	29.50	11178	
11179	Hack out and replace tile in isolated patches and point to match existing.....	159.60	153.70	177.80	171.90	11179	
	Add to either of Items 11176 and 11179 for ceramic wall tiles of specific quality.....				65%		

Item		Supply and fix	Fix only	Item
	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>	A \$	B \$	
11180	Pool wall tiles; laid in pattern.....	354.60	65.50	11180
11181	Pool floor tiles.....	346.80	57.70	11181
11182	Ditto; sloping.....	391.60	59.60	11182
11183	Pool tiles to steps, reveal, sides and soffit of recess.....	398.10	74.30	11183
	<i>Per linear metre</i>			
11184	Extra over Item 11180 for pool edging tile with safety marking.....	216.30	-	11184
11185	Extra over Item 11180 for pool edging tile with grooved and safety marking.....	376.00	-	11185
11186	Extra over Item 11180 for tile with coved bottom between sides and bottom of swimming pool.....	224.10	-	11186
11187	Extra over Item 11180 for tile with coved bottom between sides and bottom of overflow channel.....	212.40	-	11187
11188	Extra over Item 11180 for corner tiles.....	265.50	-	11188
11189	Coved skirting tiles in any size, colour and thickness.....	120.40	-	11189
11190	Nosing tiles with embossed surface and finger grip in any size, colour and thickness.....	99.00	-	11190
11191	Overflow channel in any size, colour and thickness.....	1,414.50	-	11191
11192	PVC channel grating of any size, colour and thickness.....	245.00	-	11192
11193	Ditto but including stainless steel wire.....	359.60	-	11193
	<i>Each</i>			
11194	Add to Item 11191 for overflow channel with drainage outlet of any size.....	502.70	-	11194
11195	Lane/depth marker tiles in any size, colour and thickness.....	500.70	-	11195
11196	Ditto but with factory-moulded marker.....	189.00	-	11196
	<i>Per pair</i>			
11197	Overflow channel internal angle	778.40	-	11197
11198	Pool edging tile internal angle with safety marking.....	253.30	-	11198
	<i>Per square metre</i>			
11199	Rake out joints between tiles and point in approved grouting material on existing tiled surfaces.....		46.00	11199

Item

Item

MOVEMENT JOINTS TO TILING ON SWIMMING POOL AND POOL DECK

Prepare and apply proprietary one part medium modulus 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	Smooth, non-slumping paste
Colour	White / Grey / Black / Portland / Buff / Rustic Red / Brown
Movement accommodation	25% butt joints
factor	50% lap joints
Skimming time at 20°C/50% RH	30 minutes
Cure rate at 20°C/50% RH	24 hours
	48 hours
	72 hours
Application temperature	50°C to 50°C
Service temperature	Dry
	Wet
Hardness shore 'A' 20°C	32
Standard compliance	ISO 11600 Type F 25HM
	DWI Water Quality Regulations 25(1)(b) - Products having a small surface area in contact with water for public supply
	BS 6920:Part 1:2000 - Water Regulations Advisory Service
	ASTM C920 Class 25, Type NS, NT, G
	Performance criteria of BS 4254(1991)
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) should not be considered a substitute for a good standard of joint preparation (e) chlorine concentrations should be less than 10 mg/litre
Biological resistance	Resistant to aerobic and anaerobic conditions evaluated in microbiologically active situations
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
\$	\$	\$	\$	\$	\$	\$
14.70	17.10	32.10	36.40	74.40	62.90	120.20

Per linear metre

11200 Proprietary sealant to movement joints in tiling on swimming pool and pool deck including priming surfaces with proprietary primer before applying sealant

11200

Item					Item
	PRECAST CONCRETE PAVING SLAB OR BLOCK				
	Precast concrete paving slabs (1:2:4) in any size, colour and surface finish, rectangular or irregular shape : -				
	<i>Per square metre</i>				
11201	Slab 50 mm thick.....				11201
	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 : -				
	<i>Per square metre</i>				
11202	200 x 100 mm Natural grey colour rectangular blocks.....				11202
11203	200 x 100 mm Red, brown, yellow or charcoal colour rectangular blocks.....				11203
11204	225 x 112.50 mm Natural grey colour interlocking blocks.....				11204
11205	225 x 112.50 mm Red, brown, yellow or charcoal colour interlocking blocks.....				11205
	RE-CONSTITUTED ARTIFICIAL GRANITE WALL AND FLOOR TILING				
	Re-constituted artificial granite tiles in any colour and surface finish : -				
	<i>Per square metre</i>				
11206	Tiling on floors.....				11206
11207	Tiling on walls or columns.....				11207
11208	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.....				11208
	<i>Per linear metre</i>				
11209	Extra over for corner tiles.....				11209
	<i>Per linear metre</i>				
11210	Re-constituted artificial granite door threshold, n.e. 70mm wide, with bevelled edges.....				11210
	Add to either of Items 11206 to 11208 inclusive and Item 11210 for re-constituted artificial granite tiles of specific quality.....				65%

Item		Strip tile		Square/ rectangular tile		Item		
		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	Exceed- ing 0.01 m ²		
			A	B	C	D		
			\$	\$	\$	\$		
RE-CONSTITUTED ARTIFICIAL GRANITE WALL AND FLOOR TILING (CONT'D)								
Re-constituted artificial granite tiles in any colour and surface finish : - (Cont'd)								
<i>Per square metre</i>								
11211	Lay only tiling on floor.....		66.50	50.90	66.50	50.90	11211	
11212	Lay only tiling on walls or columns.....		72.30	59.70	72.30	59.70	11212	
11213	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.....		76.20	57.70	76.20	57.70	11213	
11214	Rake out joints between tiles and point in natural or coloured cement and sand grout on existing tiled surface.....		22.40	16.60	22.40	16.60	11214	
11215	Hack out and replace tile in isolated patches and point to match existing.....		210.90	176.40	206.60	179.20	11215	
	Add to Item 11215 for re-constituted artificial granite tiles of specific quality.....						65%	
CLAY / BRICK PAVERS								
Clay/ brick pavers in any size and colour, laid in stretcher bond, basket weave, herring bone patterns : -								
<i>Per square metre</i>								
		Thickness (mm)						
		43	50	55	60	65	76	
		A	B	C	D	E	F	
		\$	\$	\$	\$	\$	\$	
11216	Clay/brick pavers on floor.....	160.70	172.80	187.90	201.60	215.20	244.60	11216
11217	Lay only pavers on floor.....	35.30	37.30	38.20	39.20	40.20	41.20	11217
	Add to Item 11216 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 clay/brick paver as detailed on drawing No. H5136 and 5137 (Payment will only be paid for this item, if ordered by the Maintenance Surveyor in writing.).....	12%	12%	11%	10%	9%	8%	
<i>Per linear metre</i>								
11218	232 x 115 x 76 mm Kerb brick on sand bed.....						45.90	11218
11219	232 x 115 x 76 mm Kerb brick on mortar.....						48.60	11219

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		
	\$	\$	\$	\$	\$	\$	\$	\$		
11220	Marble slabs/tiles, polished/flamed surface laid on floors.....	237.90	389.40	471.20	548.50	610.80	652.70	774.50	938.10	11220
11221	Marble slabs/tiles, polished/flamed surface fixed on walls, columns or vertical surfaces.....	344.70	478.40	540.40	620.90	744.30	-	-	-	11221
11222	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.....	305.10	455.10	479.30	566.00	628.30	-	-	-	11222
11223	Granite slabs/tiles, polished/flamed surface laid on floors.....	233.90	371.30	447.90	548.50	610.80	652.70	737.40	938.10	11223
11224	Granite slabs/tiles, fine hammered dressed surface laid on floors.....	274.30	443.00	458.30	551.30	614.20	666.90	759.00	959.40	11224
11225	Granite slabs/tiles, polished/flamed surface fixed on walls, columns or vertical surfaces.....	439.90	584.50	600.10	682.00	744.30	-	-	-	11225
11226	Granite slabs/tiles, fine hammer dressed surface fixed on walls, columns or vertical surfaces.....	520.20	584.50	600.10	682.00	744.30	-	-	-	11226
11227	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.....	332.20	541.60	557.20	643.90	706.30	-	-	-	11227
11228	Granite slabs/tiles, fine hammered dressed surface laid to treads and risers, 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.....	381.10	541.60	557.20	643.90	706.30	-	-	-	11228
<i>Per linear metre</i>										
		Thickness (mm)								
		20-30	30-40	40-50	50-75	75-100				
		A	B	C	D	E				
		\$	\$	\$	\$	\$				
11229	Marble/granite mouldings, polished/flamed surface n.e. 100 mm wide.....		67.80	76.00	81.80	96.50	116.90		11229	
11230	Ditto but 100 - 200 mm wide.....		120.00	135.40	146.10	174.40	213.40		11230	

Item

Item

STONE SLABS/TILES (CONT'D)

Natural marble or granite slabs/tiles in any size, shape, pattern and colour : - (Cont'd)

Thickness (mm)		
n.e. 10	10-15	15-20
A	B	C
\$	\$	\$
155.90	167.60	175.40

Per linear metre

11231 Marble/granite door threshold, n.e. 70mm wide, with bevelled edges..... 11231

Add to either Items 11220 to 11231 inclusive for natural marble or granite of European origin..... 40%

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	
	\$	\$	\$	\$	\$	\$	
11232 Lay only slabs/tiles on floors.....	53.80	64.50	67.50	70.40	75.30	83.10	11232
11233 Fix/lay only slabs/tiles to walls, columns or vertical surfaces.....	163.00	197.10	201.00	-	-	-	11233
11234 Ditto but including metal support backing frame.....	-	631.50	681.20	-	-	-	11234
11235 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.....	63.60	76.20	85.00	-	-	-	11235

Per square metre

Thickness (mm)						
20-30	30-40	40-50	50-75	75-100		
A	B	C	D	E		
\$	\$	\$	\$	\$		
11236 Lay only moulding n.e. 100 mm wide.....	21.70	23.60	25.60	28.50	33.40	11236
11237 Lay only moulding 100 - 200 mm wide.....	25.60	28.50	31.40	36.30	44.10	11237

Per linear metre

Item		Item
RESIN STONE SLAB		
Resin stone slabs 13 mm thick, in any size, shape, pattern and colour including forming splayed edges and polishing : -		
<i>Per square metre</i>		A S
11238	Slabs on floors.....	436.60 11238
11239	Slabs on walls, columns or vertical surfaces.....	451.10 11239
11240	Slabs to treads and risers, steps, return ends, end of stairs, 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.....	453.00 11240
11241	Lay only slabs on floors	57.70 11241
11242	Fix only slabs on walls, columns or vertical surfaces.....	177.60 11242
11243	Lay only tiling to treads and risers, steps, return ends, end of stairs, 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	65.50 11243
SUNDRY PAVING, ETC.		
<i>Per square metre</i>		A S
11244	Pebble finish 20 mm thick Mix "A" comprising cement, sand and pebble (2:2:3) laid on floor with washed finish.....	122.20 11244
11245	Pebble finish 20 mm thick Mix "B" comprising cement and pebble (2:3) rendering to vertical surfaces with washed finish.....	154.40 11245
11246	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	245.00 11246
11247	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	298.10 11247
11248	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.....	37.30 11248
11249	Ditto but at rate of 1 kg/m ² paving	74.40 11249
<i>Per linear metre</i>		
11250	15 x 25 mm Non-slip insert strips bedded in paving, stair treads or steps as G.S. Item 18.88.....	24.30 11250
11251	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	23.40 11251
11252	Non-ferrous metal nosing angle fixed to stair and step treads.....	52.80 11252

Item					Item	
TACTILES						
	Rubber/PVC tactiles with adhesive in any pattern, colour, size and thickness, all in strict accordance with 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 \$	
11253	Rubber/plastic tactiles for indoor use.....	319.10	8.30	10.90	50.20	11253
11254	Rubber/plastic tactiles for outdoor use.....	321.30	9.60	10.90	55.00	11254
	Concrete block tactiles with cement and sand slurry in any pattern, colour, size and thickness, all in strict accordance with manufacturer's instructions :-					
	<i>Per square metre</i>					
11255	Concrete block tactiles	243.60	10.90	14.70	50.20	11255
11256	Synthetic rubber tactiles with concrete base.....	1,065.40	12.80	16.00	55.00	11256
	Ceramic or quarry tile tactiles with cement and sand slurry in any pattern, colour, size and thickness, all in strict accordance with manufacturer's instructions :-					
	<i>Per square metre</i>					
11257	Ceramic or quarry tile tactiles.....	256.20	11.50	14.70	74.50	11257
	Artificial granite tactiles with cement and sand slurry in any pattern, colour, size and thickness, all in strict accordance with manufacturer's instructions :-					
	<i>Per square metre</i>					
11258	Artificial granite tactiles.....	654.00	16.00	22.30	79.40	11258
	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>					
11259	23mm dia. x 5mm (positional).....	7.80	0.30	0.60	1.20	11259
11260	35mm dia. x 5mm (hazard warning tile).....	8.30	0.30	0.60	1.20	11260
11261	34mm x 285mm x 5mm (directional).....	60.80	1.00	1.90	7.80	11261

Item

Item

TACTILES (CONT'D)

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 :-

Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only
A	B	C	D
\$	\$	\$	\$
5.10	0.30	0.60	1.20
5.80	0.30	0.60	1.20
40.00	1.00	1.90	7.80

Each

11262	23mm Diameter x 5mm (positional).....	5.10	0.30	0.60	1.20	11262
11263	35mm Diameter x 5mm (hazard warning tile).....	5.80	0.30	0.60	1.20	11263
11264	34mm Diameter x 285mm x 5mm (directional).....	40.00	1.00	1.90	7.80	11264

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	
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
11265	6.30	6.90	7.90	14.80	17.20	23.10	17.20	20.40	28.40

Per linear metre

11265	Division strips set between different floor or wall finishes.....	6.30	6.90	7.90	14.80	17.20	23.10	17.20	20.40	28.40	11265
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SUSPENDED CEILING SYSTEM FOR ACOUSTIC CEILING TILES; SUSPENSION SYSTEM (GRIDS) ONLY

Suspension system as G.S. Items 13.23 and 13.45 :-

Tile size (m ²)	Fit for square or rectangular	
	n.e. 0.36	exc. 0.36
A	B	
\$	\$	
53.80	57.60	
53.50	56.40	
53.50	50.60	
15%	15%	
24.40	24.40	
9.60	9.60	
14.70	14.70	
20.10	20.10	
25.40	25.40	

Per square metre

11266	Galvanised mild steel suspension system.....	53.80	57.60	11266
11267	Aluminium suspension system.....	53.50	56.40	11267
11268	Composite galvanised mild steel and aluminium suspension system.....	53.50	50.60	11268
	Add to either of Items 11266 to 11268 inclusive for suspension system suitable for foam tape or sealing mastic.....	15%	15%	
11269	Fix only suspension system of any type.....	24.40	24.40	11269
11270	Take down and clear away suspension system of any type.....	9.60	9.60	11270
11271	Take down and set aside for re-use suspension system of any type except suspension system suitable for foam tape or sealing mastic.....	14.70	14.70	11271
11272	Extra over either of Items 11266 to 11268 inclusive for forming openings for light fittings or air grilles module size exceeding 1.50 m long and n.e. 200 mm wide.....	20.10	20.10	11272
11273	Extra over either of Items 11266 to 11268 inclusive for forming openings for light fittings or air grilles module size n.e. 1.50 m long.....	25.40	25.40	11273

Each

Item	SUSPENDED CEILING SYSTEM FOR ACOUSTIC CEILING TILES; ACOUSTIC CEILING TILES ONLY	Tile size (m ²)		Item
		n.e. 0.36	exc. 0.36	
		A	B	
	Acoustic ceiling tiles in any thickness as G.S. Item 13.22 :-			
	<i>Per square metre</i>			
11274	Wood or other organic fibre perforated acoustic ceiling tiles fixed to soffits or walls.....	70.20	72.20	11274
11275	Ditto but fixed to suspension system (measured separately).....	67.50	68.60	11275
11276	Mineral fibre/rock wool acoustic tiles with fissured design tiles fixed to soffits or walls.....	96.20	99.50	11276
11277	Ditto but fixed to suspension system (measured separately).....	93.30	96.60	11277
11278	Moisture resistant mineral fibre/rock wool acoustic tiles fixed to soffits or wall.....	117.80	129.30	11278
11279	Ditto but fixed to suspension system (measured separately).....	114.90	126.40	11279
11280	Moisture resistant vinyl faced mineral fibre/rock wool acoustic tiles fixed to soffits or wall.....	127.40	150.40	11280
11281	Ditto but fixing to suspension system (measured separately).....	124.50	147.50	11281
11282	Moisture resistant hygiene acoustic tiles fixed to soffits or wall.....	148.40	154.30	11282
11283	Ditto but fixed to suspension system (measured separately).....	145.50	151.30	11283
11284	Moisture resistant metal foil faced mineral fibre/rock wool acoustic tiles fixed to soffits or wall.....	193.00	205.20	11284
11285	Ditto but fixed to suspension system (measured separately).....	190.10	202.80	11285
11286	Moisture resistant metal foil faced bio-proof hygiene mineral fibre/rock wool acoustic tiles fixed to suspension system (measured separately).....	191.30	216.50	11286
11287	Ditto but sealed into the suspension system with low compression foam tape and/or silicone sealing mastic (suspension system measured separately).....	230.90	254.20	11287
11288	Take down and clear away acoustic ceiling tiles of any type.....	5.10	5.10	11288
11289	Take down, set aside for re-use acoustic ceiling tiles of any type (other than sealed type).....	15.30	15.30	11289
11290	Take down, set aside for re-use sealed acoustic ceiling tiles.....	31.30	31.30	11290
11291	Fix only ceiling tiles to soffits or wall of any type.....	18.50	18.50	11291
11292	Fix only ceiling tiles to suspension system of any type.....	14.60	14.60	11292
11293	Fix only ceiling tiles sealed into the suspension system with low compression foam tape and/or silicone sealing mastic.....	39.00	39.00	11293
	<i>Each</i>			
11294	Forming openings through existing acoustic tiles (non-sealed type) for light fittings, sprinkler heads, smoke detectors, etc. in size n.e. 0.05 m ² including plywood backing as required.....	6.30	6.30	11294
11295	Forming openings through existing acoustic tiles (sealed type) for light fittings, sprinkler heads, smoke detectors, etc. in size n.e. 0.05 m ² including plywood backing as required and sealed into the system with low compression foam tape and/or silicone sealing mastic.....	18.00	18.00	11295

Item		Strip/panel			Item
		Lay-in	Clip-in		
		Internal type	Internal type	External type	
		A	B	C	
		\$	\$	\$	
	SUSPENDED CEILING SYSTEM FOR METAL CEILING; SUSPENSION SYSTEM (GRIDS) ONLY				
	Suspension system recommended by the manufacturer for approved ceiling type :-				
	<i>Per square metre</i>				
11296	Galvanised mild steel suspension system	81.30	86.10	103.80	11296
11297	Aluminium suspension system.....	72.80	85.20	102.50	11297
11298	Composite galvanised mild steel and aluminium suspension system.....	81.60	91.70	104.50	11298
11299	Extra over either of Items 11296 to 11298 inclusive for air-tight suspension system.....	47.00	100.90	-	11299
11300	Take down and clear away suspension system of any type.....	12.10	12.10	12.10	11300
11301	Take down and set aside for re-use suspension system generally.....	21.70	21.70	21.70	11301
11302	Take down and set aside for re-use suspension system of air-tight type.....	32.50	32.50	-	11302
11303	Fix only suspension system generally.....	27.30	27.30	27.30	11303
11304	Fix only suspension system of air-tight type.....	53.60	53.60	-	11304
	<i>Per linear metre</i>				
11305	Extra over either of Items 11296 to 11298 inclusive for forming openings for light fittings or air grilles module size exceeding 1.50 m long and n.e. 200 mm wide generally.....	17.90	17.90	17.90	11305
11306	Extra over either of Items 11296 to 11298 inclusive for forming openings for light fittings or air grilles module size exceeding 1.50 m long and n.e. 200 mm wide for suspension system of air-tight type.....	38.80	38.80	-	11306
	<i>Each</i>				
11307	Extra over either of Items 11296 to 11298 inclusive for forming openings for light fittings or air grilles module size n.e. 1.50 m long for suspension system generally.....	22.00	22.00	22.00	11307
11308	Extra over either of Items 11296 to 11298 inclusive for forming openings for light fittings or air grilles module size n.e. 1.50 m long for suspension system air-tight type.....	89.80	89.80	-	11308

Item							Item	
SUSPENDED CEILING SYSTEMS FOR METAL CEILING; PANEL/STRIP ONLY								
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) :-								
<i>Per square metre</i>								
	Aluminium panel/strip			G.M.S. panel/strip				
	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		
	\$	\$	\$	\$	\$	\$		
11309	Ceiling panel/strip module size n.e. 0.36 m ²	171.00	171.00	191.30	171.00	171.00	230.10	11309
11310	Ditto, exceeding 0.36 m ²	211.10	203.80	274.10	203.80	214.90	287.50	11310
11311	Extra over either of Items 11309 to 11310 inclusive for additional sound absorbing matts on the rear side of the panel/strip.....	34.60	34.60	34.70	34.60	34.60	34.70	11311
11312	Extra over either of Items 11309 to 11310 inclusive for air-tight panel/strip.....	221.60	362.80	-	213.50	-	-	11312
11313	Take down and clear away ceiling panel/strip of any type.....	10.90	10.90	10.90	10.90	10.90	10.90	11313
11314	Take down and clear away ceiling panel/strip of air-tight type.....	26.20	26.20	-	26.20	-	-	11314
11315	Take down and set aside for re-use away ceiling panel/strip generally.....	16.60	16.60	16.60	16.60	16.60	16.60	11315
11316	Take down and set aside for re-use away ceiling panel/strip of any type of air-tight type.....	42.10	42.10	-	42.10	-	-	11316
11317	Fix only ceiling panel/strip generally.....	14.60	14.60	14.60	14.60	14.60	14.60	11317
11318	Fix only ceiling panel/strip of air-tight type.....	139.70	139.70	-	139.70	-	-	11318
<i>Per linear metre</i>								
11319	Extra over either of Items 11309 to 11310 inclusive for forming openings for light fittings or air grilles module size exceeding 1.50 m long and n.e. 200 mm wide for panel/strip generally.....	102.30	102.30	102.30	102.30	102.30	102.30	11319
11320	Extra over either of Items 11309 to 11310 inclusive for forming openings for light fittings or air grilles module size exceeding 1.50 m long and n.e. 200 mm wide for panel/strip of air-tight type.....	109.80	109.80	-	109.80	-	-	11320
<i>Each</i>								
11321	Extra over either of Items 11309 to 11310 inclusive for forming openings for light fittings, air grilles and the like module size n.e. 1.50 m long for panel/strip generally.....	62.20	62.20	62.20	62.20	62.20	62.20	11321
11322	Ditto for forming opening for sprinkler heads, smoke detectors, etc.....	28.80	28.80	28.80	28.80	28.80	28.80	11322
11323	Extra over either of Items 11309 to 11310 inclusive for forming openings for light fittings, air grilles and the like module size n.e. 1.50 m long for panel/strip of air-tight type.....	113.70	113.70	-	113.70	-	-	11323
11324	Ditto for forming opening for sprinkler heads, smoke detectors, etc.....	59.10	59.10	-	59.10	-	-	11324
	Add to either of Items 11309 to 11310 inclusive for panel/strip of perforated ceiling type.....	10%	10%	10%	10%	10%	10%	

Item

Item

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
A \$	B \$	C \$	D \$
336.10	25.50	31.30	68.20
462.60	25.50	31.30	68.20
471.20	25.50	31.30	68.20
473.60	25.50	31.30	68.20
866.30	26.20	35.70	155.90
1,091.50	23.60	35.70	116.90
1,357.20	12.10	16.60	117.90

Per square metre

11325	Flooring with bare panel.....	336.10	25.50	31.30	68.20	11325
11326	Flooring with high pressure laminated panel finish.....	462.60	25.50	31.30	68.20	11326
11327	Flooring with carpet tile finish.....	471.20	25.50	31.30	68.20	11327
11328	Flooring with vinyl tile finish.....	473.60	25.50	31.30	68.20	11328
11329	Access ramp.....	866.30	26.20	35.70	155.90	11329
11330	Steps.....	1,091.50	23.60	35.70	116.90	11330

Per linear metre

11331	Standard railing.....	1,357.20	12.10	16.60	117.90	11331
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Each

11332	Set of picker and tool (lifting device).....				A \$ 522.60	11332
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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 \$
124.60	141.90	166.50	175.10	187.70	209.70
131.60	150.20	175.00	175.00	191.40	215.00

Per square metre

11333	Carpet laid with adhesive.....	124.60	141.90	166.50	175.10	187.70	209.70	11333
11334	Carpet laid with adhesive and release bond agent.....	131.60	150.20	175.00	175.00	191.40	215.00	11334

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 \$
178.00	193.00	217.90	202.40	221.70	248.00
183.60	198.20	225.60	217.60	234.10	257.80

Per square metre

11335	Carpet laid with adhesive.....	178.00	193.00	217.90	202.40	221.70	248.00	11335
11336	Carpet laid with adhesive and release bond agent.....	183.60	198.20	225.60	217.60	234.10	257.80	11336

Item			Item
	HEAVY CONTRACT QUALITY CARPET (CONT'D)		
	CARPET; FULLY ADHERING METHOD (CONT'D)		
	Supply and lay carpet including backing as "Environmentally Friendly Carpet" in any series and colour finish required : - (Cont'd)		
	<i>Per square metre</i>		
11337	Carpet laid with adhesive.....	224.30	11337
11338	Carpet laid with adhesive and release bond agent.....	237.20	11338
	Alterations and repairs : -		
	<i>Per square metre</i>		
11339	Take up and clear away existing carpet of any type.....	5.70	11339
11340	Take up existing carpet of any type and set aside for re-use.....	14.00	11340
11341	Lay or fix only carpet of any type with adhesive.....	19.50	11341
11342	Lay or fix only carpet of any type with adhesive and release bond agent.....	29.20	11342
	CARPET; GRIPPER METHOD		
	Supply and lay carpet with all type of backing and in any series and colour finish required : -		
	<i>Per square metre</i>		
11343	Carpet laid with grippers.....	128.70	11343
11344	Ditto with underlays.....	154.30	11344
	Supply and lay carpet including backing as "Environmentally Friendly Carpet" in any series and colour finish required : -		
	<i>Per square metre</i>		
11345	Carpet laid with grippers.....	185.10	11345
11346	Ditto with underlays.....	210.30	11346

Carpet		
Pile density (fibre/m ²)		
exc. 75 million		
to floor	to stairs	to wall
A	B	C
\$	\$	\$
224.30	240.50	260.70
237.20	250.00	278.30

Carpet		
to floor	to stairs	to wall
A	B	C
\$	\$	\$
5.70	6.90	7.50
14.00	16.80	18.20
19.50	29.20	32.20
29.20	34.10	39.00

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
\$	\$	\$	\$
128.70	164.40	192.50	225.20
154.30	189.10	217.10	251.80

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
\$	\$	\$	\$
185.10	220.50	228.30	272.50
210.30	245.60	257.00	288.80

Item

Item

HEAVY CONTRACT QUALITY CARPET (CONT'D)

CARPET; GRIPPER METHOD (CONT'D)

Alterations and repairs :-

Carpet	
to floor	to stairs
A	B
\$	\$
5.70	6.90
14.00	16.80
16.80	20.20
19.50	53.60
24.40	58.50
49.10	83.20

Per square metre

11347	Take up and clear away existing carpet of any type with or without underlay.....	5.70	6.90	11347
11348	Take up existing carpet of any type and set aside for re-use.....	14.00	16.80	11348
11349	Ditto but including underlays.....	16.80	20.20	11349
11350	Lay only carpet of any type with and including grippers.....	19.50	53.60	11350
11351	Ditto with underlays ditto.....	24.40	58.50	11351
11352	Lay only carpet of any type including provision of new underlays and clear away old underlays ditto.....	49.10	83.20	11352

100% PURE WOOL CARPET; GRIPPER METHOD

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
\$	\$	\$	\$
327.10	357.50	368.30	407.90
344.20	375.10	403.70	436.60
555.10	587.30	599.70	631.90
583.70	619.50	628.30	664.10

Per square metre

11353	Carpet 'machine tufted' laid with grippers.....	327.10	357.50	368.30	407.90	11353
11354	Ditto with underlays.....	344.20	375.10	403.70	436.60	11354
11355	Carpet 'hand made' laid with grippers.....	555.10	587.30	599.70	631.90	11355
11356	Ditto with underlays.....	583.70	619.50	628.30	664.10	11356

Alterations and repairs :-

Carpet	
to floor	to stairs
A	B
\$	\$
5.10	6.90
13.40	16.10
16.10	19.30
19.50	59.00
24.40	63.80
54.00	88.60

Per square metre

11357	Take up and clear away existing carpet of any type.....	5.10	6.90	11357
11358	Take up existing carpet of any type and set aside for re-use.....	13.40	16.10	11358
11359	Ditto but including underlays.....	16.10	19.30	11359
11360	Lay only carpet of any type with and including grippers.....	19.50	59.00	11360
11361	Ditto with underlays ditto.....	24.40	63.80	11361
11362	Lay only carpet of any type including provision of new underlays and clear away old underlays ditto.....	54.00	88.60	11362

Item

Item

HEAVY CONTRACT QUALITY CARPET TILES

CARPET TILE; 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 : -

Per square metre

	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		
	\$	\$	\$	\$	\$	\$		
11363	Carpet tiles laid with adhesive.....	135.10	155.90	169.80	162.30	178.40	206.20	11363
11364	Ditto laid with adhesive and release bond agent.....	141.90	164.40	196.80	173.40	189.50	217.30	11364

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

11365	Carpet tiles laid with adhesive.....	165.90	182.10	211.60	195.30	211.40	222.80	11365
11366	Ditto laid with adhesive and release bond agent.....	177.10	193.20	222.80	206.40	222.50	250.30	11366

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 : -

Per square metre

	Carpet tile				
	Pile density (fibre/m ²)				
	exc. 75 million				
	to floor	to stairs	to wall		
	A	B	C		
	\$	\$	\$		
11367	Carpet tiles laid with adhesive.....	271.40	291.50	313.50	11367
11368	Ditto laid with adhesive and release bond agent.....	282.20	302.70	328.20	11368

Alterations and repairs : -

Per square metre

	Carpet				
	to floor	to stairs	to wall		
	A	B	C		
	\$	\$	\$		
11369	Take up and clear away existing carpet tiles of any type.....	5.70	6.90	6.30	11369
11370	Take up existing carpet tiles of any type and set aside for re-use.....	14.00	16.80	15.40	11370
11371	Lay only carpet tiles of any type with adhesive.....	23.60	26.80	24.20	11371
11372	Lay only carpet tiles of any type with adhesive and release bond agent.....	25.50	30.60	28.10	11372

Item						Item
	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 :-	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 \$	
11373	Heavy duty entrance matting, ribbed carpet/grooved rubber/brush/aluminium scraper finished strip, n.e. 17 mm high.....	3,032.00	35.70	54.20	97.40	11373
11374	Ditto, 17 - 22 mm high.....	3,225.60	35.70	54.20	97.40	11374
11375	Ditto, 22- 27 mm high.....	3,744.80	35.70	54.20	97.40	11375
	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 :-			Take down and clear away	Take down and set aside for re-use	
	<i>Per square metre</i>			A \$	B \$	
11376	Expanded metal lathing			3.20	-	11376
11377	Lightweight screeds to floors and roofs of any thickness			11.50	-	11377
11378	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			9.60	-	11378
11379	Cement and sand wall or ceiling rendering, screeds, skirting and the like			12.10	-	11379
11380	Internal plaster, external plaster, acoustic plaster, Shanghai plaster or gypsum plaster of any mix, thickness, or number of coats.....			11.50	-	11380
11381	Flexible sheets and skirting of any type to floor or wall (screed measured separately).....			8.30	10.90	11381
11382	"Sandtex-trowel" finish including backing screed if any			17.20	-	11382
11383	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			16.60	-	11383
11384	Granolithic or terrazzo wall dadoes and skirting of any mix or thickness including backing screed if any.....			13.40	-	11384
11385	Ceramic or quarry floor tiling, skirting, etc., of any type (screed measured separately)			11.50	-	11385
11386	Precast concrete floor tiling or skirting of any thickness (ditto)			10.90	14.70	11386
11387	Terrazzo floor tiling, skirting, etc. of any type (ditto).....			12.80	17.90	11387
11388	Cork tiling of any thickness to floor, wall or ceiling (ditto)			4.50	5.70	11388
11389	Flexible tiles and skirting of any type to floor or wall (ditto).....			8.30	10.90	11389

Item		Take down and clear away	Take down and set aside for re-use	Item
	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)			
	Per square metre	A	B	
		\$	\$	
11390	Rubber tiles and sheets to floors, and treads and risers of any type (ditto)	8.30	10.90	11390
11391	Mosaic floor or wall tiling of any type (ditto)	11.50	-	11391
11392	Glazed or ceramic wall tiling of any type (ditto)	11.50	-	11392
11393	Precast concrete paving slabs of any thickness (screed measured separately)	10.90	14.70	11393
11394	Rectangular or interlocking precast concrete paving blocks of any thickness (ditto)	12.80	17.20	11394
11395	Artificial granite floor or wall tiling of any thickness (ditto).....	13.40	18.50	11395
11396	Clay brick paver of any size (ditto).....	12.10	16.00	11396
11397	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 (screed measured separately).....	13.40	18.50	11397
11398	Resin stone slabs in any thickness (screed measured separately)	12.10	17.20	11398
11399	Marble/granite tiles of any size (ditto).....	11.50	15.30	11399
11400	Pebble or small stone paving of any mix or thickness.....	8.30	-	11400
	Per linear metre			
11401	Plaster of paris mouldings and moulded cornices n.e. 150 mm girth, complete with bracketing and the like.....	3.20	-	11401
11402	Ditto 150 - 300 mm girth, ditto	3.80	-	11402
11403	Brick curb of any size.....	5.10	7.00	11403
11404	Natural marble or granite moulding n.e. 100 mm wide.....	5.10	7.00	11404
11405	Ditto 100 - 200 mm wide.....	5.70	8.90	11405

Item	Item
SUPPLY ONLY OF MATERIALS	
<i>Per square metre</i>	
	A \$
11406 6 mm Thick cork tiles	64.00
11407 9 mm Ditto	87.30
11408 12 mm Ditto	107.40
	Thickness (mm)
	n.e. exceed- 9.5 ing 9.5
	A B \$ \$
11409 Ceramic and quarry floor tiles each tile size n.e. 0.36m ²	91.40 105.50
11410 Ceramic and quarry floor tiles each tile size exceeding 0.36m ²	84.50 98.20
11411 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. 0.36m ²	97.80 111.90
11412 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 0.36m ²	91.00 104.70
<i>Per linear metre</i>	
11413 Ceramic and quarry skirting tiles 100 mm high	34.20 39.90
11414 Ceramic and quarry skirting tiles 150 mm high.....	45.70 52.20
11415 Ceramic and quarry skirting tiles 200 mm high.....	76.00 83.30
Add to either of Items 11409 to 11415 inclusive for ceramic and quarry floor tiles of specific quality.....	65%
<i>Per square metre</i>	
	A \$
11416 Re-constituted artificial granite strip tile n.e. 0.01 m ² , 10 - 15 mm thick.....	118.20
11417 Re-constituted artificial granite strip tile exceeding 0.01 m ² , 10 - 15 mm thick.....	105.50
11418 Re-constituted artificial granite square/rectangular tile n.e. 0.01 m ² , 12 - 18 mm thick.....	114.60
11419 Re-constituted artificial granite square/rectangular tile exceeding 0.01 m ² , 12 - 18 mm thick.....	105.50
Add to either of Items 11416 to 11419 inclusive for re-constituted artificial granite tiles of specific quality.....	65%

Item	Item
SUPPLY ONLY OF MATERIALS (CONT'D)	
<i>Per square metre</i>	
11420 Terrazzo floor tiles to BS EN 13748 in any colour and surface finish, 20 mm thick.....	A \$ 92.70 11420
11421 Semi-flexible p.v.c. tiles in any colour and surface finish, 2.5 mm thick.....	50.70 11421
11422 Vinyl tiles in any colour and surface finish 2 mm thick.....	68.90 11422
11423 Linoleum tiles in any colour and surface finish 3.2 mm thick.....	147.70 11423
11424 Unbacked flexible sheet in any colour and surface finish, 1.2 mm thick.....	104.60 11424
11425 Unbacked flexible sheet in any colour and surface finish, 2 mm thick.....	117.40 11425
11426 Foam backed (1.5 mm thick) flexible sheet in any colour and surface finish, overall 3 mm thick.....	118.40 11426
11427 Linoleum flexible sheet in any colour and surface finish, 3.2 mm thick.....	217.60 11427
11428 Linoleum flexible sheet in any colour and surface finish, 4.5 mm thick.....	292.40 11428
11429 Antistatic homogeneous vinyl tiles, 2 mm thick.....	194.40 11429
11430 Antistatic homogeneous vinyl sheet, 2 mm thick.....	215.20 11430
11431 Rubber tiles in any colour and surface finish, 4 mm thick.....	307.80 11431
11432 Rubber sheet in any colour and surface finish, 4 mm thick.....	344.40 11432
<i>Per linear metre</i>	
11433 Preformed flexible PVC skirting 100 mm high covered bottom.....	28.90 11433
11434 L' shape PVC skirting, 100 x 45 x 2 mm thick.....	32.40 11434

Item		Item
SUPPLY ONLY OF MATERIALS (CONT'D)		
<i>Per square metre</i>		
	A \$	
11435	Glazed ceramic mosaic tiles in any colour and size.....	79.20 11435
11436	Unglazed vitreous mosaic tiles in any colour and size.....	95.30 11436
11437	Ceramic wall tiles each tile size n.e. 0.05 m ² and n.e. 9.5 mm thick.....	87.30 11437
11438	Ceramic wall tiles each tile size exceeding 0.05 m ² and n.e. 9.5 mm thick.....	97.50 11438
11439	Ceramic wall tiles each tile size n.e. 0.05 m ² and exceeding 9.5 mm thick	104.30 11439
11440	Ceramic wall tiles each tile size exceeding 0.05 m ² and exceeding 9.5 mm thick	104.30 11440
	Add to either of Items 11437 to 11440 inclusive for ceramic wall tiles of specific quality.....	65%
<i>Per square metre</i>		
	A \$	
11441	Glazed ceramic swimming pool tiles in any colour size, surface finish and thickness.....	280.20 11441
11442	Fully adhered or loosely laid carpet, pile weight n.e. 1.50 kg/m ² delivered to Site.....	89.50 11442
11443	Fully adhered or loosely laid carpet, pile weight exceeding 1.50 kg/m ² delivered to Site.....	104.10 11443
11444	Fully adhered or loosely laid "Environmental Friendly" carpet, pile weight n.e. 1.00 kg/m ² delivered to Site.....	139.30 11444
11445	Fully adhered or loosely laid "Environmental Friendly" carpet, pile weight exc. 1.00 kg/m ² delivered to Site.....	192.00 11445
11446	Carpet tile module size n.e. 0.40 m ² , pile weight n.e. 1.00 kg/m ² delivered to Site.....	118.70 11446
11447	Carpet tile module size n.e. 0.40 m ² , pile weight exc. 1.00 kg/m ² delivered to Site.....	141.20 11447
11448	"Environmental Friendly" Carpet tiles size n.e. 1.00 m ² , pile weight n.e. 1.00 kg/m ² delivered to Site.....	144.80 11448
11449	"Environmental Friendly" Carpet tiles size n.e. 1.00 m ² , pile weight exc. 1.00 kg/m ² delivered to Site.....	179.10 11449
11450	"Environmental Friendly" Carpet tiles, pile density (fibre/m ²) exceeding 75 million in any series, delivered to Site.....	260.90 11450
11451	100% pure wool, pile weight n.e. 2.05 kg/m ² "machine tufted" carpet delivered to Site.....	288.40 11451
11452	100% pure wool, pile weight exceeding 2.05 kg/m ² "machine tufted" carpet delivered to Site.....	365.20 11452
11453	100% pure wool, pile weight n.e. 2.05 kg/m ² "hand made" carpet delivered to Site.....	560.90 11453
11454	100% pure wool, pile weight exceeding 2.05 kg/m ² "hand made" carpet delivered to Site.....	599.30 11454
11455	Carpet underlay delivered to Site.....	31.10 11455

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 ArchSD internet website via the pathway referred therein.
Specification	SC12.02	This Section shall be read and used in conjunction with the 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 will 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> <ul 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.
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SPECIAL CONDITIONS

ROADWORK

Rates generally (Cont'd)

SC12.05 (Cont'd)

- (h) Obtaining permits from Government departments before execution of the works.
- (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 the 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 the 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 the 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
stone mastic
asphalt
surface**

SC12.09

The rates for stone mastic asphalt surface shall further include for : -

- (a) Preparation and cleaning of surface to receive stone mastic asphalt 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.

SPECIAL CONDITIONS

ROADWORK

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

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

- (d) Spreading, compacting and finishing the concrete.
- (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.
- (l) Forming expansion, longitudinal and contraction joints including all necessary formwork.

**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-lay 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 as required.

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

SC12.17

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

- (a) Excavating in any materials, ramming bottom, back filling and removal 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 as required.

**Rates for
concrete
footways**

SC12.18

The rates for concrete footways shall 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)

- (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.

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

The rates for concrete beds, haunchings and surrounds to pipes shall include for : -

- (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

The rates for granular beds shall include for : -

- (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.

SPECIAL CONDITIONS**CABLE DUCT**

**Rates for
granular beds
(Cont'd)**

**SC12.21
(Cont'd)**

- (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 as required.
- (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.....	142.90		12001												
12002	Lean concrete sub-base.....	559.80		12002												
ROAD BASE																
		A \$														
<i>Per cubic metre</i>																
12003	Bituminous road base.....	614.60		12003												
FLEXIBLE SURFACING																
Supply, lay and roll with roller for the following bituminous surfacing (consolidated thickness stated) :-																
Nominal aggregate size (mm)																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">37.5</th> <th style="width: 25%;">28</th> <th style="width: 25%;">20</th> <th style="width: 25%;">10</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> </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> </tr> </tbody> </table>					37.5	28	20	10	A	B	C	D	\$	\$	\$	\$
37.5	28	20	10													
A	B	C	D													
\$	\$	\$	\$													
<i>Per square metre</i>																
12004	55 mm Thick bituminous base course.....	64.80	-	-	12004											
12005	Extra over Item 12004 for each 5 mm thickness or part thereof in excess of 55 mm.....	6.00	-	-	12005											
12006	55 mm Thick bituminous base course.....	-	69.60	-	12006											
12007	Extra over Item 12006 for each 5 mm thickness or part thereof in excess of 55 mm.....	-	6.60	-	12007											
12008	40 mm Thick bituminous wearing course.....	-	-	68.60	12008											
12009	Extra over Item 12008 for each 5 mm thickness or part thereof in excess of 40 mm.....	-	-	7.10	12009											
12010	30 mm Thick bituminous wearing course.....	-	-	-	47.40	12010										
12011	Extra over Item 12010 for each 5 mm thickness or part thereof in excess of 30 mm.....	-	-	-	8.00	12011										
Thickness (mm)																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">10</th> <th style="width: 33%;">20</th> <th style="width: 33%;">40</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>					10	20	40	A	B	C	\$	\$	\$			
10	20	40														
A	B	C														
\$	\$	\$														
12012	Stone mastic asphalt surfaces.....	18.10	34.60	62.90	12012											
		A \$														
12013	Extra over Item 12012 for each 5 mm thickness or part thereof in excess of 40 mm.....	6.80		12013												

Item			Item																									
	ROAD, CARPARKS AND PAVED AREAS (CONT'D)																											
	COLD MILLING WORK																											
	<i>Per square metre</i>	A \$																										
12014	Cold mill 25 mm thick wearing course with shaving machine and remove from Site all materials arising.....	15.00	12014																									
12015	Extra over Item 12014 for each 25 mm thickness or part thereof in excess of 25 mm.....	12.10	12015																									
	PATCHING UP POTHOLES																											
	(Note :- Items 12016 to 12017 inclusive shall only be measured when individual potholes n.e. 2.0 m ² each are repaired.)																											
	<i>Each</i>																											
		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">Pothole size (m²)</th> </tr> <tr> <th>n.e. 0.2</th> <th>0.2 - 0.5</th> <th>0.5 - 1.0</th> <th>1.0 - 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> <tbody> <tr> <td>21.70</td> <td>31.70</td> <td>49.00</td> <td>97.90</td> </tr> <tr> <td>83.70</td> <td>218.70</td> <td>438.60</td> <td>877.10</td> </tr> </tbody> </table>	Pothole size (m ²)				n.e. 0.2	0.2 - 0.5	0.5 - 1.0	1.0 - 2.0	A	B	C	D	\$	\$	\$	\$	21.70	31.70	49.00	97.90	83.70	218.70	438.60	877.10		
Pothole size (m ²)																												
n.e. 0.2	0.2 - 0.5	0.5 - 1.0	1.0 - 2.0																									
A	B	C	D																									
\$	\$	\$	\$																									
21.70	31.70	49.00	97.90																									
83.70	218.70	438.60	877.10																									
12016	Patch up pothole with bituminous material.....	21.70	12016																									
12017	Patch up pothole with instant hole filling material.....	83.70	12017																									
	REINFORCED CONCRETE CARRIAGEWAY																											
	<i>Per cubic metre</i>	A \$																										
12018	Reinforced concrete Grade 40S, Grade 40D or 40MPa carriageway.....	707.40	12018																									
12019	Extra over Item 12018 for rapid hardened concrete.....	210.40	12019																									
	STEEL FABRIC REINFORCEMENT																											
	<i>Per square metre</i>																											
		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5">BS 4483 or SS-32 Reference number</th> </tr> <tr> <th>C785</th> <th>C636</th> <th>C503</th> <th>C385</th> <th>C283</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> <tbody> <tr> <td>39.90</td> <td>36.00</td> <td>30.20</td> <td>25.40</td> <td>21.30</td> </tr> </tbody> </table>	BS 4483 or SS-32 Reference number					C785	C636	C503	C385	C283	A	B	C	D	E	\$	\$	\$	\$	\$	39.90	36.00	30.20	25.40	21.30	
BS 4483 or SS-32 Reference number																												
C785	C636	C503	C385	C283																								
A	B	C	D	E																								
\$	\$	\$	\$	\$																								
39.90	36.00	30.20	25.40	21.30																								
12020	Supply and lay steel fabric reinforcement.....	39.90	12020																									
	RUN-IN																											
	<i>Each</i>	A \$																										
12021	Concrete run-in size n.e. 10 m ²	2,288.10	12021																									
	<i>Per square metre</i>	A \$																										
12022	Concrete run-in size exceeding 10 m ²	218.70	12022																									

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.....	18.50	26.90	29.10	36.40	43.70	88.70	115.50		12023
				Bar diameter (mm)		12	20	25		
				Embedded length (mm)		200	325	325		
						A	B	C		
		<i>Each</i>				\$	\$	\$		
12024	Drill hole in edge of concrete carriageway for dowel bar and PVC sleeve.....					21.90	39.10	48.60		12024
LONGITUDINAL, EXPANSION AND CONTRACTION JOINTS TO EXISTING CONCRETE SURFACING										
						Thickness of slab (mm)				
						n.e. 150	150-310			
						A	B			
		<i>Per linear metre</i>				\$	\$			
12025	Form expansion joint through full thickness of slab.....					202.60	290.60			12025
12026	Form longitudinal joint ditto.....					110.30	120.70			12026
12027	Form contraction joint ditto.....					209.60	277.30			12027
FOOTWAYS, CYCLE TRACKS, PAVING AND CURBING										
								A		
		<i>Per linear metre</i>						\$		
12028	Granite curb n.e. 200 mm high including backing and foundations.....							128.40		12028
12029	Extra over Item 12028 for each additional 50 mm high or part thereof in excess 200 mm high.....							7.70		12029
12030	Extra over either of Items 12028 to 12029 inclusive for curb n.e. 15.00 m radius.....							42.50		12030
12031	Granite quadrant n.e. 200 mm high including backing and foundations.....							209.30		12031
12032	Extra over Item 12031 for each additional 50 mm high or part thereof in excess 200 mm.....							47.70		12032
12033	Extra over either of Items 12031 to 12032 inclusive for quadrant n.e. 15.00 m radius.....							42.50		12033
12034	Lay only granite curbs/quadrants of any size including backing and foundations.....							109.50		12034
12035	Ditto but n.e. 15.00 m radius.....							122.10		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.....	121.70	131.60	126.20	142.60	139.70	122.80	12036																	
12037	Extra over Item 12036 for curb n.e. 15.00 m radius.....	43.20	43.20	39.80	45.10	45.10	36.30	12037																	
12038	Lay only precast concrete curb including backing and foundations.....	102.80	102.80	95.20	104.90	104.90	91.80	12038																	
12039	Ditto but n.e. 15.00 m radius.....	120.00	120.00	111.10	122.40	122.40	107.20	12039																	
<i>Per linear metre</i>																									
Edging type																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33.3%;">E1</th> <th style="width: 33.3%;">E2</th> <th style="width: 33.3%;">E3</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>								E1	E2	E3	A	B	C	\$	\$	\$									
E1	E2	E3																							
A	B	C																							
\$	\$	\$																							
12040	Precast concrete footpath edging including backing and foundations.....			121.80	123.40	120.40		12040																	
<i>Per linear metre</i>																									
12041	Precast concrete quadrant to suit curbs and edgings of any size and radius including backing and foundations.....					162.00		12041																	
<i>Per cubic metre</i>																									
12042	Plain concrete Grade 30S, Grade 30D or 30MPa footway.....					585.80		12042																	
12043	Plain concrete Grade 30S, Grade 30D or 30MPa margin or edging.....					966.30		12043																	
12044	Ditto flat or dish channel.....					976.40		12044																	
12045	Extra over either of Items 12042 to 12044 inclusive for concrete footpath with rapid hardening concrete.....					269.00		12045																	
12046	Reinforced concrete Grade 30S, Grade 30D or 30MPa footway.....					652.80		12046																	
12047	Ditto margin or edging.....					1,081.50		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..... 36.20 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..... 66.50 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..... 35.80 12050

12051 Take up, set aside for re-use and re-lay existing granite curbs or precast concrete curbs, ditto..... 170.10 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.....	24.80	43.80	64.20	123.80	58.00	78.00	109.90	163.20	12052
12053 Take up and clear away ditto.....	2.60	3.80	4.50	6.40	4.50	6.40	7.70	9.60	12053
12054 Take up and set aside for re-use ditto.....	3.80	4.50	5.10	7.00	7.70	8.30	9.60	11.50	12054
12055 Add to either of Items 12053 to 12054 inclusive for breaking out and clearing away concrete bed and surround if any.....	7.30	8.40	12.50	17.80	7.30	8.40	12.50	17.80	12055
12056 Lay only pipe in trench as cable duct.....	9.40	18.80	27.20	41.80	10.50	20.90	31.40	47.10	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.....			39.80	42.80	60.70	73.80	87.30	104.00	12057
12058 Add to Item 12057 if pipe or pipes completely surrounded with similar concrete not less than 100 mm thick all round.....			46.00	56.60	67.00	76.30	90.50	119.10	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.....			190.50	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.....	24.40	29.40	48.90	58.60	12060
12061	Ditto but 450 - 600 mm deep.....	29.40	39.10	58.60	78.20	12061
12062	Ditto but 600 - 750 mm deep.....	39.10	48.90	78.20	107.50	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.....	387.80	463.40	576.90	718.70	12063
12064	Ditto but 450 - 600 mm deep internally.....	605.20	709.30	888.90	1,078.10	12064
12065	Ditto but 600 - 750 mm deep internally.....	728.20	841.70	1,040.20	1,267.20	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.....				28.40	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 and 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> <p>PLUMBING AND DRAINAGE INSTALLATION</p>
Measurement generally	SC13.02	<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>
Measurement of fittings	SC13.03	<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> <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>All stainless steel pipe fittings shall include press fitting and any other construction recommended by the manufacturer.</p>

SPECIAL CONDITIONS

Measurement of sheet lead work	SC13.04	Sheet lead shall be measured the net weight as laid or fixed. The weight of tacks, wedges and the like shall be added in.
Measurement under separate Sections	SC13.05	<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> <p>(a) All trench excavation under Section 03 - Excavation.</p> <p>(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.</p> <p>(c) All steel reinforcement and joist under Section 04 - Concrete Work and Section 10 - Steel and Metal Work.</p> <p>(d) All plasterwork under Section 11 - Plastering and Finishes.</p> <p>(e) All painting to pipework under Section 15 - Painting.</p>
Measurement of granular bedding for drain pipes	SC13.06	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 formwork	SC13.07	Formwork shall be measured as the actual surface in contact with concrete. No deduction shall be made for openings not exceeding 1.00 m ² . Boxing for opening exceeding 1.00 m ² 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.
Measurement of precast concrete	SC13.08	Precast concrete shall be measured the actual size of the item casted.
Measurement of manholes, cesspits, etc.	SC13.09	<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>

SPECIAL CONDITIONS

Measurement of internal lining to leaking buried water-carrying services	SC13.10	Preparation and applying internal lining to leaking buried water-carrying services 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	SC13.11	<p>Rates for Plumbing and Drainage Installation shall generally include for :-</p> <ul style="list-style-type: none"> (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. (b) Working internally or externally. (c) Submission of technical literatures, catalogues, sample boards, samples, etc. for the approval of the Maintenance Surveyor. (d) Provision of proper and safe protection of equipment, materials delivered to Site and any installation works executed. (e) Provision of cleaning and disinfection of the Installation upon completion using methods as specified in the Contract. (f) Works executed by Specialist Sub-contractor approved by the Maintenance Surveyor. (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 SC13.36(a) herein, in which case, the drawing preparation shall be measured and paid for separately in accordance with Special Conditions Clauses SC13.40 to SC13.41 herein. (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) Conduct sampling and analysis of potable fresh water upon substantial completion of the plumbing installation. (l) Carrying out cleaning of the plumbing installation pipework and water storage tanks and disinfection of plumbing installation in potable use.

SPECIAL CONDITIONS

Rates for Plumbing and Drainage Installation (Cont'd)	SC13.11 (Cont'd)	(m) 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	SC13.12	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	SC13.13	<p>The rates for pipeworks shall further include for : -</p> <ul style="list-style-type: none"> (a) All short lengths, cutting and waste. (b) All joints in the running lengths including flanges, couplings, unions, or other connection device, 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) 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. (d) Fittings for pipes not exceeding 50 mm diameter (or 54 mm diameter in the case of copper pipes) including connections. (e) Provision and fixing of all pipe sleeves of any kind of materials including loose cover plates, pointing with approved sealants, sealing up voids between pipes and fire rated walls or floors with sealing system as specified. (f) Provision and fixing of pipe supports including stainless steel clamps, brackets, clips, etc. as specified . (g) Fixing in any position to floors, walls and soffits including fixing in chases, ducts, false ceilings and similar positions, and laying in trench. (h) Protection of underground and concealed metal pipes with “Denso“ tape or other materials as specified. (i) Provision of connection point for the purposes of connection of equipotential bonding connection as required by the I.E.E. Regulations. (j) 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. (k) Making good all surfaces disturbed.

SPECIAL CONDITIONS

Rates for drain pipes for underground drainage	SC13.14	<p>The rates for all types of drain pipes for underground drainage shall further include for : -</p> <ul style="list-style-type: none"> (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) Temporary sealing of pipes during the progress of the work. (e) 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. (f) 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. (g) Making good of surfaces disturbed.
Rates for sub-soil drain pipes	SC13.15	<p>The rates for sub-soil drain pipes shall further include for : -</p> <ul style="list-style-type: none"> (a) Forming holes in pipeline for junction if required.
Rates for vitrified clay pipes	SC13.16	<p>The rates for vitrified clay pipes shall further include for : -</p> <ul style="list-style-type: none"> (a) Providing extra strength "o" ring flexible spigot and socket joints.
Rates for tubing and pipes include for made bends	SC13.17	<p>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 made bends.</p>
Rates for fittings	SC13.18	<p>Rates for fittings on gutters, tubing and pipes of all types shall include for : -</p> <ul style="list-style-type: none"> (a) Additional cutting and waste on gutter, tubing or pipe and all extra joints. (b) In the case of pipe bends and gutter angles, bends and gutter angles of any angle. (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.

SPECIAL CONDITIONS

Rates for take up or take down, etc. gutters, tubing or pipes

SC13.19

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 : -

- (a) All fittings including brackets or hangers.
- (b) Cutting into existing gutter, tubing or pipe in position.
- (c) Preparing remaining ends to receive joint with new pipe if required.
- (d) Plugging ends with plugs or caps as required.
- (e) Making good surfaces disturbed.
- (f) Arranging for temporary plumbing system and diversion, if required.

Rates for fix only or lay only gutters, tubing or pipes

SC13.20

The rates for fix only or lay only gutters, tubing or pipes shall further include for : -

- (a) All fittings including brackets, gaskets, bolts, nuts and washers and other accessories.
- (b) Cutting mortices and grouting in cement mortar.
- (c) Preparing ends to receive joints with pipes.
- (d) Making good surfaces disturbed.

Rates for insulation

SC13.21

The rates for insulation to pipeworks and cylinders shall include for : -

- (a) All cutting, waste and fitting.
- (b) Fixing bands.

Rates for cisterns and tanks

SC13.22

The rates for cisterns and tanks shall include for : -

- (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.

SPECIAL CONDITIONS

**Rates for
cisterns and
tanks
(Cont'd)**

**SC13.22
(Cont'd)**

- (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.
- (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
pressure
vessels**

SC13.23

The rates for pressure vessels shall further include for : -

- (a) Supply and installation in accordance with the manufacturer's instructions.
- (b) Providing and fixing all accessories, fittings and the like as recommended by the manufacturer.
- (c) Any colour and shape.
- (d) Providing and fixing with anchor bolts.
- (e) Cutting mortice, sinking or drilling in concrete, brick, stone or other surfaces as required.
- (f) Grouting into new or existing mortice or holes.
- (g) Making good disturbed surfaces.
- (h) Masking, protecting and cleaning.
- (i) Submission of catalogues, technical literature, operation manuals and manufacturer's guarantee for the approval of the Maintenance Surveyor.
- (j) Testing and providing test certificates.
- (k) Providing Statutory Inspection Certificate.

**Rates for
concrete beds,
haunchings
and surrounds
to pipes**

SC13.24

The rates for concrete beds, haunchings and surrounds to pipes shall include for : -

- (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.

SPECIAL CONDITIONS

Rates for concrete beds, haunchings and surrounds to pipes (Cont'd)

SC13.24 (Cont'd)

- (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

SC13.25

The rates for granular beds shall include for : -

- (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

SC13.26

The rates for traps and gullies of any type shall include for : -

- (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.

Rates for surface water channels or step channels

SC13.27

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.

SPECIAL CONDITIONS**Rates for cast iron channel covers****SC13.28**

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**SC13.29**

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.**SC13.30**

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).
- (e) Fair-faced finish internally.
- (f) Testing of water tightness.

Rates for formwork**SC13.31**

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.

SPECIAL CONDITIONS

Rates for formwork (Cont'd)	SC13.31 (Cont'd)	<ul style="list-style-type: none"> (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	SC13.32	<p>The rates for manhole or gully sump cover and frame shall include for : -</p> <ul style="list-style-type: none"> (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.
Rates for alterations to existing manholes	SC13.33	<p>The rates for alterations to existing manholes shall include for : -</p> <ul style="list-style-type: none"> (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	SC13.34	<p>The rates for internal lining to leaking buried water-carrying services shall include for : -</p> <ul style="list-style-type: none"> (a) Removing covers of manholes and other drainage chambers and re-fixing including heavy grease after cleaning.

SPECIAL CONDITIONS

Rates for internal lining to leaking buried water-carrying services (Cont'd)

SC13.34 (Cont'd)

- (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

SC13.35

G.S. clauses for formwork can be found in the Concrete Work Section of the General Specification for Building.

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

Services generally

SC13.36

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 and successful application of new or renewal certificates under the Quality Water Recognition Scheme ("QWRS") for Buildings (the Scheme).
- (c) Services provided for cleaning and clearance of existing underground foul and waste water drainage system at market complexes and cooked food centres.
- (d) Services for inspection, testing and cleaning of existing drainage system.

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.

SPECIAL CONDITIONS**SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION**

Services for Enhanced Execution Works	SC13.37	<p>Services provided for the Enhanced Execution Works for the Plumbing and Drainage Installation shall include for any of the following services : -</p> <ul style="list-style-type: none"> (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	SC13.38	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	SC13.39	Measurement of the Services for the Enhanced Execution Works will 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").
Measurement of installation drawings	SC13.40	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 accepted by the Maintenance Surveyor.
Measurement of as-built drawings	SC13.41	The provision for as-built drawings shall be measured and paid for when the drawings have been submitted and accepted by the Maintenance Surveyor.
Measurement of O&M manual	SC13.42	The provision for operation and maintenance (O&M) manuals shall be measured and paid for when the O&M manual have been submitted and accepted by the Maintenance Surveyor.

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

Measurement of Inspection to Fresh Water Plumbing System

SC13.43

Measurement of provision of inspection to fresh water plumbing system is based on the following : -

- (a) The function / type of building to be inspected; and where the building is of a mixed function, the dominant function of the building.
- (b) The number of floors of the building to be inspected including any basement floor(s), ground floor, sky garden floor and/or refuge floor(s), irrespective of the storey height of each floor.
- (c) Inspection to fresh water plumbing system shall be measured as number of inspection.
- (d) Any return visits due to attending follow-up actions from matters arising from the inspection, as measured in sub-clause (c) above, shall be deemed included in the same inspection, and such return visits shall not be measured separately.

The term "floor" in sub-clause (b) above shall mean the structural floor excluding any mezzanine floor(s), catwalk, metal walkways, floating floors and the like, which shall not be measured.

Lift machine room(s), fire escape staircase enclosures and mechanical plant room(s) located at roof level shall not be measured.

Unless otherwise stated, if the building consists of an annex block, then only the main building will be considered in the measurement which shall be measured based on the number of floors of the main building.

If the annex block consists of an independent fresh water plumbing system, in which case, measurement of the number of floors of the annex block shall be measured separately as if it is a stand-alone building.

If it is not reasonable to identify which of the buildings is the main building and where more than one building is jointed together, and provided that these buildings are served with the same fresh water plumbing system, then only the building with the highest number of floors will be measured once.

Measurement of utilities survey

SC13.44

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

SC13.45

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

Measurement of CCTV inspection survey	SC13.46	CCTV inspection survey carried out as part of the cleaning and clearance work of the underground foul and waste water drainage system and grease tanks at market complexes and cooked food centres shall not be measured separately.
Rates for Services for Enhanced Execution Works	SC13.47	<p>The rates for Services for Enhanced Execution Works for the Plumbing and Drainage Installation shall further include for :-</p> <p>(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.</p> <p>(b) Submission of full details of builder's work requirements for the approval of the Maintenance Surveyor.</p> <p>For any works or services that are required in the Specification for Enhanced Execution Works for Plumbing and Drainage Installation 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.</p>
Rates for provision of installation drawings	SC13.48	<p>The rates for provision of installation drawings shall further include for :-</p> <p>(a) Developing, preparing and completion of drawings showing the complete installation requirements incorporating the following details and other details as specified :-</p> <ul style="list-style-type: none"> - Installation drawings - Pipework installation drawings - Special plant rooms co-ordination work - Builder's work drawings - Manufacturer's shop drawings - Checking drawings of other trades <p>(b) Reviewing, updating and revising the drawings taking into account comments from the Maintenance Surveyor and/or changes of the works during the Contract.</p> <p>(c) Provision of drawings in electronic format conforming to the latest version of CAD Standard of Works Projects as specified.</p> <p>(d) Submission of the number of copies of drawings as required by the Contract.</p>

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

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.

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 of 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 service, 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.

SPECIAL CONDITIONS**SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION****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) Provision of a licensed plumber, building surveyor or building services engineer with qualification and experience that meets the requirements as laid down in the Fresh Water Plumbing Maintenance Guide issued by Water Supplies Department.
- (b) 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. Construction Industry Council, insurances, etc.
- (c) Carrying out inspection of the fresh water plumbing system in accordance with the recommended practices as laid down in the Fresh Water Plumbing Maintenance Guide issued by Water Supplies Department.
- (d) Programming, planning, co-ordination and phasing of installation works in existing and/or occupied buildings and premises.
- (e) 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.
- (f) 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 water tanks**SC13.53**

The rates for cleaning of 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) Submitting attendance records.
- (f) Taking photographic records.
- (g) 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;
 - (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.

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

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 an independent accredited laboratory as stated in the Contract.
- (c) Submission of test reports.

Rates for cleaning and clearance of underground foul and waste water drainage system and grease tanks at market complexes and cooked food centres

SC13.55

The rates for cleaning and clearance of underground foul and waste water drainage system and grease tanks at market complexes and cooked food centres shall include for : -

- (a) Designating a competent Unit Foreman to supervise throughout the course of cleaning and clearance;
- (b) Co-ordination with the user or management office in carrying out cleaning works in existing and/or occupied buildings and premises.
- (c) Submitting method statements and risk assessment on the delivery of periodic CCTV inspection survey and cleaning and clearance of the underground foul and waste water drainage system and grease tanks.
- (d) Submitting completion reports including :
 - (i) attendance records of all skilled labourers;
 - (ii) photographic records to substantiate the provisions of plant/equipment, labours and conditions of all manholes and grease tanks before and after the cleaning and clearance services;
 - (iii) submitting CCTV inspection survey reports after the cleaning and clearance services; and
 - (iv) layout plans with records of the routing of all underground drainage pipes and the locations of all manholes and grease tanks.

Rates for utilities survey

SC13.56

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 issued by Civil Engineering and Development Department.

SPECIAL CONDITIONS

SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION

Rates for acoustic test detection of leaking buried water pipes

SC13.57

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 issued by Civil Engineering and Development Department.

Rate for cleaning of existing drainage system

SC13.58

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 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

SC13.59

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.

SPECIAL CONDITIONS**SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION**

**Rates for
testing
existing
drains**

SC13.60

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 : -	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Per kg</i>	A \$	B \$	C \$	D \$	
13001	Flats (including rolls), gutters (including cesspools), cornices, dormers, flashings, hips, ridges, linings to sinks, cisterns, safes, drawers and the like	71.50	6.40	7.70	13.20	13001
	DUCTILE IRON PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM					
	Ductile iron pipes and fittings to BS EN 545: 2010 with internal cement lining, for fresh and flushing water system : -					
	<i>Per linear metre</i>					
				Pipe diameter (mm)		
				80	100	
				A \$	B \$	
13002	Pipe laid in trench.....			477.20	488.90	13002
13003	Pipe fixed to floor, wall or soffits.....			495.40	510.70	13003
	<i>Each</i>					
13004	Extra over pipe for cover plate to flanged end			67.00	81.30	13004
13005	Ditto for flanged socket end			324.90	489.00	13005
13006	Ditto for flanged spigot end			225.50	308.50	13006
13007	Ditto for flanged connector to existing pipework or water tank, etc.....			284.50	343.90	13007
13008	Ditto for bend			219.30	300.50	13008
13009	Ditto for tee			337.50	444.10	13009
13010	Ditto for cross			503.90	671.60	13010
	<i>Per linear metre</i>					
13011	Take up and clear away pipe laid in trench excavation (trench excavation measured separately)			8.90	10.90	13011
13012	Take up and set aside for re-use pipe laid in trench (ditto)			11.50	13.40	13012
13013	Take down and clear away pipe fixed to floor, wall or soffits			9.60	11.50	13013
13014	Take down and set aside for re-use pipe fixed to floor, wall or soffits			11.50	13.40	13014
13015	Lay only pipe in trench			35.30	37.10	13015
13016	Fix only pipe to floor, wall or soffits			48.60	51.20	13016
	<i>Each</i>					
13017	Unbolt existing joint, remove gasket and clear away, clean flange faces, provide new gasket and re-bolt joint			48.60	54.80	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).....			45.90	51.20	13018

Item												Item	
UPVC LINED GALVANIZED MILD STEEL PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM													
UPVC lined galvanized steel pipes and fittings to BS 1387:1985 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		
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
Per linear metre													
13019	Pipe laid in trench.....	89.70	98.20	106.70	127.80	147.00	179.40	251.20	305.30	399.20	539.00	614.60	13019
13020	Pipe fixed to floor, wall or soffits.....	91.20	102.00	112.70	135.70	158.30	195.20	270.50	335.50	433.50	507.00	580.50	13020
Each													
13021	Extra over pipe for cap end or plug.....	-	-	-	-	-	-	101.70	123.10	164.60	241.60	318.60	13021
13022	Extra over for bend or elbow.....	-	-	-	-	-	-	149.10	193.50	321.60	509.90	597.10	13022
13023	Ditto for three-way elbow or tee.....	-	-	-	-	-	-	119.50	152.00	226.20	316.20	409.30	13023
13024	Ditto for cross.....	-	-	-	-	-	-	178.80	221.10	359.30	620.70	831.90	13024
13025	Ditto for reducer.....	-	-	-	-	-	-	210.40	260.90	372.00	407.50	451.60	13025
13026	Ditto for connector to existing pipework or water tank, etc.....	-	-	-	-	-	-	54.30	69.10	102.80	143.70	186.10	13026
Per linear metre													
13027	Take up and clear away pipe laid in trench (trench excavation measured separately).....	1.90	2.60	3.20	3.80	4.50	5.10	5.70	6.40	7.00	8.90	10.90	13027
13028	Take up and set aside for re-use pipe laid in trench (ditto).....	3.20	3.80	4.50	5.10	5.70	6.40	7.00	7.70	8.30	10.20	12.10	13028
13029	Take down and clear away pipe fixed to floor, wall or soffits.....	2.60	3.20	3.80	4.50	5.10	5.70	6.40	7.00	7.70	9.60	12.80	13029
13030	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	3.20	3.80	4.50	5.10	5.70	7.00	7.70	8.30	10.20	11.50	13.40	13030
13031	Lay only pipe in trench.....	4.40	5.30	6.20	7.10	8.00	9.70	10.60	11.50	12.40	13.20	15.00	13031
13032	Fix only pipe to floor, wall or soffits.....	6.20	8.00	8.80	10.60	12.40	14.10	15.00	15.90	19.40	21.20	23.80	13032

Item										Item																														
COPPER PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM																																								
Copper pipes and fittings to BS EN 1057: 2006 with amendment A1: 2010 insulation polyethylene sheath, for fresh water supply system :-																																								
Pipe diameter (mm)																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 10%;">15</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%;">67</th> <th style="width: 10%;">76</th> <th style="width: 10%;">108</th> </tr> <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> <td style="text-align: center;">G</td> <td style="text-align: center;">H</td> <td style="text-align: center;">I</td> <td style="text-align: center;">I</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> <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> </thead> </table>												15	22	28	35	42	54	67	76	108	A	B	C	D	E	F	G	H	I	I	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
	15	22	28	35	42	54	67	76	108																															
A	B	C	D	E	F	G	H	I	I																															
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$																															
<i>Per linear metre</i>																																								
13033	Pipe fixed to floor, wall or soffits	97.20	164.40	206.20	259.20	298.30	357.20	421.00	577.90	744.20	13033																													
Brass "Compression type" fittings :-																																								
<i>Each</i>																																								
13034	Extra over pipe for stop end	-	-	-	-	-	-	179.10	222.70	307.90	13034																													
13035	Ditto for bend or elbow (copper to copper)	-	-	-	-	-	-	175.50	195.50	270.60	13035																													
13036	Ditto (copper to steel)	-	-	-	-	-	-	360.70	399.60	466.40	13036																													
13037	Ditto for tee (all ends for copper)	-	-	-	-	-	-	239.80	266.10	397.00	13037																													
13038	Ditto (copper to copper to steel)	-	-	-	-	-	-	397.60	589.30	651.00	13038																													
13039	Ditto for cross (all ends for copper)	-	-	-	-	-	-	501.00	554.90	655.40	13039																													
13040	Ditto for connector to existing pipework.....	-	-	-	-	-	-	109.00	121.00	180.40	13040																													
13041	Ditto flanged tank connector or double nut tank connector to existing water tank cistern and the like.....	-	-	-	-	-	-	576.50	719.80	1,221.00	13041																													
Brass or copper "Capillary type" fittings :-																																								
<i>Each</i>																																								
13042	Extra over pipe for stop end	-	-	-	-	-	-	94.80	133.30	160.70	13042																													
13043	Ditto for bend or elbow (copper to copper)	-	-	-	-	-	-	97.90	138.30	181.10	13043																													
13044	Ditto (copper to steel)	-	-	-	-	-	-	188.10	208.50	280.20	13044																													
13045	Ditto for tee (all ends for copper)	-	-	-	-	-	-	403.80	481.10	578.20	13045																													
13046	Ditto (copper to copper to steel)	-	-	-	-	-	-	338.60	514.60	565.80	13046																													
13047	Ditto for cross (all ends for copper)	-	-	-	-	-	-	371.10	421.30	538.30	13047																													
13048	Ditto for connector to existing pipework.....	-	-	-	-	-	-	183.50	218.70	323.50	13048																													
13049	Ditto flanged tank connector or double nut tank connector to existing water tank cistern and the like.....	-	-	-	-	-	-	634.20	791.80	1,343.10	13049																													
<i>Per linear metre</i>																																								
13050	Take down and clear away pipe fixed to floor, wall or soffits	1.90	2.60	3.20	3.80	4.50	5.10	5.70	6.40	7.00	13050																													
13051	Take down and set aside for re-use pipe fixed to floor, wall or soffits	2.60	3.20	3.80	4.50	5.10	5.70	6.40	7.00	8.30	13051																													
13052	Fix only pipe to floor, wall or soffits	10.60	12.40	13.20	13.20	15.00	17.70	20.30	21.20	23.00	13052																													

Item

Item

COPPER PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)

Copper pipes and fittings to BS EN 1057: 2006 with amendment A1: 2010 insulation polyethylene sheath, for fresh water supply system : - (Cont'd)

Outside diameter (mm)											
15	22	28	35	42	54	67	76	108			
A	B	C	D	E	F	G	H	I			
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
<i>Each</i>											
13053	Repair and make good one existing joint for "compression type" joint fittings including loosening nut and compression ring, cleaning tube end and re-tightening	7.50	8.40	9.30	10.10	11.00	12.80	15.10	16.90	21.30	13053
13054	Repair and make good one existing joint for "capillary type" joint fittings including heating, re-tinning tub end and re-soldering as necessary	25.70	28.40	32.80	36.30	40.70	47.80	54.90	62.80	80.50	13054
13055	Seal off existing pipe fixed in position including providing and jointing on "compression type" stop end	28.80	34.10	43.80	87.90	118.90	135.60	149.80	160.40	189.50	13055
13056	Ditto but "capillary type" stop end	30.60	35.00	41.20	72.10	79.10	89.70	123.30	145.30	189.50	13056

Pipe diameter (mm)								
15	22	28	35	42	54			
A	B	C	D	E	F			
\$	\$	\$	\$	\$	\$			
<i>Per linear metre</i>								
13057	Add to Item 13033 for approved white polyethylene sleeve covered copper pipe in lieu of plain copper pipe including all cutting and fitting at joints, tees, bends and other fittings or alternatively covering such fittings with insulation quilt or insulation rope to the thickness required	15.00	17.70	19.40	30.00	30.90	38.00	13057

STAINLESS STEEL PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM

Stainless steel pipes and fittings to BS EN 10312: 2002 with amendment A1: 2005, 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>								
13058	Pipe fixed to floor, wall or soffits	94.70	109.10	136.20	172.00	229.20	263.30	13058
<i>Per linear metre</i>								
13059	Take down and clear away pipe fixed to floor wall or soffits	1.90	2.60	3.20	3.80	4.50	5.10	13059
13060	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	3.20	3.80	4.50	5.10	5.70	6.40	13060
13061	Fix only pipe to floor, wall or soffits	13.20	15.00	16.80	18.50	20.30	23.00	13061
<i>Each</i>								
13062	Repair and make good existing joint including cleaning ends.....	21.70	24.40	26.10	28.80	30.60	34.10	13062
13063	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug	50.00	52.60	57.00	72.10	87.10	101.20	13063

Item		Pipe diameter (mm)		Item
		54	76	
		A	B	
		\$	\$	
STAINLESS STEEL PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)				
Stainless steel pipes and fittings to BS EN 10217-7: 2005 for fresh water supply system : -				
<i>Per linear metre</i>				
13064	Pipe laid in trench.....	336.30	571.20	13064
13065	Pipe fixed to floor, wall or soffits	347.20	589.40	13065
<i>Each</i>				
13066	Extra over for cap end or plug.....	69.00	71.80	13066
13067	Ditto for bend or elbow	221.70	305.50	13067
13068	Ditto for three-way elbow or tee	248.80	350.20	13068
13069	Ditto for cross	317.10	638.00	13069
13070	Ditto for reducer	202.20	298.70	13070
13071	Ditto for connector to existing pipework.....	113.10	159.20	13071
13072	Ditto flanged tank connector or double nut tank connector to existing water tank cistern and the like.....	545.00	701.00	13072
<i>Per linear metre</i>				
13073	Take up and clear away pipe laid in trench (trench excavation measured separately)	5.10	5.70	13073
13074	Take up and set aside for re-use pipe laid in trench (ditto)	6.40	7.00	13074
13075	Take down and clear away pipe fixed to floor wall or soffits	5.70	6.40	13075
13076	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	7.00	7.70	13076
13077	Lay only pipe in trench.....	22.10	24.70	13077
13078	Fix only pipe to floor, wall or soffits	23.80	26.50	13078
<i>Each</i>				
13079	Repair and make good existing joint including cleaning ends.....	36.70	39.40	13079
13080	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug	116.20	131.20	13080

Item							Item						
UPVC PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM													
UPVC Pressure pipes and fittings to BS 3505: 1986 Class D for fresh and flushing water supply system :-					Pipe diameter (mm)								
					15	20	25	32	40	50	65		
					A	B	C	D	E	F	G		
<i>Per linear metre</i>					\$	\$	\$	\$	\$	\$	\$		
13081	Pipe laid in trench.....	40.80	49.90	71.60	85.30	91.50	107.00	130.70	13081				
13082	Pipe fixed to floor, wall or soffits.....	42.30	53.50	75.30	91.20	98.80	117.90	145.20	13082				
<i>Each</i>													
13083	Extra over pipe for cap end.....	-	-	-	-	-	-	23.90	13083				
13084	Ditto for bend or elbow.....	-	-	-	-	-	-	150.90	13084				
13085	Ditto for tee.....	-	-	-	-	-	-	209.20	13085				
13086	Ditto for connector to existing pipework.....	-	-	-	-	-	-	95.10	13086				
13087	Ditto flanged tank connector or double nut tank connector to existing water tank cistern and the like.....	-	-	-	-	-	-	492.90	13087				
<i>Per linear metre</i>													
13088	Take up and clear away pipe laid in trench (trench excavation measured separately).....	1.30	1.90	2.60	3.20	3.80	4.50	5.10	13088				
13089	Take up and set aside for re-use pipe laid in trench (ditto).....	2.60	3.20	3.80	4.50	5.10	5.70	6.40	13089				
13090	Take down and clear away pipe fixed to floor, wall or soffits.....	1.90	2.60	3.20	3.80	4.50	5.10	5.70	13090				
13091	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	3.20	3.80	4.50	5.10	5.70	6.40	7.00	13091				
13092	Lay only pipe in trench.....	4.40	5.30	6.20	7.10	8.00	8.80	9.70	13092				
13093	Fix only pipe to floor, wall or soffits.....	9.70	10.60	12.40	13.20	14.10	18.50	22.10	13093				
<i>Each</i>													
13094	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....	18.70	24.00	31.90	39.00	50.40	55.70	67.30	13094				

Item							Item	
UPVC PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)								
UPVC Pressure pipes and fittings to BS 3505: 1986 Class D for fresh and flushing water supply system :- (Cont'd)								
Pipe diameter (mm)								
Per linear metre								
	80	100	150	200	250	300		
	A	B	C	D	E	F		
	\$	\$	\$	\$	\$	\$		
13095	Pipe laid in trench.....	154.00	184.90	225.00	414.20	474.40	597.80	13095
13096	Pipe fixed to floor, wall or soffits.....	172.20	206.70	254.10	446.90	510.80	637.80	13096
Each								
13097	Extra over pipe for cap end.....	73.30	121.20	283.20	421.90	546.50	713.50	13097
13098	Ditto for bend or elbow.....	155.10	218.90	405.80	604.60	783.10	1,022.50	13098
13099	Ditto for tee.....	211.60	321.80	474.30	692.50	853.80	1,053.70	13099
13100	Ditto for connector to existing pipework.....	96.20	146.30	215.60	314.80	388.10	479.00	13100
13101	Ditto flanged tank connector or double nut tank connector to existing water tank cistern and the like.....	534.00	844.40	1,061.30	1,415.00	1,768.80	2,122.50	13101
Per linear metre								
13102	Take up and clear away pipe laid in trench (trench excavation measured separately).....	5.70	6.40	7.70	8.90	10.20	11.50	13102
13103	Take up and set aside for re-use pipe laid in trench (ditto).....	7.00	7.70	10.20	11.50	12.80	14.70	13103
13104	Take down and clear away pipe fixed to floor, wall or soffits.....	6.40	7.00	8.30	9.60	10.90	12.10	13104
13105	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	7.70	8.30	10.90	12.10	13.40	15.30	13105
13106	Lay only pipe in trench.....	9.70	10.60	12.40	15.00	15.90	16.80	13106
13107	Fix only pipe to floor, wall or soffits	23.80	27.40	30.90	34.40	38.00	41.50	13107
Each								
13108	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....	117.70	258.90	584.90	721.00	945.40	1,085.10	13108

Item										Item	
POLYETHYLENE (PE) PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM											
PE Pressure pipes and fittings to BS 6572 or BS-EN-12201-3-2003 with nominal pressure rating PN16, 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											
\$ \$ \$ \$ \$ \$ \$ \$ \$											
13109	Pipe laid in trench.....	10.90	15.40	29.60	43.80	67.50	120.20	237.60	446.30	700.20	13109
<i>Each</i>											
13110	Extra over pipe for cap end.....	-	-	-	75.40	106.60	200.70	466.10	934.50	1,491.20	13110
13111	Ditto for bend or elbow.....	-	-	-	174.30	234.60	369.40	722.60	1,277.10	1,895.50	13111
13112	Ditto for tee.....	-	-	-	230.80	380.20	574.20	1,184.10	1,808.30	2,939.60	13112
13113	Ditto for connector to existing pipework.....	-	-	-	104.90	172.80	261.00	538.20	821.90	1,336.20	13113
13114	Ditto flanged tank connector or double nut tank connector to existing water tank cistern and the like.....	-	-	-	453.10	609.90	960.40	1,300.70	1,915.70	2,274.60	13114
<i>Per linear metre</i>											
13115	Take up and clear away pipe laid in trench (trench excavation measured separately).....	3.80	4.50	5.10	5.70	6.40	8.30	10.20	12.80	16.60	13115
13116	Take up and set aside for re-use pipe laid in trench (ditto).....	5.10	5.70	6.40	7.00	7.70	9.60	11.50	14.00	17.90	13116
13117	Lay only pipe in trench.....	5.30	6.20	7.10	8.00	10.60	13.20	15.90	18.50	21.20	13117
PE Pressure pipes and fittings to BS 6730 or BS-EN-12201-3-2003 with nominal pressure rating PN20, SDR 9, for fresh water supply system : -											
<i>Per linear metre</i>											
13118	Pipe fixed to floor, wall or soffits.....	16.40	20.40	41.70	62.90	119.90	223.50	470.40	963.60	1,497.90	13118
<i>Each</i>											
13119	Extra over pipe for cap end.....	-	-	-	82.40	114.60	206.30	473.70	944.60	1,517.40	13119
13120	Ditto for bend or elbow.....	-	-	-	185.60	259.30	394.40	745.20	1,299.60	1,912.90	13120
13121	Ditto for tee.....	-	-	-	264.20	420.90	618.30	1,222.60	1,871.30	2,992.30	13121
13122	Ditto for connector to existing pipework.....	-	-	-	120.10	191.30	281.10	555.70	850.60	1,360.10	13122
13123	Ditto flanged tank connector or double nut tank connector to existing water tank cistern and the like.....	-	-	-	482.60	674.30	1,025.40	1,341.40	1,949.40	2,295.50	13123

Item

Item

POLYETHYLENE (PE) PIPES AND FITTINGS FOR WATER SUPPLY SYSTEM (CONT'D)

PE Pressure pipes and fittings to BS 6730 or BS-EN-12201-3-2003 with nominal pressure rating PN20, 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>											
13124	Take down and clear away pipe fixed to floor, wall or soffits.....	4.50	5.10	5.70	6.40	7.00	8.90	10.90	13.40	17.20	13124
13125	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	5.70	6.40	7.00	7.70	8.30	10.20	12.10	14.70	18.50	13125
13126	Fix only pipe to floor, wall or soffits.....	8.80	9.70	14.10	15.00	18.50	21.20	26.50	31.80	37.10	13126
<i>Each</i>											
13127	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug.....	38.20	45.30	59.50	85.20	141.80	378.70	632.70	989.50	1,173.40	13127

THERMAL INSULATION TO PIPES

(Note: The following Items 13128 to 13131 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	
		\$	\$	\$	\$	
13128	Thermal insulation to pipework n.e. 15 mm diameter.....	57.40	14.00	15.30	32.70	13128
13129	Ditto but 15 - 30 mm diameter	63.40	16.00	17.90	39.70	13129
13130	Ditto but 30 - 40 mm diameter	105.70	17.90	18.50	45.90	13130
13131	Ditto but 40 - 55 mm diameter	129.90	21.10	22.30	53.00	13131

Item		Half round section			Ogee section	Item
	Cast iron gutter and fittings to BS 416-1: 1990, internally and externally coated :-	Internal diameter (mm)			Internal diameter (mm)	
		75	100	150	100	
		A	B	C	D	
		\$	\$	\$	\$	
	Per linear metre					
13132	Gutter fixed on brackets at 1.00 m (maximum) centres	116.90	156.40	241.10	165.20	13132
	Each					
13133	Extra over gutter for stop end	42.40	54.00	65.70	54.00	13133
13134	Ditto internal or external angle	54.00	63.10	106.50	77.40	13134
13135	Ditto nozzle outlet	77.40	96.40	160.60	124.20	13135
13136	Ditto combined stop end nozzle outlet	92.00	122.60	198.50	153.30	13136
	Per linear metre					
13137	Take down and clear away gutter complete with all fittings and brackets	8.30	11.50	14.00	12.10	13137
13138	Take down and set aside for re-use ditto	8.90	12.10	14.70	12.80	13138
13139	Fix only gutter complete including providing brackets at 1.00 m (maximum) centres	51.40	61.80	88.30	70.60	13139
	Each					
13140	Repair and make good existing joint including cleaning ends	23.20	26.70	40.80	33.80	13140

Item			Item	
CAST IRON PIPES AND FITTINGS FOR SURFACE AND FOUL WATER DRAINAGE				
Cast iron pipes and fittings to BS 416-1: 1990, internally and externally coated, for surface water drainage :-				
Pipe diameter (mm)				
100 150				
A B				
\$ \$				
13141	Pipe fixed to floor, wall or soffits.....	226.70	353.60	13141
<i>Per linear metre</i>				
Each				
13142	Extra over pipe for shoe	292.20	411.70	13142
13143	Ditto for bend	193.50	258.40	13143
13144	Ditto for single junction	149.30	406.70	13144
13145	Ditto for double junction	273.80	516.20	13145
13146	Ditto for connector to existing pipework.....	67.90	184.80	13146
13147	Add to either of Items 13143 to 13145 inclusive if fitted with bolted access door	72.70	80.70	13147
13148	Swan-neck of any projection	259.40	425.00	13148
13149	Roof outlet with square or circular, flat or domed grating	466.80	602.10	13149
13150	Rainwater head, flat or angular	131.70	148.90	13150
<i>Per linear metre</i>				
13151	Take down and clear away pipe fixed to floor, wall or soffits	7.70	10.20	13151
13152	Take down and set aside for re-use pipe fixed to floor, wall or soffits	9.60	12.80	13152
13153	Fix only pipe to floor, wall or soffits	23.00	35.30	13153
Each				
13154	Repair and make good existing joint including cleaning ends	51.40	69.10	13154

Item						Item	
CAST IRON PIPES AND FITTINGS FOR SURFACE AND FOUL WATER DRAINAGE (CONT'D)							
Pipe diameter (mm)							
50 65 75 90 150							
Cast iron pipes and fittings to BS 416-1: 1990, internally and externally coated, for foul water drainage : -							
<i>Per linear metre</i>							
	A	B	C	D	E		
	\$	\$	\$	\$	\$		
13155	Pipe fixed to floor, wall or soffits.....	113.30	147.30	170.00	226.70	353.60	13155
<i>Each</i>							
13156	Extra over pipe for loose socket	51.50	57.70	65.10	82.30	120.00	13156
13157	Ditto for large socket for and including joint to clayware pipe	-	-	-	151.60	209.40	13157
13158	Ditto for swan-neck of any projection	-	149.70	202.00	234.00	421.00	13158
13159	Ditto for plug to socket end	-	127.00	169.70	205.70	291.10	13159
13160	Ditto for cap to spigot end	-	166.10	193.20	215.00	308.10	13160
13161	Ditto for bend	-	127.90	147.80	193.50	258.40	13161
13162	Ditto for single junction	-	136.90	150.10	174.90	406.70	13162
13163	Ditto for double junction	-	208.50	233.70	335.00	600.90	13163
13164	Ditto for connector to existing pipework.....	-	62.20	68.30	79.50	184.80	13164
13165	Add to either of Items 13161 to 13163 inclusive if fitted with bolted access door	-	101.30	118.30	121.90	135.50	13165
<i>Per linear metre</i>							
13166	Take down and clear away pipe fixed to floor, wall or soffits	4.50	5.10	6.40	8.30	9.60	13166
13167	Take down and set aside for re-use pipe fixed to floor, wall or soffits	6.40	7.00	8.30	9.60	10.90	13167
13168	Fix only pipe to floor, wall or soffits	15.00	19.40	21.20	24.70	30.90	13168
<i>Each</i>							
13169	Cut or burn out existing joint, clean socket and spigot ends, repair and make good existing joint	61.80	70.60	79.50	97.10	123.60	13169

Item	Item
CAST IRON PIPES AND FITTINGS FOR SURFACE AND FOUL WATER DRAINAGE (CONT'D)	
Cast iron pipes and fittings to BS 437: 2008, internally and externally coated for foul water drainage :-	
Pipe diameter (mm)	
200 or 225	
A	
\$	
13170	Pipe fixed to floor, wall or soffits..... 1,052.00 13170
Per linear metre	
Each	
13171	Extra over pipe for loose socket 384.50 13171
13172	Ditto for large socket for and including joint to clayware pipe 866.60 13172
13173	Ditto for swan-neck of any projection 1,790.00 13173
13174	Ditto for plug to socket end 1,192.80 13174
13175	Ditto for cap to spigot end 1,426.40 13175
13176	Ditto for bend 1,174.30 13176
13177	Ditto for single junction 1,430.70 13177
13178	Ditto for double junction 2,540.70 13178
13179	Ditto for connector to existing pipework..... 469.70 13179
13180	Add to either of Items 13176 to 13178 inclusive if fitted with bolted access door 470.00 13180
Per linear metre	
13181	Take down and clear away pipe fixed to floor, wall or soffits 12.80 13181
13182	Take down and set aside for re-use pipe fixed to floor, wall or soffits 14.00 13182
13183	Fix only pipe to floor, wall or soffits 42.40 13183
Each	
13184	Cut or burn out existing joint, clean socket and spigot ends, repair and make good existing joint 158.90 13184

Item		Pipe diameter (mm)		Item
		200 or 225	250	
		A \$	B \$	
CAST IRON PIPES AND FITTINGS FOR SURFACE AND FOUL WATER DRAINAGE (CONT'D)				
Grey iron pipes and fittings to BS 4622: 1970, internally and externally coated, for foul water drainage : -				
<i>Per linear metre</i>				
13185	Pipe fixed to floor, wall or soffits.....	1,208.10	1,330.90	13185
<i>Each</i>				
13186	Extra over pipe for loose socket	384.50	477.40	13186
13187	Ditto for large socket for and including joint to clayware pipe	866.60	1,043.70	13187
13188	Ditto for swan-neck of any projection	1,790.00	2,342.80	13188
13189	Ditto for plug to socket end	1,192.80	1,478.30	13189
13190	Ditto for cap to spigot end	1,426.40	1,640.50	13190
13191	Ditto for bend	1,187.30	1,448.50	13191
13192	Ditto for single junction	1,430.70	2,246.60	13192
13193	Ditto for double junction	2,540.70	3,223.50	13193
13194	Ditto for connector to existing pipework.....	565.40	689.70	13194
13195	Add to either of Items 13191 to 13193 inclusive if fitted with bolted access door	470.00	495.10	13195
<i>Per linear metre</i>				
13196	Take down and clear away pipe fixed to floor, wall or soffits	12.80	15.30	13196
13197	Take down and set aside for re-use pipe fixed to floor, wall or soffits	14.00	16.60	13197
13198	Fix only pipe to floor, wall or soffits	42.40	49.50	13198
<i>Each</i>				
13199	Cut or burn out existing joint, clean socket and spigot ends, repair and make good existing joint	158.90	185.40	13199

Item

Item

CAST IRON PIPES AND FITTINGS FOR SURFACE AND FOUL WATER DRAINAGE (CONT'D)

Cast iron socketless pipes and fittings to BS EN 877:1999 with amendment for surface A1: 2006, epoxy coated internally, anti-corrosive coated externally, for surface or foul water drainage :-

Pipe diameter (mm)										
40	50	70 or 75	100 or 125	150	200	250	300			
A	B	C	D	E	F	G	H			
\$	\$	\$	\$	\$	\$	\$	\$			
<i>Per linear metre</i>										
13200	Pipe fixed to floor, wall or soffits.....	302.10	362.50	453.10	543.70	713.70	1,017.50	1,616.90	1,943.30	13200
<i>Each</i>										
13201	Extra over pipe for cap end or plug.....	-	-	212.20	266.00	350.90	493.50	565.30	600.40	13201
13202	Ditto for bend or elbow.....	-	-	271.40	314.70	486.60	970.40	1,728.00	2,226.80	13202
13203	Ditto for three-way elbow or tee.....	-	-	297.60	421.30	649.50	1,286.70	2,360.60	3,207.00	13203
13204	Ditto for access door.....	-	-	541.60	787.00	1,608.70	1,764.80	1,924.50	2,352.50	13204
13205	Ditto for reducer.....	-	-	211.30	275.40	347.50	430.90	737.00	909.50	13205
13206	Ditto for connector to existing pipework.....	-	-	135.30	157.40	243.30	485.20	864.00	1,113.40	13206
<i>Per linear metre</i>										
13207	Take down and clear away pipe fixed to floor, wall or soffits.....	3.80	4.50	5.70	6.40	8.30	9.60	10.90	12.80	13207
13208	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	5.70	6.40	7.70	8.90	10.90	11.50	12.80	14.00	13208
13209	Fix only pipe to floor, wall or soffits.....	11.50	12.40	13.20	15.90	17.70	18.50	20.30	25.60	13209
<i>Each</i>										
13210	Repair and make good existing joint including cleaning ends	20.80	27.90	35.00	36.70	40.30	44.40	51.40	66.40	13210
13211	Seal off existing pipe laid or fixed in position including threading end and providing and jointing on cap or plug	47.80	91.90	136.10	180.20	228.00	272.20	316.30	360.50	13211

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 : 2004 medium grade and hot dip zinc coated for foul water drainage :-						
<i>Per linear metre</i>						
13212	Pipe fixed to floor, wall or soffits.....	348.60	441.60	499.60	588.80	13212
<i>Each</i>						
13213	Extra over pipe for cap end or plug.....	63.30	114.00	128.70	137.80	13213
13214	Ditto for bend or elbow.....	126.30	158.20	292.40	344.60	13214
13215	Ditto for three-way elbow or tee.....	169.90	217.10	399.30	470.60	13215
13216	Ditto for access door.....	354.80	609.80	1,030.80	1,214.90	13216
13217	Ditto for reducer.....	115.80	128.80	173.40	204.40	13217
13218	Ditto for connector to existing pipework.....	77.30	98.70	181.50	213.90	13218
<i>Per linear metre</i>						
13219	Take down and clear away pipe fixed to floor, wall or soffits.....	5.70	7.00	7.70	8.90	13219
13220	Take down and set aside for re-use pipe fixed to floor, wall or soffits.....	8.30	9.60	10.20	11.50	13220
13221	Fix only pipe to floor, wall or soffits.....	15.00	16.80	17.70	18.50	13221
<i>Each</i>						
13222	Repair and make good existing joint including cleaning ends	35.80	37.60	39.40	41.10	13222
13223	Seal off existing pipe laid or fixed in position including threading end and providing and jointing on cap or plug	162.60	201.50	219.20	245.70	13223

Item			Item	
UPVC RAINWATER GUTTERS AND FITTINGS				
	UPVC Pipes and fittings to BS 5255: 1989 :-	Internal diameter (mm)		
		80		
	<i>Per linear metre</i>	A \$		
13224	Half round rainwater gutter fixed on brackets at 1.00 m (maximum) centres	91.90	13224	
	<i>Each</i>			
13225	Extra over half round gutter for stop end	41.00	13225	
13226	Ditto for internal or external angle	148.30	13226	
13227	Nozzle outlet	60.90	13227	
13228	Combined stop end and nozzle outlet	74.10	13228	
	<i>Per linear metre</i>			
13229	Take down and clear away gutter	7.00	13229	
13230	Take down and set aside for re-use gutter	7.70	13230	
13231	Fix only gutter including providing brackets at 1.00 m (maximum) centres	39.70	13231	
	UPVC Pipes and fittings to BS 4514 : 2001 :-	Internal diameter (mm)		
		100	150	
		A \$	B \$	
	<i>Per linear metre</i>			
13232	Half round rainwater gutter fixed on brackets at 1.00 m (maximum) centres	113.70	206.50	13232
	<i>Each</i>			
13233	Extra over half round gutter for stop end	50.70	84.50	13233
13234	Ditto for internal or external angle	185.40	353.90	13234
13235	Nozzle outlet	76.10	118.30	13235
13236	Combined stop end and nozzle outlet	92.70	134.80	13236
	<i>Per linear metre</i>			
13237	Take down and clear away gutter	8.30	10.90	13237
13238	Take down and set aside for re-use gutter	9.60	12.10	13238
13239	Fix only gutter including providing brackets at 1.00 m (maximum) centres	47.70	91.00	13239

Item				Item	
UPVC PIPES AND FITTINGS FOR SURFACE AND FOUL WATER DRAINAGE					
UPVC Non-pressure pipes and fittings to BS 5255 : 1989 for foul water drainage :-					
<i>Per linear metre</i>					
		Pipe diameter (mm)			
		32	43	56	
		A	B	C	
		\$	\$	\$	
13240	Pipe fixed to floor, wall or soffits	40.70	62.70	72.10	13240
<i>Each</i>					
13241	Extra over pipe for cap end	-	-	43.50	13241
13242	Ditto for bend or elbow	-	-	35.50	13242
13243	Ditto for branch	-	-	54.60	13243
13244	Ditto for double branch	-	-	68.00	13244
13245	Ditto for connector to existing pipework.....	-	-	24.80	13245
13246	Add to either of Items 13242 to 13244 inclusive for screwed access	-	-	155.30	13246
13247	Tapered socket with cap nut and joint to steel tubing or brass fittings	-	-	69.60	13247
13248	Flat roof outlet with raised grating	-	-	97.10	13248
<i>Per linear metre</i>					
13249	Take down and clear away pipe fixed to floor, wall or soffits	2.60	3.20	3.80	13249
13250	Take down and set aside for re-use pipe fixed to floor, wall or soffits	3.20	3.80	4.50	13250
13251	Fix only pipe to floor, wall or soffits	7.10	8.00	8.80	13251
<i>Each</i>					
13252	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug	33.80	44.40	49.70	13252

Item					Item	
UPVC PIPES AND FITTINGS FOR SURFACE AND FOUL WATER DRAINAGE (CONT'D)						
UPVC Non-pressure pipes and fittings to BS 4514: 2001 for foul water drainage : -						
Pipe diameter (mm)						
65 80 100 150						
A B C D						
\$ \$ \$ \$						
13253	Pipe fixed to floor, wall or soffits	79.10	86.20	94.10	167.60	13253
<i>Per linear metre</i>						
13254	Extra over pipe for cap end	65.90	88.30	137.90	287.40	13254
13255	Ditto for bend or elbow	46.20	55.10	71.10	106.10	13255
13256	Ditto for branch	56.80	69.50	81.90	136.90	13256
13257	Ditto for double branch	162.70	257.50	332.90	841.60	13257
13258	Ditto for connector to existing pipework.....	25.80	31.60	37.20	62.20	13258
13259	Add to either of Items 13255 to 13257 inclusive for screwed access	161.10	166.90	174.80	242.30	13259
13260	Tapered socket with cap nut and joint to steel tubing or brass fittings	90.50	111.40	139.20	208.90	13260
13261	Flat roof outlet with raised grating	115.50	142.10	194.20	334.40	13261
<i>Per linear metre</i>						
13262	Take down and clear away pipe fixed to floor, wall or soffits	4.50	5.10	6.40	9.60	13262
13263	Take down and set aside for re-use pipe fixed to floor, wall or soffits	5.10	5.70	7.00	10.90	13263
13264	Fix only pipe to floor, wall or soffits	9.70	11.50	12.40	14.10	13264
<i>Each</i>						
13265	Seal off existing pipe fixed in position including threading end and providing and jointing on cap or plug	69.10	88.50	132.70	243.00	13265

Item		Pipe diameter (mm)		Item			
		38	51				
		A	B				
		\$	\$				
VULCATHENE MECHANICAL WASTE PIPES AND FITTINGS FOR ABOVE GROUND DRAINAGE							
	<i>Per linear metre</i>						
13266	Pipe fixed to floor, wall or ceiling with and including brackets.....	141.00	211.50	13266			
	<i>Each</i>						
13267	Extra over pipe for cap end.....	-	70.80	13267			
13268	Ditto for bend or elbow.....	-	152.60	13268			
13269	Ditto for branch.....	-	174.50	13269			
13270	Ditto for reducer.....	-	138.10	13270			
13271	Ditto for connector to existing pipework.....	-	79.30	13271			
PRECAST CONCRETE PIPES FOR BELOW GROUND DRAINAGE							
	Precast concrete pipes and fittings to BS 5911-1:2002 with amendment A2: 2010 or BS EN 1916: 2002, for below ground drainage :-						
		Pipe bore (mm)					
		150	225	300	375	450	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
13272	Pipe, unreinforced, laid in trench.....	421.20	550.60	655.20	853.80	1,105.10	13272
13273	Ditto, reinforced, laid in trench.....	-	-	-	-	1,160.30	13273
VITRIFIED CLAY PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE							
	Vitrified clay pipes and fittings to BS 65:1991, chemical resistant, for below ground drainage :-						
		Pipe bore (mm)					
		100	150	225	300		
		A	B	C	D		
		\$	\$	\$	\$		
13274	Pipe laid in trench.....	340.10	451.10	617.60	943.50	13274	
	<i>Each</i>						
13275	Extra over pipe for taper pipe.....	-	68.40	177.60	-	13275	
13276	Ditto for bend.....	95.20	154.70	360.90	-	13276	
13277	Ditto for single junction.....	150.70	222.10	404.50	622.60	13277	

Item							Item	
DUCTILE IRON PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE								
Ductile iron pipes and fittings to BS EN 598: 2007 with amendment A1: 2009 with cement lining internally and zinc coating externally, for below ground drainage :-								
<i>Per linear metre</i>								
		Pipe bore (mm)						
		80	100	150	200	250	300	
		A	B	C	D	E	F	
		\$	\$	\$	\$	\$	\$	
13278	Pipe laid in trench.....	490.00	519.40	643.80	771.80	945.30	1,116.90	13278
13279	Drop pipe.....	741.70	777.70	924.20	1,074.90	1,329.00	1,454.70	13279
<i>Each</i>								
13280	Extra over pipe for cover plate for end.....	77.13	123.70	192.80	269.20	352.90	499.20	13280
13281	Ditto for socket end (for repair work only).....	154.60	189.80	293.40	327.00	488.30	639.10	13281
13282	Ditto for spigot end (for repair work only).....	164.90	197.30	310.30	342.90	514.80	702.50	13282
13283	Ditto for connector with screwed end to existing pipework.....	183.00	221.00	340.70	378.30	568.90	757.40	13283
13284	Ditto for bend.....	177.40	270.00	461.30	647.90	1,176.00	1,505.50	13284
13285	Ditto for single junction.....	249.40	282.80	496.60	714.80	1,249.90	1,507.10	13285
13286	Ditto for double junction.....	250.60	381.70	645.90	735.90	1,287.70	1,908.20	13286
13287	Add to either of Items 13284 to 13286 inclusive if fitted with bolted access door.....	22.70	41.10	70.90	104.40	186.00	267.60	13287
<i>Per linear metre</i>								
13288	Take up and clear away pipe laid in trench complete with all fittings (trench excavation measured separately).....	8.90	9.60	13.40	16.00	21.10	26.80	13288
13289	Take up and set aside for re-use ditto.....	11.50	13.40	17.20	21.70	27.40	33.80	13289
13290	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately).....	26.80	29.30	37.00	52.90	63.10	73.30	13290
13291	Lay only pipe in trench.....	35.30	37.10	41.50	48.60	58.30	70.60	13291
13292	Fix only drop pipe.....	115.00	120.20	129.70	139.10	148.50	158.90	13292
<i>Each</i>								
13293	Remove gasket to existing joint and clear away and re-joint with new gasket.....	49.10	57.50	68.00	73.20	78.40	84.70	13293

Item	Item
CAST IRON PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE	
Cast iron pipes and fittings to BS 437: 2008, internally and externally coated, for below ground drainage :-	
	Pipe diameter (mm)
	200 or 225
	A
	\$
<i>Per linear metre</i>	
13294	Pipe laid in trench..... 1,015.60 13294
13295	Drop pipe to ditto, in manhole..... 1,225.30 13295
<i>Each</i>	
13296	Extra over pipe for plug to socket end 899.00 13296
13297	Ditto for cap to spigot end 899.00 13297
13298	Ditto for bend 1,102.20 13298
13299	Ditto for single junction 1,342.90 13299
13300	Ditto for double junction 2,546.90 13300
13301	Ditto for connector to existing pipework..... 551.10 13301
13302	Add to either of Items 13298 to 13300 inclusive if fitted with bolted access door 233.10 13302
<i>Per linear metre</i>	
13303	Take up and clear away pipe laid in trench complete with all fittings (trench excavation measured separately)..... 11.50 13303
13304	Take up and set aside for re-use ditto..... 12.80 13304
13305	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately)..... 58.00 13305
13306	Take down and clear away drop pipe complete with fittings and brackets 16.00 13306
13307	Take down and set aside for re-use ditto..... 34.40 13307
13308	Lay only pipe in trench..... 22.10 13308
13309	Fix only drop pipe..... 117.40 13309
<i>Each</i>	
13310	Cut or burn out existing joint, clean spigot and socket ends and make good joint..... 336.90 13310

Item		Pipe diameter (mm)		Item
		200 or 225	250	
		A \$	B \$	
	CAST IRON PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE (CONT'D)			
	Grey iron pipes and fittings to BS 4622 : 1970, internally and externally coated, for below ground drainage :-			
	<i>Per linear metre</i>			
13311	Pipe laid in trench.....	1,125.90	1,244.10	13311
13312	Drop pipe, in manhole.....	1,390.40	1,535.40	13312
	<i>Each</i>			
13313	Extra over pipe for plug to socket end	899.00	1,007.20	13313
13314	Ditto for cap to spigot end	899.00	982.10	13314
13315	Ditto for bend	1,102.20	1,359.50	13315
13316	Ditto for single junction	1,342.90	2,108.70	13316
13317	Ditto for double junction	2,546.90	3,246.60	13317
13318	Ditto for connector to existing pipework.....	551.10	679.80	13318
13319	Add to either of Items 13315 to 13317 inclusive if fitted with bolted access door	233.10	245.80	13319
	<i>Per linear metre</i>			
13320	Take up and clear away pipe laid in trench complete with all fittings (trench excavation measured separately).....	10.20	14.70	13320
13321	Take up and set aside for re-use ditto.....	12.10	15.30	13321
13322	Break up and clear away concrete beds and surrounds if any including drain pipes and fittings (trench excavation measured separately).....	58.00	63.80	13322
13323	Take down and clear away drop pipe complete with fittings and brackets	16.00	17.90	13323
13324	Take down and set aside for re-use ditto.....	34.40	37.60	13324
13325	Lay only pipe in trench.....	22.10	24.70	13325
13326	Fix only drop pipe.....	117.10	128.60	13326
	<i>Each</i>			
13327	Cut or burn out existing joint, clean spigot and socket ends and make good joint.....	336.90	370.10	13327

Item									Item	
UPVC PIPES AND FITTINGS FOR BELOW GROUND DRAINAGE										
UPVC Pressure pipes and fittings to BS 3506 : 1969 for pressurized drainage with joints and fittings complying with relevant parts of BS 4346-1 : 1969 and BS 4346-2 : 1970 or BS EN ISO 1452-1 : 2009 :-										
<i>Per linear metre</i>										
		Pipe diameter (mm)								
		80	100	125	150	200	250	300		
		A	B	C	D	E	F	G		
		\$	\$	\$	\$	\$	\$	\$		
13328	Pipe laid in trench.....	81.70	122.80	177.40	232.00	313.10	466.20	582.20	13328	
<i>Each</i>										
13329	Extra over pipe for cap end.....	64.10	118.70	180.10	241.50	359.90	466.20	608.60	13329	
13330	Ditto for bend or elbow.....	173.00	237.90	350.70	463.60	690.80	894.80	1,168.30	13330	
13331	Ditto for tee.....	445.60	642.90	794.90	946.80	1,410.80	1,827.40	2,386.10	13331	
13332	Ditto for connector to existing pipework.....	86.50	118.90	175.40	231.80	345.40	447.40	584.20	13332	
<i>Per linear metre</i>										
13333	Take up and clear away pipe laid in trench (trench excavation measured separately).....	6.40	7.70	8.90	10.90	12.10	13.40	16.00	13333	
13334	Take up and set aside for re-use pipe laid in trench (ditto).....	7.70	8.90	10.20	12.10	13.40	14.70	17.20	13334	
13335	Lay only pipe in trench.....	8.80	9.70	10.60	11.50	12.40	13.20	14.10	13335	
UPVC Pressure pipes and fittings to BS 4660 : 1969 for gravity sewage and surface water drainage :-										
<i>Per linear metre</i>										
		Pipe diameter (mm)								
		110		160						
		A		B						
		\$		\$						
13336	Pipe laid in trench.....	135.10		247.40						13336
<i>Each</i>										
13337	Extra over pipe for cap end.....	130.60		257.60						13337
13338	Ditto for bend or elbow.....	261.70		494.50						13338
13339	Ditto for tee.....	707.20		1,010.00						13339
13340	Ditto for connector to existing pipework.....	130.80		247.30						13340
<i>Per linear metre</i>										
13341	Take up and clear away pipe laid in trench (trench excavation measured separately).....	8.30		11.50						13341
13342	Take up and set aside for re-use pipe laid in trench (ditto).....	9.60		12.80						13342
13343	Lay only pipe in trench.....	10.60		12.40						13343

Item											Item																																				
VALVES																																															
UPVC or PVC valves :-																																															
Nominal size (mm)																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 12.5%;">15</td> <td style="width: 12.5%;">20</td> <td style="width: 12.5%;">25</td> <td style="width: 12.5%;">30</td> <td style="width: 12.5%;">40</td> <td style="width: 12.5%;">50</td> <td style="width: 12.5%;">65</td> <td style="width: 12.5%;">80</td> <td colspan="4"></td> </tr> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> <td>G</td> <td>H</td> <td colspan="4"></td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td colspan="4"></td> </tr> </table>												15	20	25	30	40	50	65	80					A	B	C	D	E	F	G	H					\$	\$	\$	\$	\$	\$	\$	\$				
15	20	25	30	40	50	65	80																																								
A	B	C	D	E	F	G	H																																								
\$	\$	\$	\$	\$	\$	\$	\$																																								
13344	PVC or UPVC screw down valve.....	64.20	73.20	111.40	141.40	259.60	291.30	-	-			13344																																			
13345	Ditto but flanged	124.00	150.20	210.20	249.20	311.80	328.20	408.00	489.60			13345																																			
13346	Plastic ball valve with plastic float for flushing cistern.....	85.90	96.70	-	-	-	-	-	-			13346																																			
Copper alloy valves :-																																															
Nominal size (mm)																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">15</td> <td style="width: 10%;">20</td> <td style="width: 10%;">25</td> <td style="width: 10%;">32</td> <td style="width: 10%;">40</td> <td style="width: 10%;">50</td> <td style="width: 10%;">65</td> <td style="width: 10%;">80</td> <td style="width: 10%;">100</td> <td style="width: 10%;">150</td> <td colspan="2"></td> </tr> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> <td>G</td> <td>H</td> <td>I</td> <td>J</td> <td colspan="2"></td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td colspan="2"></td> </tr> </table>												15	20	25	32	40	50	65	80	100	150			A	B	C	D	E	F	G	H	I	J			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
15	20	25	32	40	50	65	80	100	150																																						
A	B	C	D	E	F	G	H	I	J																																						
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$																																						
13347	Copper alloy gate valve.....	128.40	158.00	187.70	223.50	325.90	470.40	644.50	821.00	1,235.80	2,133.40	13347																																			
13348	Ditto but flanged.....	-	-	-	-	-	-	-	-	1,140.80	2,120.40	13348																																			
13349	Copper alloy non-return valve	203.70	244.50	285.20	290.80	395.60	487.10	656.80	992.60	1,507.40	3,500.00	13349																																			
Cast iron valves :-																																															
Nominal size (mm)																																															
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80	100	125	150	200	250																																										
A	B	C	D	E	F																																										
\$	\$	\$	\$	\$	\$																																										
13350	Cast iron globe valve flanged.....					3,896.80	5,252.20	7,496.10	10,634.80	16,267.70	28,154.70	13350																																			
13351	Cast iron gate valve flanged.....					1,395.10	1,661.70	2,179.80	3,703.70	4,448.20	8,533.40	13351																																			
Cast iron valves :-																																															
Nominal size (mm)																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33.3%;">300</td> <td style="width: 33.3%;">350</td> <td style="width: 33.3%;">400</td> <td colspan="9"></td> </tr> <tr> <td>A</td> <td>B</td> <td>C</td> <td colspan="9"></td> </tr> <tr> <td>\$</td> <td>\$</td> <td>\$</td> <td colspan="9"></td> </tr> </table>												300	350	400										A	B	C										\$	\$	\$									
300	350	400																																													
A	B	C																																													
\$	\$	\$																																													
13352	Cast iron globe valve flanged.....								34,968.40	59,962.50	92,958.90	13352																																			
13353	Cast iron gate valve flanged.....								12,167.70	-	-	13353																																			

Item

Item

VALVES (CONT'D)

Brass or bronze or gunmetal valves :-

Nominal size (mm)							
15	20	25	30	40	50	65	80
A	B	C	D	E	F	G	H
\$	\$	\$	\$	\$	\$	\$	\$
217.80	268.50	314.10	356.80	507.60	614.30	882.80	1,123.70
316.60	428.20	646.40	852.40	1,119.20	1,299.70	2,342.80	3,010.50

Each

13354 Brass or bronze ball valve with plastic float..... 13354

13355 Gun metal ball valve with plastic float 13355

Nominal size (mm)	
80	100
A	B
\$	\$
1,017.70	1,528.90
1,150.60	1,736.20

Each

13356 Heavy pattern gunmetal full way gate valve 13356

13357 Heavy pattern gunmetal full way gate valve flanged..... 13357

Stainless steel Grade 316 valves :-

Nominal size (mm)									
15	18	22	28	35	42	54	76	89	108
A	B	C	D	E	F	G	H	I	J
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
328.30	375.20	442.60	495.50	600.90	761.20	1,076.60	2,835.70	3,645.00	4,393.20
256.20	300.00	364.80	458.70	516.40	654.00	904.20	2,588.30	3,028.30	3,714.90

Each

13358 Stainless steel gate valve 13358

13359 Stainless steel check valve 13359

SUNDRIES REPAIRS TO VALVES AND BALL VALVES

Nominal size (mm)			
15 to 50	65 to 100	125 to 150	200 and beyond
A	B	C	D
\$	\$	\$	\$
12.80	15.30	17.90	20.40
14.70	17.20	20.40	23.00
22.10	26.50	30.90	35.30

Each

13360 Take down and clear away valve of all types of materials and functions..... 13360

13361 Take down and set aside for re-use valve of all types of materials and functions..... 13361

13362 Fix only valve of all types of materials and functions..... 13362

Item

Item

SUNDRIES REPAIRS TO VALVES AND BALL VALVES (CONT'D)

Nominal size (mm)	
15 to 50	65 to 80
A	B
\$	\$
53.90	60.40
203.80	252.60
141.00	172.70
66.20	102.40
106.00	220.80

Each

13363	Take off copper float from ball valve, solder to watertight and re-fix in position.....	53.90	60.40	13363
13364	Take off and clear away existing copper or plastic float from ball valve, provide and fix new plastic float.....	203.80	252.60	13364
13365	Take off and clear away metal or plastic connecting rod from ball valve, provide and fix new rod.....	141.00	172.70	13365
13366	Re-wash ball valve including providing leather, vulcanized fibre, plastic or rubber washer as ordered.....	66.20	102.40	13366
13367	Re-pack stuffing box, grind in valve and regulate	106.00	220.80	13367

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		
<i>Each</i>	A	B	C	D	E	F	G	H	I	J	K	L		
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
13368	Plastic re-sealing anti-syphonic trap with 80 mm seal.....	160.60	199.40	238.20	21.70	23.60	26.20	23.00	24.90	27.40	44.20	53.90	63.60	13368
13369	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.....	146.70	170.10	218.80	33.80	38.30	43.40	35.10	39.60	44.70	52.10	60.90	73.30	13369
13370	Cast brass ditto.....	213.10	257.40	349.80	33.80	38.30	44.00	35.10	39.60	44.70	53.00	60.90	73.30	13370
13371	Chromium plated brass ditto.....	224.10	261.10	381.80	33.80	38.30	44.00	35.10	39.60	44.70	49.50	57.40	68.90	13371
13372	Add to either of Items 13369 to 13371 inclusive if fitted with connector for copper tubing.....	119.50	145.80	205.50	-	-	-	-	-	-	-	-	-	13372
13373	Approved "P" or "S" plastic bottle trap including joints to fitting, waste outlet or P.V.C. tubing.....	137.00	160.40	-	21.70	23.60	-	23.00	25.50	-	42.40	51.20	-	13373

Item

Item

**TRAPS AND WASTE
OUTLETS
(CONT'D)**

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>												
13374	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.....										13374	
	161.70	197.60	298.40	23.60	28.70	31.90	25.50	30.60	33.80	40.60	55.60	61.80
13375	Ditto but with chromium plated brass overflow grid and connection for bath.....										13375	
	187.90	237.50	-	24.90	31.90	-	26.80	33.80	-	45.00	59.20	-

CLEARING TRAPS AND WASTE PIPES

Each

13376	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.....	42.40	13376
13377	Ditto but for trap and waste pipe to W.C., gully, stall or slab urinal	46.80	13377

A
\$

Item		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	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 :-					
	<i>Each</i>	A \$	B \$	C \$	D \$	
13378	Cistern or tank n.e. 100 litre nominal capacity.....	2,659.80	121.20	42.70	113.00	13378
13379	Ditto but 100 - 200 litre nominal capacity.....	3,406.00	150.50	50.40	131.60	13379
13380	Ditto but 200 - 300 litre nominal capacity.....	4,607.30	206.70	67.00	168.70	13380
13381	Ditto but 300 - 500 litre nominal capacity.....	5,836.90	274.30	102.10	234.00	13381
13382	Ditto but 500 - 1,000 litre nominal capacity.....	7,986.50	367.40	149.30	346.10	13382
13383	Ditto but 1,000 - 2,000 litre nominal capacity.....	10,702.80	483.40	207.90	515.70	13383
13384	Ditto but 2,000 - 3,000 litre nominal capacity.....	13,369.60	651.20	254.50	674.60	13384
13385	Ditto but 3,000 - 5,000 litre nominal capacity.....	19,144.90	810.00	371.80	1,011.90	13385
13386	Ditto but 5,000 - 10,000 litre nominal capacity.....	21,787.00	1,581.10	558.10	1,500.20	13386
13387	Add to Item 13386 for each additional 2,500 litres or part thereof in nominal capacity.....	1,938.50	465.00	167.70	280.80	13387
	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 .)					
	<i>Each</i>	A \$	B \$	C \$	D \$	
13388	Water tank n.e. 100 litre nominal capacity.....	1,086.80	47.20	33.80	93.60	13388
13389	Ditto but 100 - 250 litre nominal capacity.....	1,716.60	56.80	40.80	112.10	13389
13390	Ditto but 250 - 350 litre nominal capacity.....	2,270.10	85.50	61.20	168.70	13390
13391	Ditto but 350 - 500 litre nominal capacity.....	2,937.80	114.20	81.60	225.20	13391
13392	Ditto but 500 - 800 litre nominal capacity.....	3,765.70	165.80	118.60	327.60	13392

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.)

Each

Height (m)				
1.00	1.50	2.00	2.50	3.00
A	B	C	D	E
\$	\$	\$	\$	\$
8,018.70	11,761.00	14,311.40	17,851.30	26,852.90
13,364.80	19,780.40	22,758.70	28,677.80	51,482.00
19,360.20	30,637.10	33,223.00	41,165.40	60,489.50
23,369.90	37,808.00	41,509.20	51,629.00	79,890.90
26,960.20	37,419.40	46,432.10	57,009.60	94,250.30
33,910.70	45,211.80	59,889.20	68,999.10	11,747.11
39,103.90	54,988.50	67,050.00	76,480.00	13,371.81

13393	Water tank of area on plan n.e. 2.00 m ²	8,018.70	11,761.00	14,311.40	17,851.30	26,852.90	13393
13394	Ditto but 2.00 - 4.00 m ²	13,364.80	19,780.40	22,758.70	28,677.80	51,482.00	13394
13395	Ditto but 4.00 - 6.00 m ²	19,360.20	30,637.10	33,223.00	41,165.40	60,489.50	13395
13396	Ditto but 6.00 - 8.00 m ²	23,369.90	37,808.00	41,509.20	51,629.00	79,890.90	13396
13397	Ditto but 8.00 - 10.00 m ²	26,960.20	37,419.40	46,432.10	57,009.60	94,250.30	13397
13398	Ditto but 10.00 - 12.00 m ² (The actual rate should be : \$117,471.10 for Item 13398E)	33,910.70	45,211.80	59,889.20	68,999.10	11,747.11	13398
13399	Ditto but 12.00 - 16.00 m ² (The actual rate should be : \$133,718.10 for Item 13399E)	39,103.90	54,988.50	67,050.00	76,480.00	13,371.81	13399

Take down and clear away panel type GRP water tank with cover including all accessories : -

Each

Height (m)				
1.00	1.50	2.00	2.50	3.00
A	B	C	D	E
\$	\$	\$	\$	\$
318.90	446.50	574.00	701.60	1,084.20
510.20	701.60	829.10	1,020.50	1,211.80
701.60	892.90	1,084.20	1,403.10	1,913.40
829.10	1,020.50	1,403.10	1,722.00	2,359.80
892.90	1,594.50	1,849.60	2,232.30	2,742.50
1,084.20	1,658.30	2,296.00	2,742.50	3,252.70
1,275.60	1,913.40	2,806.30	3,316.50	4,018.10

13400	Water tank of area on plan n.e. 2.00 m ²	318.90	446.50	574.00	701.60	1,084.20	13400
13401	Ditto but 2.00 - 4.00 m ²	510.20	701.60	829.10	1,020.50	1,211.80	13401
13402	Ditto but 4.00 - 6.00 m ²	701.60	892.90	1,084.20	1,403.10	1,913.40	13402
13403	Ditto but 6.00 - 8.00 m ²	829.10	1,020.50	1,403.10	1,722.00	2,359.80	13403
13404	Ditto but 8.00 - 10.00 m ²	892.90	1,594.50	1,849.60	2,232.30	2,742.50	13404
13405	Ditto but 10.00 - 12.00 m ²	1,084.20	1,658.30	2,296.00	2,742.50	3,252.70	13405
13406	Ditto but 12.00 - 16.00 m ²	1,275.60	1,913.40	2,806.30	3,316.50	4,018.10	13406

Item		Height (m)					Item
		1.00	1.50	2.00	2.50	3.00	
		A	B	C	D	E	
		\$	\$	\$	\$	\$	
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>						
13407	Water tank of area on plan n.e. 2.00 m ²	303.00	424.10	545.30	666.50	1,030.00	13407
13408	Ditto but 2.00 - 4.00 m ²	484.70	666.50	787.70	969.40	1,151.20	13408
13409	Ditto but 4.00 - 6.00 m ²	666.50	848.30	1,030.00	1,333.00	1,817.70	13409
13410	Ditto but 6.00 - 8.00 m ²	787.70	969.40	1,333.00	1,635.90	2,241.80	13410
13411	Ditto but 8.00 - 10.00 m ²	848.30	1,514.70	1,757.10	2,120.60	2,605.40	13411
13412	Ditto but 10.00 - 12.00 m ²	1,030.00	1,575.30	2,181.20	2,605.40	3,090.10	13412
13413	Ditto but 12.00 - 16.00 m ²	1,211.80	1,817.70	2,666.00	3,150.70	3,817.10	13413
Fix only panel type GRP water tank with cover including all accessories : -							
	<i>Each</i>						
13414	Water tank of area on plan n.e. 2.00 m ²	760.40	1,064.60	1,368.70	1,672.90	2,585.30	13414
13415	Ditto but 2.00 - 4.00 m ²	1,216.60	1,672.90	1,977.00	2,433.30	2,889.50	13415
13416	Ditto but 4.00 - 6.00 m ²	1,672.90	2,129.10	2,585.30	3,345.70	4,562.40	13416
13417	Ditto but 6.00 - 8.00 m ²	1,977.00	2,433.30	3,345.70	4,106.10	5,626.90	13417
13418	Ditto but 8.00 - 10.00 m ²	2,129.10	3,802.00	4,410.30	5,322.80	6,539.40	13418
13419	Ditto but 10.00 - 12.00 m ²	2,585.30	3,954.10	5,474.80	6,539.40	7,756.00	13419
13420	Ditto but 12.00 - 16.00 m ²	3,041.60	4,562.40	6,691.50	7,908.10	9,581.00	13420

Item					Item	
STERILIZER SYSTEM AND DRINKING FOUNTAIN						
	Sterilizer system and drinking fountain including U.V. water sterilizer system/filter and all necessary accessories : -	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Per Set</i>	A \$	B \$	C \$	D \$	
13421	Single-station satin finished stainless steel barrier-free wall mounted drinking fountain 308 mm long x 165 mm high x 476 mm deep with backsplash comprising safety bubbler; a contoured basin; vandal-resistant push-button control; vandal-resistant bottom cover plate; and drain and trap assembly	5,387.10	83.60	68.30	234.00	13421
13422	Satin finish stainless steel counter top mounted drinking fountain 250 mm diameter x 48 mm deep comprising safety bubbler; a contoured basin; vandal-resistant push-button control; and drain and trap assembly	8,679.60	95.00	77.20	300.20	13422
13423	Satin finished stainless steel wall mounted drinking fountain 305 mm long x 152 mm high x 310 mm deep comprising polished chrome plated forged brass, integral basin shank, shielded, anti-squirt, vandal-resistant bubbler head; in-line bowl type strainer with positive rubber seals moulded onto a fine 60 micron mesh screen; push button activation, front adjustable, automatic diaphragm pressure regulation with fully adjustable flow; polished chrome-plated brass vandal-resistant combination waste strainer and tailpiece assembly; a polished chrome plated finish push button assembly; a low profile trap; and bottom plate with vandal resistant screws	5,466.50	83.60	68.30	318.80	13423
13424	Reinforced concrete pedestal drinking fountain 362 x 362 x 1016 mm high overall with exposed aggregate finish comprising polished chrome plated forged brass, integral basin shank, shielded, anti-squirt, vandal-resistant bubbler head; in-line bowl type strainer with rubber seals moulded onto a fine 60 micron mesh screen; push button activation, front adjustable, automatic diaphragm pressure regulation with fully adjustable flow; polished chrome-plated vandal-resistant waste strainer, a polished chrome plated finish push button; a lead-free brass screwdriver stop; and integral mounting plate	6,726.90	83.60	68.30	327.60	13424
PRESSURE VESSELS						
	Pressure vessel 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 Set</i>	A \$	B \$	C \$	D \$	
13425	Pressure vessel, vertical type, of 10 bar working pressure and 60 litres capacity	2,432.90	95.70	107.80	337.30	13425
13426	Ditto but 200 litres capacity	3,815.20	135.20	158.20	468.00	13426
13427	Ditto but 300 litres capacity	5,451.70	181.80	218.80	794.70	13427
13428	Ditto but 500 litres capacity	6,955.50	237.90	292.70	843.30	13428
13429	Ditto but 1,000 litres capacity	18,353.10	358.40	430.50	1,180.60	13429

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				E	F	G
	<i>Each</i>	A	B	C	D	\$	\$	\$			
13430	Stout galvanized iron wire balloon grating with pronged feet and set in top of pipe	29.10	43.70	58.20	87.30	7.70	8.90	9.70	13430		
13431	Stout copper wire ditto	87.30	131.00	174.60	262.00	7.70	8.90	9.70	13431		
						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>										
13432	Galvanized cast iron fresh air inlet valve with brass front and mica flap, and joint to top of 100 mm cast iron pipe	232.80				33.20	35.10	51.20	13432		
									A		
	<i>Each</i>								\$		
13433	Take off and clear away existing mica flap, and provide and fix new							65.30	13433		
	FIRE COLLAR										
		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
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
13434	Pyrosleeve 'GV' type fire collar as ordered by the Maintenance Surveyor in writing	89.00	90.80	93.40	97.00	106.80	113.20	124.60	141.50	161.70	214.30
	GRANULAR BEDS FOR DRAIN PIPES										
	Granular bedding :										
	<i>Per cubic metre</i>										A
13435	Beds, haunching or surrounds to pipe.....										184.10
											\$

Item									Item																								
CONCRETE BEDS FOR DRAIN PIPES																																	
Concrete Grade 10S, Grade 10D or 10MPa in : -																																	
<i>Per linear metre</i>																																	
Pipe bore (mm)																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 12.5%;">50</th> <th style="width: 12.5%;">75</th> <th style="width: 12.5%;">80</th> <th style="width: 12.5%;">100</th> <th style="width: 12.5%;">110</th> <th style="width: 12.5%;">150</th> <th style="width: 12.5%;">160</th> <th style="width: 12.5%;">200</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> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>										50	75	80	100	110	150	160	200	A	B	C	D	E	F	G	H	\$	\$	\$	\$	\$	\$	\$	\$
50	75	80	100	110	150	160	200																										
A	B	C	D	E	F	G	H																										
\$	\$	\$	\$	\$	\$	\$	\$																										
13436	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.....	38.00	44.60	45.80	52.20	55.20	67.00	-	-	13436																							
13437	Ditto but 150 mm thick under pipe including filling up after the drain is tested to mid point of pipe barrel.....	70.50	85.20	87.50	98.90	104.70	127.40	134.20	158.10	13437																							
13438	Add to Item 13437 if pipe is completely surrounded after testing with similar concrete not less than 150 mm thick all round.....	41.00	47.90	48.90	54.80	58.70	70.40	73.00	86.50	13438																							
Pipe bore (mm)																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 12.5%;">225</th> <th style="width: 12.5%;">250</th> <th style="width: 12.5%;">300</th> <th style="width: 12.5%;">315</th> <th style="width: 12.5%;">350</th> <th style="width: 12.5%;">375</th> <th style="width: 12.5%;">400</th> <th style="width: 12.5%;">450</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> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>										225	250	300	315	350	375	400	450	A	B	C	D	E	F	G	H	\$	\$	\$	\$	\$	\$	\$	\$
225	250	300	315	350	375	400	450																										
A	B	C	D	E	F	G	H																										
\$	\$	\$	\$	\$	\$	\$	\$																										
<i>Per linear metre</i>																																	
13439	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.....	204.10	222.80	240.10	251.50	278.50	286.70	305.90	324.10	13439																							
13440	Add to Item 13439 if pipe is completely surrounded after testing with similar concrete not less than 150 mm thick all round.....	90.00	97.10	105.60	110.50	120.10	126.50	133.80	136.90	13440																							
Extra over either of Items 13436 to 13440 inclusive for concrete Grade 20S, Grade 20D or 20MPa									13%																								

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 : - All Items 13441 to 13456 (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 \$	
13441	Trap with 50 mm bore outlet.....	171.70	16.60	23.60	97.20	13441
13442	Ditto 75 mm ditto.....	225.00	20.40	28.70	110.80	13442
13443	Ditto 100 mm ditto.....	271.10	25.50	35.70	150.60	13443
13444	Ditto 150 mm ditto.....	423.40	33.20	46.60	183.00	13444
13445	Ditto 225 mm ditto.....	759.90	53.60	74.60	266.60	13445
13446	Gully with 100 mm bore trapped outlet and 150 mm diameter circular or 150 x 150 mm square top rebated for grating (measured separately).....	404.70	34.40	47.80	187.20	13446
13447	Ditto but with 150 mm bore trapped outlet and 225 mm diameter circular or 225 x 225 mm square top ditto (ditto).....	619.80	38.90	54.90	219.60	13447
13448	Add to either of Items 13446 to 13447 inclusive for side or back inlet.....	189.10	21.10	29.30	87.80	13448
13449	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.....	1,027.10	33.20	46.60	210.20	13449
13450	Intercepting trap with 100 mm bore outlet and square or oblique inspection arm fitted with galvanized stopper in plain or screw pattern joint.....	416.80	28.10	38.90	97.20	13450
13451	Ditto but with 150 mm bore outlet ditto.....	605.30	34.40	47.80	125.50	13451
13452	Ditto but with 225 mm bore outlet ditto.....	935.10	46.60	65.10	158.90	13452
13453	Ditto but with 300 mm bore outlet ditto.....	1,260.40	68.90	96.30	187.20	13453
13454	Ditto but with 375 mm bore outlet ditto.....	2,109.80	102.70	144.10	222.70	13454
13455	Ditto but with 600 mm bore outlet ditto.....	3,449.60	155.00	216.90	364.90	13455
13456	Add to either of Items 13450 to 13455 inclusive if fitted with cast iron stopper and lever handle, 1.80 m long galvanized chain, hook and ring.....	60.50	-	-	-	13456

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 : - All Items 13457 to 13474 (Columns (A) to (D)) inclusive include for concrete bed and surround or breaking up the same as applicable.)						
Each		A	B	C	D	
		\$	\$	\$	\$	
13457	Trap with 100 mm bore outlet.....	149.60	19.10	26.80	179.80	13457
13458	Ditto with 150 mm ditto.....	210.70	23.00	33.80	125.50	13458
13459	Ditto with 225 mm ditto.....	447.80	32.50	45.90	163.10	13459
13460	Ditto with 300 mm bore outlet.....	807.50	48.50	61.20	201.80	13460
13461	Gully with 100 mm bore trapped outlet and 150 mm diameter circular or 150 x 150 mm square top rebated for grating (measured separately).....	254.70	31.90	54.90	163.10	13461
13462	Ditto but with 150 mm bore trapped outlet and 225 mm diameter circular or 225 x 225 mm square top ditto (ditto).....	514.60	37.60	61.20	191.30	13462
13463	Add to either of Items 13461 to 13462 inclusive for side or back inlet of any bore.....	115.40	-	-	-	13463
13464	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.....	662.50	37.00	61.20	153.70	13464
13465	Road gully, 300 mm diameter and 600 mm deep, with plain top and 100 mm or 150 mm bore outlet.....	929.10	73.30	115.40	294.90	13465
13466	Ditto but 300 mm diameter and 750 mm deep ditto.....	1,014.90	77.20	126.90	332.50	13466
13467	Ditto but 375 mm diameter and 900 mm deep ditto.....	1,184.20	89.90	141.60	397.30	13467
13468	Add to either of Items 13465 to 13467 inclusive for cleaning eye with sealing plate or stopper.....	38.50	-	-	-	13468
13469	Intercepting trap with 100 mm bore outlet and square or oblique inspection arm fitted with clayware stopper in plain or screw pattern joint.....	511.20	22.30	33.80	103.50	13469
13470	Ditto but with 150 mm bore outlet ditto.....	706.40	26.80	41.50	120.20	13470
13471	Ditto but with 225 mm bore outlet ditto.....	1,108.10	38.30	58.00	149.50	13471
13472	Ditto but with 300 mm bore outlet ditto.....	1,707.90	55.50	71.40	181.90	13472
13473	Ditto but with 375 mm bore outlet ditto.....	2,117.30	66.30	84.80	210.20	13473
13474	Add to either of Items 13469 to 13473 inclusive if fitted with galvanized iron stopper and lever handle, 1.80 m long galvanized chain, hook and ring.....	37.80	-	-	-	13474

Item					Item	
PRECAST CONCRETE GULLIES						
	Gullies with concrete Grade 20S, Grade 20D or 20MPa bed and surround minimum 100 mm thick all round : -					
	(Note : - All Items 13475 to 13476 (Columns (A) to (D)) inclusive include for concrete bed and surround or breaking up the same as applicable.)					
	Each					
13475	Road gully, 225 mm diameter and 600 mm deep internally with plain top and 100 or 150 mm bore outlet.....	832.20	102.10	74.60	472.60	13475
13476	Ditto but size 450mm diameter and 900mm deep internally.....	1,532.00	176.70	135.20	755.90	13476
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 \$		
13477	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.....		29.30	49.10	73.20	13477
13478	Extra 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 grouting (measured separately), trowelling all surfaces smooth with cement and sand (1:2), forming all back inlets, and all additional excavation, disposal and formwork.....		66.20	113.50	160.80	13478
13479	Add to Item 13478 for each additional 150 mm or part thereof in height.....		28.40	56.70	75.70	13479
13480	Galvanized steel or coated cast iron flat or dished grating and set in gully top or concrete surround to trap or gully.....		47.30	66.20	75.70	13480
13481	Take up and clear away galvanized steel or coated cast iron flat or dished grating set in gully top or concrete surround to trap or gully.....		3.20	3.80	4.50	13481
13482	Take up and set aside for re-use ditto.....		5.10	6.40	7.00	13482
13483	Fix only ditto.....		4.20	5.20	6.30	13483
13484	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.....		106.10	123.80	132.70	13484
13485	Take up and clear away galvanized steel or coated cast iron flat or dished hinged grating and frame set in gully top or concrete surround to trap or gully.....		3.80	4.50	5.10	13485
13486	Take up and set aside for re-use ditto.....		6.40	7.00	8.90	13486
13487	Fix only ditto.....		8.40	11.50	13.60	13487

Item			Item
SURFACE WATER CHANNELS			
<i>Per cubic metre</i>		A \$	
13488	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.....	1,134.80	13488
13489	Ditto 0.10 - 0.20 m ² cross sectional area.....	993.00	13489
13490	Ditto 0.20 - 0.40 m ² cross sectional area.....	851.10	13490
	Add to either of Items 13488 to 13490 inclusive if cast to curve n.e. 3.00 m radius to centre line of waterway.....	25%	
13491	Add to either of Items 13488 to 13490 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.....	151.30	13491
13492	Add to either of Items 13488 to 13490 inclusive for forming step surface water channel including ditto.....	37.80	13492
CAST IRON CHANNEL COVERS			
		Supply and fix	Take up and clear away
		A \$	B \$
		C \$	D \$
		Fix only	
	<i>Per kg</i>		
13493	Cast iron surface channel cover with slots, weight n.e. 24 kg each.....	6.00	1.30
13494	Ditto, weight exceeding 24 kg each.....	5.80	0.60
		1.90	3.10
		1.30	3.10
PRECAST CONCRETE CHANNEL COVERS			
		Supply and fix	Take up and clear away
		A \$	B \$
		C \$	D \$
		Fix only	
	<i>Per square metre</i>		
13495	Precast concrete Grade 20S, Grade 20D or 20MPa channel cover with slots, 25 mm thick including reinforcement.....	340.50	36.40
13496	Ditto but 50 mm thick.....	397.20	47.20
		45.30	56.10
		60.60	95.20

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 \$	
13497	Base slabs.....	570.90	629.70	13497
13498	Walls.....	621.50	638.40	13498
13499	Suspended slabs.....	570.90	629.70	13499
	Extra over either of Items 13497 to 13499 inclusive for plain and/or reinforced concrete Grade 25S, Grade 25D or 25Mpa.....		8%	
	Extra over either of Items 13497 to 13499 inclusive for plain and/or reinforced concrete Grade 30S, Grade 30D or 30Mpa.....		10%	
	Extra over either of Items 13497 to 13499 inclusive for plain and/or reinforced concrete Grade 40S, Grade 40D or 40Mpa.....		19%	
	<i>Per square metre</i>	Sawn formwork	Wrot formwork	
		A \$	B \$	
13500	Formwork to base slabs.....	129.10	137.70	13500
13501	Formwork to walls.....	202.60	211.20	13501
13502	Formwork to soffit of suspended slabs.....	199.90	208.50	13502
	<i>Per linear metre</i>			
13503	Formwork to edges n.e. 75 mm wide.....	22.60	23.50	13503
13504	Ditto but 75 - 150 mm wide.....	39.50	41.30	13504
13505	Ditto but 150 - 225 mm wide.....	52.60	55.90	13505
	<i>Per square metre</i>		A \$	
13506	Concrete Grade 20S, Grade 20D or 20MPa benching and channels in any thickness.....		114.20	13506

Item		Supply and fix	Take up and clear away	Take up and set aside for re-use	Fix only	Item
		A	B	C	D	
		\$	\$	\$	\$	
CAST IRON MANHOLE COVERS AND FRAMES						
	<i>Each</i>					
13507	Manhole cover and frame, approximately 37kg.....	225.70	47.80	65.10	40.80	13507
13508	Ditto, approximately 52kg.....	315.20	64.40	104.00	53.30	13508
13509	Ditto, approximately 143kg.....	848.20	83.60	114.20	152.70	13509
13510	Ditto, approximately 178kg.....	1,120.50	104.60	145.40	165.20	13510
13511	Ditto, approximately 192kg.....	1,140.00	113.50	155.60	173.60	13511
13512	Ditto, approximately 308kg.....	1,820.90	176.70	238.50	278.10	13512
13513	Circular manhole cover and manhole frame, approximately 95kg.....	568.10	54.90	76.50	94.10	13513
13514	Double triangular manhole cover and frame approximately 140kg.....	832.60	84.20	113.50	135.90	13514
13515	Gully sump cover and frame, approximately 69kg.....	412.40	40.80	53.60	70.10	13515
13516	Ditto, approximately 83kg.....	498.00	46.60	65.10	80.50	13516
	Deduct from any of Items 13507 to 13516 inclusive for work of manhole cover only or gully sump cover only.....	-	-	(30%)	(30%)	
STEP IRONS						
	<i>Each</i>				A	
					\$	
13517	Manhole step irons built into concrete or grouted into existing mortice.....				59.20	13517
13518	Cut out and clear away existing step iron including making good side or cutting mortice ready to receive new step iron (measured separately).....				11.50	13518

Item			Item	
SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION (CONT'D)				
SERVICES PROVIDED TO FRESH WATER PLUMBING SYSTEM AND QUALITY WATER RECOGNITION SCHEME (QWRS) FOR BUILDINGS				
Carry out inspection to the fresh water plumbing system : -				
<i>Per inspection</i>				
		No. of floors of building		
		N.e. 20	Exc. 20	
		A \$	B \$	
13534	Inspection of residential buildings.....	7,507.50	12,993.80	13534
13535	Ditto of schools and institutions.....	6,496.90	8,662.50	13535
13536	Ditto of police stations, fire stations and ambulance depots.....	8,662.50	-	13536
13537	Ditto of hospitals, clinics and health buildings.....	17,325.00	25,987.50	13537
13538	Ditto of correctional institutions and related buildings.....	21,656.30	34,650.00	13538
13539	Ditto of museums, cultural buildings, community centres, community halls and libraries.....	8,662.50	-	13539
13540	Ditto of public toilets, bathhouses and refuse collection points.....	4,331.30	-	13540
13541	Ditto of municipal buildings, markets, cooked food centres, slaughterhouses, public mortuaries and funeral parlours.....	10,828.10	-	13541
13542	Ditto of offices, law courts and post offices.....	12,993.80	21,656.30	13542
13543	Ditto of indoor game halls, recreation centres, swimming pools and coliseums.....	8,662.50	-	13543
13544	Ditto of laboratories and science buildings.....	10,828.10	18,900.40	13544
<i>Per number</i>				
			A \$	
13545	Cleaning of water tank of internal volume not exceeding 10 m ³		2,055.80	13545
13546	Ditto 10 m ³ to 20 m ³		2,398.40	13546
13547	Ditto 20 m ³ to 30 m ³		2,741.10	13547
13548	Ditto 30 m ³ to 50 m ³		3,426.30	13548
13549	Ditto 50 m ³ to 100 m ³		4,672.20	13549
13550	Add to Item 13549 for each additional 10 m ³ or part thereof in internal volume.....		241.40	13550
13551	Carry out sampling for water quality examination		462.00	13551
13552	Conduct water analysis of fresh water for water quality examination.....		485.10	13552

Item	Item	
SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION (CONT'D)		
SERVICES PROVIDED TO CLEANING AND CLEARANCE OF UNDERGROUND FOUL AND WASTE WATER DRAINAGE SYSTEM AT MARKET COMPLEXES AND COOKED FOOD CENTRES		
Cleaning and clearance of underground foul and waste water drainage system and grease tanks at market complexes and cooked food centres, including provision of CCTV inspection survey : -		
<i>Per item</i>		
13553 Market complexes or cooked food centre of paved area not exceeding 5,000 m ²	A \$ 3,888.60	13553
13554 Add to Item 13553 for each additional 750 m ² or part thereof in paved area.....	510.20	13554
Cleaning and clearance of underground foul and waste water drainage system and grease tanks at market complexes and cooked food centres : -		
<i>Per item</i>		
13555 Market complexes or cooked food centre of paved area not exceeding 5,000 m ²	3,280.30	13555
13556 Add to Item 13555 for each additional 750 m ² or part thereof in paved area.....	255.10	13556
SERVICES FOR INSPECTION, TESTING AND CLEANING OF EXISTING DRAINAGE SYSTEM		
UTILITIES SURVEY		
<i>Per square metre</i>		
13557 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 plan and 2 sets of CD-ROMS.....	A \$ 104.60	13557
DETECTION OF LEAKING BURIED WATER PIPES		
<i>Per linear metre</i>		
13558 Carry out acoustic water leakage detection works 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 flush water supply pipes within the hatched areas, including submission of survey report in 2 copies, record drawings, photo records, text reports and layout plan and 2 sets of CD-ROMs.....	115.00	13558

Item			Item
	SERVICES FOR PLUMBING AND DRAINAGE INSTALLATION (CONT'D)		
	SERVICES FOR INSPECTION, TESTING AND CLEANING OF EXISTING DRAINAGE SYSTEM (CONT'D)		
	CLEANING OF EXISTING DRAINAGE SYSTEM	Pipe bore n.e. 300 mm	
	<i>Per item</i>	A \$	
13559	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 2200 PSI and 262 litre/min. by an approved specialist for a period not exceeding 4 hours.....	1,292.30	13559
13560	Add to Item 13559 for each additional 4 hours or part thereof in hour.....	928.50	13560
	<i>Each</i>		
13561	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.....	903.40	13561
13562	Add to Item 13561 for each additional 6.0 m ³ or part thereof in volume.....	688.00	13562
13563	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.....	341.90	13563
13564	Add to Item 13563 for each additional 2.0 m ³ or part thereof in volume.....	46.00	13564
	CCTV INSPECTION SURVEY TO EXISTING DRAINAGE SYSTEM		
		Pipe bore n.e. 300 mm	
	<i>Per item</i>	A \$	
13565	Carrying out CCTV inspection survey to existing drainage system by an approved specialist for a period not exceeding 4 hours.....	3,032.40	13565
13566	Add to Item 13565 for each additional 4 hours or part thereof in hour.....	2,021.60	13566
	TESTING EXISTING DRAINS		
	<i>Each</i>	A \$	
13567	Water test as described to existing branch or drain between manholes, up to 150 mm diameter.....	243.60	13567
13568	Ditto but for 150 - 300 mm diameter.....	315.80	13568

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	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 and including all colours. (b) All cutting and waste, breakage and replacing scratched or cracked pane. (c) Painting to wood or steel beads and rebate surfaces with one coat of priming paint before glazing. (d) Providing all putty or glazing compound, plastic setting and location blocks, pointing and sealing junctions between glass and glazing beads or the like with approved sealant materials; or in the case of glazing with beads, for taking off and re-fixing wood beads supplied by the joiner or metal beads supplied with metal windows.

SPECIAL CONDITIONS

Rates for glazing generally (Cont'd)	SC14.04 (Cont'd)	<ul style="list-style-type: none"> (e) Painting cut edges of wired glass with bitumastic paint. (f) Protecting and cleaning. (g) 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) Hacking out old putty and cleaning glass, blockwork and window bead and frames. (b) Protecting and storing glass or blockwork and metal 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. (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.

SPECIAL CONDITIONS

Rates for polycarbonate sheet

SC14.09

The rates for polycarbonate sheet shall further include for : -

- (a) All cutting and waste, breakage and replacing scratched or cracked pane.
- (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 the fixing of polycarbonate sheet as required.

Rates for laminated glass

SC14.10

The rates for laminated glass shall further include for : -

- (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 may be required, all as specified in G.S. Item 20.11(ii).
- (d) Submission of test certificates and manufacturer's guarantee.

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 test certificates and manufacturer's guarantee.

Rates for fire rated glass

SC14.12

The rates for fire rated glass shall further include for : -

- (a) Supply of fire rated glass with insulation and integrity of the fire resistance period 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.

SPECIAL CONDITIONS

Rates for glass block panels	SC14.13	<p>The rates for glass block panels shall further include for :-</p> <ul style="list-style-type: none"> (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	<p>The rates for fire resisting glass block panels shall further include for :-</p> <ul style="list-style-type: none"> (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. (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 0.08 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) Providing technical information, test certificate and manufacturer's guarantee as required by the Maintenance Surveyor for approval or as stated in the Contract.
Glass block panels	SC14.16	<p>G.S. clauses for glass block panels can be found in the Brickwork and Blockwork Section of the General Specification for Building.</p>

Item	GENERAL GLAZING										Item	
	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	
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
	Per square metre											
14001	Glass and glazing to wood with putty or to metal with glazing compound.....	97.30	105.60	124.20	146.60	111.50	124.50	134.40	168.90	233.20	353.20	14001
14002	Ditto but with wood or metal beads.....	123.50	132.20	157.50	185.00	138.50	151.50	159.80	195.60	283.80	429.80	14002
14003	Add to either of Items 14001 to 14002 inclusive if glass, when fixed, is in single pane exceeding 5 m ²	9.90	10.80	12.40	14.70	9.60	11.30	13.70	16.10	37.70	35.30	14003
14004	Take out and clear away serviceable glass glazed to wood with putty or to metal with glazing compound.....	21.70	23.60	25.50	27.40	21.70	21.70	25.50	27.40	27.40	27.40	14004
14005	Ditto but with wood or metal beads.....	25.50	27.40	29.30	31.90	25.50	25.50	29.30	31.90	31.90	31.90	14005
14006	Take out and set aside for re-use serviceable glass glazed to wood with putty or to metal with glazing compound.....	26.20	28.10	31.30	32.50	26.20	26.20	31.30	32.50	32.50	32.50	14006
14007	Ditto but with wood or metal beads.....	33.80	36.40	38.90	42.10	33.80	33.80	38.90	42.10	42.10	42.10	14007
14008	Glazing only to wood with putty or to metal with glazing compound.....	22.40	24.40	26.30	29.30	22.40	22.40	26.30	29.30	29.30	29.30	14008
14009	Ditto but with wood or metal beads.....	40.00	41.90	42.90	44.90	40.00	40.00	42.90	44.90	44.90	44.90	14009
14010	Add to either of Items 14001 to 14009 inclusive if glazing to fixed sash in position behind guard bars.....	11.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70	14010
	Per linear metre											
14011	Straight cutting.....	2.90	3.90	3.90	3.90	2.90	2.90	2.90	3.90	4.90	4.90	14011
14012	Circular cutting.....	3.90	3.90	4.90	4.90	3.90	3.90	4.90	4.90	7.80	7.80	14012
	Each											
14013	Cutting hole with straight sides n.e. 0.20 m ² through pane of glass.....	12.70	13.70	14.60	15.60	12.70	12.70	14.60	15.60	23.40	23.40	14013
14014	Cutting circular or elliptical hole of n.e. 0.20 m ² through pane of glass.....	19.50	20.50	22.40	23.40	19.50	19.50	22.40	23.40	35.10	35.10	14014

Item	GENERAL GLAZING (CONT'D)											Item
	Glass glazing sheet : - (Cont'd)											
		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	
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
	Per square metre											
14015	Glass and glazing to wood with putty or to metal with glazing compound.....	174.20	201.50	340.90	417.40	223.80	380.50	447.70	317.10	137.10	171.40	14015
14016	Ditto but with wood or metal beads.....	206.50	233.30	380.10	458.80	255.20	418.60	488.00	339.40	161.80	200.50	14016
14017	Add to either of Items 14015 to 14016 inclusive if glass, when fixed, is in single pane exceeding 5 m ²	14.40	16.10	25.80	32.10	31.30	57.10	67.20	50.80	16.10	18.80	14017
14018	Take out and clear away serviceable glass glazed to wood with putty or to metal with glazing compound.....	25.50	27.40	31.90	35.70	23.60	28.10	31.30	25.50	23.60	24.90	14018
14019	Ditto but with wood or metal beads.....	29.30	31.90	36.40	40.80	26.80	33.20	37.00	28.10	23.60	28.70	14019
14020	Take out and set aside for re-use serviceable glass glazed to wood with putty or to metal with glazing compound.....	31.30	32.50	38.30	42.70	30.00	37.60	42.70	31.30	28.70	31.30	14020
14021	Ditto but with wood or metal beads.....	38.90	42.10	48.50	53.60	38.90	46.60	54.20	39.60	37.60	40.80	14021
14022	Glazing only to wood with putty or to metal with glazing compound.....	26.30	29.30	34.10	38.00	28.30	34.10	39.00	29.30	27.30	30.20	14022
14023	Ditto but with wood or metal beads.....	42.90	44.90	50.70	54.60	44.90	54.60	60.50	45.80	44.90	47.80	14023
14024	Add to either of Items 14015 to 14023 inclusive if glazing to fixed sash in position behind guard bars.....	11.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70	14024
	Per linear metre											
14025	Straight cutting.....	2.90	3.90	3.90	3.90	3.90	4.90	5.90	3.90	3.90	3.90	14025
14026	Circular cutting.....	4.90	4.90	5.90	5.90	5.90	6.80	7.80	5.90	5.90	5.90	14026
	Each											
14027	Cutting hole with straight sides n.e. 0.20 m ² through pane of glass.....	14.60	15.60	19.50	21.50	15.60	19.50	21.50	16.60	15.60	16.60	14027
14028	Cutting circular or elliptical hole n.e. 0.20 m ² through pane of glass.....	22.40	23.40	29.30	31.20	23.40	29.30	31.20	24.40	23.40	24.40	14028

Item	Polycarbonate glazing sheet						Item	
GENERAL GLAZING (CONT'D)								
Polycarbonate glazing sheet :-								
	Thickness (mm)	2	3	5	6	10	12	
		A	B	C	D	E	F	
	<i>Per square metre</i>	\$	\$	\$	\$	\$	\$	
14029	Polycarbonate glazing sheet glazed to wood with putty or to metal with glazing compound.....	300.30	428.90	561.30	714.80	1,217.10	1,338.80	14029
14030	Ditto but with wood or metal beads.....	318.30	520.20	578.70	736.20	1,241.40	1,365.60	14030
14031	Polycarbonate glazing sheet fixed to wood or metal frames (measured separately) with screws.....	297.30	490.50	556.20	707.60	1,134.30	1,325.40	14031
14032	Add to either of Items 14029 to 14031 inclusive for coloured polycarbonate sheet.....	84.10	93.10	129.70	150.10	192.30	214.00	14032
14033	Add to either of Items 14029 to 14031 inclusive for polycarbonate sheet, when fixed, is in single pane exceeding 5 m ²	24.30	39.60	48.80	62.90	103.50	111.10	14033
14034	Add to either of Items 14029 to 14031 inclusive for polycarbonate with surface hardened treatment sheet.....	151.00	178.40	190.30	233.00	286.00	311.70	14034
14035	Take out and clear away polycarbonate glazing sheet glazed to wood with putty or to metal with glazing compound.....	19.80	20.40	22.30	24.20	27.40	28.10	14035
14036	Ditto but with wood or metal beads.....	22.30	23.60	26.80	28.70	33.20	37.60	14036
14037	Take out and set aside for re-use polycarbonate glazing sheet glazed to wood with putty or to metal with glazing compound.....	24.20	25.50	30.60	31.30	38.90	42.10	14037
14038	Ditto but with wood or metal beads.....	31.30	35.10	38.90	39.60	49.80	51.70	14038
14039	Take down and clear away polycarbonate sheet fixed to wood or metal frames with screws.....	22.30	23.60	26.80	28.70	33.20	37.60	14039
14040	Take out and set aside for re-use polycarbonate sheet fixed to wood or metal frames with screws.....	24.20	25.50	30.60	30.60	38.90	42.10	14040
14041	Glazing only to wood with putty or to metal with glazing compound.....	63.40	64.40	69.20	71.20	75.10	76.10	14041
14042	Ditto but with wood or metal beads.....	44.90	45.80	50.70	51.70	61.40	63.40	14042
14043	Fix only polycarbonate sheet to wood or metal frames with self-tapping screws or hooks.....	31.30	31.90	37.00	37.60	44.00	47.20	14043
	<i>Per linear metre</i>							
14044	Straight cutting.....	3.90	4.50	4.80	5.20	6.70	7.20	14044
14045	Circular cutting.....	5.90	6.60	6.80	7.30	9.10	9.80	14045

Item							Item		
GENERAL GLAZING (CONT'D)									
Polycarbonate glazing sheet : - (Cont'd)									
		Polycarbonate glazing sheet							
		Thickness (mm)	2	3	5	6	10	12	
		A	B	C	D	E	F		
		\$	\$	\$	\$	\$	\$		
Each									
14046	Cutting hole with straight sides n.e. 0.20 m ² through pane of polycarbonate.....	12.70	14.60	16.60	17.60	22.40	24.40		14046
14047	Cutting circular or elliptical hole n.e. 0.20 m ² through pane of polycarbonate.....	20.50	22.40	24.40	25.40	32.20	34.10		14047
14048	Forming speak hole perforations of diameter n.e. 10 mm through polycarbonate sheet over an area of overall size n.e. 0.20 m ²	19.50	21.50	23.40	24.40	30.20	33.20		14048
Clear float heat strengthened glass 19 mm thick : -									
								A	
Per square metre								\$	
14049	Glass and glazing to wood with putty or to metal with glazing compound.....							810.00	14049
14050	Ditto but with wood or metal beads.....							834.30	14050
14051	Add to either of Items 14049 to 14050 inclusive if glass, when fixed, is in single pane exceeding 5 m ² and not exceeding 30 m ²							136.10	14051
14052	Add to either of Items 14049 to 14050 inclusive if glass, when fixed, is in single pane exceeding 30 m ²							130.40	14052
14053	Take out and clear away serviceable glass glazed to wood with putty or to metal with glazing compound.....							34.40	14053
14054	Ditto but with wood or metal beads.....							40.80	14054
14055	Take out and set aside for re-use serviceable glass glazed to wood with putty or to metal with glazing compound.....							52.90	14055
14056	Ditto but with wood or metal beads.....							62.50	14056
14057	Glazing only to wood with putty or to metal with glazing compound.....							57.50	14057
14058	Ditto but with wood or metal beads.....							75.10	14058
14059	Add to either of Items 14049 to 14058 inclusive if glazing to fixed sash in position behind guard bars.....							11.70	14059
Per linear metre									
14060	Straight cutting.....							6.80	14060
14061	Circular cutting.....							10.70	14061
Each									
14062	Cutting holes with straight sides n.e. 0.20 m ² through pane of glass.....							29.30	14062
14063	Cutting circular or elliptical holes n.e. 0.20 m ² through pane of glass.....							39.00	14063

Item					Item	
GENERAL GLAZING (CONT'D)						
Fully tempered glass :						
<i>Per square metre</i>						
		Thickness (mm)				
		6	10	12	19	
		A	B	C	D	
		\$	\$	\$	\$	
14064	Glass and glazing to wood with putty or to metal with glazing compound.....	318.30	413.90	455.00	818.30	14064
14065	Ditto but with wood or metal beads.....	353.40	447.10	491.40	842.90	14065
14066	Add to either of Items 14064 to 14065 inclusive if glass, when fixed, is in single pane exceeding 5 m ² and not exceeding 30 m ²	53.50	69.60	76.40	137.50	14066
14067	Add to either of Items 14064 to 14065 inclusive if glass, when fixed, is in single pane exceeding 30 m ²	51.30	66.70	73.30	131.80	14067
14068	Take out and clear away serviceable glass glazed to wood with putty or to metal with glazing compound.....	23.60	26.80	31.90	34.40	14068
14069	Ditto but with wood or metal beads.....	27.40	31.90	38.30	40.80	14069
14070	Take out and set aside for re-use serviceable glass glazed to wood with putty or to metal with glazing compound.....	29.30	37.60	41.50	52.90	14070
14071	Ditto but with wood or metal beads.....	38.30	47.80	53.60	62.50	14071
14072	Glazing only to wood with putty or to metal with glazing compound.....	28.30	34.10	38.00	57.50	14072
14073	Ditto but with wood or metal beads.....	44.90	52.70	59.50	75.10	14073
14074	Add to either of Items 14064 to 14073 inclusive if glazing to fixed sash in position behind guard bars.....	11.70	11.70	11.70	11.70	14074
<i>Per linear metre</i>						
14075	Straight cutting.....	3.90	4.90	5.90	7.80	14075
14076	Circular cutting.....	5.90	6.80	7.80	10.70	14076
<i>Each</i>						
14077	Cutting holes with straight sides n.e. 0.20 m ² through pane of glass.....	16.60	21.50	23.40	29.30	14077
14078	Cutting circular or elliptical holes n.e. 0.20 m ² through pane of glass.....	24.40	31.20	33.20	39.00	14078

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) :-																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="width: 15%;">Thickness (mm)</th> <th colspan="3">Clear float glass</th> <th>Rough cast glass</th> <th>Wired cast glass</th> <th>Wired polished plate glass</th> <th>Clear plate glass (polished plate or float)</th> </tr> <tr> <th>4</th> <th>5</th> <th>6</th> <th>6</th> <th>6</th> <th>6</th> <th>6</th> </tr> </thead> <tbody> <tr> <td></td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> <td>G</td> </tr> <tr> <td></td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>												Thickness (mm)	Clear float glass			Rough cast glass	Wired cast glass	Wired polished plate glass	Clear plate glass (polished plate or float)	4	5	6	6	6	6	6		A	B	C	D	E	F	G		\$	\$	\$	\$	\$	\$	\$																							
Thickness (mm)	Clear float glass			Rough cast glass	Wired cast glass	Wired polished plate glass	Clear plate glass (polished plate or float)																																																										
	4	5	6	6	6	6	6																																																										
	A	B	C	D	E	F	G																																																										
	\$	\$	\$	\$	\$	\$	\$																																																										
<i>Per linear metre</i>																																																																	
14079	Blade 75 mm wide.....	24.00	27.00	28.40	31.50	48.90	68.20	36.20	14079																																																								
14080	Ditto 100 mm wide.....	25.20	28.30	29.80	33.00	51.30	71.60	38.00	14080																																																								
14081	Ditto 150 mm wide.....	27.60	32.40	34.10	37.80	58.60	81.80	43.40	14081																																																								
14082	Take out and set aside for re-use blade 75 mm wide including risk and making good breakages.....	1.90	1.90	1.90	1.90	1.90	1.90	1.90	14082																																																								
14083	Ditto 100 mm wide.....	1.90	1.90	1.90	1.90	1.90	1.90	1.90	14083																																																								
14084	Ditto 150 mm wide.....	1.90	1.90	1.90	1.90	1.90	1.90	1.90	14084																																																								
<i>Each</i>																																																																	
14085	Fix only louvre blades of any length, width or thickness in slot or clip (measured separately).....							A	3.20	14085																																																							
14086	Take out and clear away broken or serviceable louvre blade of any length, width or thickness in slot or clip.....							\$	1.30	14086																																																							
POLYCARBONATE SHEET																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="9">Double layer "Cellular Type" clear UV protection polycarbonate sheet</th> </tr> <tr> <th>Thickness (mm) overall</th> <th>4</th> <th>4.5</th> <th>6</th> <th>8</th> <th>10</th> <th>16</th> <th>20</th> <th>30</th> </tr> </thead> <tbody> <tr> <td>Approx. weight g/m²</td> <td>800</td> <td>1000</td> <td>1300</td> <td>1500</td> <td>1700</td> <td>2700</td> <td>3100</td> <td>3500</td> </tr> <tr> <td>Light transmission %</td> <td>88</td> <td>88</td> <td>88</td> <td>88</td> <td>88</td> <td>82</td> <td>79</td> <td>82</td> </tr> <tr> <td>U-value W/m²K</td> <td>3.9</td> <td>3.9</td> <td>3.7</td> <td>3.4</td> <td>3.2</td> <td>2.9</td> <td>2.8</td> <td>2.6</td> </tr> <tr> <td>Falling dare Gardiner impact at 23°C Nm</td> <td>21.3</td> <td>21.3</td> <td>>27</td> <td>>27</td> <td>>27</td> <td>>27</td> <td>>27</td> <td>>27</td> </tr> </tbody> </table>												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
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																																																									
<i>Per square metre</i>																																																																	
14087	Polycarbonate sheet fixed to wood or metal frames (measured separately) with screws or metal beads.....	138.50	146.00	175.80	203.10	229.20	287.40	339.20	448.30	14087																																																							
14088	Take down and clear away polycarbonate sheet fixed to wood or metal frames with screws or metal beads.....	20.40	21.70	23.00	24.20	27.40	35.10	37.60	45.90	14088																																																							
14089	Take down and set aside for re-use polycarbonate sheet fixed to wood or metal frames with screws or metal beads.....	20.40	21.70	24.20	26.80	30.00	37.60	44.00	54.20	14089																																																							
14090	Fix only polycarbonate sheet fixed to wood or metal frames with screws or metal beads.....	40.20	42.10	45.90	49.10	55.50	61.20	72.70	83.60	14090																																																							

Item				Item
	POLYCARBONATE SHEET (CONT'D)	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	
	<i>Per square metre</i>	A	B	
		\$	\$	
14091	Polycarbonate sheet fixed to wood or metal frames (measured separately) with screws or metal beads.....	228.70	527.00	14091
14092	Take down and clear away polycarbonate sheet fixed to wood or metal frames with screws or metal beads.....	30.60	33.20	14092
14093	Take down and set aside for re-use polycarbonate sheet fixed to wood or metal frames with screws or metal beads.....	33.80	37.60	14093
14094	Fix only polycarbonate sheet fixed to wood or metal frames with screws or metal beads.....	54.20	61.90	14094
	Add to either of Items 14087 and 14091 inclusive for bronze and opal white polycarbonate plastic sheet.....		5%	
	Add to either of Items 14087 and 14091 inclusive for coloured polycarbonate plastic other than bronze or opal white.....		15%	
	LAMINATED GLASS	Clear Float Glass Colour Tinted		
	<i>Per square metre</i>	A	B	
		\$	\$	
14095	Supply and fix (6 mm float plate glass + 1.52 mm Pvb + 6 mm float plate glass) thick laminated glass and glazing to wood with putty or to metal with silicon mastic sealant or other glazing compound and drilling holes through the glass	636.90	675.50	14095
14096	Ditto but with wood or metal beads.....	803.70	770.10	14096

Item						Item	
LAMINATED GLASS (CONT'D)							
		Glass thickness (mm)	6 + 6	8 + 8	8 + 8	10 + 10	12 + 12
		Pvb thickness (mm)	0.76	0.76	1.52	1.52	1.52
		<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$
14097	Supply and fix laminated float glass with Pvb inlay and glazing to wood with putty or to metal with silicon mastic sealant or other glazing compound and drilling holes through the glass.....	402.80	495.50	598.00	720.10	836.80	14097
14098	Ditto but with wood or metal beads.....	508.30	625.30	754.60	908.80	1,056.10	14098
		Glass thickness (mm)	6 + 6	8 + 8	10 + 10	12 + 12	
		Pvb thickness (mm)	1.52	1.52	1.52	1.52	
		<i>Per square metre</i>	A \$	B \$	C \$	D \$	
14099	Supply and fix laminated clear tempered glass with Pvb inlay and heat soak test processes and glazing to wood with putty or to metal with silicon mastic sealant or other glazing compound and drilling holes through the glass.....	621.70	759.50	864.30	973.60		14099
14100	Ditto but with wood or metal beads.....	784.50	958.40	1,090.70	1,228.60		14100
Add to either of Items 14095 to 14100 inclusive for tinted glass in any colour.....						10%	
Add to either of Items 14095 to 14100 inclusive for sheeting bent to curve to radius n.e. 3.00 m.....						20%	
Add to either of Items 14095 to 14100 inclusive for sheeting bent to curve to radius 3.00 - 15.00 m.....						10%	
BULLET OR BLAST RESISTANT LAMINATED SAFETY GLASS							
Bullet or blast resistant laminated safety glass fixed 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		
		A \$	B \$	C \$	D \$		
14101	7.52 mm Thick bullet or blast resistant laminated safety glass.....	2,458.10	33.30	49.50	101.20		14101

Item						Item
	FIRE RATED GLASS					
	(Note : - The following Items 14102 to 14105 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)					
	Fire rated glass with fire insulation and integrity of the half-hour fire resistance period : -					
		Clear glass	Tinted glass	Sand- blasted glass	Temper- ed glass	
		A	B	C	D	
	<i>Per square metre</i>	\$	\$	\$	\$	
14102	Glass and glazing to wood with putty or to metal with glazing compound.....	1,015.20	1,948.10	1,637.80	2,412.00	14102
14103	Ditto but with wood or metal beads.....	1,129.90	2,168.20	1,822.80	2,684.60	14103
14104	Add to either of Items 14102 to 14103 inclusive if glass, when fixed, is in single pane exceeding 5 m ² and not exceeding 30 m ²	170.60	327.30	275.10	405.20	14104
14105	Add to either of Items 14102 to 14103 inclusive if glass, when fixed, is in single pane exceeding 30 m ²	163.50	313.60	263.70	388.30	14105
14106	Take out and clear away serviceable glass glazed to wood with putty or to metal with glazing compound.....	27.40	23.60	24.90	23.60	14106
14107	Ditto but with wood or metal beads.....	31.90	26.80	28.70	27.40	14107
14108	Take out and set aside for re-use serviceable glass glazed to wood or metal with glazing compound.....	32.50	30.00	31.30	29.30	14108
14109	Ditto but with wood or metal beads.....	42.10	38.90	40.80	38.30	14109
14110	Glazing only to wood with putty or to metal with glazing compound.....	76.50	76.50	76.50	76.50	14110
14111	Ditto but with wood or metal beads.....	86.10	86.10	86.10	86.10	14111
14112	Add to either of Items 14102 to 14111 inclusive if glazing to fixed sash in position behind guard bars.....	16.00	16.00	16.00	16.00	14112
	<i>Per linear metre</i>					
14113	Straight cutting.....	3.90	3.90	3.90	3.90	14113
14114	Circular cutting.....	5.90	5.90	5.90	5.90	14114
	<i>Each</i>					
14115	Cutting hole with straight sides n.e. 0.20 m ² through pane of glass.....	22.40	22.40	22.40	23.40	14115
14116	Cutting circular or elliptical hole n.e. 0.20 m ² through pane of glass.....	32.20	32.20	32.20	33.20	14116

Item		Clear glass	Tinted glass	Sand-blasted glass	Tempered glass	Item
FIRE RATED GLASS (CONT'D)						
(Note : - The following Items 14117 to 14120 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)						
Fire rated glass with fire insulation and integrity of the one hour fire resistance period : -						
		A	B	C	D	
		\$	\$	\$	\$	
Per square metre						
14117	Glass and glazing to wood with putty or to metal with glazing compound.....	1,151.00	2,184.00	1,821.80	2,683.00	14117
14118	Ditto but with wood or metal beads.....	1,281.10	2,430.70	2,027.60	2,986.20	14118
14119	Add to either of Items 14117 to 14118 inclusive if glass, when fixed, is in single pane exceeding 5 m ² and not exceeding 30 m ²	193.40	366.90	306.10	450.70	14119
14120	Add to either of Items 14117 to 14118 inclusive if glass, when fixed, is in single pane exceeding 30 m ²	185.30	351.60	293.30	432.00	14120
14121	Take out and clear away serviceable glass glazed to wood with putty or to metal with glazing compound.....	27.40	23.60	24.90	23.60	14121
14122	Ditto but with wood or metal beads.....	31.90	26.80	28.70	27.40	14122
14123	Take out and set aside for re-use serviceable glass glazed to wood or metal with glazing compound.....	32.50	30.00	31.30	29.30	14123
14124	Ditto but with wood or metal beads.....	42.10	38.90	40.80	38.30	14124
14125	Glazing only to wood with putty or to metal with glazing compound.....	86.10	86.10	86.10	86.10	14125
14126	Ditto but with wood or metal beads.....	95.70	95.70	95.70	95.70	14126
14127	Add to either of Items 14117 to 14126 inclusive if glazing to fixed sash in position behind guard bars.....	19.10	19.10	19.10	19.10	14127
Per linear metre						
14128	Straight cutting.....	3.90	3.90	3.90	3.90	14128
14129	Circular cutting.....	5.90	5.90	5.90	5.90	14129
Each						
14130	Cutting hole with straight sides n.e. 0.20 m ² through pane of glass.....	25.40	25.40	25.40	26.40	14130
14131	Cutting circular or elliptical hole n.e. 0.20 m ² through pane of glass.....	35.10	35.10	35.10	36.10	14131

Item		A \$	Item
SUNDRIES			
<i>Per square metre</i>			
14132	Grind surface of sheet glass (any size).....	93.20	14132
14133	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).....	38.60	14133
<i>Per linear metre</i>			
14134	Grind and round edge of glass (any type and thickness).....	16.80	14134
14135	Bed edge of glass (any type and thickness) in and including strip of wash leather or approved felt or plastic.....	10.80	14135
<i>Each</i>			
14136	Grind recess of any size in pane of glass (as for sliding doors to hatches).....	18.50	14136
<i>Per linear metre</i>			
14137	Point and seal joint between glass and beads, window frames and the like with 3 x 3 mm silicon mastic sealant.....	2.80	14137
14138	Ditto but with 3 x 6 mm silicon mastic sealant.....	3.70	14138
14139	Cut out existing sealant.....	4.50	14139
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>			
14140	Glass block panel.....	985.20	14140
14141	Take down and clear away glass block panel.....	29.60	14141
14142	Take down and set aside for re-use glass block panel.....	78.80	14142
14143	Lay only glass block panel.....	128.10	14143
<i>Each</i>			
14144	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).....	60.90	14144

Item		Fire rated period			Item	
		½ Hour	1 Hour	1½ Hour		
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>						
14145	Fire resisting glass block panels.....	4,436.40	6,144.50	8,982.90	14145	
14146	Take down and clear away fire resisting glass block panels including corner glass blocks.....	26.80	26.80	26.80	14146	
14147	Take down and set aside for re-use fire resisting glass block panels including corner glass blocks.....	72.70	72.70	72.70	14147	
14148	Lay only fire resisting glass block panels including corner glass blocks.....	195.00	324.70	324.70	14148	
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 to wall :-						
<i>Per square metre</i>						
14149	6 mm Silvering quality polished plate glass mirror.....	202.50	6.80	14.60	40.80	14149
<i>Each</i>						
14150	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.....				908.60	14150
14151	6 mm Thick single side reflective mirror, size 2400 x 1500 mm fixed to wood or metal frames (measured separately) with screws or metal beads.....				454.30	14151

Item

Item

WINDOW AND DOOR FILMS

Supply and fix

A S

Per square metre

14152 Approved clear polyester window film which removes destructive ultraviolet rays from sunlight complying with the following :

	Not Less than
Total solar energy rejected	57%
Visible light transmitted	35%
Shading coefficient	0.49
Interior reflection	12%
Exterior reflection	18%
Glare reduction	60%
UN blocked	99%

382.00

14152

14153 Approved tough, durable, tear- and penetration-resistant film which bonds to the windows for protection complying with the following :

Shading coefficient	0.91
Visible light reflected	11%
Visible light transmitted	86%
Emissivity	0.87
“U” Value	1.09
Heat gain reduction	3%
Heat loss reduction	0%
Glare reduction	2%
UV blocked	98%
Safety and Security	Pass the 400ft.lb. (538 Joule) impact level: tested according to the Safety Glazing Standard ANSI Z97.1 and CPSC 16CFR

458.40

14153

14154 Ditto complying with the following :

Shading coefficient	0.92
Visible light reflected	11%
Visible light transmitted	87%
Emissivity	0.87
“U” Value	1.09
Heat gain reduction	2%
Heat loss reduction	0%
Glare reduction	1%
UV blocked	98%
Safety and Security	Pass the 150ft.lb. (202 Joule) impact level : tested according to the Safety Glazing Standard ANSI Z97.1 and CPSC 16CFR

397.30

14154

Item

Item

WINDOW AND DOOR FILMS (CONT'D)

Supply
and
fix
A
S

Per square metre

14155 Approved transparent, infra-red reflective polyester film which can be bonded to glass surfaces complying with the following :

Total solar transmission	17%
Total solar absorption	35%
Visible light transmission	21%
Visible light reflectance	53%
Shading coefficient	0.30
Emissivity	0.68
Total solar energy rejection	74%
Glare reduction	76%
Total solar energy rejection	74%
Ultra violet rejection	99%

244.50 14155

14156 Ditto complying with the following :

Total solar transmission	22.7%
Total solar absorption	59.25%
Visible light transmission	16%
Visible light reflectance	13%
Shading coefficient	0.43
Emissivity	0.71
Total solar energy rejection	63%
Glare reduction	82%
Total solar energy rejection	63%
Ultra violet rejection	99%

244.50 14156

14157 Ditto complying with the following :

Total solar transmission	28%
Total solar absorption	54%
Visible light transmission	33%
Visible light reflectance	21%
Shading coefficient	0.50
Emissivity	0.87
Total solar energy rejection	57%
Glare reduction	63%
Total solar energy rejection	57%
Ultra violet rejection	99%

244.50 14157

14158 Ditto complying with the following :

Total solar transmission	82%
Total solar absorption	16%
Visible light transmission	87%
Visible light reflectance	11%
Shading coefficient	0.95
Emissivity	0.89
Total solar energy rejection	15%
Ultra violet rejection	99%

Safety Standard	ANSIZ97-1 Unlimited (Section 5.1) applied to nominal 1/4 inch annealed glass
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244.50 14158

Item

Item

WINDOW AND DOOR FILMS (CONT'D)

Supply
and
fix

A
S

Per square metre

14159 Approved transparent, infra-red reflective polyester film which can be bonded to glass surfaces complying with the following :

Total solar absorption	18%
Visible light transmission	85%
Visible light reflectance	13%
Shading coefficient	0.96
Emissivity	0.88
Total solar energy rejection	17%
Ultra violet rejection	99%
Safety Standard	ANSIZ97-1 Unlimited (Section 5.1) applied to nominal 5/32 inch, 1/8 inch and 1/4 inch annealed glass

364.40

14159

Per square metre

14160 Take down and clear away window and door films and safety and security films.....

A
S

54.20

14160

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 whether the paint is a low VOC paint or not.	
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.	
Measurement generally	SC15.04	<p>All works shall be measured the net area as painted. No deduction shall be made for voids not exceeding 0.50m².</p> <p>Surfaces to be painted exceeding 300 mm wide or girth or pipework exceeding 300 mm nominal diameter shall be measured as general surfaces. Surfaces to be painted not exceeding 300 mm wide or girth or pipework not exceeding 300 mm nominal diameter shall be measured as surfaces to the girth/nominal diameter as stated.</p> <p>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.</p> <p>Allowance shall be made for the measurements of walls and soffits for additional area of moulded or carved work and the like.</p>	
Measurement of certain specific items	SC15.05	<p>Certain specific items shall be measured as follows : -</p> <p>Chinese roof tiling, corrugated or profiled sheeting.</p> <p>Metal work - glazed windows and door the like.</p>	<p>Measured flat overall. Girth on rolls, corrugations or profiles and the like shall be held to be included in the items.</p> <p>Measured flat overall on both sides.</p> <p>Opening edges and all surfaces of frames, mullions, transoms, cills and the like shall be held to be included in the items.</p>

SPECIAL CONDITIONS

Measurement
of certain
specific items
(Cont'd)SC15.05
(Cont'd)

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 should 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.

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.

SPECIAL CONDITIONS

Measurement of certain specific items (Cont'd)	SC15.05 (Cont'd)	<p>Railings and balustrades with balusters less than 200 mm centres</p> <p>All other railings and balustrades</p>	<p>Measured flat overall on both sides.</p> <p>All surfaces of frames, posts, braces, rails and the like shall be held to be included in the items.</p> <p>Measured in accordance with aforesaid Special Conditions Clause SC15.04.</p>
Measurement of stripping of existing decorative material	SC15.06	<p>Throughout this Section, rates for all types of painting shall include all kinds of preparatory work. No payment will 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 will 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	SC15.07	<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	SC15.08	<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	SC15.09	<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) Execution of work either internally or externally and in any position at any height.</p> <p>(c) Working to flat, curved or sloping surfaces.</p> <p>(d) All preparation work to surfaces as G.S. Items 21.45 and 21.48.</p> <p>(e) Mixing and applying as G.S. Item 21.53.</p> <p>(f) Multi-coloured work and cutting to line.</p>	

SPECIAL CONDITIONS

Rates for painting generally (Cont'd)

SC15.09 (Cont'd)

- (g) Painting on associated beads, hinges and other fittings, brackets, bolts, nuts, lugs and the like (unless isolated from other paintwork which will be measured separately).
- (h) Painting all surfaces with an approved primer.
- (i) All identification of pipelines as G.S. Item 21.78.
- (j) Keeping adjacent surfaces clean and painting surfaces disturbed as G.S. Item 21.44.
- (k) Removing all articles of ironmongery, hardware and the like before painting and replacing after painting has been completed.
- (l) Rubbing down smooth with sand paper on hardened coatings before the subsequent coating is applied.
- (m) Painting sample panels.
- (n) Touching up coated surfaces on completion.
- (o) Protecting and cleaning as G.S. Item 21.43.
- (p) Removing painted sample panels.
- (q) Submission of technical literature, test certificates and manufacturer's guarantee or warranty.
- (r) On-site checking, quality tests and surveillance tests.
- (s) All necessary tests as specified in the Specification.

Rates for paintwork on new surfaces

SC15.10

The rates for paintwork on new surfaces shall further include for :-

- (a) All preparation work to new surfaces as G.S. Item 21.46.

Rates for paintwork on existing surfaces

SC15.11

The rates for paintwork on existing surfaces shall further include for :-

- (a) All preparation work to existing surfaces as G.S. Items 21.48 and 21.49.

Rates for painting metal windows and doors

SC15.12

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

- (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.

SPECIAL CONDITIONS

Rates for painting wire mesh, expanded metal mesh, chain link and the like in gates, fencing, etc.	SC15.13	<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> <p>(a) Painting edge framing, posts, braces, rails and the like.</p>
Rates for painting wood	SC15.14	<p>The rates for painting general surfaces of wood including wood panels and flush doors, wood sashes, wood partitions, etc. shall further includes for : -</p> <p>(a) Painting opening edges, mouldings, glazing beads and the like.</p>
Rates for painting jalousies, louvre panels, etc.	SC15.15	<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	SC15.16	<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	SC15.17	<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>

SPECIAL CONDITIONS

Rates for proprietary floor coating system	SC15.18	<p>The rates for proprietary floor coating system shall further include for : -</p> <p>(a) All preparation work to existing surfaces as recommended by the manufacturer.</p> <p>(b) Repairing minor cracks and voids to the substrate with approved proprietary materials.</p> <p>(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.</p>
Rates for proprietary paintwork system and line marking to sport hall flooring	SC15.19	<p>The rates for proprietary paintwork system and line marking to existing or new sport hall flooring system shall further include for : -</p> <p>(a) All preparation work to existing surfaces or new surfaces as recommended by the manufacturer where required.</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, the warranty period of which shall not be less than 2 years.</p> <p>(c) Applying and obtaining accreditation / certification from recognized international sports organizations when required.</p>
Rates for stripping of existing decoration	SC15.20	<p>The rates for stripping of existing decoration shall further include for : -</p> <p>(a) Preparing surfaces as G.S. Item 21.48 after stripping the existing decoration.</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, if required.</p> <p>(e) Submission of samples and test certificate as G.S. Item 21.75.</p>
Rates for writing, line marking, etc.	SC15.22	<p>The rates for painting lines, letters, characters, numbers, logos, symbols and the like shall further include for : -</p> <p>(a) Marking out to the required size and styles.</p> <p>(b) Setting out and paint all line marking to the required standards.</p>

SPECIAL CONDITIONS

**Rates for
paper
hanging**

SC15.23

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) Fixing in required pattern.
- (h) Fixing and fitting 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
proprietary
paintwork
system**

SC15.24

The rates for proprietary paintwork 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 4 years.

**Rates for
re-enamel
on bath tub**

SC15.25

The rates for re-enamel on 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) The provision of a one-year warranty.

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.....		16.30	12.10	17.80	17.10	12.80	19.10			15001
15002	Profiled compressed particle sheeting.....		21.80	16.90	24.30	22.50	17.40	25.50			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.....		38.80	42.90	18.50	30.00	40.40	44.70	20.30	32.90	15003
15004	Extra over Item 15003 for moulded enriched surface picked out in one or more different colours from general surface.....		16.10	17.00	7.60	12.90	19.20	19.80	7.70	13.40	15004
15005	Grille block wall of any thickness including painting into recesses.....		58.20	60.50	29.70	50.40	61.60	66.90	30.30	52.80	15005
15006	Soft or hard fibre board, insulating board, acoustic tiles and similar surfaces.....		36.80	44.70	19.00	31.20	39.60	45.50	20.90	33.20	15006
15007	Profiled compressed particle sheeting.....		53.20	60.30	25.50	38.90	56.40	61.00	28.80	40.50	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.....	44.60	47.90	20.60	35.60	48.60	50.00	22.00	39.40	15008
15009	Extra over Item 15008 for moulded enriched surface picked out in one or more different colours from general surface	13.50	16.40	5.80	9.70	15.20	18.00	6.90	12.00	15009
15010	Grille block wall of any thickness including painting into recesses.....	63.80	69.40	33.20	57.30	67.30	71.80	35.80	59.70	15010
15011	Soft or hard fibre board, insulating board, acoustic tiles and similar surfaces	42.40	46.50	24.00	37.10	43.60	48.10	24.30	38.80	15011
15012	Profiled compressed particle sheeting.....	55.60	59.10	27.80	49.80	58.70	62.80	29.50	51.80	15012
TEXTURED EMULSION PAINT										
Prepare and apply textured emulsion paint on 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.....	37.10	38.90	19.00	31.30	40.10	42.90	20.40	33.80	15013
15014	Grille block wall of any thickness including painting into recesses.....	57.30	62.60	27.20	46.60	60.30	64.70	28.60	47.20	15014
15015	Profiled compressed particle sheeting.....	46.40	49.20	23.70	38.60	49.80	51.70	25.90	41.10	15015

Item			Item																														
	<p>CEMENT PAINT</p> <p>Prepare and apply cement paint on the following surfaces :-</p> <p><i>Per square metre</i></p>	<table border="1"> <thead> <tr> <th colspan="3">Internal</th> <th colspan="3">External</th> </tr> <tr> <th>New surfaces</th> <th colspan="2">Redecoration</th> <th>New surfaces</th> <th colspan="2">Redecoration</th> </tr> <tr> <th>Two coats</th> <th>One coat</th> <th>Two coats</th> <th>Two coats</th> <th>One coat</th> <th>Two coats</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>	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	\$	\$	\$	\$	\$	\$	
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Two coats	One coat	Two coats	Two coats	One coat	Two coats																												
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\$	\$	\$	\$	\$	\$																												
15016	Walls and soffits.....	29.70	19.60	33.90	31.60	20.90	35.90	15016																									
15017	Grille block wall of any thickness including painting into recesses.....	51.10	31.60	57.20	52.60	32.70	58.30	15017																									
15018	Chinese roof tiling.....	53.20	30.40	58.60	55.60	33.20	59.40	15018																									
	<p>EXTERNAL TEXTURED PAINT</p> <p>Prepare and apply external textured paint to the following surfaces :-</p> <p><i>Per square metre</i></p>		<table border="1"> <thead> <tr> <th colspan="3">External</th> </tr> <tr> <th>New surfaces</th> <th colspan="2">Redecoration</th> </tr> <tr> <th>Two coats</th> <th>One coat</th> <th>Two coats</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> <tr> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> </table>	External			New surfaces	Redecoration		Two coats	One coat	Two coats	A	B	C	\$	\$	\$															
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15019	Walls and soffits.....	42.30	27.70	47.70	15019																												
15020	Grille block wall of any thickness including painting into recesses.....	72.70	46.90	79.10	15020																												
15021	Chinese roof tiling.....	77.10	47.00	81.80	15021																												
15022	Profiled compressed particle sheeting.....	63.50	39.70	68.10	15022																												
	<p>MULTI-COLOUR PAINT</p> <p>Prepare and apply multi-colour paint to the following surfaces by spraying :-</p> <p><i>Per square metre</i></p>		<table border="1"> <thead> <tr> <th colspan="2">Internal</th> <th colspan="2">External</th> </tr> <tr> <th>New surfaces</th> <th>Redeco-ration</th> <th>New surfaces</th> <th>Redeco-ration</th> </tr> <tr> <td>One coat primer, one binder coat and one finishing coat</td> <td>One binder coat and one finishing coat</td> <td>One coat primer, one binder coat and one finishing coat</td> <td>One binder coat and one finishing coat</td> </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>	Internal		External		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	A	B	C	D	\$	\$	\$	\$										
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A	B	C	D																														
\$	\$	\$	\$																														
15023	Walls and soffits.....	76.70	65.80	79.30	67.40	15023																											
	<p><i>Per linear metre</i></p>																																
15024	Surfaces n.e. 150 mm girth.....	12.00	10.30	15.00	13.00	15024																											
15025	Ditto but 150 - 300 mm girth.....	21.60	18.90	24.70	21.80	15025																											

Item									Item																																								
SYNTHETIC PAINT																																																	
Prepare and apply synthetic paint to the following surfaces :-																																																	
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\$	\$	\$	\$	\$	\$	\$	\$																																										
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15026	Walls and soffits.....	46.50	44.50	25.60	35.60	51.90	48.10	28.60	38.90	15026																																							
15027	Soft or hard fibre board, insulating board, acoustic tiles and similar surfaces.....	49.20	46.80	26.10	36.00	51.60	49.30	28.40	39.30	15027																																							
15028	Profiled compressed particle sheeting.....	62.80	61.60	31.60	49.90	65.60	63.40	33.40	51.40	15028																																							
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15029	Surfaces n.e. 150 mm girth.....	4.20	4.10	2.20	3.50	6.70	6.40	3.30	5.10	15029																																							
15030	Ditto but 150 - 300 mm girth.....	12.70	12.50	7.80	10.80	14.60	14.30	9.30	12.20	15030																																							
POLYURETHANE PAINT																																																	
Prepare and apply polyurethane paint to the following surfaces :																																																	
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\$	\$	\$	\$	\$	\$																																												
<i>Per square metre</i>																																																	
15031	Walls and soffits.....	64.70	32.90	53.80	68.50	33.90	55.60			15031																																							
15032	Grille block wall of any thickness including painting into recesses.....	95.50	47.20	79.00	98.70	51.80	81.10			15032																																							
15033	Profiled compressed particle sheeting.....	79.20	43.00	72.10	83.30	45.90	75.00			15033																																							
15034	Concrete paving, kerb stones and the like.....	58.10	32.10	47.80	60.20	33.60	50.70			15034																																							

Item							Item	
	COLD CURE EPOXY PAINT	Internal		External				
	Prepare and apply cold cure epoxy paint (coloured) to the following surfaces :	New surfaces	Redecoration		New surfaces	Redecoration		
		One undercoat and one finishing coat	One finishing coat	One undercoat and one finishing coat	One undercoat and one finishing coat	One finishing coat	One undercoat and one finishing coat	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	E \$	F \$	
15035	Walls and soffits.....	54.90	38.60	60.00	56.30	39.90	62.80	15035
15036	Grille block wall of any thickness including painting into recesses.....	82.30	49.20	84.10	87.00	53.80	89.10	15036
15037	Profiled compressed particle sheeting.....	65.50	43.80	79.70	69.60	45.10	83.30	15037
	<i>Per linear metre</i>							
15038	Surfaces n.e. 150 mm girth.....	4.20	3.30	5.00	4.30	3.50	5.40	15038
15039	Ditto but 150 - 300 mm girth.....	13.90	8.30	14.80	15.60	8.50	16.10	15039
	GRANITE COATING	Internal		External				
	Prepare and apply 2 mm thick spray granite coating system to the following surfaces :	New surfaces	Redecoration	New surfaces	Redecoration			
	<i>Per square metre</i>	A \$	B \$	C \$	D \$			
15040	Walls and soffits.....	216.10	231.60	228.90	227.40		15040	
15041	Grille block wall of any thickness including painting into recesses.....	268.80	304.80	287.00	313.30		15041	
15042	Masonry walls.....	268.80	304.80	287.00	313.30		15042	
	WATER-BASED PAINT ON SLOPEWORK	New Surfaces	Redecoration					
	Prepare and spray water-based paint (any colour) to :	One undercoat and one finishing coat	One finishing coat	One undercoat and one finishing coat				
	<i>Per square metre</i>	A \$	B \$	C \$				
15043	Sprayed concrete surfaces on slopes.....	85.00	62.60	98.30			15043	

Item					Item	
	SYNTHETIC PAINT ON METAL WORK					
	Prepare and apply synthetic paint to 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	
		A	B	C	D	
		\$	\$	\$	\$	
	<i>Per square metre</i>					
15044	General surfaces.....	16.00	54.70	24.90	38.30	15044
15045	Glazed windows, doors and the like.....	16.30	73.70	34.50	53.10	15045
15046	Wire mesh, expanded metal mesh, chain link, railings, balustrades and the like.....	15.70	56.60	27.90	43.50	15046
15047	Surfaces of corrugated or profiled sheeting	20.20	62.90	28.10	41.60	15047
15048	Surfaces of collapsible gate.....	23.50	103.60	43.10	68.30	15048
15049	Jalousies, louvre panels and the like with fixed or moveable louvres.....	21.70	85.70	35.80	58.50	15049
	<i>Per linear metre</i>					
15050	Surfaces n.e. 150 mm girth.....	2.80	8.30	4.50	6.40	15050
15051	Ditto but 150 - 300 mm girth.....	5.20	16.30	7.80	12.00	15051
15052	Pipe n.e. 55 mm nominal diameter.....	3.70	9.90	4.50	7.40	15052
15053	Ditto but 55 - 110 mm nominal diameter.....	6.50	28.90	12.00	18.90	15053
15054	Ditto but 110 - 300 mm nominal diameter.....	12.80	48.70	20.00	32.10	15054
15055	Eaves gutter of any type, inside and outside n.e. 600 mm total girth, including cleaning out and making good joints in red lead	43.50	73.40	51.40	58.90	15055
	<i>Each</i>					
15056	Small isolated article n.e. 0.01 m ²	2.80	3.60	2.90	3.20	15056
15057	W.C. cistern including brackets.....	10.00	34.10	12.00	19.70	15057
15058	Rainwater or waste head of any size, inside and outside, including cleaning out.....	40.20	65.60	44.20	52.50	15058

Item							Item
	METALLIC PAINT ON METAL WORK	New Surfaces		Redecoration			
	Prepare and apply metallic paint (bright or bronze finish) on the following 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	Two under-coats and one finishing coat	
	<i>Per square metre</i>	A	B	C	D	E	
		\$	\$	\$	\$	\$	
15059	General surfaces.....	16.00	70.20	31.70	44.80	64.90	15059
15060	Glazed windows, doors and the like.....	18.30	83.20	36.50	58.30	79.70	15060
15061	Wire mesh, expanded metal mesh, chain link, railings, balustrades and the like.....	17.30	65.80	30.90	46.60	60.70	15061
15062	Surfaces of corrugated or profiled sheeting.....	21.90	78.40	38.50	52.30	69.20	15062
15063	Surfaces of collapsible gate.....	23.10	115.50	45.90	73.90	104.50	15063
15064	Jalousies, louvre panels and the like with fixed or moveable louvres.....	22.10	94.10	41.70	63.50	87.20	15064
	<i>Per linear metre</i>						
15065	Surfaces n.e. 150 mm girth.....	2.40	8.90	3.90	6.70	8.50	15065
15066	Ditto but 150 - 300 mm girth.....	5.20	17.40	8.00	12.90	15.70	15066
15067	Pipe n.e. 55 mm nominal diameter.....	3.20	11.00	4.60	7.80	10.70	15067
15068	Ditto but 55 - 110 mm nominal diameter.....	6.60	32.20	12.60	20.00	29.60	15068
15069	Ditto but 110 - 300 mm nominal diameter.....	13.00	57.20	23.80	38.90	50.30	15069
15070	Eaves gutter of any type, inside and outside n.e. 600 mm total girth, including cleaning out and making good joints in red lead	40.50	76.90	51.70	67.80	74.50	15070
	<i>Each</i>						
15071	Small isolated article n.e. 0.01 m ²	2.20	3.80	2.30	3.50	3.60	15071
15072	W.C. cistern including brackets.....	8.10	36.20	14.00	22.60	27.50	15072
15073	Rainwater or waste head of any size, inside and outside, including cleaning out.....	40.00	70.40	45.90	51.70	65.30	15073

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	
		\$	\$	\$	\$	\$	
15074	General surfaces.....	21.20	75.30	33.00	51.20	69.40	15074
<i>Per square metre</i>							
<i>Per linear metre</i>							
15075	Surfaces n.e. 150 mm girth.....	2.90	8.50	3.90	6.20	8.30	15075
15076	Ditto but 150 - 300 mm girth.....	5.80	21.10	8.40	13.00	17.40	15076
15077	Pipe n.e. 55 mm nominal diameter.....	4.20	12.30	5.20	8.60	12.00	15077
15078	Ditto but 55 - 110 mm nominal diameter.....	8.60	36.00	14.30	23.40	31.60	15078
15079	Ditto but 110 - 300 mm nominal diameter.....	16.10	63.50	28.00	40.20	54.70	15079
<i>Each</i>							
15080	Small isolated article n.e. 0.01 m ²	1.60	4.40	1.70	2.90	4.00	15080
CHEMICAL RESISTING PAINT ON METAL WORK							
Prepare and apply chemical resisting paint on the following metal work : -							
<i>Per square metre</i>							
15081	General surfaces.....	23.20	77.70	33.00	51.20	69.40	15081
<i>Per linear metre</i>							
15082	Surfaces n.e. 150 mm girth.....	2.90	8.70	3.90	6.20	8.30	15082
15083	Ditto but 150 - 300 mm girth.....	6.00	21.90	8.40	13.00	17.40	15083

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>				
15084	General surfaces.....	15.70	28.60	25.20	15084
	<i>Per linear metre</i>				
15085	Surfaces n.e. 150 mm girth.....	2.40	5.60	4.40	15085
15086	Ditto but 150 - 300 mm girth.....	4.50	9.50	7.50	15086
15087	Pipe n.e. 55 mm nominal diameter.....	3.90	8.70	6.80	15087
15088	Ditto but 55 - 110 mm nominal diameter.....	8.50	18.20	11.90	15088
15089	Ditto but 110 - 300 mm nominal diameter.....	14.10	31.40	22.60	15089
	<i>Each</i>				
15090	Small isolated article n.e. 0.01 m ²	1.00	2.30	1.70	15090
	NON-TOXIC PAINT ON METAL WORK				
	Prepare and apply non-toxic paint on the following metal work :-				
	<i>Per square metre</i>				
15091	General surfaces.....	15.40	58.70	54.70	15091
15092	Surfaces of corrugated or profiled sheeting.....	20.20	74.30	67.00	15092
	<i>Per linear metre</i>				
15093	Surfaces n.e. 150 mm girth.....	2.40	9.00	6.70	15093
15094	Ditto but 150 - 300 mm girth.....	5.40	15.90	12.90	15094
15095	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	42.60	73.20	61.80	15095

Item						Item
	POLYURETHANE PAINT ON METAL WORK	New surfaces		Redecoration		
	Prepare and apply polyurethane 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	
		\$	\$	\$	\$	
15096	General surfaces.....	16.20	55.50	31.30	47.00	15096
15097	Glazed windows, doors and the like.....	17.30	67.10	46.20	59.10	15097
15098	Wire mesh, expanded metal mesh, chain link, railings, balustrades and the like.....	17.30	55.80	31.60	49.50	15098
	<i>Per linear metre</i>					
15099	Surfaces n.e. 150 mm girth.....	2.70	7.10	4.50	6.00	15099
15100	Ditto but 150 - 300 mm girth.....	5.70	15.90	8.60	12.90	15100
15101	Pipe n.e. 55 mm nominal diameter.....	3.90	10.50	7.00	10.40	15101
15102	Ditto but 55 - 110 mm nominal diameter.....	7.50	33.90	13.50	24.90	15102
15103	Ditto but 110 - 300 mm nominal diameter.....	13.00	47.30	32.30	40.40	15103
	<i>Each</i>					
15104	Small isolated article n.e. 0.01 m ²	1.20	3.80	1.90	3.20	15104

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 subse- quent 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 \$				
15105	General surfaces.....	16.40	51.80	28.20	45.70	15105			
15106	Glazed windows, doors and the like.....	17.50	59.70	33.00	52.70	15106			
15107	Wire mesh, expanded metal mesh, chain link, railing, balustrades and the like.....	16.90	55.90	30.50	48.00	15107			
	<i>Per linear metre</i>								
15108	Surfaces n.e. 150 mm girth.....	2.80	7.70	3.90	5.80	15108			
15109	Ditto but 150 - 300 mm girth.....	6.50	14.90	7.90	12.30	15109			
15110	Pipe n.e. 55 mm nominal diameter.....	3.90	10.50	6.80	7.90	15110			
15111	Ditto but 55 - 110 mm nominal diameter.....	7.70	25.40	16.70	21.30	15111			
15112	Ditto but 110 - 300 mm nominal diameter.....	12.50	40.90	20.70	35.10	15112			
	<i>Each</i>								
15113	Small isolated article n.e. 0.01 m ²	1.00	3.70	1.90	3.20	15113			
	SURFACE PROTECTION TO STRUCTURAL STEEL								
	Prepare and apply surface protection on the following surfaces as G.S. Items 15.61 & 15.62 :-								
	<i>Per square metre</i>								
		Type A	Type B	Type C	Type D	Type E	Type F	Type G	
		A \$	B \$	C \$	D \$	E \$	F \$	G \$	
15114	Structural steel (new surfaces).....	60.30	70.70	160.80	141.20	203.70	51.00	50.70	15114
15115	Structural steel (redecoration).....	63.80	74.50	158.70	139.70	167.90	48.90	50.40	15115
(Note :- The above Items 15114 to 15115 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)									

Item			Item	
	POWDER COATING ON METAL WORK			
	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 \$		
15116	Powder coating on metal surfaces.....	99.80	15116	
	<i>Per linear metre</i>			
15117	Surfaces n.e. 150 mm girth.....	14.70	15117	
15118	Ditto but 150 - 300 mm girth.....	27.70	15118	
	<i>Each</i>			
15119	Small isolated article n.e. 0.01m ²	1.80	15119	
	(Note :- The above Items 15116 to 15119 inclusive will only be paid for, if ordered by Maintenance Surveyor in writing.)			
	FLUOROCARBON PVF2 COATING ON METAL WORK			
	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 manufacturer's instructions :			
	<i>Per square metre</i>	A \$		
15120	2 Coats system (dry film thickness 30 ~ 37 microns) comprising primer coat and top coat on metal surface.....	109.20	15120	
15121	3 Coats system (dry film thickness 40 ~ 52 microns) comprising primer coat, top coat and clear coat on metal surface.....	142.10	15121	
15122	4 Coats system (dry film thickness 60 ~ 72 microns) comprising primer coat, barrier coat, top coat and clear coat on metal surface.....	199.00	15122	
	(Note :- The above Items 15120 to 15122 inclusive will only be paid for, if ordered by Maintenance Surveyor in writing.)			
	FIRE RETARDANT PAINT			
	Prepare and apply fire retardant paint as G.S. Item 21.14 :	New surfaces	Redeco- ration	
	<i>Per square metre</i>	A \$	B \$	
15123	Fabric surfaces.....	18.20	20.80	15123
15124	Wood surfaces.....	19.20	21.50	15124
15125	Metal surfaces.....	18.40	21.00	15125

Item				Item		
	INTUMESCENT PAINT					
	Prepare and apply fire rated intumescent paint on structural steel surfaces :-	Fire rated period				
		1 hour	2 hours			
	<i>Per square metre</i>	A \$	B \$			
15126	Structural steel general surfaces.....	276.50	436.80	15126		
	<i>Per linear metre</i>					
15127	Structural steel surfaces not exceeding 150 mm girth.....	56.60	61.30	15127		
15128	Ditto but 150 - 300 mm girth.....	72.40	103.00	15128		
	<i>Each</i>					
15129	Structural steel small isolated article n.e. 0.01 m ²	9.10	15.50	15129		
	(Note:- The above Items 15126 to 15129 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)					
	BLACK BITUMASTIC PAINT					
	Prepare and apply black bitumastic paint on the following surfaces :-	New surfaces				
		One coat	Two coats			
	<i>Per square metre</i>	A \$	B \$			
		C \$	D \$			
15130	Concrete, brick, stone, plastered or rendered, or similarly finished walls and soffits.....	18.40	29.50	23.10	35.80	15130
15131	General metal surfaces.....	19.00	31.10	24.70	36.80	15131
15132	General surface of concrete and fixing fillets under floor boarding.....	21.40	36.40	25.30	39.00	15132
15133	Glazed metal windows, doors and the like.....	27.20	44.10	30.90	48.80	15133
15134	Wire mesh, expanded metal mesh, chain link, railings, balustrades and the like.....	20.10	32.00	24.70	38.30	15134
15135	Surfaces of corrugated or profiled metal sheeting.....	20.50	32.90	26.30	39.30	15135
15136	Metal manhole covers, channel covers, tree grilles and the like.....	18.60	31.20	24.60	38.30	15136

Item						Item
	BLACK BITUMASTIC PAINT (CONT'D)					
	Prepare and apply black bitumastic paint on the following surfaces : (Cont'd)					
	<i>Per linear metre</i>					
		New surfaces		Redecoration		
		One coat	Two coats	One coat	Two coats	
		A	B	C	D	
		\$	\$	\$	\$	
15137	Surfaces of metal n.e. 150 mm girth.....	1.70	2.60	2.40	3.00	15137
15138	Ditto but 150 - 300 mm girth.....	4.10	7.70	5.10	9.00	15138
15139	Pipe n.e. 55 mm nominal diameter.....	3.40	5.30	3.90	6.00	15139
15140	Ditto but 55 - 110 mm nominal diameter.....	8.00	13.70	9.70	14.30	15140
15141	Ditto but 110 - 300 mm nominal diameter.....	14.70	25.80	15.10	27.00	15141
15142	Eaves gutter of any type, inside and outside n.e. 600 mm total girth, including cleaning out and making good joints in red lead	37.90	46.50	44.40	53.50	15142
	<i>Each</i>					
15143	Small isolated article n.e. 0.01 m ²	5.10	9.30	6.00	9.80	15143
15144	W.C. cistern including brackets.....	8.20	14.30	9.50	15.40	15144
15145	Rainwater or waste head of any size, inside and outside, including cleaning out.....	37.80	46.40	41.90	49.70	15145
	WOOD PRESERVATIVE ON WOOD WORK					
	Prepare and apply wood preservative on the following wood work : -					
	<i>Per square metre</i>					
		New surfaces		Redecoration		
		One coat	Two coats	One coat	Two coats	
		A	B	C	D	
		\$	\$	\$	\$	
15146	General surfaces.....	8.10	14.90	10.70	15.80	15146
	<i>Per linear metre</i>					
15147	Surfaces n.e. 150 mm girth.....	1.10	2.10	1.20	2.20	15147
15148	Ditto but 150 - 300 mm girth.....	2.40	3.90	2.50	4.10	15148

Item						Item																	
	SYNTHETIC PAINT ON WOOD WORK	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">New surfaces</th> <th colspan="2">Redecoration</th> </tr> <tr> <th style="font-size: small;">Primer only (No subsequent paint to be applied)</th> <th style="font-size: small;">Primer, one under-coat and one finishing coat</th> <th style="font-size: small;">Primer, two under-coats and one finishing coat</th> <th style="font-size: small;">One finishing coat</th> <th style="font-size: small;">One under-coat and one finishing coat</th> </tr> <tr> <th style="font-size: x-small;">A \$</th> <th style="font-size: x-small;">B \$</th> <th style="font-size: x-small;">C \$</th> <th style="font-size: x-small;">D \$</th> <th style="font-size: x-small;">E \$</th> </tr> </thead> </table>					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	A \$	B \$	C \$	D \$	E \$		
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																			
A \$	B \$	C \$	D \$	E \$																			
	Prepare and apply synthetic paint on the following wood work : -																						
	<i>Per square metre</i>																						
15149	General surfaces including doors and sashes.....	10.80	39.10	46.10	24.60	32.00	15149																
15150	Jalousies, louvre panels and the like with fixed or moveable louvres.....	16.50	62.60	88.30	41.70	54.60	15150																
	<i>Per linear metre</i>																						
15151	Surfaces n.e. 150 mm girth.....	2.10	5.30	7.20	2.90	3.60	15151																
15152	Ditto but 150 - 300 mm girth.....	3.30	11.50	14.50	6.20	9.00	15152																
	<i>Each</i>																						
15153	Small isolated article n.e. 0.01 m ²	0.80	2.90	3.90	1.60	2.60	15153																
	POLYURETHANE PAINT ON WOOD WORK	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="font-size: small;">New surfaces</th> <th colspan="3">Redecoration</th> </tr> <tr> <th style="font-size: small;">One under-coat and one finishing coat</th> <th style="font-size: small;">One finishing coat</th> <th style="font-size: small;">One under-coat and one finishing coat</th> <th style="font-size: small;">Two finishing coats</th> </tr> <tr> <th style="font-size: x-small;">A \$</th> <th style="font-size: x-small;">B \$</th> <th style="font-size: x-small;">C \$</th> <th style="font-size: x-small;">D \$</th> </tr> </thead> </table>					New surfaces	Redecoration			One under-coat and one finishing coat	One finishing coat	One under-coat and one finishing coat	Two finishing coats	A \$	B \$	C \$	D \$					
New surfaces	Redecoration																						
One under-coat and one finishing coat	One finishing coat	One under-coat and one finishing coat	Two finishing coats																				
A \$	B \$	C \$	D \$																				
	Prepare and apply polyurethane paint on the following wood work : -																						
	<i>Per square metre</i>																						
15154	General surfaces including doors and sashes.....	42.20	31.50	48.10	51.70	15154																	
15155	Jalousies, louvre panels and the like with fixed or moveable louvres.....	66.90	44.60	73.40	81.50	15155																	
	<i>Per linear metre</i>																						
15156	Surfaces n.e. 150 mm girth.....	4.90	3.40	5.50	6.30	15156																	
15157	Ditto but 150 - 300 mm girth.....	10.70	8.00	12.10	13.20	15157																	
	<i>Each</i>																						
15158	Small isolated article n.e. 0.01 m ²	1.90	1.60	2.50	2.90	15158																	
	<i>Per square metre</i>																						
15159	Wood block, strip or parquet flooring.....			30.20	34.90	15159																	

Item		New surfaces		Redecoration		Item
	POLYURETHANE SEALER AND POLISH ON WOOD WORK					
	Prepare and apply polyurethane sealer and polish on the following wood work : -	One sealer coat and two finishing coats	One coat	Two coats		
	<i>Per square metre</i>	A \$	B \$	C \$		
15160	Wood block or wood strip flooring.....	51.10	32.60	47.20		15160
	WAX POLISH ON WOOD WORK					
	Prepare and wax polish to approval on the following wood work :	Two coats	Three coats	One coat	Two coats	
	<i>Per square metre</i>	A \$	B \$	C \$	D \$	
15161	General surfaces.....	-	45.30	22.30	34.50	15161
	<i>Per linear metre</i>					
15162	Surfaces n.e. 150 mm girth.....	-	3.70	1.90	2.90	15162
15163	Surfaces 150 - 300 mm girth.....	-	10.80	5.30	8.20	15163
	<i>Per square metre</i>					
15164	Surfaces of wood block or wood strip flooring.....	19.20	-	12.50	20.40	15164
	NATURAL OIL ON LANDSCAPE TIMBER					
	Prepare and apply natural oil coating on the following wood work : -	Three coats	Two coats			
	<i>Per square metre</i>	A \$	B \$			
15165	General surfaces of landscape timber.....			80.30	54.60	15165

Item											Item											
LINSEED OIL ON WOOD WORK																						
Prepare and apply linseed oil on the following wood work : -										New surfaces	Redeco-ration											
										Three coats	Two coats											
										A \$	B \$											
15166	<i>Per square metre</i> General surfaces.....										40.30	31.30	15166									
<i>Per linear metre</i>																						
15167	Surfaces n.e. 150 mm girth.....										3.30	2.60	15167									
15168	Surfaces 150 - 300 mm girth.....										9.80	7.80	15168									
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								
										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 \$		
15169	<i>Per square metre</i> General surfaces including doors and sashes										21.30	8.50	28.40	37.40	44.80	26.10	8.50	24.40	30.20	26.40	33.80	15169
15170	Jalousies, louvre panels and the like with fixed or movable louvres										28.10	11.10	39.50	48.90	57.70	34.80	11.10	29.70	44.00	32.00	48.10	15170
<i>Per linear metre</i>																						
15171	Surfaces n.e. 150 mm girth										1.80	0.60	2.50	3.20	3.60	2.40	0.60	1.90	2.90	2.20	3.20	15171
15172	Ditto but 150 - 300 mm girth.....										5.40	2.30	6.80	9.10	11.10	6.50	2.30	5.10	7.60	6.80	8.60	15172
<i>Each</i>																						
15173	Small isolated article not exceeding 0.01 m ²										1.50	1.30	1.60	1.80	1.90	1.50	1.50	1.40	1.60	1.40	1.60	15173
PESTICIDAL COATING																						
Prepare and apply pesticidal coating to the following surfaces :										New surfaces	Redeco-ration											
										A \$	B \$											
15174	<i>Per square metre</i> General surfaces of plaster, render, concrete, brick, block, stone or wood.....										25.90	30.30	15174									
<i>Per linear metre</i>																						
15175	Ditto but in band n.e. 150 mm wide at joints, junctions, skirting tops and similar positions.....										3.70	4.20	15175									

Item		Mark out and paint in two coats	Re-paint over existing		Oblit- erate existing	Item
			One coat	Two coats		
		A \$	B \$	C \$	D \$	
	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>					
15176	Line n.e. 150 mm wide.....	13.50	7.50	13.80	3.80	15176
15177	Ditto but 150 - 300 mm wide.....	26.50	14.60	27.40	7.40	15177
15178	Line n.e. 150 mm wide and circular on plan n.e. 15.00 m radius.....	14.40	8.30	14.70	4.20	15178
15179	Ditto but 150 - 300 mm wide.....	27.60	15.50	29.20	7.90	15179
	<i>Each</i>					
15180	Letter, number, Chinese character, logo, symbol and the like n.e. 75 mm high.....	8.80	6.10	9.40	2.50	15180
15181	Ditto but 75 - 150 mm high.....	18.50	12.00	19.10	5.50	15181
15182	Ditto but 150 - 225 mm high.....	25.40	16.40	26.50	8.30	15182
15183	Ditto but 225 - 300 mm high.....	35.20	22.30	36.30	12.40	15183
15184	Ditto but 300 - 450 mm high.....	49.20	31.00	51.80	19.40	15184
15185	Ditto but 450 - 600 mm high.....	72.90	44.60	74.50	31.80	15185
15186	Ditto but 600 - 1,000 mm high.....	97.60	66.20	112.60	47.50	15186
15187	Ditto but 1,000 - 2,000 mm high.....	144.40	87.70	151.30	63.90	15187
15188	Arrow-head n.e. 150 mm long.....	12.70	8.30	13.40	4.60	15188
15189	Ditto but 150 - 300 mm long.....	19.10	12.30	19.80	7.60	15189
15190	Ditto but 300 - 450 mm long.....	27.20	17.10	28.20	10.20	15190
15191	Ditto but 450 - 900 mm long.....	43.40	26.60	46.00	14.90	15191
15192	Ditto but 900 - 1,350 mm long.....	77.70	45.30	80.60	21.10	15192
15193	Ditto but 1,350 - 2,000 mm long.....	118.40	67.20	121.70	31.70	15193
15194	Ditto but 2,000 - 3,000 mm long.....	154.50	90.10	162.10	42.00	15194
15195	Arrow-head with left/right and straight 1,350 - 2,000 mm long.....	138.00	79.80	141.90	36.50	15195
15196	Ditto but 2,000 - 3,000 mm long.....	176.10	101.00	182.30	47.40	15196

Item	Item														
MARKING MATERIALS (CONT'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>															
	<table border="1"> <thead> <tr> <th rowspan="2">Mark out and paint in two coats</th> <th colspan="2">Re-paint over existing</th> <th rowspan="2">Obliterate existing</th> </tr> <tr> <th>One coat</th> <th>Two coats</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>	Mark out and paint in two coats	Re-paint over existing		Obliterate existing	One coat	Two coats	A	B	C	D	\$	\$	\$	\$
Mark out and paint in two coats	Re-paint over existing		Obliterate existing												
	One coat	Two coats													
A	B	C	D												
\$	\$	\$	\$												
15197	Line n.e. 150 mm wide..... 14.30 7.80 14.60 3.80 15197														
15198	Ditto but 150 - 300 mm wide..... 27.10 14.90 29.00 7.40 15198														
15199	Line n.e. 150 mm wide and circular on plan n.e. 15.00 m..... 14.80 8.20 15.70 4.00 15199														
15200	Ditto but 150 - 300 mm wide..... 28.70 15.90 30.80 8.00 15200														
<i>Each</i>															
15201	Letter, number, Chinese character, logo, symbol & the like n.e. 75 mm high..... 9.00 6.10 9.40 2.50 15201														
15202	Ditto but 75 - 150 mm high..... 18.50 12.00 19.20 5.50 15202														
15203	Ditto but 150 - 225 mm high..... 25.60 16.10 26.80 8.30 15203														
15204	Ditto but 225 - 300 mm high..... 30.50 27.30 37.00 12.40 15204														
15205	Ditto but 300 - 450 mm high..... 49.70 32.40 52.30 19.40 15205														
15206	Ditto but 450 - 600 mm high..... 73.70 45.50 76.80 31.80 15206														
15207	Ditto but 600 - 1,000 mm high..... 111.30 67.80 114.20 47.50 15207														
15208	Ditto but 1,000 - 2,000 mm high..... 148.20 90.20 151.60 63.90 15208														
15209	Arrow-head n.e. 150 mm long..... 12.70 8.30 13.40 4.60 15209														
15210	Ditto but 150 - 300 mm long..... 19.30 12.40 20.00 7.60 15210														
15211	Ditto but 300 - 450 mm long..... 27.60 17.20 28.60 10.20 15211														
15212	Ditto but 450 - 900 mm long..... 44.20 26.70 46.70 14.90 15212														
15213	Ditto but 900 - 1,350 mm long..... 79.40 46.70 83.40 21.10 15213														
15214	Ditto but 1,350 - 2,000 mm long..... 119.10 68.60 123.90 31.60 15214														
15215	Ditto but 2,000 - 3,000 mm long..... 158.70 92.00 163.70 42.00 15215														
15216	Arrow-head with left/right and straight 1,350 - 2,000 mm long..... 138.90 80.40 144.10 36.10 15216														
15217	Ditto but 2,000 - 3,000 mm long..... 182.20 104.30 184.40 47.50 15217														

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 \$	
15218	Concrete paving, kerb stones and the like.....	49.80	30.80	41.20	15218
15219	Plastered or rendered vertical surfaces.....	51.50	32.50	43.10	15219
	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 \$	
15220	Concrete paving, kerb stones and the like.....	32.60	48.00	63.20	15220
15221	Plastered or rendered vertical surfaces.....	33.80	48.80	65.10	15221
	CHALKBOARD PAINT	New surfaces	Redecoration		
	Prepare and apply chalkboard paint to the following surfaces :-	Two coats	One coat	Two coats	
	<i>Per square metre</i>	A \$	B \$	C \$	
15222	On surfaces of chalkboard paint.....	26.60	16.10	27.90	15222

Item

Item

PROPRIETARY PAINTWORK SYSTEM

(Note : - The following Items 15223 to 15246 inclusive will only be paid for, if ordered by Maintenance Surveyor in writing.)

Proprietary hygienic coating system containing finely dispersed Polytetrafluoroethylene (PTFE) comprising primer, one base coat and two top coats, complying with the following properties in accordance with the manufacturer's recommendation :-

Product properties	
Water based and ready to use surface coating	
Easy to clean	
Fungicidal and prevention of most common bacteria and micro-organisms	
Resistance to chemical and weathering / climatic attack	
Water and dust shedding abilities	
Inter-coat adhesion	
Environmental friendly, UV and yellowing resistance	
Material characteristics	
Density	1,08 -1,18
Application temperature	(Includes substrate) 8 - 30 deg C
Maximum Relative Humidity	85%
Volume Solids	ca 35%
Typical D.F.T.	ca 40 microns per coat
Theoretical Coverage	8-10 square metres per litre
Biocide Approvals	EPA No's. 10466-27 and 6922-19-10466
Flash Point	Not applicable. Waterborne.
Contains biocide	Yes
Micro-porous	Yes
Colour range	BS4800
Testing	
EEC Food Safety Regulation	Complies to EEC 43/93 standards (CCFRA)
BS 476 Part 7 – Spread of Flame	Class 1
BS 148 Part 6 – Combustion	Class 0
BS 148 Part 6 – Impact Resistance	Hammer test. Surface free from cracks and delamination.
ASTM D2486 – Abrasion Resistance	Coating intact after 8,000 oscillations
BS 3900-E1 – Flexibility	1/4" bend test. Coating intact, free from crazing.
BS 3900 – G6 – Bacterial Control	Surface growth test. Surface free from growth.

Prepare and apply	
New surfaces	Redeco-ration
A	B
\$	\$

Per square metre

15223	Proprietary hygienic coating system to tiled wall surfaces including tile filler.....	341.40	350.60	15223
15224	Ditto to plastered walls and soffits.....	297.70	308.90	15224

Proprietary hygienic coating system comprising water based primer using water dispersible organic polymers and water soluble amine resin blended with mix of pigments and fillers, and water-based epoxy coating of water dispersible epoxy resin combined with hydrophilic amin adducts, complying with the following properties in accordance with the manufacturer's recommendation :-

Material characteristics and testing	
Abrasion resistance ASTM D4060	70 mg loss per 1000 cycles
Bacteria resistance BS4618 Section 4.5	Excellent
Dry heat resistance ASTM D248	135°C (275°F)
Humidity resistance BS3900 Part F2	Unaffected 5,000 hours exposure
Scratch resistance BS 3900 Part E2	No failure at 2.5 kg (5.5 lbs) load
Primer : Water vapour permeability ASTM D1653	2.767 x 10 ⁻⁵ perm. Cm
Epoxy coating : Water vapour permeability ASTM D1653	5.62 x 10 ⁻⁶ perm.cm

Per square metre

15225	Proprietary hygienic coating system to tiled wall surfaces including tile filler.....	131.10	136.70	15225
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Item

Item

PROPRIETARY PAINTWORK SYSTEM (CONT'D)

Proprietary acrylic coating system comprising acrylic emulsion resin sealer and acrylic resin water based topcoat, complying with the following properties in accordance with the manufacturer's recommendation : -

Prepare and apply	
New surfaces	Redeco-ration
A	B
\$	\$

Product properties	
Alkali resistant	
Strong sealing and adhesion	
Weathering resistant	
Easy application	
Material characteristics and testing for acrylic emulsion resin sealer	
Condition in container	There shall be no lumps, no separation and no coagulation of the ingredients.
Hardness	H : Pencil scratch value
Film appearance JIS K5400	Little difference from samples JIS K5400
Water resistance JIS K5400	Unchanged when immersed 96 hours in tap water
Alkali proof JIS K5400	Unchanged when immersed 48 hours in saturated solution of calcium hydroxide
Water permeability JIS A6909	0.3; in accordance with Water Permeability Test B Method. After still standing for 24 hours, calculated from the height of water head in the measuring pipette
Adhesive strength : standard condition : JIS A 6910 5.8 1988	199.9 N/cm ²
Adhesive strength : immersion in water JIS A 6910 5.8 1988	203.9 N/cm ²
Permeability JIS A 6910: 5.10 1988	0.05 ml
Material characteristics and testing for acrylic resin water based topcoat	
Condition in container	When agitated, absent of lumps and evenly mixed
Graining (μ)	30
Admixture	Evenly mixed consistency
Drying time (h)	1 Hour at 20°C
Film appearance	When observing the painted surface, the flatness shall be good, and there shall be no graining, wrinkles, unevenness, blisters, holes or peelings.
Flexibility	After still standing for 7 days, it shall withstand the flexure steer caused by a mandrel with 10mm diameter.
Cross cut test	It shall be 25/25
Impact	When dropping a 300 g weight from the height of 500 mm, the impact film surface shall have no cracks or peelings.
Accelerated weathering	The degree of change in colour is not so large when compared it with the standard products.
Resistance to fungal growth to BS 3900	G6 : Rating 0, no fungal growth
Quantifying dirt collection ASTM D 3719-87	Total dirt : 96.99% Imbedded dirt : 94.48%

Per square metre

15226	Proprietary acrylic coating system to tiled wall surface including tile filler.....	161.70	165.50	15226
15227	Ditto to plastered walls and soffits.....	115.80	120.60	15227

Item

Item

PROPRIETARY PAINTWORK SYSTEM (CONT'D)

Proprietary polyurethane resin based textured coating system comprising sealer, base coat and topcoat, complying with the following properties in accordance with the manufacturer's recommendation : -

Prepare and apply	
New surfaces	Redeco-ration
A	B
\$	\$
117.80	122.80
71.70	75.90

Product properties		
Cross-linked film with acrylic urethane resin Weather resistant Dirt resistant Mould, fungus, algae, etc. resistant		
Material characteristics		
Sealer	Mixing ratio (wt %) Coverage (kg/m ²)	pre-mixed 0.14 ~ 0.18
Base coat	Mixing ratio (wt %)	100%
	Coverage (kg/m ²)	Water 0 ~ 5% 1.3 ~ 1.7
Topcoat	Mixing ratio (wt %)	100%
	Coverage (kg/m ²)	Water 0 ~ 20% 0.30 ~ 0.35
Testing		
Low temperature stability (-5°C) to JIS 5660	No deterioration	
Application properties to JIS 5660	No application difficulties when applied twice	
Drying Time (20°C) to JIS 5660	2 hours or less	
Drying Time (5°C) to JIS 5660	4 hours or less	
Appearance of film to JIS 5660	Film has normal appearance	
Opacity (white and tint) to JIS 5660	0.95 or more	
Gloss to JIS 5660	70 or more	
Water resistance to JIS 5660	More than 80% gloss retention after 96 hour immersion; no abnormalities on film surface	
Alkali resistance to JIS 5660	More than 65% gloss retention after 7 days immersion; no abnormalities on film surface	
Salt water resistance to JIS 5660	168 hours immersed in 3% sodium chloride solution	
Wet scrub resistance to JIS 5660	Must pass 1,000 cycles	
Humidity and cool-heat cycling resistance to JIS 5660	More than 80% gloss retention; no abnormalities on film surface	
Fungus and mould resistance to JIS Z 2911	Based on JIS Z 2911	
Accelerated weather resistance to JIS 5660	More than 60% gloss retention after 480 hours test; degree of chalking is 8 points or more; negligible change in color when compared to sample;	
Weather resistance to JIS 5660	Degree of chalking is 6 points or more under 12 months test; no cracking, swelling, holes, blistering; negligible change in color and gloss when compared to sample	

Per square metre

15228	Proprietary polyurethane resin based textured coating system to tiled wall surfaces including tile filler.....	117.80	122.80	15228
15229	Ditto to plastered walls and soffits.....	71.70	75.90	15229

Item

Item

PROPRIETARY PAINTWORK SYSTEM (CONT'D)

Proprietary vermiculite acoustic spray coating system of resin emulsion combined with lightweight vermiculite comprising primer coat and texture coat, complying with the following properties in accordance with the manufacturer's recommendation :-

Prepare and apply	
New surfaces	Redeco-ration
A	B
\$	\$
102.70	110.50

Product properties				
Condensation resistant				
Sound absorption				
Strong adhesion				
Alkali resistant				
Lightweight and easy workability				
Performs humidity control				
Non-combustible				
Fire and heat resistant				
Material characteristics				
Primer coat				
Texture coat	Mixing ratio	20 kg Colour coating and 66 litre aggregate		
	Coverage	30 ~ 50% with water 1.80 ~ 2.00 kg/m ²		
Finish	Matt			
Specific gravity	1.22 ± 0.05			
Drying time (at 30°C)	Surface dry 6 hours			
	Hard dry 24 hours			
Shelf life	Up to 6 months if stored in tightly sealed containers			
Solid content	44 ± 3%			
Viscosity	55 ± 5 ps / 30°C			
Testing				
	Tested to	Result		Regulations
		Clear type	Coloured type	
Alkali resistance Method C	JIS A 6906	Passed	Passed	There shall be free from cracking, blister and peeling
Anti-condensation	JIS A 6906	0.34 g	0.36 g	0.25 g minimum
Humidity resistance Method B	JIS A 6906	Passed	Passed	There shall be free from cracking, blister and peeling.
Adhesive strength	JIS A 6906	0.1 N/mm ² { 1.0 kgf/cm ² }	0.1 N/mm ² { 1.0 kgf/cm ² }	0.1 N/mm ² { 1.0 kgf/cm ² } min. or no interfacial peeling (result: inside of substrate damaged)
Bonding property of aggregate	JIS A 6906	Passed	Passed	Aggregate shall be free from peeling and scattering.
Incombustibility	JIS A 6906	Passed	Passed	It shall the first grade in incombustibility of surface test.

Per square metre

15230

Proprietary vermiculite acoustic spray coating system to plastered walls and soffits.....

15230

Item

Item

PROPRIETARY PAINTWORK SYSTEM (CONT'D)

Proprietary elastic acrylic silicon resin colour coating system comprising sealer coat, textured base coat and textured pattern topcoat, complying with the following properties in accordance with the manufacturer's recommendation :-

Prepare and apply	
New surfaces	Redeco-ration
A	B
\$	\$
99.80	101.50
61.50	66.00

Product properties				
Sealer	Acrylic emulsion resin sealer Alkali resistant Sealing and adhesion on different substrates			
Topcoat	Dust and dirt resistant Fungus, Mould and algae resistant Vapour permeable coating Preventive of water prevention, carbonation damage and salt damage Weather resistant Fast drying			
Material characteristics				
Sealer	Mixing ratio (wt %)	100%		
	Coverage (kg/m ²)	Water 0 ~ 20% 0.08 ~ 0.15		
Base coat	Mixing ratio (wt %)	Roller tile finish	SP tile finish	Stipple finish
	Coverage (kg/m ²)	100% Water 2 ~ 4% 0.6 ~ 0.8	100% Water 2 ~ 4% 0.5 ~ 0.7	100% Water 2 ~ 4% 0.4 ~ 0.5
Topcoat	Mixing ratio (wt %)	100%	100%	100%
	Coverage (kg/m ²)	Water 2 ~ 4% 0.6 ~ 0.8	Water 2 ~ 4% 0.5 ~ 0.7	Water 2 ~ 4% 0.4 ~ 0.5
Testing to JIS A 6909				
Stability at low temperature		There shall be no lump and separation and compacting of ingredients.		
Crack resistance		No crack shall appear during drying process.		
Adhesive strength - standard condition		198.0 N/cm ²		
Adhesive strength - after immersion in water		172.5 N/cm ²		
Heating and cooling resistance		There shall be no peeling off, crack, swell, remarkable discoloration, and gloss reduction.		
Water permeability		0.25 ml		
Impact resistance		There shall be no crack, peeling off and remarkable damage		
Weather resistance		There shall be no crack, peeling off. The discoloration shall be below No. 3 of Grey Scale.		
Elongation	At 20°C	392 %		
	At -10°C	25 %		
	After immersion in water	314 %		
	After heating	268 %		
Fungus and mould resistance		Compliant with JIS Z 2911		
Algae resistance		Using agar, there shall be no alga appearing.		
Vapour permeability (g/m ² 24hrs)		123 compliant with JIS Z 0208		
Following cracks		0.6 mm based on zero expectation		

Per square metre

15231	Proprietary elastic acrylic silicon resin colour coating system to tiled wall surfaces including tile filler.....	99.80	101.50	15231
15232	Ditto to plastered walls and soffits.....	61.50	66.00	15232

Item

Item

PROPRIETARY PAINTWORK SYSTEM (CONT'D)

Proprietary polyurethane coating system of polyurethane resin, water based and coloured finishing coating comprising sealer coat, textured base coat and textured pattern topcoat, complying with the following properties in accordance with the manufacturer's recommendation : -

Product properties				
Sealer	Acrylic emulsion resin sealer Alkali resistant Sealing and adhesion on different substrates			
Topcoat	Dust and dirt resistant Fungus, Mould and algae resistant Vapour permeable coating Preventive of water penetration carbonation damage and salt-damage Weather resistant Fast drying			
Material characteristics				
Sealer	Mixing ratio (wt %)	100%		
	Coverage (kg/m ²)	water 0 ~ 20% 0.08 ~ 0.15		
Base coat	Mixing ratio (wt %)	Roller tile finish	SP tile finish	Stipple finish
	Coverage (kg/m ²)	100% Water 2 ~ 4% 0.6 ~ 0.8	100% Water 2 ~ 4% 0.5 ~ 0.7	100% Water 2 ~ 4% 0.4 ~ 0.5
Topcoat	Mixing ratio (wt %)	100%	100%	100%
	Coverage (kg/m ²)	Water 2 ~ 4% 0.6 ~ 0.8	Water 2 ~ 4% 0.5 ~ 0.7	Water 2 ~ 4% 0.4 ~ 0.5
Testing to JIS 5660				
Condition in container		Uniform condition without hard lumps when mixed.		
Low temperature stability (-5°C)		No deterioration		
Application properties		No application difficulties when applied twice.		
Drying time		2 hours or less at 20°C 4 hours or less at 5°C		
Appearance of film		Film has normal appearance		
Opacity (white and tint)		0.98		
Gloss		82 or more		
Water resistance		More than 80% gloss retention after 96 hours immersion; no abnormalities on the film surface		
Alkali resistance		More than 65% gloss retention after 7 days immersion; no abnormalities on the film surface		
Salt water resistance		Pass 168 hours immersed in 3% sodium chloride solution		
Wet scrub resistance		Pass 1,000 cycles		
Humidity and cool-heat cycling resistance		More than 80% gloss retention ; no abnormalities on the film surface.		
Fungus and mould resistance		Passed based on JIS Z 2911		
Accelerated weather resistance		More than 60% gloss retention after 480 hours test; degree of chalking is 8 points or more; negligible change in colour when compared to sample.		
Weather resistance		Degree of chalking is 6 points or more under 12 months test; no cracking, swelling, holes, blistering; negligible change in colour and gloss when compared to sample.		

Prepare and apply	
New surfaces	Redeco-ration
A	B
\$	\$
120.60	122.40
75.50	90.00

Per square metre

15233	Proprietary polyurethane coating system to tiled wall surfaces including tile filler.....	120.60	122.40	15233
15234	Ditto to plastered walls and soffits.....	75.50	90.00	15234

Item

Item

PROPRIETARY PAINTWORK SYSTEM (CONT'D)

Proprietary spray-on granite coating system comprising undercoat, mid-coat, topcoat and clear topcoat, complying with the following properties in accordance with the manufacturer's recommendation : -

Prepare and apply	
New surfaces	Redeco-ration
A	B
\$	\$

Product properties		
Textured finish		
Water base finishing material		
Weather resistant		
Dust and dirt resistant		
Mildew and algae resistant		
Matt / Semi-gloss finish		
Material characteristics		
Sealer	Dilution ratio (wt %)	100 % Water 0 ~ 20%
	Coverage (kg/m ²)	0.08 ~ 0.15
Mid coat	Dilution ratio (wt %)	100 % Water 3 ~ 5%
	Coverage (kg/m ²)	0.4 ~ 0.5
Topcoat	Dilution ratio (wt %)	100%
	Coverage (kg/m ²)	0.7 ~ 0.8
Clear topcoat	Dilution ratio (wt %)	100% Water 0 ~ 20%
	Coverage (kg/m ²)	0.3 ~ 0.4
Testing		
Workability to JIS K 5660		There shall be no problem in application
Drying time to JIS K 5660		Within 24 hours
Water resistance to JIS K 5660		There shall be no abnormality after immersion in water for 96 hours.
Alkali resistance to JIS K 5660		There shall be no abnormality after immersion in water for 48 hours.
Wet scrub resistance to JIS K 5660		There shall be no damage after scrubbing the surface 300 times.
Weather resistance to JIS K 5660		After 12 month test degree of whitening is 4 points or more and there shall be no peeling and degree of cracking and colour change shall be not more than sample.

Per square metre

15235 Proprietary spray-on granite coating system to tiled wall surfaces including tile filler..... 286.60 288.20 15235

15236 Ditto to plastered walls and soffits..... 239.60 246.30 15236

Item

Item

PROPRIETARY PAINTWORK SYSTEM (CONT'D)

Proprietary waterproofing coating system comprising water based acrylic co-polymer waterproof membrane with high quality pigmentation complying with the following properties in accordance with the manufacturer's recommendation : -

Prepare and apply	
New surfaces	Redeco-ration
A	B
\$	\$
179.20	185.30
137.40	141.60

Product properties	
Weathering resistant	
CO ₂ resistant	
High opacity	
Testing	
Carbon dioxide transmission (Klopfer criterion R > 50 m)	222 m
Water vapour diffusion resistance (Klopfer criterion SD < 4 m)	1.38 Sd cm
Water permeability-ASTM E514-08	Class E (Highest resistance to water penetration)
Acoustic dampening : 500 micron sample on Lysaght "Custom Orb" 26 gauge thickness corrugated steel sheet	Effective noise reduction : 2.5 dB
Chemical resistance	Unaffected by a range of mild acids, alkalis, and is resistant to bio-deterioration

Per square metre

15241	Proprietary waterproofing coating system to tiled wall surfaces including tile filler.....	179.20	185.30	15241
15242	Ditto to plastered walls and soffits.....	137.40	141.60	15242

Item

Item

PROPRIETARY PAINTWORK SYSTEM (CONT'D)

Proprietary mineral silicate based coating system complying with the following properties in accordance with the manufacturer's recommendation : -

Prepare and apply	
New surfaces	Redeco-ration
A	B
\$	\$

Product properties	
Binder : Combination of silica sol and water glass (sol-silicate)	
Direct and multi-purpose application to existing exterior surfaces without priming coat	
Multi purpose application	
UV and acid resistant, anti-static	
High weathering resistance	
Alkaline, non-flammable	
Lightfast	
Mineral matt	
Water vapour permeable, non film forming and micro-porous	
Highly water repellent	
No solvents and plasticizers added	
Resists algal and fungal growth	
Material characteristics	
Specific Weight : approx. 1.6g/cm ³	
pH value : approx. 11	
Testing according to DIN EN 1062-1, ASTM E96, ASTM G154 and ASTM E514	
Water vapour diffusion density	V ≥ 2000g/m ² d
Diffusion-equivalent air layer thickness	S _d ≤ 0.01 m
Water permeability rate (24h)	w < 0.1 kg/m ² h ^{0.5}
Gloss	At 85° : 1.5

Per square metre

15243 Proprietary mineral silicate based coating system..... 203.70 213.90 15243

Per linear metre

15244 Surfaces n.e. 150 mm girth..... 34.60 36.40 15244

15245 Ditto but 150 - 300 mm girth..... 62.00 65.10 15245

Each

15246 Small isolated article n.e. 0.01 m²..... 14.30 15.00 15246

Sundries

Per square metre

15247 Supply and apply 2 coats proprietary tile filler to tiled surface including cleaning all dirt, dust and efflorescence on existing surface..... 53.70 15247

Per linear metre

15248 Supply and apply proprietary pattern sticker in any width to the designated pattern as stipulated by Maintenance Surveyor, including setting out, fixing and removal..... 35.90 15248

(Note:- The above Items 15247 to 15248 inclusive will only be paid for, if ordered by Maintenance Surveyor in writing.)

Item	Item
PROPRIETARY FLOOR COATING SYSTEM	
(Note : - The following Items 15249 to 15254 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)	
<i>Per square metre</i>	
15249 Proprietary floor hardener protection coating and sealer system to concrete or rendered surface, 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.....	A \$ 87.30
15250 Ditto but of coloured floor protection coating and sealer system.....	101.90
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, in strict accordance with the manufacturer's recommendation : -	
<i>Per square metre</i>	
15251 On floors.....	A \$ 200.80
15252 On floors with non-slip aggregate (fine grade) to achieve non-slip surfaces.....	207.80
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>	
15253 On floors.....	A \$ 376.10
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>	
15254 On nosing tile upto 100 mm wide.....	A \$ 236.20

Item		Prepare and apply		Item
		New surface	Redecoration	
	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>			
15255	General surface.....	A \$ 35.40	B \$ 44.20	15255
	Proprietary line marking to sport hall flooring system all in accordance with the manufacturer's recommendations :			
	<i>Per linear metre</i>			
15256	Line not exceeding 25 mm wide.....	23.30	28.80	15256
15257	Ditto but 25 - 50 mm wide.....	26.20	34.30	15257
15258	Ditto but 50 - 75 mm wide.....	29.40	38.70	15258
	RE-ENAMEL PAINT ON SURFACE OF BATH TUB			
	Prepare and apply re-enamel paint on the following : -			
	<i>Per number</i>			
15259	Exposed surfaces of bath tub of any sizes and any type.....	A \$ 636.70		15259

Item					Item
	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>				
		Paint new	Re- paint over existing	Oblit- erate existing	
		A \$	B \$	C \$	
15260	Letter, number, Chinese character, logo, symbol and the like, n.e. 25 mm high.....	6.20	7.30	4.20	15260
15261	Ditto but 25 - 75 mm high.....	4.80	6.00	6.80	15261
15262	Ditto but 75 - 150 mm high.....	7.50	8.20	9.10	15262
15263	Ditto but 150 - 225 mm high.....	10.00	14.30	9.80	15263
15264	Ditto but 225 - 300 mm high.....	12.10	14.70	15.70	15264
15265	Index hand or arrow n.e. 300 mm long.....	9.70	11.00	10.40	15265
15266	Ditto but 300 - 600 mm long.....	19.20	22.70	21.70	15266
15267	Ditto but 600 - 900 mm long.....	30.00	33.70	40.30	15267
	<i>Per linear metre</i>				
15268	Line n.e. 25 mm wide.....	10.00	11.90	8.40	15268
15269	Ditto but 25 - 50 mm wide.....	14.60	14.80	13.70	15269
15270	Ditto but 50 - 75 mm wide.....	18.60	22.00	23.50	15270
	Add to either of Items 15260 to 15270 inclusive for gold gilding in lieu of synthetic paint.....			300%	

Item					Item
	PAPER HANGING				
	Supply and fix approved wall paper : -				
	<i>Per square metre</i>				
		Plain fabric backed vinyl cloth	Textured vinyl cloth	Vinyl with paper backed	
		A \$	B \$	C \$	
15271	Wall paper to plastered surfaces.....	49.90	66.90	31.10	15271
15272	Ditto but to gypsum plasterboard surfaces.....	51.50	66.40	29.10	15272
15273	Ditto but to plywood surfaces.....	50.70	63.90	29.10	15273
15274	Wall paper of self-adhesive type to plastered surfaces.....	55.30	76.20	28.70	15274
15275	Ditto but to gypsum plasterboard surfaces.....	48.30	73.10	27.20	15275
15276	Ditto but to plywood surfaces.....	48.30	73.10	27.20	15276
15277	Hang only to plastered surfaces.....	19.50	19.50	19.50	15277
15278	Ditto but to gypsum plasterboard surfaces.....	19.30	19.30	19.30	15278
15279	Ditto but to plywood surfaces.....	18.10	18.10	18.10	15279
15280	Hang only wall paper of self-adhesive type to plastered surfaces.....	15.40	15.40	15.40	15280
15281	Ditto but to gypsum plasterboard surfaces.....	12.90	12.90	12.90	15281
15282	Ditto but to plywood surfaces.....	12.90	12.90	12.90	15282
	MISCELLANEOUS ITEMS				
	<i>Per square metre</i>				
				A \$	
15283	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			14.10	15283
15284	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			16.00	15284
15285	Completely strip off existing wall paper by scraping or other approved means (not measurable if backing being removed in the same operation).....			9.20	15285
15286	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 in writing			1.40	15286
	(This item will not be paid for, if requested by the Contractor and is permitted to execute painting by spraying.)				
15287	Stipple last coat of paint of any description on any surface when specifically ordered in writing.....			11.10	15287
15288	Frost glass with one coat of paint to imitate ground glass (glazing bars not deducted).....			15.90	15288
15289	Wash down new or existing surface with anti-mould liquid before decorating or re-decorating.....			6.00	15289
15290	Prepare new or existing wall or ceiling surface and apply one liberal coat of silicone water repellent liquid.....			26.70	15290
15291	Ditto but two coats ditto.....			42.90	15291

Item	Item
SUNDRY CLEANING AND SEALING ITEMS	
(Note : - The following Items 15292 to 15309 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 \$
15292	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 7.70 15292
15293	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 11.90 15293
15294	Add to Item 15293 for rubbing with carborandum blocks..... 40.40 15294
15295	Apply one coat of wax emulsion to surfaces of terrazzo or rubbed granolithic after cleaning..... 8.30 15295
15296	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 3.40 15296
15297	Apply one coat of wax emulsion to surfaces of thermo-plastic, vinyl, cork and similar flooring after cleaning, and buff up..... 2.50 15297
15298	Sweep surface of cork flooring clean and apply two coats of approved sealer..... 6.30 15298
15299	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..... 3.80 15299
15300	Scrub and clean surfaces of vitreous or glass mosaic tiles in any position with approved cleaning solution and rinse down with fresh water..... 4.80 15300
15301	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..... 4.40 15301
15302	Clean down external painted surface with high pressure water jets..... 6.60 15302
15303	Clean stonework or Shanghai plaster in any position with approved chemical stone cleaning solution and thoroughly wash off with fresh water applied by high pressure water jets..... 7.90 15303
15304	Seal cleaned stonework or Shanghai plaster with approved chemical stone sealer and thoroughly wash off surplus with fresh water applied by high pressure water jets..... 10.20 15304
15305	Clean off letters, Chinese characters, graffiti etc., painted on stone, plastered or similar surfaces in synthetic paint, marking paint, tar and the like with approved chemical cleaner including scrubbing and scraping as necessary, and thoroughly washing off with fresh water applied by high pressure water jets..... 41.80 15305
<i>Each</i>	
15306	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..... 15.60 15306
15307	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 31.70 15307
15308	Ditto but 1.00 - 2.00 m ³ 39.90 15308
15309	Add to Item 15308 for each additional 1.00 m ³ or part thereof in internal volume..... 26.50 15309

Item	Item
SUPPLY ONLY OF MATERIALS	
<i>Per litre</i>	
15310	15310
Emulsion paint.....	35.80
15311	15311
Textured emulsion paint.....	37.20
15312	15312
Cold cured epoxy paint (coloured) (Two pack type).....	58.20
15313	15313
External textured paint.....	36.40
15314	15314
Anti-mould acrylic emulsion paint.....	45.20
15315	15315
Multi-colour paint - Primer.....	52.90
15316	15316
Ditto - binder.....	58.10
15317	15317
Ditto - Finishing coat.....	119.40
15318	15318
Synthetic paint - Undercoat.....	34.10
15319	15319
Ditto - Gloss finishing coat.....	36.30
15320	15320
Metallic paint - Aluminium bright finish.....	69.10
15321	15321
Ditto - Copper alloy bronze finish.....	69.10
15322	15322
Non-toxic paint.....	83.20
15323	15323
Polyurethane paint (coloured) (Two pack type).....	78.00
15324	15324
Polyurethane paint (clear) (Ditto).....	78.00
<i>Per square metre</i>	
15325	15325
Wall paper - Plain fabric backed vinyl cloth.....	30.70
15326	15326
Ditto - Plain fabric backed vinyl cloth of self-adhesive type.....	35.50
15327	15327
Ditto - Textured vinyl cloth.....	44.00
15328	15328
Ditto - Textured vinyl cloth of self-adhesive type.....	77.20
15329	15329
Ditto - Vinyl with paper backed.....	16.90
15330	15330
Ditto - Vinyl with paper backed of self-adhesive type.....	15.90

Section 16

REPAIRS AND ALTERATION TO SPECIALTY WORKS

SECTION 16

REPAIRS AND ALTERATION TO SPECIALTY WORKS

SPECIAL CONDITIONS

**Measurement
of repairs
and alteration
generally**

- SC16.01** This Section contains composite repair and alteration to specialty works which will 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 alteration 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 Specifications; 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.
- 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.

SPECIAL CONDITIONS

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 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>
Rates for concrete repair by patch repair	SC16.06	<p>The rates for concrete repair by patch repair shall include for : -</p> <ol 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. (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.

SPECIAL CONDITIONS

**Rates for
concrete repair
by patch repair
(Cont'd)**

**SC16.06
(Cont'd)**

- (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, including employing an approved independent testing laboratory accredited by HOKLAS and submission of test reports.
- (n) Submission of repair records upon completion.
- (o) Finishing the repaired surfaces with rendering or tiled finish to match existing.
- (p) Repairing, reinstating and repainting the affected areas to match existing.

**Rates for
concrete repair
by chemical
injection**

SC16.07

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 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.
- (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, including employing an approved independent testing laboratory accredited by HOKLAS and submission of test reports.
- (h) Submission of repair records upon completion.
- (i) Finishing the repaired surfaces by grounding flat to form a smooth surface and applying rendering or tiled finish to match existing.
- (j) Repairing, reinstating and repainting the affected areas to match existing.

SPECIAL CONDITIONS

Rates for patch repair to proprietary roofing system and floor waterproofing system

SC16.08

The rates for patch repair to proprietary roofing system and floor waterproofing system shall include for : -

- (a) Carrying out the repairs in patches and 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, welted 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, if required.
- (i) Providing all reports and maintenance manuals upon completion.

Rates for repairs and alterations to existing proprietary demountable partition system

SC16.09

The rates for repairs and alteration to existing proprietary demountable partition system shall include for : -

- (a) Taking down, clearing away, setting aside for re-use and/or fixing existing partitions, framing, 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, and provision of any ancillary works as may be required by the manufacturer.
- (c) Modifying existing openings, finishes or covering to suit actual site conditions.
- (d) Making good surfaces disturbed.
- (e) Multi-handling and delivery between the designated locations and storage area as directed.
- (f) Proper protection to the partitions, framing, fittings and accessories for storage and re-use.
- (g) Modifications on existing framing including provisions of additional framing as required.

SPECIAL CONDITIONS

Rates for "fix only" of existing fully glazed or partly glazed demountable partition

SC16.10 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.

Rates for repairs and alteration to existing proprietary fume cupboards

SC16.11 The rates for repairs and alteration 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

SC16.12 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												
		10mm	15mm	Additional 5mm													
		A	B	C													
		\$	\$	\$													
<p>CONCRETE REPAIR BY PATCH REPAIR</p> <p>(Note : - Items 16001 to 16005 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)</p> <p><i>Per square metre</i></p>																	
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	232.90	291.10	52.40	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	247.40	305.60	52.40	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												
		40mm	Additional 5mm													
		A	B													
		\$	\$													
CONCRETE REPAIR BY PATCH REPAIR (CONT'D)																
<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="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	320.20	101.90	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="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	349.30	108.40	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															

Item

Item

CONCRETE REPAIR BY PATCH REPAIR (CONT'D)

Thickness (mm)		
10mm	15mm	Additional 5mm
A	B	C
\$	\$	\$
247.40	305.60	52.40

Per square metre

16005 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 : -

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 C827-01(a))	1 - 4 %
Maximum drying shrinkage at 28 days	50 micro-strain

16005

CONCRETE REPAIR BY CHEMICAL INJECTION

(Note : - Items 16006 to 16007 inclusive will 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 : -

Wall surface	Ceiling surface
A	B
\$	\$
334.70	363.80

16006

Tensile strength at 7 days tested according to ASTM D638-08:	>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.
or Tensile strength at 7 days tested according to BS 6319-7:	>15.0 MPa
Bond strength tested according to ASTM C-882 at 2 days (moist cure) at 14 days (moist cure)	>7.0 MPa >10.0 MPa
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	>2.0 Mpa >2.0 MPa

Item			Wall surface	Ceiling surface	Item																
	CONCRETE REPAIR BY CHEMICAL INJECTION (CONT'D)																				
	<i>Per linear metre</i>		A \$	B \$																	
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 : -																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Specific gravity at 25 degree Celsius:</td> <td>1.1 @ 25 °C</td> </tr> <tr> <td>Elongation:</td> <td>> 34 %</td> </tr> <tr> <td>Bond Strength @ 24 hours in MPa:</td> <td>> 0.28</td> </tr> </table>	Specific gravity at 25 degree Celsius:	1.1 @ 25 °C	Elongation:	> 34 %	Bond Strength @ 24 hours in MPa:	> 0.28														
Specific gravity at 25 degree Celsius:	1.1 @ 25 °C																				
Elongation:	> 34 %																				
Bond Strength @ 24 hours in MPa:	> 0.28																				
			414.80	443.90	16007																
	REPAIRS TO PROPRIETARY ROOFING SYSTEM OR FLOOR WATERPROOFING SYSTEM																				
	<i>Per square metre</i>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Sheet material</th> <th colspan="2">Liquid applied material</th> </tr> <tr> <th>requiring protection</th> <th>self finished</th> <th>requiring protection</th> <th>self finished</th> </tr> </thead> <tbody> <tr> <td>A \$</td> <td>B \$</td> <td>C \$</td> <td>D \$</td> </tr> <tr> <td>141.90</td> <td>175.00</td> <td>156.10</td> <td>189.20</td> </tr> </tbody> </table>		Sheet material		Liquid applied material		requiring protection	self finished	requiring protection	self finished	A \$	B \$	C \$	D \$	141.90	175.00	156.10	189.20	
Sheet material		Liquid applied material																			
requiring protection	self finished	requiring protection	self finished																		
A \$	B \$	C \$	D \$																		
141.90	175.00	156.10	189.20																		
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, 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).....				16008																
	<i>Per square metre</i>			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 high build acrylic waterproofing membrane comprising primer and top coat, 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).....			681.10	16009																

Item						Item
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 \$		
16010	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	72.80	109.30	167.50		16010
16011	Ditto but fully glazed or partly glazed demountable partition.....	87.40	131.10	203.90		16011
16012	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.....	87.40	131.10	203.90		16012
	<i>Each</i>					
16013	Hollow or solid core flush door (single leaf measured).....	72.80	109.30	145.70		16013
ALTERATION WORKS TO EXISTING PROPRIETARY DEMOUNTABLE PARTITION SYSTEM						
			Plaster- board panel covering	Plywood/ chipboard panel covering		
	<i>Per square metre</i>		A \$	B \$		
16014	Replace panel covering 12.5 mm (min.) thick to one side of existing demountable partition with panel covering finished with laminated vinyl wall paper.....		156.10	182.30		16014
16015	Ditto with fabric sheeting.....		194.30	218.50		16015
16016	Ditto with timber veneer sheeting.....		202.20	234.70		16016
16017	Ditto with laminated plastic sheeting.....		208.10	241.20		16017
16018	Ditto with 13 mm thick softboard covered with Hessian fabric.....		241.20	267.40		16018

Item		A S	Item
ALTERATION WORKS TO EXISTING PROPRIETARY DEMOUNTABLE PARTITION SYSTEM (CONT'D)			
<i>Per square metre</i>			
16019	Alter existing fully glazed demountable partition to double glazed demountable partition with 6 mm thick clear glass.....	413.80	16019
16020	Ditto but with 6 mm thick obscure glass.....	444.80	16020
16021	Ditto but with 6 mm thick wired glass.....	611.50	16021
16022	Alter existing demountable partition to insert 50 mm thick fibreglass insulation layer (density not less than 16 kg/m ³).....	30.60	16022
16023	Ditto but density 48 kg/m ³	49.20	16023
16024	Construct timber louvre consisting of 45 x 20 mm thick timber framing all round, 10 mm thick timber blades and 25 x 5 mm thick timber architrave including forming opening through existing hollow or solid core flush door and providing all necessary framing.....	727.70	16024
16025	Forming opening of any size through demountable partition including all necessary partition components.....	136.40	16025
<i>Each</i>			
16026	Construct glazed sliding hatch, size 1200 x 450 mm high, consisting of 125 x 25 mm thick timber framing all round, 6 mm thick clear sheet glass with polished edges and finger hole, P.V.C. tracks housed into framing at head and cill including forming opening in existing demountable partition, providing and fixing of all necessary framing components.....	902.50	16026
16027	Construct 15 mm thick plywood blind box overall size 600 x 340 x 80 mm deep and lined with 13 mm thick soft board.....	641.00	16027
16028	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.....	548.80	16028

Item			Item
	REPAIRS TO PROPRIETARY FUME CUPBOARDS		
	<i>Per set</i>	A \$	
16029	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 of 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.....	510.50	16029
16030	Take down and set aside for re-use ditto.....	593.40	16030
16031	Fix only existing proprietary fume cupboard of varying dimensions complete with air flow indicator control, safety devices, control and monitoring system, ductwork of 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.....	1,021.10	16031
16032	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 of 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.....	510.55	16032
16033	Take down and set aside for re-use ditto.....	593.40	16033
16034	Fix only existing proprietary school-type fume cupboard of varying dimensions with two-compartment base storage cupboard and glass panels complete with all air flow indicator control, safety devices, control and monitoring system, ductwork of 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	1,021.10	16034

Item			Item	
REPAIRS TO EXTENSION DUCTWORK AND EXHAUST FANS TO FUME CUPBOARDS				
	<i>Per linear metre</i>	A \$		
16035	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.....	63.00	16035	
16036	Take down and set aside for re-use ditto.....	96.70	16036	
16037	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.....	126.00	16037	
	<i>Per set</i>			
16038	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.....	84.60	16038	
16039	Take down and set aside for re-use ditto.....	126.90	16039	
16040	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.....	301.10	16040	
REPAIRS TO PROPRIETARY AUTOMATIC SWING OR SLIDING DOOR SYSTEMS				
	<i>Per set</i>	Single leaf door	Double leaf door	
		A \$	B \$	
16041	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.....	212.20	318.20	16041
16042	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.....	318.20	475.00	16042
16043	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.....	682.80	1,024.10	16043

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 will not be made except in special circumstances where specifically ordered in writing by the Maintenance Surveyor.
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 will 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.12.</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)	<ul style="list-style-type: none"> (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 (for designated trade)	SC17.05	<p>The rates for Registered Skilled Worker (for designated trade) shall further include for : -</p> <ul style="list-style-type: none"> (a) Workers who have registered under the Construction Workers Registration Ordinance (Cap. 583) as a registered skilled worker for a designated trade 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) Workers who have registered under the Construction Workers Registration Ordinance (Cap. 583) as a registered skilled worker (provisional) for a designated trade and possesses 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 (for designated trade)	SC17.06	<p>The rates for Registered Semi-skilled Worker (for designated trade) shall further include for : -</p> <ul style="list-style-type: none"> (a) Workers who have registered under the Construction Workers Registration Ordinance (Cap. 583) as a registered semi-skilled worker for a designated trade 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. (b) Workers who have registered under the Construction Workers Registration Ordinance (Cap. 583) as a registered semi-skilled worker (provisional) for a designated trade and possesses 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 Demolition Worker	SC17.07	The rates for Demolition Worker shall include for demolition worker for building and unauthorized building works.
Rates for Floor Layer	SC17.08	The rates for Floor Layer shall include for floor layer for PVC flooring, timber flooring and any other types of flooring systems.

SPECIAL CONDITIONS

Rates for Plant and Equipment Operator (other than cranes)	SC17.09	<p>The rates for Plant and Equipment Operator (other than cranes) shall include for the following types of operators : -</p> <ul style="list-style-type: none"> (a) Plant and Equipment Operator (Bulldozer) (b) Plant and Equipment Operator (Excavator) (c) Plant and Equipment Operator (Loader) (d) Plant and Equipment Operator (Mini-loader with or without attachment) (e) Plant and Equipment Operator (Demolition) - Excavator (f) Plant and Equipment Operator (Suspended Working Platform)
Rates for Plant and Equipment Operator (cranes generally)	SC17.10	<p>The rates for Plant and Equipment Operator (cranes generally) shall include for the following types of operators : -</p> <ul style="list-style-type: none"> (a) Plant and Equipment Operator (Crawler-mounted Mobile Crane) (b) Plant and Equipment Operator (Gantry Crane) (c) Plant and Equipment Operator (Tower Crane) (d) Plant and Equipment Operator (Truck-mounted Crane) (e) Plant and Equipment Operator (Wheeled Telescopic Mobile Crane)
Rates for Fire Service Fitter	SC17.11	<p>The rates for Fire Service Fitter shall include for the following types of fitters : -</p> <ul style="list-style-type: none"> (a) Fire Service Electrical Fitter (b) Fire Service Mechanical Fitter (c) Fire Service Potable Equipment Fitter
Rates for Refrigeration / Air-conditioning / Ventilation Mechanic	SC17.12	<p>The rates for Refrigeration / Air-conditioning / Ventilation Mechanic shall include for the following types of mechanics : -</p> <ul style="list-style-type: none"> (a) Refrigeration / Air-conditioning / Ventilation Mechanic (Air System) (b) Refrigeration / Air-conditioning / Ventilation Mechanic (Electrical control) (c) Refrigeration / Air-conditioning / Ventilation Mechanic (Thermal insulation) (d) Refrigeration / Air-conditioning / Ventilation Mechanic (Unitary System) (e) Refrigeration / Air-conditioning / Ventilation Mechanic (Water System)

SPECIAL CONDITIONS

**Rates for
Registered
General Worker**

SC17.13

The rates for Registered General Worker shall further include for : -

- (a) General worker and labourer who hold a valid Green Card.

Item	LABOUR BUILDING WORKS	Registered Worker (for designated trade)		Item
		Skilled Worker	Semi-skilled Worker	
		A \$	B \$	
	<i>Per hour</i>			
17001	Asphalter (Road Construction).....	107.40	-	17001
17002	Bamboo Scaffolder.....	187.20	131.00	17002
17003	Bar Bender and Fixer.....	214.30	150.00	17003
17004	Bricklayer.....	136.70	95.70	17004
17005	Builder's Lift Operator.....	-	66.60	17005
17006	Carpenter (Formwork - Building Construction).....	201.10	140.80	17006
17007	Concrete Repairer (Spalling Concrete).....	185.60	-	17007
17008	Concretor.....	194.50	136.10	17008
17009	Construction Plant Mechanic.....	150.60	105.40	17009
17010	Demolition Worker.....	165.60	-	17010
17011	Drainlayer.....	166.00	116.20	17011
17012	Floor Layer.....	139.20	97.40	17012
17013	General Welder.....	152.00	106.40	17013
17014	Glazier.....	154.80	108.40	17014
17015	Joiner.....	139.20	97.40	17015
17016	Leveller.....	150.20	105.10	17016
17017	Marble Worker.....	179.80	125.80	17017
17018	Mason.....	146.10	106.40	17018
17019	Metal Scaffolder.....	131.00	89.80	17019
17020	Metal Worker.....	154.70	108.30	17020
17021	Painter and Decorator.....	127.40	89.20	17021
17022	Painter (Texture-Spray).....	-	154.10	17022
17023	Pipelayer.....	166.00	-	17023
17024	Plant and Equipment Operator (other than cranes)	129.60	-	17024
17025	Plant and Equipment Operator (cranes generally).....	168.50	-	17025
17026	Plasterer.....	154.70	108.30	17026
17027	Plumber.....	140.20	102.30	17027

Item		Registered Worker (for designated trade)		Item
		Skilled Worker	Semi-skilled Worker	
		A \$	B \$	
	LABOUR (CONT'D)			
	BUILDING WORKS (CONT'D)			
	<i>Per hour</i>			
17028	Rigger / Metal Formwork Erector.....	160.40	112.30	17028
17029	Rock Breaking Driller.....	163.90	-	17029
17030	Structural Steel Erector.....	191.30	133.90	17030
17031	Structural Steel Welder.....	187.30	-	17031
17032	Tiler.....	139.20	97.40	17032
17033	Window Frame Installer.....	140.70	98.50	17033
17034	Asbestos Abatement Worker.....	151.90	-	17034
17035	Paving Block Layer.....	129.80	-	17035
	BUILDING SERVICES INSTALLATION			
	<i>Per hour</i>			
17036	Electrical Fitter.....	113.10	-	17036
17037	Control Panel Assembler.....	135.80	95.00	17037
17038	Electrical Wireman.....	124.40	87.10	17038
17039	Fire Service Mechanic.....	113.20	-	17039
17040	Fire Service Fitter.....	101.80	71.30	17040
17041	Mechanical Fitter.....	105.30	73.70	17041
17042	Refrigeration / Air-conditioning / Ventilation Mechanic.....	100.20	70.20	17042
17043	Building Security System Mechanic.....	137.50	96.30	17043
17044	Communication System Mechanic.....	131.60	92.10	17044
17045	Gas Installer.....	119.20	-	17045

Item	Item
LABOUR (CONT'D)	
GENERAL	
<i>Per hour</i>	
17046	17046
Registered General Worker.....	101.20
17047	17047
Security guard.....	42.30
SPECIAL ATTENDANCE ON BUILDING WORKS AND ON BUILDING SERVICES INSTALLATION	
<i>Per hour</i>	
17048	17048
Registered General Worker for attending Building Works.....	101.20
17049	17049
Registered Electrical Fitter for attending Building Services Installation.....	119.60

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.12.

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 will 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.

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.

SPECIAL CONDITIONS

TEMPORARY ACCOMMODATION

Rates for portable toilet (Cont'd)

SC18.05 (Cont'd)

- (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 in writing by the Maintenance Surveyor.

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 generally 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.
- (g) Provision of driver and all labour, tools and plant necessary including levers, ropes, planks, rollers, wheelbarrows, trucks, lorries and the like.

SPECIAL CONDITIONS

CONVEYANCE BY LAND VEHICLE

Rates for conveyance of articles or materials by land vehicle (Cont'd)

SC18.07 (Cont'd)

- (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 in writing by the Maintenance Surveyor.

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.

Rates for conveyance of articles or materials by helicopter

SC18.09

The rates for conveyance 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 will 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 will be made.

Similarly, rates for all trades shall include for screens 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 will be made for screens 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 "Extra over" for screens

SC18.12

"Extra over" for screens fixed to scaffolding 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 “Extra over” for screens	SC18.17	<p>The rates for “Extra over” for screens shall include for : -</p> <ul style="list-style-type: none"> (a) Providing and fixing screens to scaffolding, 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	187.10	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	341.90	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	465.90	18003
Excavator, full circle slew crawler or wheel mounted with backacter, 6 tonnes.....		
18004	337.70	18004
Skid steer loader, rated operating capacity up to 620 kg.....		
18005	806.80	18005
Crane, lorry mounted or all terrain, n.e. 12 tonnes.....		
18006	964.80	18006
Ditto, up to 20 tonnes.....		
18007	1,162.30	18007
Ditto, up to 30 tonnes.....		
18008	258.00	18008
Access platform, scissor lift self propelled, yard travel, capacity up to 400 kg.....		
18009	314.60	18009
Ditto, up to 800 kg.....		
18010	346.80	18010
Ditto, exceeding 800 kg.....		
18011	689.90	18011
Access platform, telescopic self propelled, yard travel, capacity up to 400 kg and platform height up to 10.0 metre.....		
18012	893.20	18012
Ditto, capacity up to 400 kg and platform height exceeding 10.0 metre.....		
18013	767.30	18013
Access platform, vehicle mounted, telescopic/articulated in any capacity and platform height up to 20.0 metre.....		
18014	803.10	18014
Ditto, platform height up to 30.0 metre.....		
18015	2,385.50	18015
Ditto, platform height exceeding 30.0 metre.....		
18016	750.80	18016
Generator set, 330.0 kVA.....		
18017	86.10	18017
Pumps, portable, double diaphragm, discharge branch up to 51 mm diameter including hoses n.e. 100 metre long.....		
18018	115.30	18018
Ditto, up to 102 mm diameter.....		
18019	133.50	18019
Pumps, portable, sludge and sewage, discharge branch up to 102 mm diameter including hoses n.e. 100 metre long.....		
18020	79.70	18020
Pumps, portable, electric submersible, discharge branch up to 51 mm diameter including hoses n.e. 100 metre long.....		
18021	107.90	18021
Ditto, up to 102 mm diameter.....		

Item		Item
TEMPORARY ACCOMMODATION		
Temporary container office : -		
<i>Per month</i>		A \$
18022	Container office, 20 feet long.....	1,362.90 18022
Portable toilet : -		
<i>Per month</i>		
18023	Portable toilet equipped with open waste tank.....	2,146.00 18023
18024	Ditto but of handicapped type.....	2,713.90 18024
18025	Portable toilet equipped with flushing system.....	3,203.20 18025
18026	Portable toilet equipped with flushing system and wash hand basin.....	3,571.40 18026
CONVEYANCE BY LAND VEHICLE		
<i>Per trip</i>		A \$
18027	Van, pick up or similar utility vehicle, capacity up to 1.30 tonnes.....	191.20 18027
18028	Ditto but up to 2.60 tonnes.....	223.20 18028
18029	Lorry (highway use) n.e. 6.50 tonnes.....	303.80 18029
18030	Ditto but 12.00 tonnes.....	335.00 18030
18031	Ditto but 24.50 tonnes.....	416.40 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.....	20.80 18032
18033	Ditto exceeding 3.50 tonnes.....	29.50 18033
18034	Lorry with tipper (highway use) n.e. 11.0 tonnes.....	335.00 18034

Item		Item	
	CONVEYANCE BY HELICOPTER		
	<i>Per trip</i>	A \$	
18035	Helicopter, carrying capacity up to 800 kilogrammes, for the first 30 minutes.....	18,480.00	18035
	<i>Each</i>		
18036	Add to Item 18035 for each subsequent 5 minutes (measured to the nearest 5 minutes).....	3,080.00	18036
	SCAFFOLDING AND SCREENS (OTHER THAN METAL SCAFFOLDING)		
	Erect, maintain, take down and clear away :-		
	<i>Per square metre</i>	A \$	
18037	Scaffolding comprising a single framework of uprights and horizontal rails.....	33.20	18037
18038	Scaffolding comprising a double framework of uprights and horizontal rails of free standing scaffolding.....	42.70	18038
18039	Extra over either of Items 18037 to 18038 inclusive for providing screens of woven polyethylene sheet (nei lung tso pao), tarpaulin or other suitable coverings.....	20.10	18039
18040	Extra over either of Items 18037 to 18038 inclusive for providing safety net; one layer.....	13.30	18040
18041	Ditto; two layers.....	26.60	18041
18042	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.....	306.20	18042
18043	Woven polyethylene sheet (nei lung tso pao) or tarpaulin laid on slopes, etc. as protection including stakes, pegs, bamboo supports, etc. as necessary.....	20.30	18043
	<i>Per cubic metre</i>		
18044	Tower scaffolding.....	112.70	18044

Item		Item	
METAL SCAFFOLDING AND SCREENS			
Erect, maintain, take down and clear away :-			
<i>Per square metre</i>		A \$	
18045	Metal scaffolding comprising a single framework of uprights and horizontal rails.....	100.20	18045
18046	Metal scaffolding comprising a double framework of uprights and horizontal rails of free standing scaffolding.....	133.60	18046
18047	Extra over either of Items 18045 to 18046 inclusive for providing screens of woven polyethylene sheet, tarpaulin or other suitable coverings recommended by the system.....	20.10	18047
18048	Extra over either of Items 18045 to 18046 inclusive for providing safety net; one layer.....	13.50	18048
18049	Extra over either of Items 18045 to 18046 inclusive for providing safety net; two layers.....	27.10	18049
<i>Per cubic metre</i>			
18050	Tower scaffolding.....	496.50	18050
STAGING			
Erect, maintain, take down and clear away :-			
<i>Per square metre</i>		A \$	
18051	Metal staging n.e. 4.00 m high.....	147.20	18051
18052	Ditto 4.00 - 8.00 m high.....	168.20	18052
18053	Ditto 8.00 - 11.00 m high.....	238.30	18053
18054	Ditto 11.00 - 15.00 m high.....	308.40	18054
18055	Ditto 15.00 - 19.00 m high.....	378.50	18055

Section 19

**RECREATIONAL / SPORTS SURFACING AND
PROTECTIVE PADDING**

SECTION 19

RECREATIONAL / SPORTS SURFACING AND PROTECTIVE PADDING

SPECIAL CONDITIONS

Measurement	SC19.01	<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 0.5 m².</p> <p>Rubber protective padding shall be measured the net covered area as fixed.</p>
Rates generally	SC19.02	<p>Unless otherwise stated, the rates shall generally include for supply and installation complete including all necessary fixing accessories all in accordance with manufacturer's instructions.</p>
Rates for athletic track / sports floor surfacing, multi-sport surfacing and impact absorbing surfacing	SC19.03	<p>The rates for athletic track/sports floor surfacing, multi-sport surfacing and impact absorbing surfacing shall further include for : -</p> <ul style="list-style-type: none"> (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) All necessary cleaning and preparation of new or existing substrate as recommended by manufacturers prior to laying including application of sealer. (e) Working along perimeter or around obstructions. (f) Laying to pattern if required. (g) Provision of literature, test certificates, reports, maintenance manuals, manufacturer's guarantee and supplier's / applicator's warranty. (h) Provision of samples. (i) Providing all shop drawings associated with builder work requirements. (j) Providing deed of warranty when required.

SPECIAL CONDITIONS**Rates for provision of IAAF Certificate and report of measurement****SC19.04**

The rates for provision of International Association of Athletics Federation's (IAAF) Certificate and report of measurement shall further include for : -

- (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**SC19.05**

The rates for protective padding shall further include for : -

- (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 / applicator's warranty.
- (d) Providing deed of warranty when required.

Rates for self-levelling semi-flexible screed**SC19.06**

The rates for self-levelling semi-flexible screed shall further include for : -

- (a) All preparation work to the existing proprietary recreational surface coating, as recommended by the manufacturer, prior to applying the self-levelling semi-flexible screed.
- (b) Adopting screed compatible to the existing proprietary recreational surface coating underneath.
- (c) Provision of literature, test certificates, reports, maintenance manuals, manufacturer's guarantee and supplier's / applicator's warranty.

SPECIAL CONDITIONS

Rates for recreational surfaces coating system

SC19.07

The rates for recreational surface coating system shall further include for :-

- (a) All preparation work to existing surfaces as recommended by the manufacturer.
- (b) Repairing minor cracks and voids to the substrate with approved proprietary materials.
- (c) Multi-coloured work and cutting to line.
- (d) Keeping adjacent surfaces clean as G.S. Item 21.44 and painting surfaces disturbed.
- (e) Removing all articles of hardware and the like before painting and re-fixing after painting has been completed.
- (f) Painting sample panels as required.
- (g) Touching up coated surfaces on completion as required.
- (h) Protecting and cleaning as G.S. Item 21.43.
- (i) Removing painted sample panels.
- (j) Provision of literature, test certificates, reports, maintenance manuals, manufacturer's guarantee and supplier's / applicator's warranty.

Rates for line marking on recreational surfaces coating system

SC19.08

The rates for line marking on recreational surfaces coating system shall further include for :-

- (a) All preparation work to existing surfaces as recommended by the manufacturer.
- (b) Keeping adjacent surfaces clean as G.S. Item 21.44 and painting 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 and paint all courts to the required standards.
- (f) Touching up coated surfaces on completion as required.
- (g) Protecting and cleaning as G.S. Item 21.43.
- (h) Provision of literature, test certificates, reports, maintenance manuals, manufacturer's guarantee and supplier's / applicator's warranty.

Item

Item

ATHLETIC TRACK/SPORTS FLOOR SURFACING

Proprietary all weather athletic track/sports floor surfacing system on level or slope including applying by any means on flexible sub-surfacing (measured separately), any preparation and protection works, fixing components and accessories, making good and cleaning of affected areas on completion, all in accordance with manufacturer's instructions :

Cast in-situ proprietary all weather sports floor surfacing system of high quality, stable and environmental friendly materials suitable for playgrounds and ball games and complying with the following :-

Per square metre

Construction	Seamless Cast in-situ all in accordance with manufacturer's instructions
System	Single layer permeable system comprising of Proprietary materials mixed with EPDM granules of 1 mm to 3 mm grain size using proprietary binder to give a textured finish
Surface colour	Uniform and oxide-red in colour
Textured surface	Flat texture, porous
Joints	Shall not occur at points of intense wear
Joints between bays	Shall be carefully set out to coincide with subsequent line making

	Conditions	Requirements
Force reduction	Between 10 °C and 40 °C	35% to 50%
Modified vertical deformation	Between 10 °C and 40 °C	0.6 mm to 2.2 mm
Friction (Sliding coefficient)	Wet, leather test sole	≥ 0.5 (DIN method)
		≥ 47 (TRL method)
Tensile properties	Tensile strength	≥ 0.4 N/mm ²
	Elongation at break	≥ 40 %
Standard deformation	Between 0 °C and 40 °C	0.6 mm to 1.8 mm
Relative abrasion		> 1.0
Spike resistance		Class 1 to DIN V 18035-6
Remaining indentation		≤ 1.0 mm
Ageing	Constant climate with condensation	pass to DIN V 18035-6
	Constant heat (80°C)	
	Combined climate of heat, humidity and light	
Environmental compatibility		to DIN V 18035-6

Supply and fix	Take down and clear away
A \$	B \$
256.40	41.50
447.20	47.20

19001	Proprietary all weather sports floor surfacing system, overall finished thickness 5 mm to 10 mm.....	256.40	41.50	19001
19002	Ditto but 10 mm to 15 mm thick.....	447.20	47.20	19002

Item

Item

ATHLETIC TRACK/SPORTS FLOOR SURFACING (CONT'D)

Proprietary all weather athletic track/sports floor surfacing system on level or slope including applying by any means on flexible sub-surfacing (measured separately), any preparation and protection works, fixing components and accessories, making good and cleaning of affected areas on completion, all in accordance with manufacturer's instructions : (Cont'd)

Cast in-situ proprietary all weather athletic track surfacing system of high quality, stable and environmental friendly materials suitable for athletic tracks for athletic competition and complying with relevant IAAF standards and the following :-

Per square metre

Construction	Seamless	
	Cast in-situ all in accordance with manufacturer's instructions	
System	Full pour system comprising :	
	a) 1st layer and 2nd layer	Proprietary full depth PUR coating materials mixed with embedded black recycled rubber granules (compact and foamy) of 1 mm to 4 mm grain size using proprietary binder
	b) 3rd layer	Proprietary full depth PUR materials with broadcast EPDM granules of 1 mm to 4 mm grain size using proprietary binder to give a textured finish, overall finished thickness ≥ 3.5 mm
Surface colour	Uniform and red-brown in colour	
Textured surface	Granular texture	
Joints	Shall not occur at points of intense wear	
Joints between bays	Shall be carefully set out to coincide with subsequent line making	

	Conditions	Requirements
Force reduction	Between 10 °C and 40 °C	35% to 50%
Modified vertical deformation	Between 10 °C and 40 °C	0.6 mm to 2.2 mm
Friction (Sliding coefficient)	Wet, leather test sole	≥ 0.5 (DIN method)
		≥ 47 (TRRL method)
Tensile properties	Tensile strength	≥ 0.5 N/mm ²
	Elongation at break	≥ 40 %

Supply and fix	Take down and clear away
A \$	B \$
377.90	47.20
661.50	52.30

19003	Proprietary all weather athletic track surfacing system, overall finished thickness 5 mm to 10 mm.....	377.90	47.20	19003
19004	Ditto but 10 mm to 15 mm thick.....	661.50	52.30	19004

Item

Item

ATHLETIC TRACK/SPORTS FLOOR SURFACING (CONT'D)

Proprietary all weather athletic track/sports floor surfacing system on level or slope including applying by any means on flexible sub-surfacing (measured separately), any preparation and protection works, fixing components and accessories, making good and cleaning of affected areas on completion, all in accordance with manufacturer's instructions : (Cont'd)

Cast in-situ proprietary all weather athletic track surfacing system of high quality, stable and environmental friendly materials suitable for running tracks for training purposes and complying with relevant IAAF and DIN 18035/6 standards and the following :-

Per square metre

Construction	Seamless	
	Cast in-situ all in accordance with manufacturer's instructions	
System	Sandwich system comprising :	
	a) 1st layer	Proprietary materials mixed with black recycled rubber granules of 1 mm to 4 mm grain size using proprietary binder and grouted with proprietary pore sealer
	b) 2nd layer	Proprietary materials mixed with EPDM granules of 1 mm to 4 mm grain size using proprietary binder to give a textured finish, overall finished thickness \geq 3 mm
Surface colour	Uniform and oxide-red in colour	
Textured surface	Granular texture	
Joints	Shall not occur at points of intense wear	
Joints between bays	Shall be carefully set out to coincide with subsequent line making	

	Conditions	Requirements
Force reduction	Between 10 °C and 40 °C	35% to 50%
Modified vertical deformation	Between 10 °C and 40 °C	0.6 mm to 2.2 mm
Friction (Sliding coefficient)	Wet, leather test sole	\geq 0.5 (DIN method)
		\geq 47 (TRRL method)
Tensile properties	Tensile strength	\geq 0.5 N/mm ²
	Elongation at break	\geq 40 %
Standard deformation	Between 0 °C and 40 °C	0.6 mm to 1.8 mm
Relative abrasion		> 1.0
Spike resistance		Class 1 at DIN V 18035-6
Remaining indentation		\leq 1.0 mm
Ageing	Constant climate with condensation	pass to DIN V 18035-6
	Constant heat (80°C)	
	Combined climate of heat, humidity and light	
Environmental compatibility		to DIN V 18035-6

Supply and fix	Take down and clear away
A \$	B \$
300.80	47.20
490.50	52.30

19005	Proprietary all weather athletic track surfacing system, overall finished thickness 5 mm to 10 mm.....
19006	Ditto but 10 mm to 15 mm thick.....

19005
19006

Item			Item
	ATHLETIC TRACK/SPORTS FLOOR SURFACING (CONT'D)		
	Proprietary all weather athletic track/sports floor surfacing system on level or slope including applying by any means on flexible sub-surfacing (measured separately), any preparation and protection works, fixing components and accessories, making good and cleaning of affected areas on completion, all in accordance with manufacturer's instructions : (Cont'd)		
	Prepare and apply proprietary athletic track/sports floor surfacing line marking paint of any colour and thickness including marking out, preparing surface, cleaning and making good in accordance with the manufacturer's recommendations : -		
		A \$	
	<i>Per linear metre</i>		
19007	Line n.e. 100 mm wide	23.50	19007
	<i>Each</i>		
19008	Hurdle and relay position	59.20	19008
19009	Letters, characters, logos, signs, etc. and the like n.e. 300 mm high	72.00	19009
19010	Apply and obtain International Amateur Athletic Federation (IAAF) Certificate (except Class 1 Certificate) including examination certificate and report of measurement for Certified Athletics Facilities.....	38,358.20	19010
19011	Apply and obtain IAAF Class 1 Certificate including examination certificate and report of measurement for Certified Athletics Facilities..... (The actual rate should be : \$204,000.00 for Item 19011A)	20,400.00	19011
	(Note : - The above Items 19001 to 19011 inclusive will only be paid for if ordered in writing by the Maintenance Surveyor.)		

Item

Item

MULTI-SPORT SURFACING

Proprietary multi-sport surfacing system on level or slope complying with relevant standards including applying by any means on concrete or flexible sub-surfacing (measured separately), any preparation and protection works, fixing components and accessories, making good and cleaning of affected areas on completion, all in accordance with manufacturer's instructions :

Proprietary all weather synthetic pre-fabricated roll sheet sport surfacing system for outdoor use composed of two separate layers with butt-joint system between rolled joints complying with the following : -

Per square metre

Top layer	2-component UV resistant polyurethane resin bound colour Ethylene Propylene Diene Poly Methylene granules in 4 mm thick in pre-fabricated roll sheet form
Bottom layer	Resin bound black rubber-shred in prefabricated roll sheet form
Both layers	Tested and complied with BS 7044 including testing at the following : - Netball rebound under both wet and dry conditions - Basketball rebound under both wet and dry conditions - Abrasion resistance to abrasive wheels - Fatigue resistance - Resistance to indentation - Slip resistance - Peel strength

Overall thickness of system (mm)					
4	6	8	10	12	15
A	B	C	D	E	F
\$	\$	\$	\$	\$	\$
595.80	653.40	670.20	699.70	815.00	924.10
14.00	20.40	27.40	35.00	41.50	49.10

19012 Proprietary all weather synthetic pre-fabricated roll sheet sport surfacing system to floor or wall

19012

19013 Take down and clear away proprietary all weather synthetic pre-fabricated roll sheet sport surfacing system.....

19013

Per linear metre

19014 In-laid line marking on proprietary all weather synthetic pre-fabricated roll sheet sports surfacing, n.e. 100 mm wide

19014

Each

19015 In-laid number on proprietary all weather synthetic pre-fabricated roll sheet sports surfacing, size : 800 x 800 mm

19015

19016 Ditto logo, size : 1200 x 1200 mm

19016

Supply and fix
A \$
125.20
788.10
1,600.80

Item

Item

MULTI-SPORT SURFACING (CONT'D)

Proprietary multi-sport surfacing system on level or slope complying with relevant standards including applying by any means on concrete or flexible sub-surfacing (measured separately), any preparation and protection works, fixing components and accessories, making good and cleaning of affected areas on completion, all in accordance with manufacturer's instructions : (Cont'd)

Proprietary rubber sport surfacing system for indoor use comprising roll sheet 80% recycled EPDM rubber complying with the following : -

Per square metre

	Test Method	Requirement
Density	n/a	1,000 kg/m ³
Resilience	DIN 18032 -2	49%
Tensile Strength	DIN 18032 -2	1.39 N/mm ²
Tear Strength	ASTM D 624	9.7 N/mm
Taber Abrasion	ASTM C504	0.53 gm
Shore Hardness A	ASTM D2240	60
Remaining Indentation	DIN 53960	0.07 mm
Noise Absorption	EN 20140/ISO 140	18 db [10mm]
Stainability	ASTM D543-95	
	Alcohol	No Change
	Ammonia	No Change
Flammability	ASTM D2859 (Sport Use)	Class 1
	DIN 4102	B2
Smoke	ASTM E662	
	Non Flamming Avg SMC	n/a
	Flamming Avg SMC	n/a
	AS 1530 3:1999	
	Smoke Developed Index [0-10]	n/a
Slip Resistance	AS/NZS 4596 : 1999	
Static Coefficient of Friction	ASTM D2047 -97	
	Dry	> 1.2
	Wet	> 1.2
Thermal Stability	ASTM C1026	-40 °C to -100°C

Overall thickness of system (mm)

7 - 8	9 - 10
A	B
\$	\$

19017	Proprietary recycled rubber and synthetic EPDM rubber surfacing system to floor or wall	556.70	705.80	19017
19018	Take down and clear away proprietary recycled rubber and synthetic EPDM rubber surfacing system.....	27.40	41.50	19018

Supply and fix
A
\$

Per linear metre

19019	In-laid line marking on proprietary recycled rubber and synthetic EPDM rubber surfacing system, n.e. 100 mm wide	72.80	19019
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Each

19020	In-laid number on proprietary recycled rubber and synthetic EPDM rubber surfacing system, size : 800 x 800 mm	1,309.80	19020
19021	Ditto logo, size : 1200 x 1200 mm	1,600.80	19021

Item			Item
IMPACT ABSORBING SURFACING FOR PLAYGROUND			
Proprietary impact absorbing surfacing for playground laid on level or slope complying with the relevant British Standards including all preparation and protection works, fixing components and accessories, making good and cleaning of affected areas on completion, all in accordance with manufacturer's instructions, fixing by any means on tarmacadam or concrete sub-base and the like :-			
(Note :- All impact absorbing surfacing having weight in dry not less than 10 kg/m ² shall be supported by laboratory report and submitted to the Maintenance Surveyor for approval.)			
<i>Per square metre</i>		A \$	
19022	Impact absorbing surfacing of any colour and size with surface impact attenuation of critical fall height 1.00 m maximum fixed with any approved adhesive	349.70	19022
19023	Ditto but with critical fall height 1.30 m maximum	374.90	19023
19024	Ditto but with critical fall height 1.50 m maximum	476.10	19024
19025	Ditto but with critical fall height 2.00 m maximum	576.70	19025
19026	Ditto but with critical fall height 3.00 m maximum	814.30	19026
19027	Take down and clear away impact absorbing surfacing for either of Items 19022 to 19026 inclusive	14.60	19027
19028	Take down and set aside for reuse impact absorbing surface ditto	46.80	19028
19029	Fix only impact absorbing surface ditto	63.30	19029
<i>Per linear metre</i>			
19030	Triangular kerb margin for critical fall height 1.00 m maximum	171.10	19030
19031	Ditto but with critical fall height 1.30 m maximum	186.70	19031
19032	Ditto but with critical fall height 1.50 m maximum	233.10	19032
19033	Ditto but with critical fall height 2.00 m maximum	302.20	19033
19034	Ditto but with critical fall height 3.00 m maximum	434.90	19034
19035	Take down and clear away triangular kerb margin surface for either of Items 19030 to 19034 inclusive	6.40	19035
19036	Take down and set aside for reuse triangular kerb margin ditto	15.90	19036
19037	Fix only triangular kerb margin ditto	24.60	19037
<i>Per set</i>			
19038	Extra over impact absorbing surfaces for stepping block 300 x 300 x 600 mm high	1,018.90	19038

Item

Item

PROTECTIVE PADDING

Proprietary protective padding complying with the relevant British Standards, DIN Standards or other equivalent standards all in accordance with manufacturer's instructions, bonding by any means to walls, columns, posts and the like :

Proprietary rubber protective padding with anti-ozonant additive complying with the following :-

Colour	Black
Polymer type	≧ 95% natural rubber, resistant to abrasion, UV light and ozone attack
Hardness/Durometer	38 IRHD
Tensile strength	≧ 26.7 MPa or 3870 psi
Elongation at break	≧ 760%
Tension set	≧ 10%
Tear strength	≧ 40 N/mm
Resilience	≧ 83%
Specific gravity	≦ 0.98
Temperature range	-40°C to +75°C (-40°F to +167°F)
Abrasion resistant index	105 at DIN 53516

Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only
A	B	C	D
\$	\$	\$	\$
1,721.30	24.90	25.50	86.50
2,802.90	24.90	25.50	86.50
1,807.30	24.90	25.50	86.50
2,877.40	24.90	25.50	86.50
3,027.00	24.90	25.50	86.50
3,536.40	24.90	25.50	86.50
2,864.50	24.90	25.50	86.50

Per square metre

19039	Rubber protective padding with 6 mm thick to wall or column.....	1,721.30	24.90	25.50	86.50	19039
19040	Ditto but 12 mm thick.....	2,802.90	24.90	25.50	86.50	19040
19041	Rubber protective padding with 6 mm thick to post.....	1,807.30	24.90	25.50	86.50	19041
19042	Ditto but 12 mm thick.....	2,877.40	24.90	25.50	86.50	19042

Proprietary protective padding for outdoor use comprising PVC coated fabric vinyl cover in any colour and 30 mm thick foam complying with the following: -

Vinyl	Matt finish
PVC coated fabric	Flame retardant to NFPA 701 and ULC S-109 large-scale test requirement capable to resist ultraviolet degradation
Foam	Closed cell polyethylene
	Water vapour diffusion-resistance factor to DIN 52615
	Chemical and water resistance to ASTM 543-56T
	Ozone resistance to ASTM D1171
	Self-extinguished fire rating to BS 476 Part 7 Class 1-2

Per square metre

19043	Wall padding with 12 mm thick 100% recycled plastic backing board.....	3,027.00	24.90	25.50	86.50	19043
19044	Column padding ditto.....	3,536.40	24.90	25.50	86.50	19044
19045	Post padding (without backing board).....	2,864.50	24.90	25.50	86.50	19045

Item

Item

PROTECTIVE PADDING (CONT'D)

Proprietary protective padding complying with the relevant British Standards, DIN Standards or other equivalent standards all in accordance with manufacturer's instructions, bonding 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	Matt finish
PVC coated fabric	Flame retardant to NFPA 701 and ULC S-109 large-scale test requirement
Foam	Density minimum 58 kg/m ³
	Meet fire test B.S. 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	Take down and clear away	Take down and set aside for re-use	Fix only
A \$	B \$	C \$	D \$
1,695.40	24.90	25.50	86.50
2,292.10	24.90	25.50	86.50
1,650.30	24.90	25.50	86.50

Per square metre

19046	Wall padding with 12 mm thick plywood backing board.....	1,695.40	24.90	25.50	86.50	19046
19047	Column padding ditto.....	2,292.10	24.90	25.50	86.50	19047
19048	Post padding (without backing board).....	1,650.30	24.90	25.50	86.50	19048

Proprietary padding; 22 mm overall thickness for indoor use; with the foam made of polyether and polyester granules, density is approximately 240 kg/m³, the tensile strength (at break) is 100 kPa at minimum, elongation at break is at minimum of 35%, the flame rate is less than 100 mm per minute according to FMVSS 302, the force absorption is in average rate of 61.74% according to DIN 18032; covered with flame retardant vinyl in any colour (excluding plywood backing), the weight is about 625 g/m², the material composition is made up with about 86% PVC compound and about 14% PES, the leather has the flame retardant property according to DIN 4102 Class B2 / DIN 53 438 and DIN EN 1021 part 1 and part 2, thickness is about 0.90 mm to 1.15 mm, the data on the tensile strength (at break) is $\geq 230 \text{ N} / 5 \text{ cm}$; $q \geq 120 \text{ N} / 5 \text{ cm}$ and the tear strength is $\geq 20 \text{ N}$; $q \geq 10 \text{ N}$:-

Per square metre

19049	Proprietary padding to wall.....				2,397.60	19049
19050	Ditto to column.....				2,570.10	19050

Take down and clear away safety wall padding of any thickness including backing, if any :-

Per square metre

19051	Padding fixed to wall or column.....				25.50	19051
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TREATMENT TO EXISTING RECREATIONAL SURFACE COATING

Per square metre

19052	Semi-flexible self-smoothing screed consisting of a slurry of bitumen emulsion, mineral filler combined with resilient resin and a resilient aggregate of thermosetting polymers to form a hybrid resin and flexi-aggregate coating, applied on existing recreational surface coating				192.80	19052
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Item

Item

RECREATIONAL SURFACE COATING SYSTEM

Proprietary recreational surface coating system suitable for ball courts, soccer pitches and recreational grounds and complying with the following : -

Supply
and
fix
A
\$

Per square metre

Formation	100% Acrylic resin formulation	
Materials and application certified by	American Sports Builders Association	
Materials approved and classification by	International Tennis Federation	
Pace rating	Average 39.5	
Texture surface	Mat surface with silica sand topping	
Surface tolerance	≤ 1.5 mm	
Surface colour	Uniform and in standard colour	
Coefficient of friction	≥ 0.7	Standard test by ITF accredited laboratory
Coefficient of restitution	Average 0.82	according to test report ITFCS/01/01-05-129
Accelerated weather resistance	No cracking, no swelling and no peeling off for 5 years	
Coefficient of abrasion resistance	Between 0.06-0.1	Taber's test 1000
Density of liquid coating	Average 9 lb/gallon	Standard test method for inks and related products to D1475-98(2003)
Viscosity at 77°F	Average 100-120	Standard test method for pigment content of water emulsion paints by low-temperature ashing to D562-01
Flammability	Non-flammable	Standard test method for determining limits of flammability of chemicals elevated temperature and pressure to E918-83(1999)
Flash point	None	Standard test method for flash point and fire point of liquids by tag open-cup apparatus to D1310-01
Incombustibility	No smoke	

19053	Proprietary recreational surface coating system comprising two coats of asphaltic emulsion mixed with silica sand as underlayer and filler coat, four coats of cushion resilient layer as texturizing layer and two coats of acrylic colour coating as finishing coat (overall thickness ≥ 1.5 mm) on asphaltic or tarmacadam surfaces	183.10	19053
19054	Proprietary recreational surface coating system comprising two coats of proprietary asphaltic emulsion mixed with silica sand as underlayer and filler coat, four coats of proprietary acrylic resurfacer mixed with silica sand as texturizing layer and two coats of proprietary acrylic colour coating as finishing coat (overall thickness ≥ 1.0 mm) on asphaltic or tarmacadam surfaces	137.80	19054

Item			Item
RECREATIONAL SURFACE COATING SYSTEM (CONT'D)			
	Proprietary recreational surface coating system suitable for ball courts, soccer pitches and recreational grounds and complying with the following : - (Cont'd)	Supply and fix	
	<i>Per square metre</i>	A \$	
19055	Proprietary recreational surface coating system comprising two coats of proprietary acrylic patch binder mixed with cement and silica sand as underlayer, two coats of proprietary concrete primer as adhesion promotor, two coats of acrylic resurfacer mixed with cement and silica sand as texturizing layer and two coats of proprietary acrylic colour coating as finishing coat (overall thickness \geq 1.0 mm) on concrete or coated surfaces	165.90	19055
19056	Add to either of Items 19053 to 19055 inclusive for laying one layer of fibreglass membrane	31.30	19056
19057	One coat of proprietary asphaltic emulsion mixed with silica sand as underlayer and filler coat	14.30	19057
19058	One coat of proprietary concrete primer as adhesion promotor	12.90	19058
19059	One coat of proprietary acrylic resurfacer mixed with silica sand as texturizing layer	19.90	19059
19060	One coat of proprietary acrylic patch binder mixed with cement and silica sand as underlayer	23.30	19060
19061	One coat of proprietary cushion resilient layer as texturing layer	24.50	19061
19062	One coat of proprietary acrylic colour coating as finishing coat	24.00	19062
	<i>Per linear metre</i>		
19063	Two coats of proprietary line marking on proprietary recreational surface coating system n.e. 50 mm wide	16.30	19063
19064	Ditto but circular-on-plan n.e. 10.0 m radius	19.30	19064

Item

Item

RECREATIONAL SURFACE COATING SYSTEM (CONT'D)

Proprietary recreational surface coating system suitable for ball courts, soccer pitches and recreational grounds and complying with the following : - (Cont'd)

Supply
and
fix
A
\$

Per square metre

System	An acrylic coloured sports surfacing consisting of one proprietary 100% acrylic emulsion primer coat mixed with fine silica sand, two proprietary 100% acrylic highly pigmented emulsion under coats mixed with fine silica sand and one proprietary 100% acrylic highly pigmented emulsion top coat mixed with fine silica sand applied all in accordance with manufacturer's instructions	
	Asbestos free	
	Suitable for all climatic conditions	
	Stable and fade resistant	
	Glare free	
	Uniform surface texture and colour	
	Vibrant colours remaining true and vibrant for years	
	Formulated to fight off ultraviolet degradation	
	Strong resistance to cracks and splitting	
	Strong resistance to abrasion	
	Strength and consistent ball bounce	
Overall nominal thickness	≥ 1.0 mm	
Surface colour	Uniform and in standard colour	
Accelerated weather resistance	No fading, no cracking, no peeling and no chalking	tested to ASTM G26
Abrasion resistance	≤ 50 mg	tested to ASTM D-4060 for 1000 revolutions
Tensile strength	≥ 283 psi tested to ASTM C-190	

19065 Proprietary recreational surface coating system 127.70 19065

Per linear metre

19066 Two coats of proprietary line marking on proprietary recreational surface coating system n.e. 50 mm wide 49.80 19066

19067 Ditto but circular-on-plan n.e. 10.0 m radius 53.80 19067

Item

Item

RECREATIONAL SURFACE COATING SYSTEM (CONT'D)

Proprietary recreational surface coating system suitable for ball courts, soccer pitches and recreational grounds and complying with the following : - (Cont'd)

Supply
and
fix
A
\$

Per square metre

System	A mineral based finish of inorganic nature consisting of one proprietary primer coat, two proprietary under-coats mixed with fine silica sand and one proprietary top coat applied all in accordance with manufacturer's instructions.	
Overall nominal thickness	1.0 mm	
Surface colour	Uniform and in standard colour	
Air permeability	$\geq 380 \text{ g/m}^2/24 \text{ hours}$	tested to Japanese Industrial Standard Z0208
Air permeability		
Coefficient of skid resistance	≥ 0.9 in dry condition	tested to JIS A1407
	≥ 0.9 in wet condition	
Adhesion	$\geq 24.5 \text{ kgf/cm}^2$ at standard condition	tested to 6.10 of JIS A6909
	$\geq 22.4 \text{ kgf/cm}^2$ when immersed in water	
Abrasion resistance	$\leq 0.15 \text{ mm}$	tested to JIS K7204
		Taber's test 1000 rotations
Accelerated weather resistance	No change	tested to 5.8 of JIS A6909
		WS type, 2000 hours
Water resistance	No swelling and no peeling	tested to 6.8 of JIS K5668, 2 years
Cleaning resistance	No breathing, no wear and no tear	tested to 6.10 of JIS K5668, 1000 times
Gasoline resistance	No change	tested to 7.7 of JIS K5400
Freeze-thaw resistance	No change	tested to JIS A6910, 20 cycles
Incombustibility	Pass	JIS A1321 flame proof test
		Building Ministry notice no. 1828 for incombustibility
Acid resistance	No change	tested with Citric acid (pH4) at 60 °C for 7 days
Alkali resistance	No change	tested to 6.9 of JIS K5668, 1 month
Salt water resistance	No change	tested with 3 % salt water at room temperature for 3 months

19068 Proprietary recreational surface coating system 256.10 19068

Per linear metre

19069 Two coats of proprietary line marking on proprietary recreational surface coating system n.e. 50 mm wide 49.50 19069

19070 Ditto but circular-on-plan n.e. 10.0 m radius 53.80 19070

Item

Item

RECREATIONAL SURFACE COATING SYSTEM (CONT'D)

Proprietary recreational surface coating system suitable for ball courts, soccer pitches and recreational grounds and complying with the following : - (Cont'd)

System	Inorganic colour coating consisting of one proprietary bonding primer coat, two proprietary under-coats mixed with fine silica sand and one proprietary top coat applied all in accordance with manufacturer's instructions	
Overall nominal thickness	1.0 mm	
Surface colour	Uniform and in standard colour	
Textured surface	Mat texture	
Air permeability	$\geq 250 \text{ g/m}^2/24 \text{ hours}$	tested to JIS Z0208
Coefficient of skid resistance	≥ 0.9 in dry condition	tested to JIS A1407
	≥ 0.9 in wet condition	
Adhesion	$\geq 25 \text{ kgf/cm}^2$	tested to 5.5 of JIS A6909
Coefficient of abrasion resistance	Between 0.05 and 0.1	Taber's test CS-17.1kg, 1000 rotations
Shore hardness	≥ 97	Shore hardness meter
Accelerated weather resistance	No cracking, no swelling, no peeling off and no efflorescence	tested to 5.8 of JIS A6909, 2000 hours
	No substantial colour changed compared with the test pieces not exposed to the test	
Wear resistance	Wear loss $\leq 19 \text{ mg}$	tested to 5.9 of JIS K5665, 1000 cycles
Weather resistance	No problem	outdoor exposure for 5 years
Water resistance	No swelling and no peeling	tested to 6.8 of JIS K5668, 1 year
Washing durability	No tear and no wear	tested to 6.10 of JIS K5668, 1000 times
Resistance against volatile oils :		tested to 7.7 of JIS K5400
(a) No. 1 : Petroleum benzine 10 + Toluene 0	No wrinkling, no cracking and no peeling-off	
(b) No. 2 : Petroleum benzine 9 + Toluene 1	Compared with the test pieces not subject to the test, not much change in gloss, colour, adhesion and hardness	
(c) No. 3 : Petroleum benzine 8 + Toluene 2	Test liquid slightly less clear	
Freeze-thaw resistance	Normal	5 hours at 20°C x 4 hours in water x 15 hours at room temperature, 10 cycles
Incombustibility	Pass : No smoke produced, no cracking and no peeling-off	Building Authority notice no. 3 for incombustibility test
Alkali resistance	No cracking, no peeling-off, no holes and no melting	tested to 6.9 of JIS K5668, 1 month
	Compared with the test pieces not submerged in the test liquid, no substantial change in colour and gloss	
Colour stability	No efflorescence and no substantial colour change	tested to 6.4 of JIS K5400
Saline water resistance	No abnormality	Submerged in 5 % saline water for one month

Supply and fix
A
\$

Per square metre

19071	Proprietary recreational surface coating system	182.60	19071
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Per linear metre

19072	Two coats of proprietary line marking on proprietary recreational surface coating system n.e. 50 mm wide	37.10	19072
19073	Ditto but circular-on-plan n.e. 10.0 m radius	38.90	19073

Item

Item

RECREATIONAL SURFACE COATING SYSTEM (CONT'D)

Proprietary recreational surface coating system suitable for ball courts, soccer pitches and recreational grounds and complying with the following : - (Cont'd)

System	4" minimum thick compacted base course, 1 1/2" minimum compacted asphalt levelling course (when required), 1" minimum compacted asphalt surface course on well compacted and tested subgrade
Fall of the court	Not less than 0.833% and not more than 1%

Supply and fix

A
\$

Per square metre

19074 Proprietary tennis court surfacing system comprising two coats of acrylic resurfacer mix of surface filler coat, two coats of proprietary acrylic textured coating with one coat of proprietary dilution agent as finishing coat on asphaltic or tarmacadam surfaces..... 215.10 19074

Per linear metre

19075 Two coats of proprietary line marking on proprietary recreational surface coating system n.e. 50 mm wide 43.20 19075

19076 Ditto but circular-on-plan n.e. 10.0 m radius 46.40 19076

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.

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.

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.

**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 net plan areas as fixed. Portion operating individually is considered as one individual size.

SPECIAL CONDITIONS

Measurement of sunblinds, curtains, awnings and canvas generally (Cont'd)

SC20.04 (Cont'd)

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 will be measured separately.

Rates for joinery fittings generally

SC20.05

The rates for joinery fittings shall generally include for :-

- (a) Submission of design and shop drawings to be approved by the Maintenance Surveyor.
- (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, as required, 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 as required.
- (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.
- (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 all edges.

SPECIAL CONDITIONS

Rates for
joinery fittings
generally (Cont'd)SC20.05
(Cont'd)

- (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

SC20.06

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

SC20.07

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).
- (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

SC20.08

The rates for pigeon hole racks shall further include for : -

- (a) Any number of pigeon holes as required.

Rates for
proprietary
fume cupboards

SC20.09

The rates for proprietary fume cupboards shall include for : -

- (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.

SPECIAL CONDITIONS

**Rates for
proprietary
fume cupboards
(Cont'd)**

**SC20.09
(Cont'd)**

- (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 to be approved by the Maintenance Surveyor.
- (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 manufacturer's warranty.
- (k) Submission of operation and maintenance manuals.

**Rates for
lockers**

SC20.10

The rates for lockers shall include for : -

- (a) Submission of catalogues, technical literature and shop drawings to be approved by the Maintenance Surveyor.
- (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.
- (c) Provision of prototypes for repetitive fittings, as required, 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 as required.
- (h) Ironmongery and hardware like concealed hinges, cam or latch locks, hanging rods, hooks and the like and integrated rubber strips.

SPECIAL CONDITIONS

**Rates for
proprietary
recycled plastic
seating benches****SC20.11**

The rates for proprietary recycled plastic seating benches shall include for : -

- (a) Design, supply, fabrication and installation of the complete system all in accordance with the manufacturer's instructions.
- (b) Assembling and installation work either carried out on Site or off-Site.
- (c) Arm rests at ends of seating benches.
- (d) All protection of appropriate means prior to and upon completion until the works are handed over.
- (e) Submission of catalogues, technical literature and shop drawings for the Maintenance Surveyor's approval.
- (f) Submission of the manufacturer's warranty of not less than two (2) years.

**Rates for
venetian blinds****SC20.12**

The rates for venetian blinds shall include for : -

- (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.

**Rates for
vertical blinds****SC20.13**

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 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.

SPECIAL CONDITIONS

**Rates for
vertical blinds
(Cont'd)****SC20.13
(Cont'd)**

- (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****SC20.14**

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 a sample of chic sunblinds.
- (h) Moving and replacing in position all movable furniture as necessary at the time of execution of works.

**Rates for
roller blinds****SC20.15**

The rates for roller blinds shall include for : -

- (a) Supplying and fixing of single or multi-coloured curtains 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) Moving and replacing in position all movable furniture as necessary at the time of execution of works.
- (h) Submission of technical pamphlets and samples of roller blinds.

SPECIAL CONDITIONS

Rates for alteration and repairs generally**SC20.16**

The rates for alteration 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.

Rates for awnings**SC20.17**

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 as required.
- (c) Provision of fixing framings or brackets to existing building or structure.
- (d) Preparing and applying flame-proof finish to all surfaces of the fabric covering.
- (e) Making good areas disturbed, touching up plasterwork and paintwork where required.
- (f) Submission of technical pamphlets and samples of awnings.

Rates for blackout curtains and stage curtains**SC20.18**

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 samples of curtains and linings.

Ironmongery for curtains**SC20.19**

Ironmongery for curtains can be found in Section 09 - Ironmongery of this Schedule.

SPECIAL CONDITIONS

Rates for sanitary fittings and parts of sanitary fittings generally	SC20.20	<p>The rates for sanitary fittings and parts of sanitary fittings shall generally include for : -</p> <ul style="list-style-type: none"> (a) Supply and installation of the sanitary fittings in white or any standard colours, all in accordance with the manufacturer's recommendations. (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 white or coloured silicone sealant after de-greasing and drying of fittings. (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.
Rates for taps, cocks and mixers	SC20.21	<p>The rates for taps, cocks and mixers shall further include for : -</p> <ul style="list-style-type: none"> (a) Supply and installation of taps, cocks and mixers 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	SC20.22	<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 sanitary fittings of WELS grade certification	SC20.23	<p>The rates for sanitary fittings of WSD Water Efficiency Labelling Scheme (WELS) grade certification shall further include for : -</p> <ul style="list-style-type: none"> (a) Sanitary fittings that have been registered with and certified by WSD under the WELS as having the specified water efficiency grade. (b) Submission of the WSD's Certificate of Registration of the sanitary fittings to the Maintenance Surveyor. (c) Conformance with the nominal flow rates as specified in the WSD's guidelines of the relevant water efficiency grades for WELS.
Rates for toilet fittings and accessories	SC20.24	<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.

SPECIAL CONDITIONS**Rates for
toilet fittings
and accessories
(Cont'd)****SC20.24
(Cont'd)**

- (b) Providing all necessary jointing compounding, mortar, plugs, screws and the like including cutting and pinning.
- (c) Applying 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.

**Rates for
braille and
tactile maps****SC20.25**

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 as required.
- (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****SC20.26**

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 manufacturer's warranty.
- (h) Submission of operating and maintenance manuals.

SPECIAL CONDITIONS**Rates for
traffic barrier
system****SC20.27**

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 manufacturer'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.....	2,194.50	1,905.80	20001
20002	Ditto but 0.60 - 0.90 m high.....	2,830.90	2,673.80	20002
20003	Ditto but 0.90 - 1.10 m high.....	3,505.70	3,280.20	20003
20004	Add to either of Items 20001 to 20003 inclusive for exposed surfaces finished with natural hardwood veneer.....	548.60	548.60	20004
<i>Each</i>				
20005	Add to either of Items 20001 to 20003 inclusive for glazed door or glazed sliding door n.e. 0.40 m wide and n.e. 1.10 m high.....	404.30	404.30	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.....	2,304.20	1,963.50	20006
20007	Ditto but 0.60 - 0.90 m high.....	2,912.90	2,744.30	20007
20008	Ditto but 0.90 - 1.10 m high.....	3,598.10	3,350.90	20008
20009	Add to either of Items 20006 to 20008 inclusive for exposed surfaces finished with natural hardwood veneer	577.50	577.50	20009
<i>Each</i>				
20010	Add to either of Items 20006 to 20008 inclusive for glazed door or glazed sliding door 0.40 - 0.60 m wide and n.e. 1.10 m high.....	519.80	519.80	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.....	3,840.40	3,234.00	20011
20012	Ditto but 1.80 - 2.40 m high.....	4,937.60	4,158.00	20012
20013	Add to either of Items 20011 to 20012 inclusive for exposed surfaces finished with natural hardwood veneer	932.70	932.70	20013
<i>Each</i>				
20014	Add to either of Items 20011 to 20012 inclusive for glazed door or glazed sliding door n.e. 0.40 m wide and n.e. 2.40 m high.....	646.80	646.80	20014
<i>Per linear metre</i>				
20015	Tall cabinet, wardrobe and the like, 0.40 - 0.60 m deep and n.e. 1.80 m high.....	4,042.50	3,436.10	20015
20016	Ditto but 1.80 - 2.40 m high.....	5,197.50	4,417.90	20016
20017	Add to either of Items 20015 to 20016 inclusive for exposed surfaces finished with natural hardwood veneer	979.30	979.30	20017
<i>Each</i>				
20018	Add to either of Items 20015 to 20016 inclusive for glazed door or glazed sliding door 0.40 - 0.60 m wide and n.e. 2.40 m high.....	693.00	693.00	20018
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 \$	
20019	Sink unit n.e. 0.40 m deep and n.e. 0.90 m high.....	2,830.90	2,323.90	20019
20020	Sink unit 0.40 - 0.60 m deep and n.e. 0.90 m high.....	2,979.90	2,469.10	20020
20021	Add to either of Items 20019 to 20020 inclusive for exposed surfaces finished with natural hardwood veneer.....	519.80	519.80	20021

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>			
20022	Book shelf, storage shelf, rack unit and the like, n.e. 0.40 m deep and n.e. 0.90 m high.....	2,037.40	1,731.80	20022
20023	Ditto but 0.90 - 1.10 m high.....	2,490.20	2,116.70	20023
20024	Ditto but 1.10 - 1.80 m high.....	3,553.40	3,020.40	20024
20025	Ditto but 1.80 - 2.40 m high.....	4,171.90	3,546.10	20025
20026	Add to either of Items 20022 to 20025 inclusive for exposed surfaces finished with natural hardwood veneer.....	603.50	603.50	20026
20027	Book shelf, storage shelf, rack unit and the like, 0.40 - 0.60 m deep and n.e. 0.90 m high.....	2,139.30	1,818.40	20027
20028	Ditto but 0.90 - 1.10 m high.....	2,614.70	2,222.50	20028
20029	Ditto but 1.10 - 1.80 m high.....	3,731.00	3,171.40	20029
20030	Ditto but 1.80 - 2.40 m high.....	4,380.50	3,723.40	20030
20031	Add to either of Items 20027 to 20030 inclusive for exposed surfaces finished with natural hardwood veneer.....	633.70	633.70	20031
Reception counters and writing benches with or without under-counter drawers :-				
<i>Per linear metre</i>				
20032	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.....	6,006.00	4,937.60	20032
20033	Add to Item 20032 for exposed surfaces finished with natural hardwood veneer	2,887.50	2,367.80	20033
20034	Add to Item 20032 for base cabinet n.e. 0.60 m deep and n.e. 0.90 m high underneath reception counter.....	2,656.50	2,172.60	20034
20035	Add to Item 20032 for drawer cabinet n.e. 0.60 m deep and n.e. 0.90 m high underneath reception counter.....	2,656.50	2,172.60	20035
20036	Add to Item 20032 for shelving rack n.e. 0.30 m deep above reception counter top.....	2,136.80	1,753.30	20036
20037	Add to either of Items 20034 to 20036 inclusive for exposed surfaces finished with natural hardwood veneer	462.00	462.00	20037

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>			
20038	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.....	9,124.50	7,432.40	20038
20039	Writing bench n.e. 0.60 m deep fixed to wall complete with metal brackets	3,003.00	2,629.90	20039
20040	Ditto but supported on vertical stand n.e. 0.90 m high.....	3,349.50	2,858.60	20040
20041	Add to either of Items 20039 to 20040 inclusive for exposed surfaces finished with natural hardwood veneer	577.50	577.50	20041
20042	Writing bench n.e. 0.90 m deep fixed to wall complete with metal brackets	3,349.50	2,858.60	20042
20043	Ditto but supported on vertical stand n.e. 0.90 m high.....	3,684.50	3,144.50	20043
20044	Add to either of Items 20042 to 20043 inclusive for exposed surfaces finished with natural hardwood veneer	577.50	577.50	20044
	Pigeon hole racks : -			
	<i>Per linear metre</i>			
20045	Pigeon hole rack n.e. 0.30 m deep and n.e. 0.90 m high.....	2,887.50	2,310.00	20045
20046	Ditto but 0.90 - 1.10 m high.....	3,713.30	2,970.70	20046
20047	Ditto but 1.10 - 1.80 m high.....	5,197.50	4,158.00	20047
20048	Pigeon hole rack 0.30 - 0.60 m deep and n.e. 0.90 m high.....	3,421.70	2,737.40	20048
20049	Ditto but 0.90 - 1.10 m high.....	4,166.70	3,333.30	20049
20050	Ditto but 1.10 - 1.80 m high.....	5,532.50	4,426.00	20050

Item				Item	
	JOINERY FITTINGS (CONT'D)				
		Take down and clear away	Take down and set aside for re-use	Fix only	
	<i>Per linear metre</i>	A \$	B \$	C \$	
20051	Base cabinet, cupboard, hanging cupboard and the like, of any sizes.....	202.50	253.10	360.70	20051
20052	Tall cabinet and wardrobe, of any sizes.....	303.70	384.70	541.00	20052
20053	Sink cabinet, book shelves, storage shelves and rack units of any sizes.....	202.50	253.10	360.70	20053
20054	Reception counter or writing bench with or without under-counter drawers, of any sizes.....	303.70	384.70	541.00	20054
20055	Pigeon hole rack of any sizes.....	202.50	253.10	360.70	20055
	PROPRIETARY FUME CUPBOARDS				
	<p>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)</p>				
	<i>Per set</i>			A \$	
20056	Proprietary fume cupboard overall size : 1200 x 2300 x 810 mm.....			45,114.30	20056
20057	Ditto; overall size 1500 x 2300 x 810 mm.....			48,024.90	20057
	<p>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, 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)</p>				
	<i>Per set</i>				
20058	Proprietary fume cupboard overall size : 1200 x 2400 x 800 mm.....			42,815.20	20058
20059	Ditto overall size : 1500 x 2400 x 800 mm.....			45,384.10	20059

Item			Item
EXTENSION TO DUCTWORK AND EXHAUST FANS TO FUME CUPBOARDS			
<i>Per linear metre</i>		A \$	
20060	Add to either of Items 20056 to 20059 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 as required; 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).....	1,091.50	20060
<i>Per set</i>			
20061	Add to either of Items 20056 to 20059 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; builder's works as required; all connection and testing and commissioning 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).....	12,370.10	20061
LABORATORY BENCHES AND FITTINGS			
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)			
<i>Per linear metre</i>			
20062	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.....	2,362.30	20062
20063	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.....	4,374.70	20063
20064	Ditto but with central spine unit, shelving unit and/or hanging cupboards.....	15,142.70	20064
<i>Each</i>			
20065	Add to either of Items 20062 to 20064 inclusive for chemical resistant fireclay sink with laboratory stop tap with swivel outlet, acid resistant dilution trap and overflow.....	1,067.80	20065

Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only
A \$	B \$	C \$	D \$
2,362.30	191.30	255.10	369.30
4,374.70	318.90	382.70	587.10
15,142.70	510.20	637.80	956.30
1,067.80	67.00	69.50	131.50

Item					Item	
	LABORATORY BENCHES AND FITTINGS (CONT'D)					
	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.					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20066	Water fitting, wall mounted straight valve with removable nozzle	403.40	8.30	9.60	88.30	20066
20067	Water fitting with bib cock, wall mounted straight valve with removable nozzle	403.40	8.30	9.60	88.30	20067
20068	Bench mounted swivel swan neck water fitting with removable nozzle	768.10	10.20	11.50	106.00	20068
20069	Bench mounted swivel swan neck water fitting with bore anti-splash nozzle	775.40	10.20	11.50	106.00	20069
20070	Bench mounted swivel swan neck water fitting with two way side arm angle valve with removal nozzle	1,621.70	10.20	11.50	106.00	20070
20071	Bench mounted two way swivel swan neck water fitting with removal nozzle	1,359.70	10.20	11.50	106.00	20071
	LOCKERS					
	Locker with panels made of impact and moisture resistant compact laminate or solid phenolic core panel conforming to 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 \$	
20072	Locker, one tier, 300 mm wide x 300 - 500 mm deep x 1800 - 2000 mm high.....	2,266.80	63.80	127.60	190.50	20072
20073	Ditto but two tiers	2,699.80	63.80	127.60	190.50	20073
20074	Ditto but three tiers.....	3,018.30	63.80	127.60	190.50	20074
20075	Ditto but four tiers.....	3,442.00	63.80	127.60	190.50	20075
20076	Ditto but five tiers.....	3,847.10	63.80	127.60	190.50	20076
20077	Ditto but six tiers.....	4,341.90	63.80	127.60	190.50	20077
20078	Extra over either of Items 20072 to 20077 inclusive for each locker door for coin-return locking device.....	528.10	-	-	-	20078
20079	Extra over either of Items 20072 to 20077 inclusive for each locker door for pad lock device.....	135.50	-	-	-	20079

Item					Item	
	LOCKERS (CONT'D)					
	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					
		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>					
20080	Locker, one tier, 300 mm wide x 300 - 500 mm deep x 1800 - 2000 mm high.....	1,727.90	63.80	127.60	148.20	20080
20081	Ditto but two tiers	1,924.20	63.80	127.60	148.20	20081
20082	Ditto but three tiers.....	2,022.40	63.80	127.60	148.20	20082
20083	Ditto but four tiers.....	2,120.60	63.80	127.60	148.20	20083
20084	Ditto but five tiers.....	2,245.30	63.80	127.60	148.20	20084
20085	Ditto but six tiers.....	2,316.90	63.80	127.60	148.20	20085
20086	Extra over either of Items 20080 to 20085 inclusive for each locker door for coin-return locking device.....	528.10	-	-	-	20086
20087	Extra over either of Items 20080 to 20085 inclusive for each locker door for pad lock device.....	135.50	-	-	-	20087
	Replacement parts only : -					
	<i>Each</i>					
20088	Supply only additional key and plastic key plate.....	10.10	-	-	-	20088
20089	Door hinge.....	55.30	2.60	5.10	11.00	20089
20090	Cam lock	145.50	3.20	9.60	27.90	20090

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 coated complete with anchorage and fixing accessories, all in accordance with the manufacturer's instructions					
	<i>Each</i>					
20091	Seating bench, 1200 - 1500 mm long x 600 - 750 mm wide.....	5,566.50	127.60	191.30	222.30	20091
20092	Ditto, 1500 - 1800 mm long x 600 - 750 mm wide.....	6,403.30	153.10	229.60	266.80	20092
20093	Ditto, 1800 - 2000 mm long x 600 - 750 mm wide.....	7,640.30	191.30	293.40	340.90	20093
20094	Ditto, 2000 - 2500 mm long x 600 - 750 mm wide.....	9,313.90	255.10	382.70	444.70	20094
	<i>Each</i>					
20095	Add to either of Items 20091 to 20094 inclusive for intermediate arm rest to seating bench.....				218.30	20095
	CHANGING SEATING BENCHES					
	Changing 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>					
20096	Changing seating bench, 900 mm deep x 450 mm high.....	2,897.70	63.80	127.60	151.50	20096
20097	Changing seating bench, single side, 450 mm deep x 450 mm high with 1650 mm high coat hook rail.....	2,679.00	63.80	127.60	151.50	20097
20098	Changing seating bench, double side, 900 mm deep x 450 mm high with 1650 mm high coat hook rail.....	4,598.60	127.60	255.10	302.90	20098

Item		Item
	<p>WRITING BOARDS / NOTICE BOARDS / CHALKBOARDS</p> <p>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 : -</p>	
	<p><i>Per square metre</i></p>	
20099	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.....	20099
20100	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.....	20100
	Proprietary chalkboard stands on floor or fixed to wall all as recommended by the manufacturer : -	
	<p><i>Per square metre</i></p>	
20101	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 EN458 (framework and backing measured separately).....	20101
20102	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.....	20102
20103	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.....	20103
	<p>BAIZE OR NOTICE BOARD FELT</p> <p><i>Per square metre</i></p>	
20104	Good quality red, green, blue or black baize or fine felt, fixed to doors, notice and directory boards and the like with adhesive or brass nails as required.....	20104
20105	Ditto but fixed to grooved plastic name plates and notice boards (measured separately) including working into grooves (measured flat overall grooves).....	20105
20106	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).....	20106

Supply and fix			Take down and clear away	Take down and set aside for re-use	Fix only
Board size (m ²)					
n.e. 1.0	1.0 - 2.0	exc. 2.0			
A \$	B \$	C \$	D \$	E \$	F \$
643.30	642.00	613.70	16.00	25.60	44.50
357.70	338.30	319.10	12.80	22.40	36.90

Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only
A \$	B \$	C \$	D \$
478.40	10.80	21.10	33.80
1,849.20	72.80	90.40	72.80
1,041.90	37.40	52.20	60.80

A \$
256.80
261.90
267.30

Item							Item
	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>						
20107	Clothes drying rack, 1500 mm long x 600 - 750 mm wide.....	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only		20107
		A	B	C	D		
		\$	\$	\$	\$		
		705.80	31.90	38.30	42.20		
	VENETIAN BLINDS						
		Area of blinds (m ²)					
		n.e. 1.0	1.0 - 1.5	1.5 - 2.0	Exc. 2.0		
	<i>Per square metre</i>	A	B	C	D		
		\$	\$	\$	\$		
20108	Blinds in individual size.....	212.80	177.40	153.90	139.20		20108
	<i>Per square metre</i>					A	
						\$	
20109	Extra over for forming graphics and the like on one side.....					50.20	20109
20110	Ditto but on both sides.....					87.90	20110
	<i>Each</i>						
20111	Extra over for forming opening of any size.....					40.20	20111
	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>						
20112	Slat.....					15.00	20112
20113	Head rail.....					70.40	20113
20114	Bottom rail.....					62.40	20114
20115	Lift cord.....					10.60	20115
20116	Ladder cord.....					15.00	20116
20117	U rod.....					20.20	20117

Item			Item	
	VENETIAN BLINDS (CONT'D)			
	Alteration and repairs : - (Cont'd)			
	Take down and clear away the following old or defective articles or fittings, and supply and fix new articles or fittings : - (Cont'd)			
	<i>Each</i>	A \$		
20118	Tassel.....	6.70	20118	
20119	Tilter.....	29.90	20119	
20120	Cord lock.....	35.20	20120	
20121	Fixing bracket.....	24.60	20121	
20122	Tape roll and tape holder.....	24.60	20122	
20123	750 mm Long solid core wand with hook.....	35.50	20123	
20124	1,000 mm Long ditto.....	55.70	20124	
20125	1,300 mm Long ditto.....	66.70	20125	
20126	1,500 mm Long ditto.....	76.20	20126	
20127	2,300 mm Long ditto.....	137.30	20127	
20128	End cap to head or bottom rails.....	6.90	20128	
20129	Slat clip.....	5.60	20129	
	Sundries			
		Area of blinds (m ²)		
		N.e. 3.0	Exc. 3.0	
	<i>Each</i>	A \$	B \$	
20130	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).....	140.80	158.40	20130
20131	Take down existing venetian blinds and set aside for re-fix.....	25.40	28.90	20131
20132	Ditto but clear away from Site.....	28.90	34.30	20132
20133	Fix only venetian blinds.....	65.80	76.30	20133

Item			Item																
	VERTICAL BLINDS																		
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Area of blinds (m²)</th> </tr> <tr> <th>N.e. 1.0</th> <th>1.0 - 1.5</th> <th>Exc. 1.5</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>195.40</td> <td>167.50</td> <td>147.50</td> </tr> </tbody> </table>		Area of blinds (m ²)			N.e. 1.0	1.0 - 1.5	Exc. 1.5	A	B	C	\$	\$	\$	195.40	167.50	147.50	
Area of blinds (m ²)																			
N.e. 1.0	1.0 - 1.5	Exc. 1.5																	
A	B	C																	
\$	\$	\$																	
195.40	167.50	147.50																	
	<i>Per square metre</i>																		
20134	Blinds in individual size.....		20134																
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>A</th> </tr> <tr> <th>\$</th> </tr> </thead> <tbody> <tr> <td>56.40</td> </tr> </tbody> </table>	A	\$	56.40	20135													
A																			
\$																			
56.40																			
20135	Extra over for forming opening of any size.....		20135																
	<i>Each</i>																		
	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>	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>A</th> </tr> <tr> <th>\$</th> </tr> </thead> <tbody> <tr> <td>10.20</td> </tr> <tr> <td>35.10</td> </tr> <tr> <td>19.30</td> </tr> </tbody> </table>	A	\$	10.20	35.10	19.30												
A																			
\$																			
10.20																			
35.10																			
19.30																			
20136	Fabric louvre.....		20136																
20137	Drawing cord.....		20137																
20138	Bead chain.....		20138																
	<i>Each</i>																		
20139	Base weight.....		20139																
20140	End cap.....		20140																
20141	Hanger.....		20141																
20142	Set of Runner.....		20142																
20143	Spacer.....		20143																
		<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> <tbody> <tr> <td>119.30</td> <td>136.90</td> </tr> <tr> <td>14.00</td> <td>16.70</td> </tr> <tr> <td>21.10</td> <td>24.90</td> </tr> <tr> <td>65.80</td> <td>78.00</td> </tr> </tbody> </table>		Area of blinds (m ²)		N.e. 3.0	Exc. 3.0	A	B	\$	\$	119.30	136.90	14.00	16.70	21.10	24.90	65.80	78.00
Area of blinds (m ²)																			
N.e. 3.0	Exc. 3.0																		
A	B																		
\$	\$																		
119.30	136.90																		
14.00	16.70																		
21.10	24.90																		
65.80	78.00																		
	<i>Each</i>																		
20144	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).....		20144																
20145	Take down existing vertical blinds and set aside for re-fix.....		20145																
20146	Ditto but clear away from Site.....		20146																
20147	Fix only vertical blinds.....		20147																

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>																		
20148	Chic sunblinds in individual size.....	298.80 293.10 287.60 167.30	20148																
			<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: right;">47.80</td> </tr> </table>	A	\$	47.80													
A																			
\$																			
47.80																			
20149	Extra over for forming opening of any size.....		20149																
	<i>Each</i>																		
	Alterations and repairs :-																		
			<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																		
\$	\$																		
	<i>Each</i>																		
20150	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).....	129.90 147.40	20150																
20151	Take down, set aside for re-use chic sunblinds and associated cord and fittings.....	21.60 25.00	20151																
20152	Ditto but clear away from Site.....	23.90 32.80	20152																
20153	Fix only chic sunblinds complete with cord and fittings.....	57.30 64.50	20153																
	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>																		
20154	Blinds in individual size, manually operated.....	190.60 157.60 150.70	20154																
20155	Blinds in individual size, electrically operated.....	580.80 554.40 482.10	20155																
20156	Extra over either of Items 20154 to 20155 inclusive for additional blackout blinds.....	102.90 102.90 102.90	20156																
			<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: right;">100.60</td> </tr> </table>	A	\$	100.60													
A																			
\$																			
100.60																			
20157	Extra over for forming opening of any size.....		20157																
	<i>Each</i>																		

Item			Item
	ROLLER BLINDS (CONT'D)		
	Alterations and repairs :-		
	<i>Each</i>	A \$	
20158	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).....	141.30	20158
20159	Take down existing roller blinds and set aside for re-fix.....	10.50	20159
20160	Ditto but clear away from Site.....	15.60	20160
20161	Fix only roller blinds.....	85.10	20161
	AWNINGS		
	Awnings complete with all necessary accessories.		
	<i>Per square metre</i>		
		Projection of awning on plan (m ²)	
		N.e. 14.50 - 14.50 29.00	
		A B \$ \$	
20162	Awnings in individual size, manually operated.....	555.80 500.20	20162
20163	Ditto, electrically operated	687.10 582.80	20163
20164	Awning fabric to existing awning frame.....	300.60 270.30	20164
	Sundries		
	<i>Per square metre</i>		
20165	Take down existing manually operated awnings and set aside for re-fix.....	15.60	20165
20166	Ditto but clear away from Site.....	19.50	20166
20167	Take down existing electrically operated awnings and set aside for re-fix.....	23.40	20167
20168	Ditto but clear away from Site.....	26.30	20168
20169	Fix only manually operated awnings, including plugging, cutting and pinning etc., and making good and leaving in good order.....	156.90	20169
20170	Ditto, but electrically operated.....	167.60	20170

Item						
	CANVAS					
	<i>Per square metre</i>					
20171	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).....	65.60	6.80	7.80	10.70	20171
	BLACKOUT CURTAINS					
	<i>Per square metre</i>					
20172	Blackout curtains of twill, polyester or velvet, fixed to curtain rails and tracks (measured separately).....			271.80	185.50	20172
	<i>Each</i>					
20173	Extra over for forming opening of any size.....				95.90	20173
	Sundries					
	<i>Per square metre</i>					
20174	Take down and clear away blackout curtains and associated cord and fittings.....				6.80	20174
20175	Take down, set aside for re-use blackout curtains and associated cord and fittings.....				7.80	20175
20176	Fix only blackout curtains completed with cord and fittings.....				16.60	20176

Item				Item		
	STAGE CURTAINS					
		Stage curtains				
		with linings	without linings			
		A \$	B \$			
20177	Cotton velveteen stage curtain with valance fixed on curtain rails and tracks (measured separately).....	162.70	137.70	20177		
	Sundries					
		Stage curtains				
		with linings	without linings			
		A \$	B \$			
20178	Take down and clear away stage curtains and associated cord and fittings.....	9.10	7.80	20178		
20179	Take down, set aside for re-use stage curtains and associated cord and fittings.....	8.90	7.80	20179		
20180	Fix only stage curtains complete with cord and fittings.....	20.50	18.50	20180		
	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.					
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20181	Counter top wash basin	547.50	74.60	76.50	176.60	20181
20182	Under-counter wash basin	662.50	67.00	69.50	176.60	20182
20183	Wall hung wash basin	458.90	74.60	76.50	176.60	20183

Item					Item	
SANITARY FITTINGS (CONT'D)						
WATER CLOSETS						
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	
		A	B	C	D	
		\$	\$	\$	\$	
	<i>Each</i>					
20184	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.....	988.40	76.50	79.10	247.20	20184
20185	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.....	1,773.90	76.50	79.10	247.20	20185
20186	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.....	1,794.70	77.80	83.60	266.70	20186
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>					
20187	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.....	1,205.40	77.80	83.60	269.30	20187
20188	Approved stainless steel Grade 316 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	7,233.50	127.60	191.30	441.50	20188
20189	Approved stainless steel Grade 316 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.....	2,079.50	68.90	72.70	247.20	20189
20190	Approved stainless steel Grade 316 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.....	2,185.40	95.70	111.60	353.20	20190
20191	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.....	756.90	31.90	32.50	116.60	20191

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.						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A	B	C	D	
		\$	\$	\$	\$	
	Each					
20192	Single individual stall pattern vitreous china urinal complete with grating and trap (cistern, spreader, etc., measured separately)	1,332.20	60.60	63.80	203.10	20192
20193	Add to Item 20192 for each additional individual stall in the same range including overlap facings if required.....	1,399.70	60.60	63.80	203.10	20193
20194	Single section slab pattern urinal n.e. 1.00 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)	4,397.50	111.60	121.20	375.30	20194
20195	Add to Item 20194 for each additional 610 mm wide back section and length of floor channel in the same range	1,720.00	61.20	64.40	264.90	20195
20196	Ditto for each intermediate division slab	1,405.80	31.90	32.50	132.50	20196
20197	Stall urinal in stainless steel Grade 316, size 975 mm high x 600 mm wide and n.e. 750 mm long, complete with stainless steel Grade 316 hinged foot grating, level floor or tile step, outlet grating (cistern, spreader, etc. measured separately)	6,822.60	111.60	133.90	273.70	20197
20198	Add to Item 20197 for each additional 300 mm long in the same range	2,954.80	28.70	35.70	44.20	20198
	Per linear metre					
20199	Add to stall urinal for stainless steel step	1,880.90	18.50	19.80	61.80	20199
	Each					
20200	Wall urinal bowl complete with outlet grating, trap and concealed brackets or hanger (cistern, spreader, etc., measured separately)	875.90	30.60	38.30	79.50	20200
20201	Division slab between wall urinal bowls complete with concealed hanger	444.40	11.50	14.00	44.20	20201
20202	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 m long for single section slab urinal	457.50	63.80	70.20	132.40	20202
20203	Add to Item 20202 for each additional stall or bowl or 610 mm width of stall urinal served from the same cistern	374.70	10.20	11.50	42.40	20203

Item					Item	
SANITARY FITTINGS (CONT'D)						
SINKS						
(Note: All sink mixers or faucets are measured separately.)						
		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>					
20204	Stainless steel Grade 316 single bowl sink complete with waste fitting, plug and chain, trap fitting, tap hole with overflow and fixing brackets and accessories.....	1,435.50	67.00	69.50	247.20	20204
20205	Add to Item 20204 for drain board n.e. 1.00 m long.....	886.60	43.40	45.30	158.90	20205
20206	Add to Item 20204 for drain board 1.00 - 1.60 m long.....	1,413.60	44.70	45.90	176.60	20206
20207	Stainless steel Grade 316 double bowl sink complete with waste fitting, plug and chain, trap, tap hole with overflow and fixing brackets and accessories.....	1,151.70	67.00	69.50	264.90	20207
20208	Add to Item 20207 for drain board n.e. 1.00 m long.....	1,359.60	43.40	45.30	158.90	20208
20209	Add to Item 20207 for drain board 1.00 - 1.60 m long.....	1,886.60	44.70	45.90	176.60	20209
	<i>Each</i>					
20210	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, supply fitting and hand spray with supply fitting	16,376.30	260.20	264.00	830.00	20210
20211	Slop sink (any size) complete with drainer, overflow, waste fitting, plug and chain, trap and brackets.....	11,904.50	77.20	79.10	309.10	20211
(Note : Items 20210 and 20211 inclusive will only be paid for if ordered by the Maintenance Surveyor in writing)						
SHOWER TRAYS AND BATH TUBS						
Note: All shower and bath fittings, mixers or faucets are measured separately.						
	<i>Each</i>					
20212	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)	1,711.80	115.40	116.10	362.00	20212
20213	Vitreous enamelled cast iron bath n.e. 2 m long complete with combined overflow and waste fitting, plug and chain and trap.....	2,643.10	151.80	154.30	485.70	20213

Item					Item	
	TAPS, COCKS AND MIXERS					
		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 \$	
20214	Bib cock, bib tap and stop cock.....	230.70	12.80	16.00	70.60	20214
20215	Pillar cock and pillar tap with lever action.....	259.80	12.80	16.00	70.60	20215
20216	Basin mixer	623.40	12.80	16.00	68.90	20216
20217	Sink mixer with swivel nozzle.....	374.30	12.80	16.00	81.20	20217
20218	Shower mixer fitting with pillar taps or cocks, shower head and spray handset with flexible hose including wall brackets and wall mounted tower pole.....	563.60	12.80	16.00	239.30	20218
20219	Bath mixer fitting with fixed nozzle.....	312.40	12.80	16.00	133.30	20219
20220	Ditto but for bath with fixed nozzle, diverter automatic fitting, shower head and spray handset with flexible hose including wall brackets and wall mounted tower pole.....	520.70	12.80	16.00	221.60	20220
20221	Add to either of Items 20214 to 20220 inclusive if fitted with "Compression type" connector for copper tubing (per one end)	37.90	-	-	8.80	20221
20222	Ditto if fitted with "Capillary type" connector for copper tubing (per one end)	54.00	-	-	17.70	20222

Item		Supply and fix		Take down and clear away		Item
	Diameter (mm)	15	20	15	20	
		A	B	C	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>					
20223	Surface mounted 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	1,259.10	1,477.40	31.90	35.10	20223
20224	Concealed self closing non-concussive shower stopcock ditto	1,622.90	1,768.40	31.90	35.10	20224
20225	Surface mounted self closing non-concussive shower mixer stop cock , knob to select showering temperature, built in adjustable flow device supplied with anti-theft device fixed overhead shower and riser pipe and hose	2,059.50	2,277.80	31.90	35.10	20225
20226	Concealed self closing non-concussive shower mixer stopcock ditto	2,496.10	2,714.40	31.90	35.10	20226
20227	Self closing non-concussive shower mixer stop cock of WSD's Water Efficiency Labelling Scheme (WELS) Grade 1 type knob to select showering temperature, built in adjustable flow device supplied with anti-theft device fixed overhead shower and riser pipe and hose.....	1,887.80	2,509.70	31.90	35.10	20227
20228	Ditto but Grade 2, 3 or 4 type.....	3,912.30	5,209.00	31.90	35.10	20228
20229	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	677.00	1,040.80	31.90	35.10	20229
20230	Self closing non-concussive basin pillar tap or mixer of WSD's Water Efficiency Labelling Scheme (WELS) Grade 1 type with built in adjustable flow rate device, self cleaning piston and anti-splash gauze strainer	364.10	478.10	31.90	35.10	20230
20231	Ditto but Grade 2, 3 or 4 type.....	735.20	972.90	31.90	35.10	20231
20232	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	786.10	1,113.60	31.90	35.10	20232
20233	Concealed non-concussive shower stop cock, with lever action for disabled, with lever handle at least 75mm long from the centre of rotation to the handle tip.....	1,002.70	1,102.90	31.90	35.10	20233
20234	Ditto but for shower and bath mixer stop cock	1,093.80	1,203.20	31.90	35.10	20234

Item		Supply and fix		Take down and clear away		Item
		15	20	15	20	
	Diameter (mm)	A	B	C	D	
	<i>Each</i>	\$	\$	\$	\$	
ELECTRONIC OPERATED TAPS, COCKS AND MIXERS						
Electronic operated taps, cocks or mixers with adjustable self closing timing devices, electronic sensor devices, infra-red sensors, powered by transformer or battery operated complete with control box, angle stop cocks with built-in filter and check valve, fittings and fixing accessories :-						
20235	Electronic operated basin bib or pillar tap powered by transformer including provision of connection to nearest power point by a registered electrical worker.....	2,059.50	2,277.80	31.90	35.10	20235
20236	Ditto but operated by battery	1,477.40	1,841.20	31.90	35.10	20236
20237	Electronic operated basin bib or pillar thermostatic mixer powered by transformer including provision of connection to nearest power point by a registered electrical worker	2,954.80	3,318.60	31.90	35.10	20237
20238	Ditto but operated by lithium battery	2,809.20	3,027.50	31.90	35.10	20238
20239	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 including provision of connection to nearest power point by a registered electrical worker.....	2,026.50	3,717.70	47.80	54.20	20239
20240	Ditto but operated by battery.....	1,671.50	2,853.40	47.80	54.20	20240
20241	Wall mounted electronic operated thermostatic mixer powered by transformer, including provision of connection to nearest power point by a registered electrical worker.....	3,523.80	4,194.20	51.00	63.80	20241
20242	Ditto but operated by battery.....	2,884.40	4,209.80	51.00	63.80	20242
THERMOSTATIC AND THERMOSCOPIC MIXING VALVES						
		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	
		\$	\$	\$	\$	
20243	Thermostatic mixing valve 15mm	931.50	22.30	33.80	58.30	20243
20244	Ditto 20 mm	1,143.40	22.30	33.80	58.30	20244
20245	Ditto 22 mm	1,295.30	22.30	33.80	58.30	20245
20246	Ditto 25 mm	1,440.80	22.30	33.80	58.30	20246
20247	Thermostatic mixing valve 15 mm with safety shut-off device	1,004.20	22.30	39.60	58.30	20247
20248	Ditto 20 mm	1,295.30	22.30	39.60	58.30	20248
20249	Ditto 22 mm	1,368.10	22.30	39.60	58.30	20249
20250	Ditto 25 mm	1,586.30	22.30	39.60	58.30	20250
20251	15 mm Thermoscopic mixing valve.....	1,440.80	24.20	33.80	58.30	20251
20252	Ditto with safety shut-off device.....	1,586.30	24.20	33.80	58.30	20252

Item					Item	
	PARTS OF SANITARY FITTINGS					
	WATER CLOSET ACCESSORIES					
		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>	\$	\$	\$	\$	
20253	Solid plastic W.C. seat with moulded plastic adjustable hinges	102.00	12.10	14.70	22.10	20253
20254	Ditto but with cover	230.20	14.00	17.20	26.50	20254
20255	Solid W.C. seat with moulded adjustable hinges for disabled.....	109.00	12.10	14.70	22.10	20255
20256	India rubber buffer to W.C. seat	28.00	1.90	1.90	6.20	20256
20257	Pair of pillar hinges to W.C. seat	28.90	1.90	1.90	7.10	20257
20258	Pair of double pillar hinges to W.C. seat and cover	62.60	2.60	2.60	9.70	20258
20259	Vitreous china close-coupled cistern, 6 litre single flush or 6 / 4 litre dual flush, complete with plastic syphon fittings, ball valve, close coupling fitments, overflow, chromium plated lever or push button and fittings.....	610.30	40.20	42.10	123.60	20259
20260	Vitreous china low level cistern, 6 litre single flush, complete with plastic syphon fittings, ball valve, flush bend and pipe, inlet connector, overflow, chromium plated lever and fittings.....	695.90	40.20	42.10	123.60	20260
20261	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.....	657.90	46.60	48.50	150.10	20261
20262	Plastic concealed type cistern, 6 litre single flush or 6 / 4 litre dual flush, complete with plastic syphon fittings, ball valve, flush bend and pipe, inlet connector, overflow and chromium plated lever or push button.....	497.60	46.60	48.50	150.10	20262
20263	Plastic low level cistern, 6 litre single flush, complete with plastic syphon fittings, ball valve, flush bend and pipe, inlet connector, overflow, chromium plated lever and fittings.....	450.30	46.60	48.50	150.10	20263
20264	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.....	321.20	46.60	48.50	150.10	20264

Item					Item	
	PARTS OF SANITARY FITTINGS (CONT'D)					
	WATER CLOSET ACCESSORIES (CONT'D)					
		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 \$	
20265	Electronic operated vandal proof vitreous china W.C. flush valve approved by Hong Kong Water Authority suitable for sea water, concealed/built-in type, including infra-red sensor with manual overriding button in case of failure of sensor, filter before flushing valve and DC powered and and provision of connection to nearest power point by a registered electrical worker.....	3,125.70	24.90	36.40	106.00	20265
20266	32 mm Self-closing non-concussive flushing devices, inlet connector and remote control system	2,216.10	24.90	36.40	106.00	20266
20267	32 mm Diameter stainless steel flushing valve	1,200.40	22.30	28.70	44.20	20267
20268	Plastic syphon complete with chromium plated outlet connector including adjusting and re-fixing lever arm	145.20	26.80	28.10	72.40	20268
20269	Pair of porcelain enamelled brackets.....	253.80	9.60	11.50	53.00	20269
20270	Chromium plated brass lever handle with linkage to syphon including adjusting	77.20	16.60	17.90	35.30	20270
20271	Plastic lever handle ditto	54.10	16.60	17.90	35.30	20271
20272	Heavy galvanized chain pull to W.C. cistern	39.60	16.60	-	14.10	20272
20273	Nylon cord pull ditto	23.10	16.60	-	14.10	20273
20274	Rod pull and guide for high level cistern	28.50	16.60	-	14.10	20274
20275	Foot operated flushing mechanism	672.20	26.20	26.80	90.10	20275
20276	Foot operated duct lever with high level cistern adaptor for wall thickness within 115 mm to 229 mm	1,107.00	30.00	30.60	88.30	20276
20277	Plastic flush pipe for low level cistern including connector	59.40	16.00	17.90	38.00	20277
20278	Plastic adjustable flush pipe for high level cistern	79.40	22.30	23.60	44.20	20278
20279	Plastic flush pipe connector	22.30	7.70	8.30	16.80	20279

Item					Item	
PARTS OF SANITARY FITTINGS (CONT'D)						
URINAL 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 \$	
	<i>Each</i>					
20280	Electronic operated vandal proof urinal flush valve approved by Hong Kong Water Authority suitable for sea water, concealed/built-in type, including infra-red sensor with 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.....	1,335.70	24.90	36.40	106.00	20280
20281	Urinal flush valve of WSD Water Efficiency Labelling Scheme (WELS) Grade 1 type.....	2,540.00	24.90	36.40	106.00	20281
20282	Ditto but Grade 2, 3 or 4 type.....	2,540.00	24.90	36.40	106.00	20282
20283	Glazed fire-clay automatic flushing cistern, 4.50 litre capacity	538.70	24.20	24.90	82.10	20283
20284	Ditto but 9.00 litre capacity	561.90	28.10	28.70	91.80	20284
20285	Ditto but 13.50 litre capacity	621.30	31.90	32.50	100.70	20285
20286	Plastic syphon with screwed outlet and rubber washer to suit 4.50 litre capacity automatic flushing cistern	196.70	15.30	16.00	51.20	20286
20287	Ditto but for 9.00 litre capacity automatic flushing cistern	274.80	16.60	17.90	56.50	20287
20288	Ditto but for 13.50 litre capacity automatic flushing cistern	352.00	19.80	20.40	60.90	20288
20289	10 mm Plastic drip cock for automatic cistern	75.60	7.70	8.30	28.30	20289
20290	10 mm Brass drip cock ditto	252.70	9.60	10.20	34.40	20290
20291	P.V.C. flush pipe and spreader for single urinal stall or bowl	227.40	20.40	21.10	60.10	20291
20292	Add to Item 20291 for each additional stall or bowl in a range served from the same cistern	198.30	9.60	10.20	30.90	20292
20293	P.V.C. flush pipe and sparge pipe n.e. 1 m long for single section slab urinal	383.50	26.80	27.40	70.60	20293
20294	Add to Item 20293 for each additional 610 mm width of slab urinal	57.60	7.70	8.30	21.20	20294
20295	Chromium plated copper flush pipe and chromium plated brass spreader for single urinal stall or bowl	229.50	24.20	24.90	61.80	20295
20296	Add to Item 20295 for each additional stall or bowl in a range served from the same cistern	123.10	11.50	12.10	33.60	20296
20297	Chromium plated copper flush pipe and sparge pipe n.e. 1 m long for single section slab urinal	285.40	27.40	28.10	75.10	20297
20298	Add to Item 20297 for each additional 610 mm width of slab urinal	140.00	7.70	8.30	23.00	20298
20299	Grating and waste connection to outlet from urinal channel ditto	142.00	13.40	14.00	42.40	20299

Item					Item	
	PARTS OF SANITARY FITTINGS (CONT'D)					
	SHOWER FITTINGS					
		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 \$	
20300	Shower fitting comprising tap, flexible hose, clamp bracket assembly, slide bar, shower head and spray handset.....	502.60	22.30	23.60	70.60	20300
20301	Ditto but with shower mixer in lieu of tap	664.70	30.00	30.60	97.10	20301
20302	Ditto but with thermo-static shower mixer in lieu of tap	3,088.30	35.10	36.40	141.30	20302
20303	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 150kg.....	1,353.90	31.90	38.30	110.40	20303
20304	Shower mixer with valves of WSD Water Efficiency Labelling Scheme (WELS) Grade 1, concealed type complete with shower head and fittings.....	808.70	26.80	28.10	88.30	20304
20305	Ditto but Grade 2, 3 or 4 type.....	808.70	26.80	28.10	88.30	20305
20306	Shower rose.....	71.90	7.70	8.30	28.30	20306
20307	Plastic hand spray.....	83.70	5.70	5.70	12.40	20307
20308	Chromium plated bracket for hand spray including plugging to wall	101.20	10.20	11.50	23.00	20308
20309	15 mm Diameter chromium plated brass flexible tube, 1.20 m long	102.30	6.40	7.70	16.80	20309
20310	Ditto but 1.50 m long	142.30	6.40	7.70	16.80	20310
20311	Shower seat not less than 550 mm wide and 400 mm deep, and fixed to wall including wall brackets.....	1,531.90	33.20	38.30	83.90	20311
	WASTE PLUGS AND CHAINS					
		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 \$	
20312	Rubber or vulcanite waste plug n.e. 64 mm top diameter with chromium plated ring to receive chain (measured separately)	8.50	2.60	3.80	4.40	20312
20313	Stout chromium plated brass chain ring and screw fixing stud if required n.e. 0.80 m long	16.20	5.10	5.70	7.10	20313

Item					Item	
TOILET FITTINGS AND ACCESSORIES						
Shower curtain rails or hanging rails in polished chrome, stainless steel or aluminium finish including mounting flanges, caps, curtain rings, brackets and fixing accessories :-						
		Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20314	Shower curtain rail or hanging rail <i>Per linear metre</i>	31.30	1.10	2.10	2.90	20314
Toilet roll holders including fixing accessories :-						
	<i>Each</i>					
20315	Toilet roll holder (heavy pattern) in stainless steel polished finish or satin finish, or chrome plated finish, surface mounted.....	174.10	3.20	7.40	14.70	20315
20316	Locking type ditto	221.90	4.30	7.40	14.70	20316
20317	Single toilet paper holder ditto.....	120.90	2.10	4.30	11.80	20317
20318	Double toilet roll holder in ditto	251.80	2.10	4.30	11.80	20318
20319	Single vitreous china toilet roll holder surface mounted.....	80.90	2.10	4.30	11.80	20319
20320	Ditto but semi-recessed	99.10	2.10	4.30	11.80	20320
Towel rails in polished chrome, stainless steel or aluminium finish including mounting flanges, caps, brackets and fixing accessories :-						
	<i>Each</i>					
20321	Towel rail 450 mm long.....	158.00	3.20	6.40	13.20	20321
20322	Ditto 600 mm long.....	217.00	3.20	6.40	13.20	20322
20323	Ditto 900 mm long.....	297.00	3.20	6.40	13.20	20323

Item					Item	
TOILET FITTINGS AND ACCESSORIES (CONT'D)						
Multi-roll toilet tissue dispenser boxes including 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 \$	
20324	Multi-roll toilet tissue dispenser box in plastic.....	122.80	4.30	9.60	17.60	20324
20325	Ditto in stainless steel.....	284.50	4.30	9.60	17.60	20325
Towel and feminine napkin dispensers in polished chrome, stainless steel or aluminium finish including mounting flanges, caps, brackets and fixing accessories :-						
<i>Each</i>						
20326	Towel dispenser, 400 x 600 x 300 mm, surface mounted	527.00	3.20	7.40	17.60	20326
20327	Ditto, 275 x 230 x 110 mm surface mounted	357.00	3.20	7.40	17.60	20327
20328	Ditto, 380 x 585 x 370 mm surface mounted	527.00	3.20	7.40	17.60	20328
20329	Feminine napkin disposal, size 190 x 255 x 95 mm.....	210.40	2.10	5.30	11.80	20329
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>						
20330	Grab bar 32 - 40 mm diameter, 600 mm long.....	259.00	3.20	7.40	17.60	20330
20331	Ditto but 900 mm long.....	391.60	5.30	10.60	22.10	20331
20332	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 150kg.....	543.60	8.50	15.90	29.40	20332

Item					Item	
TOILET FITTINGS AND ACCESSORIES (CONT'D)						
Folding grab rails for disabled toilet, in stainless steel polished hair line or mirror finish, including mounting flanges, caps, tenon plates, brackets and fixing accessories : -						
<i>Each</i>						
20333	Folding grab bar 32 - 40mm diameter, in U-shaped of 750mm plan length, swing upwards, capable of carrying a static load of 150kg.....	A \$	B \$	C \$	D \$	20333
		668.50	10.60	21.30	36.80	
Grab bars, in non-ferrous metal, with colour resin or similar covering, easy grip and stain proof coating : -						
<i>Each</i>						
20334	Grab bar, 32 - 40mm diameter, 600mm long.....	295.60	3.20	7.40	17.60	20334
20335	Ditto but 900mm long.....	564.20	5.30	10.60	22.10	20335
20336	Grab bar, 32 - 40mm diameter, in L-shaped or two bars arranged in L-shaped configuration, 750mm by 900mm in length, capable of carrying a static load of 150kg.....	893.80	8.50	15.90	29.40	20336
Folding grab rails for disabled toilet, in non-ferrous metal, with colour resin or similar covering, easy grip and stain proof coating : -						
<i>Each</i>						
20337	Folding grab rail, 32 - 40mm diameter, in U-shaped of 750mm plan length, swing upwards, capable of carrying a static load of 150kg.....	1,488.40	10.60	21.30	36.80	20337
Shower cubicle screen in clear polycarbonate panel complete with frame, sliding or pivot door panel, track, fittings and accessories : -						
<i>Per square metre</i>						
20338	Screen to one-side of shower cubicle, n.e. 1.00 m long and 1.80 m high.....	1,499.40	21.30	31.90	44.10	20338
20339	Ditto to two sides of shower cubicle, overall n.e. 2.00 m girth and 1.80 m high.....	2,241.70	31.90	42.50	58.80	20339

Item					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>	Supply and fix	Take down and clear away	Take down and set aside for re-use	Fix only	
		A \$	B \$	C \$	D \$	
20340	Tumbler holder.....	103.40	2.10	4.30	8.80	20340
20341	Tumbler and tooth brush holder.....	121.60	2.10	4.30	8.80	20341
20342	Pair of brackets for 125 mm glass shelves.....	101.30	4.30	9.60	17.60	20342
20343	Guard rail for 525 x 125 mm glass shelves.....	68.30	1.10	2.10	2.90	20343
20344	Washing cream dispenser and plastic soap container.....	271.70	2.10	4.30	8.80	20344
20345	Soap holder.....	188.50	2.10	3.20	7.40	20345
20346	Surface mounted liquid soap dispenser.....	206.50	2.10	4.30	8.80	20346
20347	Under-counter soap dispenser with 100 mm spout length.....	217.90	2.10	4.30	8.80	20347
20348	Battery operated automatic soap dispenser with infra-red sensor, plastic cover, inspection window and soap container	484.00	2.10	4.30	8.80	20348
20349	Adjustable mirror for disabled, 450 x 600 mm complete with adjustable pivoted brackets.....	263.30	5.30	10.60	22.10	20349
	PROPRIETARY DIAPER CHANGING STATION					
	Proprietary diaper changing station including all necessary accessories in accordance with the manufacturer's recommendations : -					
	<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 \$	
20350	Proprietary diaper changing station with FDA approved blow-moulded high-density, minimum size of 900mm length x 500mm 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.....	2,598.60	21.30	42.50	88.20	20350

Item		Size (m ²)				Item
		n.e. 0.10	0.10 - 0.20	0.20 - 0.30	0.30 - 0.40	
		A \$	B \$	C \$	D \$	
BRILLE AND TACTILE SIGNS						
Engraved plastic signs in Braille and tactile information comprising Braille characters, directional arrows, floor numbers and the like :-						
	<i>Each</i>					
20351	Engraved plastic Braille and tactile information signs, 3 mm thick, fixed on handrail, staircases and/or other locations with adhesive or screws.....	136.90	205.30	273.70	342.20	20351
20352	Ditto but 6mm thick.....	161.10	241.60	322.10	402.70	20352
	<i>Each</i>				A \$	
20353	Take down and clear away plastic Braille and tactile information signs of any size.....				3.20	20353
20354	Take down and set aside for re-use ditto.....				6.40	20354
20355	Fix only ditto.....				14.10	20355
Metal signs in Braille and tactile information comprising Braille characters, directional arrows, floor numbers and the like :-						
	<i>Each</i>					
		n.e. 0.001	0.001 - 0.002	0.002 - 0.003	0.003 - 0.004	
		A \$	B \$	C \$	D \$	
20356	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.....	30.00	46.00	72.60	99.30	20356
	<i>Each</i>				A \$	
20357	Take down and clear away metal Braille and tactile information signs of any size from any position.....				5.30	20357
20358	Take down and set aside for re-use ditto.....				10.60	20358
20359	Fix only ditto.....				21.10	20359

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>	
20360	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 11,144.40 20360
20361	Ditto but 0.20 m ² to 0.50 m ² 22,223.70 20361
20362	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 14,663.70 20362
20363	Ditto but 0.20 m ² to 0.50 m ² 32,523.30 20363
<i>Per square metre</i>	
20364	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 35,518.80 20364
20365	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 46,923.90 20365
<i>Each</i>	
20366	Extra over either of Items 20360 to 20365 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..... 4,953.10 20366
<i>Per square metre</i>	
20367	Take down and clear away Braille and tactile directory maps..... 127.50 20367
20368	Take down and set aside for re-use ditto..... 191.20 20368
20369	Fix only ditto..... 509.90 20369

Item					Item	
FLAG POLES						
Aluminium flag poles 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	
		A \$	B \$	C \$	D \$	
Each						
20370	Aluminium flag pole 12 - 15 m high, ground anchored (concrete footing measured separately).....	42,737.40	31.90	95.60	504.80	20370
20371	Ditto but 9 -12 m high flag pole.....	33,468.20	25.50	85.00	476.80	20371
20372	Add to Item 20370 for each additional 3 m or part thereof in flag pole height.....	17,605.40	21.30	74.40	476.80	20372
20373	Aluminium flag pole 7 m high, wall mounted including fixing brackets and stainless steel anchor bolts	23,922.90	21.30	53.10	343.50	20373
20374	Ditto but 6 m high flag pole.....	23,181.20	17.00	42.50	329.50	20374
Replacement parts only : -						
Each						
20375	Internal halyard, pulleys. etc. for 12 - 15 m high aluminium flag pole including taking down and clear away existing	3,328.60	5.30	15.90	126.90	20375
20376	Ditto but for 9 - 12 m high flag pole.....	3,205.40	4.30	14.90	112.90	20376
20377	Add to Item 20375 for each additional 3 m or part thereof in flag pole height.....	717.30	4.30	14.90	98.80	20377
20378	External halyard, pulleys. etc. for 6 or 7 m high flag pole	2,886.20	4.30	13.80	84.80	20378

Item						Item
	PROJECTOR SCREENS					
	Projection screen 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 \$	
20379	Projector screen, manually operated size : 1,780 x 1,780 mm	1,956.20	79.70	92.50	249.40	20379
20380	Projector screen, electrically operated size : 1,600 x 2,130 mm, including provision of connection to nearest power point by a registered electrical worker.....	8,317.20	127.60	143.50	320.70	20380
	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 \$		
20381	Supply and fix traffic barrier system complete with gate arm and ON/OFF push button.....	18,799.00	19,174.50	19,469.90		20381
20382	Take down and clear away traffic barrier system		127.50	159.40	191.20	20382
20383	Take down and set aside for re-use ditto		212.50	233.70	255.00	20383
20384	Fix only ditto		337.10	351.10	365.10	20384

Section 21

**DEMOUNTABLE PARTITIONS,
DRY WALL AND CUBICLE SYSTEM**

SECTION 21

DEMOUNTABLE PARTITION, DRY WALL AND CUBICLE SYSTEM

SPECIAL CONDITIONS

Measurement of proprietary demountable partition system and dry wall

- SC21.01** All proprietary demountable partition system (inclusive of security type and fire resisting type partitions) and dry wall shall be measured the area of partition/dry wall over all framing, irrespective of whether the framing is concealed or exposed to view.
- No deduction shall be made for voids or openings not exceeding 0.50 m².
- Sound insulation inside the demountable partitions and dry walls shall be measured the net area where the sound insulation is applied.
- All doors shall be measured separately.
- Where the demountable partition system or dry wall is described and measured as fully glazed, it means that the total glazed area of partition / dry wall shall be equal to or exceeding 80% of the total partition / dry wall area.
- Measurement of repairs and alterations to proprietary demountable partition system and acoustic folding / sliding operable partition system shall be referred to Section 16 - Repairs and Alteration to Specialty Works.

Rates for demountable partition system and dry wall generally

- SC21.02** The rates for demountable partition system and dry wall shall generally include for : -
- (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.
 - (c) Sound sealing gaskets or other materials acceptable by the Maintenance Surveyor to all junctions of partitions and dry wall and junctions with other walls, partitions, window mullions and suspended ceilings.
 - (d) Treating all exposed wood or veneer surfaces with fire retardant paint.
 - (e) Treating all fabric surfaces with flame proof treatment.
 - (f) Aluminium skirting including all types of finishes or black or selected colour mild steel skirting.
 - (g) Unless specifically provided otherwise, provisions of finishes to demountable partitions and dry wall either applied in factories or on Site.
 - (h) All base, ceiling and abutment fixing.
 - (i) Forming wants including trimming edges.

SPECIAL CONDITIONS

Rates for demountable partition system and dry wall generally (Cont'd)

SC21.02 (Cont'd)

- (j) All necessary framing and suspension system from structural soffits to suspended ceiling level (above the exposed heights for demountable partitions and dry wall) for holding the demountable partitions and dry wall in place including all necessary stiffening and fixings.
- (k) Any glazing except for fully glazed partition / dry wall as described in Special Conditions Clause SC21.01.
- (l) Provisions of sample panels and applied finishes for selection by the Maintenance Surveyor.
- (m) 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

SC21.03

The rates for proprietary demountable partition system shall further include for :-

- (a) All framings and edging trims to intermediate, end or adjoining partitions and around door frames, openings and the like.
- (b) In the case of panel stopped at door height, include additional capping to exposed upper edge of partition.
- (c) For low level partitions, all upper cappings and intermediate stabilizers as required.
- (d) Providing and fixing to concrete structures, walls or fixtures with anchor bolts, brackets and the like.
- (e) Providing manufacturer's guarantee and supplier's warranty.

Rates for dry wall

SC21.04

The rates for dry wall shall further include for :-

- (a) All mouldings at edges, skirtings and fixings complete.
- (b) Providing and fixing to concrete structures, walls or fixtures with anchor bolts, brackets and the like.

Rates for alterations to existing dry wall

SC21.05

The rates for alterations to existing dry wall shall further include for :-

- (a) Taking down and re-fixing existing dry wall, framing, covering materials, etc..
- (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.
- (c) Modifying existing openings, finishes or covering to suit actual site conditions.

SPECIAL CONDITIONS

Rates for alterations to existing dry wall (Cont'd)

SC21.05 (Cont'd)

- (d) Making good surfaces disturbed.
- (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) Modifications on existing framing including provisions of additional framing, as required.

Rates for security partitions

SC21.06

The rates for security partitions shall further include for : -

- (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) Providing and fixing all steel or stainless steel anchors or bolts.
- (d) Guard bar panel at top when required.
- (e) Providing and fixing wood battens or steel brackets for the face coverings.

Rates for fire resisting partitions

SC21.07

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

- (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) Providing and fixing all steel or stainless steel anchors or bolts.
- (d) All additional fire resisting panel, components and materials.
- (e) Providing and fixing wood battens or steel brackets for the face coverings.
- (f) Submission of technical literature, shop drawings, test certificate and guarantees as required.

SPECIAL CONDITIONS

Rates for folding or sliding operable partitions**SC21.08**

The rates for folding or sliding operable 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. 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 all surfaces, if required.
- (f) Making good disturbed surfaces.
- (g) Sealing with vinyl acoustical seals and twin-finger contact type vinyl strips sweep seals as G.S. Items 22.83 and 22.84.
- (h) Providing test certificate, operation manual and manufacturer's guarantee.

Rates for proprietary acoustic folding/sliding operable partition system**SC21.09**

The rates for proprietary acoustic folding/sliding operable partition 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, sound proof/absorbing materials etc. 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 all surfaces, if required.
- (f) Making good disturbed surfaces.
- (g) Sealing with acoustical seals and sweep seals in accordance with the manufacturer's instructions.
- (h) Providing test certificate, operation manual and manufacturer's guarantee.

SPECIAL CONDITIONS**Rates for
proprietary
toilet cubicle
system****SC21.10**

The rates for proprietary toilet cubicle system, unless otherwise stated, shall include for : -

- (a) Supply and installation in accordance with the manufacturer's instructions.
- (b) Complete systems with lightweight core and solid compact laminate panels (in conformity to EN 438 standard), finished with high performance surface veneer sheeting, to doors, partition, pilaster, divisions, etc..
- (c) All frames in aluminium (in conformity to EN 6060 standard) coated with corrosion resistant nylon.
- (d) All necessary corrosion resistant nylon-aluminium accessories like hook, toilet roll holder, and the like, and ironmongeries including adjustable feet, automatic hinges, snib indicators; coat hooks with door stops and angle brackets.
- (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, shop drawings and manufacturer's guarantee.

Item				Item
	PROPRIETARY DEMOUNTABLE PARTITION SYSTEM			
	Proprietary demountable partition system complete with stud framework, with panel covering 12.5 mm (min.) thick 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 \$	
21001	Partition with panel covering finished with laminated vinyl wall paper.....	520.30	607.60	21001
21002	Ditto with fabric sheeting.....	647.60	728.40	21002
21003	Ditto with timber veneer sheeting.....	674.10	782.20	21003
21004	Ditto with laminated plastic sheeting.....	693.70	803.90	21004
21005	Ditto with 13 mm thick softboard covered with Hessian fabric.....	804.10	891.40	21005
21006	Fully glazed partition with glazing in clear glass of any thickness.....	644.00	663.00	21006
21007	Ditto in obscure glass of any thickness.....	676.70	697.00	21007
21008	Ditto in wired glass of any thickness.....	730.60	752.50	21008
	Add to Item 21006 for clear or coloured tempered glass of any thickness.....	25%	25%	
	<i>Per square metre</i>		A \$	
21009	Add to either of Items 21001 to 21005 inclusive for additional sound insulation (density not less than 16 kg/m ³) to proprietary demountable partition system.....		30.60	21009
21010	Ditto but of density 48 kg/m ³		49.20	21010
	(Note :- The above Items 21009 to 21010 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)			

Item		Item
PROPRIETARY DEMOUNTABLE PARTITION SYSTEM (CONT'D)		
<i>Per square metre</i>		A \$
21011	Add to either of Items 21001 to 21005 inclusive for security partitions for Level I security including lined with 1 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with sound seal requirement.....	436.60
21012	Add to either of Items 21001 to 21005 inclusive for security partitions for Level II security including lined with 2 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with sound seal requirement.....	764.00
21013	Add to either of Items 21001 to 21005 inclusive for security partitions for Level III security including lined with 5 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with sound seal requirement.....	1,269.10
21014	Add to either of Items 21001 to 21005 inclusive for fire resisting partitions including all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour fire resisting requirements.....	218.30
21015	Add to either of Items 21001 to 21005 inclusive for fire resisting security partitions for Level I security including lined with 1 mm thick steel plate on both sides, all additional framing, fixing, panelling and accessories, in compliance with 1 hour fire resisting requirements, sound seal requirements.....	654.90
21016	Add to either of Items 21001 to 21005 inclusive for fire resisting security partitions for Level II security including lined with 2 mm thick steel plate on both sides, all additional framing, fixing, panelling and accessories, in compliance with 1 hour fire resisting requirements, sound seal requirements.....	982.30
21017	Add to either of Items 21001 to 21005 inclusive for fire resisting security partitions for Level III security including lined with 5 mm thick steel plate on both sides, all additional framing, fixing, panelling and accessories, in compliance with 1 hour fire resisting requirements, sound seal requirements.....	1,339.90
21018	Add to either of Items 21001 to 21005 inclusive for timber louvre consisting of 45 x 20 mm thick timber framing all round, 10 mm thick timber blades and 25 x 5 mm thick timber architrave (louvre area measured).....	727.70
21019	Construct 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	764.00
<i>Each</i>		
21020	Add to either of Items 21001 to 21005 inclusive for glazed sliding hatch, size 1200 x 450 mm high, consisting of 125 x 25 mm thick timber framing all round, 6 mm thick clear sheet glass with polished edges and finger holes, P.V.C. tracks housed into framing at head and cill including forming opening in new partition, providing and fixing of all necessary additional framing components.....	902.50

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		
		\$	\$	\$	\$		
21021	Dry wall with panel covering without any applied finish.....	246.80	320.80	392.30	510.00	21021	
21022	Dry wall with panel covering finished with vinyl wall paper.....	343.00	417.00	545.30	663.00	21022	
21023	Ditto with fabric sheeting.....	391.80	465.80	623.00	740.70	21023	
21024	Ditto with timber veneer sheeting.....	404.00	478.10	642.40	760.10	21024	
21025	Ditto with laminated plastic sheeting.....	411.40	485.40	654.00	771.70	21025	
21026	Ditto with 13 mm thick softboard covered with Hessian fabric.....	440.70	514.70	700.60	818.30	21026	
21027	Fully glazed dry wall with glazing in clear glass of any thickness.....	277.20	292.00	402.70	426.20	21027	
21028	Ditto in obscure glass of any thickness.....	289.60	304.50	415.10	438.60	21028	
21029	Ditto in wired glass of any thickness.....	356.30	371.10	481.80	505.30	21029	
	Add to Item 21027 for clear or coloured tempered glass of any thickness.....	60%	60%	40%	40%		
	<i>Per square metre</i>						
						A	
						\$	
21030	Add to either of Items 21021 to 21026 inclusive for additional sound insulation, 50 mm thick fibreglass insulation (density not less than 16 kg/m ³) to single layer dry wall.....					30.60	21030
21031	Ditto but density 48 kg/m ³					49.20	21031
	(Note : - The above Items 21030 to 21031 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)						
21032	Add to either of Items 21021 to 21026 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.....					61.10	21032
21033	Ditto but density 48 kg/m ³					98.50	21033
	(Note : - The above Items 21032 to 21033 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing)						

Item	Item
DRY WALL (CONT'D)	
<i>Per square metre</i>	
21034 Add to either of Items 21021 to 21026 inclusive for security partitions for Level I security including lined 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 \$ 436.60
21035 Add to either of Items 21021 to 21026 inclusive for security partitions for Level II security including lined with 2 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with sound seal requirement	764.00
21036 Add to either of Items 21021 to 21026 inclusive for security partitions for Level III security including lined with 5 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with sound seal requirement	1,269.10
21037 Add to either of Items 21021 to 21026 inclusive for single layer fire resisting partitions including all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour fire resisting requirements	218.30
21038 Add to either of Items 21021 to 21026 inclusive for double layer fire resisting partitions including all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour fire resisting requirements	272.90
21039 Add to either of Items 21021 to 21026 inclusive for fire resisting security partitions for Level I security including lined with 1 mm thick steel plate on both sides, all additional and enhanced framing, fixing, panelling and accessories, in compliance with 1 hour fire resisting requirements, sound seal requirement.....	654.90
21040 Add to either of Items 21021 to 21026 inclusive for fire resisting security partitions for Level II security including lined with 2 mm thick steel plate on both sides, all additional framing, fixing, panelling and accessories, in compliance with 1 hour fire resisting requirements, sound seal requirement.....	982.30
21041 Add to either of Items 21021 to 21026 inclusive for fire resisting security partitions for Level III security including lined with 5 mm thick steel plate on both sides, all additional framing, fixing, panelling and accessories, in compliance with 1 hour fire resisting requirements, sound seal requirement.....	1,339.90
21042 Add to either of Items 21021 to 21026 inclusive for timber louvre consisting of 45 x 20 mm thick timber framing all round, 10 mm thick timber blades and 25 x 5 mm thick timber architrave (louvre area measured).....	727.70
<i>Each</i>	
21043 Add to either of Items 21021 to 21026 inclusive for glazed sliding hatch, size 1200 x 450 mm high, consisting of 125 x 25 mm thick timber framing all round, 6 mm thick clear sheet glass with polished edges and finger holes, P.V.C. tracks housed into framing at head and cill including forming opening in new partition, providing and fixing of all necessary additional framing components.....	902.50

Item				Item								
	FLUSH DOORS FOR PROPRIETARY DEMOUNTABLE PARTITION SYSTEM AND DRY WALL											
	Doors for partitions with or without frames, each leaf size 600 - 900 x 2 100 mm high : - (ironmongery measured separately)	<table border="1" style="width: 100%; text-align: center;"> <tr> <th colspan="2">Door type with or without frame</th> </tr> <tr> <td style="width: 50%;">Hard-wood hollow core door and frame</td> <td style="width: 50%;">Hard-wood solid core door and frame</td> </tr> <tr> <td>A</td> <td>B</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> </table>		Door type with or without frame		Hard-wood hollow core door and frame	Hard-wood solid core door and frame	A	B	\$	\$	
Door type with or without frame												
Hard-wood hollow core door and frame	Hard-wood solid core door and frame											
A	B											
\$	\$											
	<i>Each</i>											
21044	Partition door, single leaf, without door frame.....	903.00	974.00	21044								
21045	Ditto but with door frame.....	1,247.10	1,259.90	21045								
21046	Partition door, double leaf, without door frame.....	1,547.10	1,668.80	21046								
21047	Ditto but with door frame.....	1,943.10	1,996.60	21047								
	<i>Each</i>											
21048	Extra over either of Items 21044 to 21047 inclusive for upper portion of door fitted with 6 mm thick clear glass of any size including forming opening through door, providing all necessary timber framing, timber fillers, glazing compound and the like (single leaf measured).....		169.60	21048								
21049	Ditto but fitted with 6 mm thick obscure glass panel (ditto).....		163.40	21049								
21050	Ditto but fitted with 6 mm thick wired glass panel (ditto).....		244.80	21050								
21051	Extra over either of Items 21044 to 21047 inclusive for door faced both sides with laminated plastic sheeting in lieu of veneer (single leaf measured).....		56.10	21051								
21052	Extra over ditto for door with 15 mm thick plywood blind box, overall size 600 x 340 x 80 mm deep, and lined with 13 mm thick softboard		297.60	21052								
21053	Extra over ditto for door with timber louvre size 600 x 340 x 80 mm consisting of 45 x 20 mm thick timber framing all round, 10 mm thick timber blades and 25 x 5 mm thick timber architrave		230.30	21053								

Item		Surface finish				Item
		Paint	Wood veneers	Plastic laminate	Vinyl cloth	
		A	B	C	D	
		\$	\$	\$	\$	
FOLDING OR SLIDING OPERABLE PARTITIONS						
Folding or sliding operable partitions as G.S. Items 22.81, 22.82(a) and 22.83 to 22.86 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 :-						
<i>Per square metre</i>						
21054	Folding or sliding operable partitions, 45 mm thick.....	1,262.90	1,501.20	1,373.40	1,353.90	21054
21055	Extra over for infilling with mineral wool.....	81.90	81.90	81.90	81.90	21055
<i>Each</i>						
21056	Extra over for single pass door.....	444.80	690.30	634.10	525.80	21056
21057	Extra over for double pass door.....	881.10	1,440.20	1,275.20	1,045.90	21057
PROPRIETARY ACOUSTIC FOLDING/SLIDING OPERABLE PARTITION SYSTEM						
Proprietary acoustic folding/sliding operable partition system, manual-operated, as G.S. Items 22.81, 22.82(b) and 22.83 to 22.86 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 :-						
<i>Per square metre</i>						
21058	Proprietary acoustic folding/sliding operable partition system of sound transmission class (STC) of rating not less than 45 dB.....	3,456.70	3,238.00	3,334.90		21058
21059	Extra over for infilling with mineral wool.....	218.50	218.50	218.50		21059
<i>Each</i>						
21060	Extra over for single pass door.....	6,639.80	6,639.80	6,639.80		21060
21061	Extra over for double pass door.....	13,279.60	14,189.20	13,279.60		21061
<i>Per linear metre</i>						
21062	Extra over for additional track				A \$ 1,218.80	21062

Item						Item
	REPAIRS TO DRY WALL 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 \$		
21063	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	19.00	40.50	91.20		21063
21064	Ditto but double layer full solid dry wall.....	25.30	53.20	120.30		21064
21065	Ditto but fully glazed dry wall partition.....	20.30	48.10	126.70		21065
21066	Ditto but as security / fire resisting / fire resisting security partition.....	22.80	57.00	127.90		21066
	<i>Each</i>					
21067	Hollow or solid core flush door (single leaf measured).....	15.20	19.00	21.50		21067
	ALTERATION WORKS TO EXISTING DRY WALL					
			Plaster- board panel covering	Plywood/ chip- board panel covering		
	<i>Per square metre</i>		A \$	B \$		
21068	Replace panel covering 12.5 mm (min.) thick to one side of existing dry wall, without any applied finish.....		102.00	124.20		21068
21069	Replace panel covering 12.5 mm (min.) thick to one side of existing dry wall finished with vinyl wall paper.....		150.10	162.30		21069
21070	Ditto but fabric sheeting.....		174.50	189.20		21070
21071	Ditto but timber veneer sheeting.....		180.70	195.90		21071
21072	Ditto but laminated plastic sheeting.....		184.30	199.90		21072
21073	Ditto but 13 mm thick softboard covered with Hessian fabric.....		199.00	216.10		21073

Item		Item
ALTERATION WORKS TO EXISTING DRY WALL (CONT'D)		
<i>Per square metre</i>		A \$
21074	Alter existing fully glazed partitions to double glazed partition with 6 mm thick clear glass.....	439.30
21075	Ditto but with 6 mm thick obscure glass.....	425.00
21076	Ditto but with 6 mm thick wired glass.....	583.20
21077	Alter existing dry wall partitions to insert 50 mm thick fibreglass insulation layer (density not less than 16 kg/m ³).....	14.10
21078	Ditto but density 48 kg/m ³	42.26
21079	Construct timber louvre consisting of 45 x 20 mm thick timber framing all round, 10 mm thick timber blades and 25 x 5 mm thick timber architrave including forming opening through existing hollow or solid core flush door and providing all necessary framing.....	881.20
21080	Forming opening of any size through dry wall partition including all necessary partition components.....	133.00
<i>Each</i>		
21081	Construct glazed sliding hatch, size 1200 x 450 mm high, consisting of 125 x 25 mm thick timber framing all round, 6 mm thick clear sheet glass with polished edges and finger hole, P.V.C. tracks housed into framing at head and cill including forming opening in existing dry wall partition, providing and fixing of all necessary framing components.....	870.60
21082	Construct 15 mm thick plywood blind box overall size 600 x 340 x 80 mm deep and lined with 13 mm thick softboard.....	617.50
21083	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	61.30
21084	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	532.50
<i>Per linear metre</i>		
21085	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	39.50
21086	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.....	186.40
21087	Ditto but 300 - 600 mm high.....	346.10

Item				Item								
IRONMONGERY TO PROPRIETARY DEMOUNTABLE PARTITION SYSTEM AND DRY WALL												
	Supply and fix ironmongery :-		<table border="1" style="float: right;"> <thead> <tr> <th>Single leaf door</th> <th>Double leaf door</th> </tr> </thead> <tbody> <tr> <td>A \$</td> <td>B \$</td> </tr> </tbody> </table>	Single leaf door	Double leaf door	A \$	B \$					
Single leaf door	Double leaf door											
A \$	B \$											
	<i>Per set</i>											
21088	Set of ironmongery comprising cylinder lock, 75 x 100 mm stainless steel hinges, bolts and rubber door stop	233.93	333.00	21088								
21089	Set of ironmongery for sliding door comprising mortice locks, flush bolts, sliding door track, channel guide, hanger, handles, door stop, etc.....	1,571.00	3,007.90	21089								
PROPRIETARY TOILET CUBICLE SYSTEM												
	Proprietary toilet cubicle system of impregnated homogeneous core with solid compact laminate panels conforming to 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 instruction.		<table border="1" style="float: right;"> <thead> <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> </thead> <tbody> <tr> <td>A \$</td> <td>B \$</td> <td>C \$</td> <td>D \$</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 \$									
	<i>Per set</i>											
21090	Set of one cubicle unit comprising one front panel with one door included, n.e. 1.00 m wide x n.e. 1.90 m deep x n.e. 2.10 m high.....	1,639.90	63.30	126.70	291.30	21090						
21091	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.....	2,733.20	83.60	178.60	364.80	21091						
21092	Set of one cubicle unit for disabled comprising one front panel with one door included, n.e. 1.50 m wide x n.e. 1.90 m deep x n.e. 2.10 m high.....	1,812.90	74.70	162.10	317.90	21092						
21093	Set of one corner cubicle unit for disabled comprising one front panel with one door included and one open-end panel, n.e. 1.50 m wide x n.e. 1.90 m deep x n.e. 2.10 m high.....	3,021.50	88.70	191.30	388.90	21093						
	<i>Each</i>											
21094	Add to either of Items 21090 to 21093 inclusive for division panel, n.e. 1.90 m deep x n.e. 2.10 m high.....	1,093.30	48.10	102.60	106.40	21094						
	<i>Per set</i>											
	Add to either of Items 21090 to 21093 inclusive for each additional 0.25 m or part thereof in height.....	8%	-	-	8%							

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 \$	
	<i>Pair</i>					
21095	Hinge (L/H or R/H)	87.30	2.00	4.00	9.10	21095
	<i>Each</i>					
21096	Adjustable leg	111.00	2.00	4.00	9.10	21096
21097	Rail fixing rose.....	54.60	2.00	4.00	9.10	21097
21098	Angle bracket	32.80	2.00	4.00	9.10	21098
21099	Headrail 3000mm (L)	229.20	2.00	4.00	9.10	21099
21100	Rail bracket	58.20	2.00	4.00	9.10	21100
21101	Rail elbow	29.10	2.00	4.00	9.10	21101
21102	Coat hook	29.10	2.00	4.00	9.10	21102
21103	Indicator snib (L/H or R/H)	163.70	2.00	4.00	9.10	21103
21104	Rail T connector	98.20	2.00	4.00	9.10	21104

Section 22

LANDSCAPE WORK

SECTION 22

LANDSCAPE WORK

SPECIAL CONDITIONS

Specification	SC22.01	<p>This Section shall generally 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> <p>PART I – PREPARATORY WORKS</p>
Measurement of clearing and removing from Site rubbish, grass, etc.	SC22.02	<p>Clearing, cutting down and removing from Site rubbish, 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 1.00 m².</p> <p>The items for clearing, cutting down and removing from Site rubbish, grass, weed, vines, shrubs, undergrowths, 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, grass, etc.	SC22.03	<p>The rates for clearing, cutting and removal of rubbish, grass, weed, vines, shrubs, undergrowth 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 grubbing out all roots and stumps and filling voids with approved materials.</p> <p>All cut materials shall be removed from the Site.</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>
Rates for taking delivery, spreading and levelling or mixing manufactured soil conditioner, mulch, peat moss, compost, alginate and water absorbing soil additive	SC22.05	<p>The rates for taking delivery, spreading, levelling or mixing the manufactured soil conditioner, mulch, peat moss, compost, alginate and water absorbing soil additive shall include for loading, and/or transporting from any locations as directed; unloading, spreading the mulch evenly on the surface of the soil to the specified depth; or mixing the soil conditioner, peat moss, compost, alginate, water absorbing soil additive into the soil to a specified depth and/or at a specified rate.</p>

SPECIAL CONDITIONS

PART I – PREPARATORY WORKS

Rates for supplying, delivering, spreading and levelling drainage aggregate and lightweight aggregate	SC22.06	The rates for supplying, delivering, spreading and levelling drainage aggregate and lightweight aggregate shall include for supplying, loading, transporting from any location, unloading, spreading, and all multi-handling to final position.
Rates for stripping of topsoil	SC22.07	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.
Rates for underground guying system	SC22.08	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.

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) 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.

SPECIAL CONDITIONS

PART II – LANDSCAPE HARDWORKS

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 lifting cast iron tree grilles	SC22.13	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	SC22.14	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 removing mild steel tree guards	SC22.15	The rates for removing 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	SC22.16	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 proprietary tree bracing support system “Cobra” or equivalent	SC22.17	The rates for supply and install proprietary tree support and bracing 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.

PART III – LANDSCAPE SOFTWORKS

Rates for landscape softworks generally	SC22.18	<p>The rates for landscape softworks shall generally include for : -</p> <p>(a) Works executed by approved Specialist Sub-contractors; and</p> <p>(b) Carrying out establishment works after completion for a period of 12 months including all works required as stated in Special Conditions Clauses SC22.39 and SC22.40.</p>
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SPECIAL CONDITIONS

PART III.A – LANDSCAPE SOFTWORKS – SUPPLY ITEMS

Rates for supplying of plant materials

SC22.19

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.

PART III.B – LANDSCAPE SOFTWORKS – PLANTING ITEMS

Rates for landscape softworks - planting items

SC22.20

The rates for landscape softworks - planting items shall further include for : -

- (a) Application of pre-planting fertilizer to soil mix or topsoil and soil conditioner to planting areas as specified;
- (b) Setting-out and excavating planting pits for root balls, placing the plant in the pit, backfilling with topsoil or fabricated soil mix;
- (c) All necessary supports, staking and tying or guying as specified;
- (d) Provision of pre-plant fertilizer and follow-up fertilizer and insect and disease control treatment, watering and all necessary maintenance and establishment measures;

Rates for soiling in landscape areas

SC22.21

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

SC22.22

Further to Special Conditions Clause SC22.21, the rates for fabricated soil mix shall further include for : -

- (a) Testing of samples by an approved laboratory and provision of Certificates of Analysis of the soil conditioner.
- (b) Protection and storage of fabricated soil mix.

SPECIAL CONDITIONS

PART III.B – LANDSCAPE SOFTWORKS – PLANTING ITEMS

Rates for fabricated soil mix (Cont'd)	SC22.22 (Cont'd)	(c) Replacement of fabricated soil mix which are not conforming to the Specification.
Rates for top soil	SC22.23	Further to Special Conditions Clause SC22.21, the rates for top soil shall further include for : - (a) Protection and storage of top soil.
Rates for pots / containers	SC22.24	The rates for supplying pots and containers shall include for supplying, delivering, placing and removing when instructed.
Rates for seasonal flowers	SC22.25	The rates for supplying and planting of seasonal flowers shall include: (a) Supplying pots of appropriate sizes, suitable planting medium and plant species as directed by the Maintenance Surveyor; (b) Placing the pots as required locations; and (c) Removing from the Site when instructed.
Rates for Orchidaceae	SC22.26	The rates for supplying and planting flowering plants from the Orchidaceae family shall include: (a) Supplying pots of appropriate sizes, suitable potting medium and plant species as directed by the Maintenance Surveyor; (b) Placing the pots as required locations; and (c) Removing from the Site when instructed.
Rates for artificial plants	SC22.27	The rates for supplying and fixing in position artificial plants shall include supplying, delivering and placing the plants.

PART III.C – TURFING AND GRASSING

Measurement of hydroseeding, hydro-mulching, broadcasting, sprigging and turfing	SC22.28	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	SC22.29	The rates for hydroseeding shall further include for : - (a) Cleaning ground and scarifying existing soil.

SPECIAL CONDITIONS

PART III.C – TURFING AND GRASSING

**Rates for
hydroseeding
(Cont'd)**

**SC22.29
(Cont'd)**

- (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.

**Rates for
hydro-mulching**

SC22.30

The rates for hydro-mulching shall further include for : -

- (a) Mobilization and demobilization of all plant and equipment necessary for the works.
- (b) Carrying out survey and checking the existing conditions before applications.
- (c) Application by a specialist approved by the Maintenance Surveyor.
- (d) Provision of all necessary working platform.
- (e) Submission of manufacturer's catalogue.
- (f) Providing specialist's guarantee for a period of a minimum of five years.
- (g) Providing deed of warranty when required.
- (h) All necessary operations for satisfactory germination and completion of grass areas as specified.

**Rates for
turfing and
sprigging**

SC22.31

The rates for turfing and sprigging shall further include for : -

- (a) Cleaning ground and scarifying existing soil.
- (b) Cultivation and watering.

SPECIAL CONDITIONS

PART III.C – TURFING AND GRASSING

**Rates for
turfing and
sprigging
(Cont'd)**

**SC22.31
(Cont'd)**

- (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 operations for satisfactory germination and completion of grass areas as specified.

PART III.D – TRANSPLANTING

**Measurement
generally**

SC22.32

The DBH of trees to be transplanted shall be measured at a point 1.30 m above ground level.

**Rates for
transplanting
trees**

SC22.33

The rates for transplanting trees shall further include for : -

- (a) Submission of method statement and programme on all tree works to the Maintenance Surveyor prior to any transplanting works including excavation, crown thinning, root pruning and undercutting on the existing tree(s).
- (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) Root pruning, anchoring and undercutting of the root ball to the required size and maintenance of root ball system during root pruning period.
- (e) Preparation of root ball by wrapping the root ball with hessian or spraying with approved anti-transpiration spray 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 and pit planting tree including all necessary planting at the receptor site, immediate maintenance, mulching, watering and cultivation.

SPECIAL CONDITIONS**PART III.D – TRANSPLANTING**

**Rates for
transplanting
trees
(Cont'd)**

**SC22.33
(Cont'd)**

- (i) Provision of metal stakes, ties, guys and guying stakes as required.
- (j) Replacement of dead / dying tree after transplantation with the same species and size of tree.
- (k) Back-filling voids and making good disturbed surface to match existing.

**Rates for
root
pruning
plants**

SC22.34

The rates for root pruning plants shall further include for all works to prepare for the uplift of the plant at original location, including:

- (a) Provision of plants necessary for the works;
- (b) Inspection and programming;
- (c) Crown thinning;
- (d) Root pruning and anchoring; and
- (e) Maintenance during root pruning period.

**Rates for
temporary
storage**

SC22.35

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**

SC22.36

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
pruning /
surgery works**

SC22.37

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.

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**

SC22.38

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 SC22.18.

SPECIAL CONDITIONS**PART IV – ESTABLISHMENT WORKS**

Measurement generally (Cont'd)	SC22.38 (Cont'd)	Establishment Works shall only be measured where such operations are specifically ordered by the Maintenance Surveyor in writing and in a separate Works Order.
Rates for Establishment Works	SC22.39	<p>The rates for Establishment Works generally shall include for : -</p> <ul style="list-style-type: none"> (a) The operations as specified, including supply of all necessary materials, provision of transportation, storage, multi-handling and disposal. (b) All site inspections to determine the necessary requirements for Establishment Works. (c) Replacement of planting materials and regrassing of the same plant species and heights / sizes where the plants or grass fail to become established or not conforming to the Specification. (d) Watering and carrying out operations based on the assessment of the Establishment Works including weeding, removal of litter, mulching, forking, aeration, firming up and securing of trees, etc.. (e) Provision of fertilizer and insect / pest and disease control treatment and all necessary maintenance and establishment measures. (f) Carrying out pruning of trees and grass cutting. (g) Submission of monthly Establishment Operations Record.
Rates for establishment operations for indoor plants	SC22.40	<p>The rates for basic establishment works operations for indoor plants shall further include for : -</p> <ul style="list-style-type: none"> (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.
PART V – SUNDRIES		
Measurement of plant identification	SC22.41	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.
Measurement of written report	SC22.42	The item for “submit written report” shall be measured once for each identified plant species.
Rates for plant identification	SC22.43	<p>The rate for “collect, handle and transport plant specimens” shall include for : -</p> <ul style="list-style-type: none"> (a) Storage of specimen in an approved container and other; and

SPECIAL CONDITIONS**PART V – SUNDRIES**

**Rates for plant
identification
(Cont'd)**

**SC22.43
(Cont'd)**

- (b) Collection, handling and transporting all collected plant specimen(s) to the Herbarium of Agriculture, Fisheries and Conservation Department (“AFCD”).

**Rates for written
report**

SC22.44

The rate for “submit written report” shall include for : -

- (a) Completion and submission of necessary information in the appropriate forms or format as directed by the Maintenance Surveyor.

Item		A \$	Item
PART I - PREPARATORY WORKS			
<i>Per square metre</i>			
22001	Clear, cut down and remove from Site rubbish, grass, weed, vines, shrubs, undergrowth and the like including trees n.e. 95 mm DBH, and grubbing up roots and filling void with approved materials, where required, and making good disturbed surfaces to match existing	24.70	22001
22002	Ditto but to surfaces of slope including clearing up blockages of weep holes and removing all ladders, gang planks, etc. as required.....	27.40	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.....	8.70	22003
<i>Per cubic metre</i>			
22004	Supply manufactured soil conditioner.....	137.00	22004
22005	Supply mulch.....	137.00	22005
22006	Supply pine bark mulch.....	37.40	22006
<i>Per kg</i>			
22007	Supply peat moss.....	6.20	22007
22008	Supply compost.....	6.20	22008
22009	Supply alginate.....	87.20	22009
22010	Supply approved water absorbing soil additive.....	93.40	22010
<i>Per cubic metre</i>			
22011	Take delivery, spread and mix in manufactured soil conditioner.....	18.70	22011
22012	Take delivery, spread and level mulch and pine bark mulch.....	12.50	22012

Item		A \$	Item
PART I - PREPARATORY WORKS (CONT'D)			
<i>Per square metre</i>			
22013	Take delivery, spread and mix in peat moss, compost, alginate (at rate of 150kg per m ²).....	12.50	22013
<i>Per kg</i>			
22014	Take delivery, spread and mix in approved water absorbing soil additive.....	14.90	22014
<i>Per square metre</i>			
22015	Cultivate the surface of the formation up to 300 mm deep.....	5.50	22015
22016	Cultivate the surface of the formation 300 - 450 mm deep.....	8.20	22016
22017	Rip the surface of the formation.....	4.10	22017
22018	Scarify the surface of the formation.....	2.70	22018
22019	Grade the surface of the formation.....	2.70	22019
22020	Strip topsoil in layers n.e. 150 mm thick.....	9.60	22020
<i>Each</i>			
22021	Rod out, clear and clean existing weep hole and remove off Site all arising, and fill behind with geotextile fabric pocket with 20 - 25mm coarse aggregate in 150 x 150 x 150 mm overall size.....	43.60	22021
22022	Core out 50mm 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.....	249.10	22022
<i>Per set</i>			
22023	Underground guying system.....	4,003.90	22023

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>						
22024	Supply and lay 50mm thick natural stepping stones.....	43.60	62.30	93.40	124.50	22024
<i>Per cubic metre</i>						
22025	Supply and place natural round river-washed pebbles.....				2,802.10	22025
22026	Supply and place natural pea gravel.....				361.20	22026
<i>Per linear metre</i>						
22027	Supply and lay 210 x 110 x 50mm coloured concrete blocks edging to planter beds.....				39.20	22027
22028	Supply and lay 220 x 110 x 50mm coloured bricks edging to planter beds.....				39.20	22028
22029	Supply and lay 225 x 105 x 70mm bricks in diagonal fashion at planter edge.....				54.90	22029
<i>Per square metre</i>						
22030	Supply and lay 255 x 105 x 70 mm bricks in tree pits.....				280.20	22030
<i>Per linear metre</i>						
22031	Supply and fix bamboo protective fencing n.e. 600 mm high to planted and grassed areas.....				40.50	22031
22032	Ditto but 600 - 900 mm high.....				43.60	22032
22033	Supply and fix plastic lattices of 300 mm high to planted and grassed areas.....				186.80	22033
22034	Ditto but 600 mm high.....				373.60	22034
<i>Each</i>						
22035	Supply acrylic / aluminum plant labels for tree and climbers.....				24.90	22035
22036	Supply acrylic / aluminum plant labels for shrubs and ground cover plants.....				24.90	22036
22037	Fix plant labels for trees and climbers.....				2.50	22037
22038	Fix plant labels for shrubs and ground cover plants.....				2.50	22038
22039	Supply, fix and remove weatherproof temporary tree identity label.....				6.20	22039

Item						Item																											
	PART II - LANDSCAPE HARDWORKS (CONT'D)	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="5">Size / Diameter</th> </tr> <tr> <th>1.00 x 1.00 m</th> <th>1.05 x 1.05 m</th> <th>1.50 x 1.50 m</th> <th>1.20m diameter</th> <th>1.50m diameter</th> </tr> <tr> <th>Type 5</th> <th>Type 4</th> <th>Type 1</th> <th>Type 3</th> <th>Type 2</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>					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	\$	\$	\$	\$	\$		
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																													
\$	\$	\$	\$	\$																													
	<i>Per set</i>																																
22040	Supply cast iron tree grille.....	498.20	373.60	871.80	435.90	498.20	22040																										
22041	Install cast iron tree grille.....	130.80	130.80	180.60	155.70	180.60	22041																										
	<i>Per set</i>					A \$																											
22042	Lift existing cast iron tree grille for re-use.....					49.80	22042																										
22043	Install lifted cast iron tree grille.....					49.80	22043																										
	<i>Each</i>																																
22044	Supply mild steel tree guard.....					249.10	22044																										
22045	Install small mild steel tree guard to tree pit.....					94.20	22045																										
	<i>Per set</i>																																
22046	Remove existing mild steel tree guard for re-use.....					49.80	22046																										
22047	Install lifted mild steel tree guard.....					49.80	22047																										
	<i>Per square metre</i>																																
22048	Supply and install precast reinforced concrete baffle as root barrier in tree pit.....					373.60	22048																										
22049	Supply and install 2mm thick high density PVC sheet as root barrier (Vertically laid).....					186.80	22049																										
22050	Supply and install 0.7mm thick high density PVC sheet as root barrier (Horizontally laid).....					186.80	22050																										

Item

Item

PART II - LANDSCAPE HARDWORKS (CONT'D)

(Note : - The following Items 22051 to 22054 will 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

		A \$	
22051	Cobra plus 2T.....	2,745.70	22051
22052	Cobra plus 4T.....	3,144.10	22052
22053	Cobra 8T.....	5,408.00	22053
22054	Cobra Ultrastatic.....	5,306.60	22054

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).

Each

		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 \$	
22055	Granite.....	228.40	690.60	883.70	1,054.50	2,435.30	22055
22056	Great Lake rock.....	285.40	988.50	1,541.70	1,954.40	3,016.60	22056
22057	Serpentine boulders.....	251.20	828.60	1,251.30	1,611.50	2,627.90	22057
22058	Ying rock.....	216.90	607.00	784.20	1,002.80	2,170.60	22058
22059	Yellow soap stone.....	274.20	954.30	1,388.60	1,788.60	2,885.60	22059

Per cubic metre

		A \$	
22060	Take down and clear away ornamental boulders in any sizes.....	264.90	22060
22061	Take down and set aside for re-use ditto.....	113.60	22061
22062	Lay only in concrete or soil (concrete base measured separately) ditto.....	190.20	22062

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	
	\$	\$	\$	\$	\$	\$	\$	
22063 Seedling tree.....	12.40	18.70	24.90	14.90	22.40	37.40	18.70	22063
22064 Whip.....	18.70	24.90	37.40	22.40	32.40	47.30	24.90	22064
22065 Light standard tree.....	74.70	124.50	186.80	99.60	174.40	305.10	124.50	22065
22066 Standard tree.....	124.50	186.80	373.60	174.40	298.90	498.20	186.80	22066
22067 Heavy standard tree.....	373.60	622.70	1,494.50	498.20	-	-	622.70	22067
22068 Semi-mature tree of stem diameter n.e. 200 mm.....	3,113.50	3,736.20	6,227.00	3,487.10	-	-	3,736.20	22068

<i>Each</i>	A	
	\$	
22069 Extra over Item 22068A for each addition of 50mm or part thereof in stem diameter.....	853.10	22069
22070 Extra over Item 22068B for each addition of 50mm or part thereof in stem diameter.....	1,027.50	22070
22071 Extra over Item 22068C for each addition of 50mm or part thereof in stem diameter.....	1,868.10	22071
22072 Extra over Item 22068D for each addition of 50mm or part thereof in stem diameter.....	996.30	22072
22073 Extra over Item 22068G for each addition of 50mm or part thereof in stem diameter.....	1,027.50	22073
22074 Extra over trees in clipped form with overall height n.e. 1200mm.....	373.60	22074
22075 Ditto - overall height 1200 -1500mm.....	622.70	22075
22076 Ditto - overall height 1500 -1800mm.....	871.80	22076

	Group A	Group B	Group C	Group D	
<i>Each</i>	A	B	C	D	
	\$	\$	\$	\$	
22077 Small conifers.....	249.10	435.90	311.40	342.50	22077
22078 Large conifers.....	996.30	1,494.50	1,245.40	1,432.20	22078

Item

Item

PART IIIA - LANDSCAPE SOFTWARES - SUPPLY ITEMS (CONT'D)

Supply the following plants : - (Cont'd)

Each

A
\$

22079	Extra over Item 22078A for each addition of 300mm high or part thereof.....	124.50	22079
22080	Extra over Item 22078B for each addition of 300mm high or part thereof.....	199.30	22080
22081	Extra over Item 22078C for each addition of 300mm high or part thereof.....	161.90	22081
22082	Extra over Item 22078D for each addition of 300mm high or part thereof.....	186.80	22082
22083	Extra over Conifers in clipped form with overall height n.e. 1200mm.....	373.60	22083
22084	Ditto - overall height 1200-1500mm.....	622.70	22084
22085	Ditto - overall height 1500-1800mm.....	871.80	22085

Group A	Group B	Group C	Group D	Group E	Group F
A	B	C	D	E	F
\$	\$	\$	\$	\$	\$
373.60	186.80	124.50	224.20	99.60	155.70
622.70	435.90	249.10	435.90	224.20	323.80
1,868.10	1,120.80	622.70	996.30	-	840.60

Each

22086	Small palms.....	373.60	186.80	124.50	224.20	99.60	155.70	22086
22087	Medium palms.....	622.70	435.90	249.10	435.90	224.20	323.80	22087
22088	Large palms.....	1,868.10	1,120.80	622.70	996.30	-	840.60	22088

Each

A
\$

22089	Extra over Item 22088A for each addition of 150mm high or part thereof.....	249.10	22089
22090	Extra over Item 22088B for each addition of 300mm high or part thereof.....	373.60	22090
22091	Extra over Item 22088C for each addition of 300mm high or part thereof.....	186.80	22091
22092	Extra over Item 22088D for each addition of 500mm high or part thereof.....	186.80	22092
22093	Extra over Item 22088F for each addition of 300mm high or part thereof.....	249.10	22093
22094	Small shrubs, 150 - 300mm high, 150 - 250 mm spread.....	10.00	22094
22095	Small shrubs, 300 - 450mm high, 250 - 400 mm spread.....	14.30	22095
22096	Small shrubs, 450 - 600mm high, 400 - 550 mm spread.....	15.60	22096

Item			Item
PART IIIA - LANDSCAPE SOFTWORKS - SUPPLY ITEMS (CONT'D)			
Supply the following plants : - (Cont'd)			
	<i>Each</i>	A \$	
22097	Large shrubs, 600 - 900mm high, 550 - 750 mm spread.....	19.90	22097
22098	Large shrubs, 900 - 1200mm high, 750 - 1000 mm spread.....	62.30	22098
22099	Large shrubs exc. 1200mm high	124.50	22099
22100	Extra over small shrubs in clipped form.....	186.80	22100
22101	Extra over large shrubs in clipped form.....	373.60	22101
22102	Herbaceous plants, 150 - 300mm high, 100 - 200mm spread.....	12.40	22102
22103	Herbaceous plants, 300 - 450mm high, 200 - 400mm spread.....	12.40	22103
22104	Herbaceous plants, 450 - 600mm high, 400 - 600mm spread.....	14.30	22104
22105	Ground cover plants (except Wedelia trilobata), 100 - 200mm high, 100 - 200mm spread	5.60	22105
22106	Ground cover plants (except Wedelia trilobata), 200 - 300mm high, 200 - 450mm spread	7.50	22106
22107	Ground cover plants (except Wedelia trilobata), 300 - 450mm high, 450 - 700mm spread	9.40	22107
22108	Wedelia trilobata ground cover 100 - 200mm high, 200 - 300mm spread.....	1.90	22108
22109	Climbers of shoot length 600 - 1500mm.....	14.90	22109
22110	Climbers of shoot length 1500 - 2500mm.....	29.90	22110
22111	Bamboos 500 - 1200mm.....	19.90	22111
22112	Bamboos 1200 - 1500mm.....	37.40	22112
22113	Bamboos 1500 - 2100mm.....	62.30	22113
22114	Extra over Item 22113A for each addition of 600mm high or part thereof.....	62.30	22114
22115	Aquatic plants, n.e. 450mm high.....	12.40	22115
22116	Aquatic plants, 450 - 600mm high.....	18.70	22116
22117	Aquatic plants, exc. 600mm high.....	24.90	22117

Item								Item	
PART IIIA - LANDSCAPE SOFTWARES - 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								
22118	Standard tree.....	137.00	205.50	411.00	186.80	330.00	548.00	205.50	22118
22119	Heavy standard tree.....	411.00	685.00	1,643.90	548.00	-	-	685.00	22119
22120	Semi-mature tree.....	3,424.80	4,109.80	6,849.60	3,835.80	-	-	4,109.80	22120
22121	Small conifer.....	274.00	479.50	342.50	373.60	-	-	-	22121
22122	Large conifer.....	1,095.90	1,643.90	1,369.90	1,506.90	-	-	-	22122
22123	Small palm.....	411.00	205.50	137.00	246.60	109.60	171.90	-	22123
22124	Medium palm.....	685.00	479.50	274.00	479.50	246.60	356.20	-	22124
22125	Large palm.....	2,054.90	1,232.90	685.00	1,095.90	-	890.50	-	22125
	Each							A	
								\$	
22126	Extra over Item 22125A for each addition of 150mm high or part thereof.....							274.00	22126
22127	Extra over Item 22125B for each addition of 300mm high or part thereof.....							411.00	22127
22128	Extra over Item 22125C for each addition of 300mm high or part thereof.....							205.50	22128
22129	Extra over Item 22125D for each addition of 500mm high or part thereof.....							205.50	22129
22130	Extra over Item 22125F for each addition of 300mm high or part thereof.....							274.00	22130
22131	Shrubs, climbers and herbaceous plants n.e. 600mm high above ground level with minimum 200mm diameter pot.....							43.60	22131
22132	Shrubs, climbers and herbaceous plants 600 - 1200mm high above ground level with minimum 300mm diameter pot.....							199.30	22132
22133	Shrubs, climbers and herbaceous plants 1200 - 1800mm high above ground level with minimum 400mm diameter pot.....							647.60	22133
22134	Shrubs, climbers and herbaceous plants exc. 1800mm high above ground level with minimum 450mm diameter pot.....							1,531.80	22134
	Per cubic metre								
22135	Supply, spread and mix in potting medium.....							12.40	22135

Item			Item
PART IIIA - LANDSCAPE SOFTWORKS - SUPPLY ITEMS (CONT'D)			
Supply, place and remove (when instructed) the following acclimatized indoor plants :- (Cont'd)			
	<i>Each</i>	A S	
22136	Supply and plant plants in clipped form of overall height n.e. 1200mm.....	411.00	22136
22137	Ditto - overall height 1200 - 1500mm.....	685.00	22137
22138	Ditto - overall height 1500 - 1800mm.....	1,095.90	22138
Plant the following plants :-			
	<i>Each</i>		
22139	Plant seedling tree.....	4.40	22139
22140	Collect seedling tree, whip and pot plant from the Government Nursery or other site and deliver to the Site.....	1.20	22140
22141	Plant whip.....	6.20	22141
22142	Plant light standard tree.....	62.30	22142
22143	Plant standard tree.....	93.40	22143
22144	Plant heavy standard tree.....	124.50	22144
22145	Plant semi-mature tree n.e. 200 mm stem diameter.....	373.60	22145
22146	Extra over Item 22145 for each addition of 50 mm or part thereof in stem diameter.....	62.30	22146
22147	Plant small conifer.....	31.10	22147
22148	Plant large conifer.....	124.50	22148
22149	Extra over Item 22148 for each addition of 600 mm high or part thereof.....	62.30	22149
22150	Plant small palm.....	24.90	22150
22151	Plant medium palm.....	43.60	22151
22152	Plant large palm.....	124.50	22152
22153	Extra over Item 22152 for each addition of 1000 mm high or part thereof.....	62.30	22153

Item			Item
PART III.B - LANDSCAPE SOFTWORKS - PLANTING ITEMS			
<i>Per cubic metre</i>		A \$	
22154	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.....	114.20	22154
22155	Supply fabricated soil mix ditto.....	148.70	22155
22156	Supply top soil ditto.....	200.70	22156
22157	Supply special soil mix composed of 1 part selected soil, 1 part sand and 1 part fine aggregate mixed thoroughly ditto.....	127.50	22157
Plant the following plants :-			
<i>Each</i>		A \$	
22158	Plant small shrub.....	3.70	22158
22159	Plant large shrub.....	6.20	22159
22160	Plant herbaceous plant.....	3.10	22160
22161	Plant ground cover plant.....	2.50	22161
22162	Plant climber with shortest shoot 600 - 1500 mm length.....	5.00	22162
22163	Plant climber with shortest shoot 1500 - 2500 mm length.....	10.00	22163
22164	Plant bamboo of height n.e. 1200 mm	6.20	22164
22165	Plant bamboo of height 1200 - 2100 mm.....	12.50	22165
22166	Extra over Item 22165 for each addition of 600 mm high or part thereof.....	6.20	22166
22167	Plant aquatic plant.....	6.20	22167
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>			
22168	Plastic pot 250 - 300mm diameter.....	12.50	22168
22169	Plastic pot 300 - 900mm diameter.....	24.90	22169
22170	Glazed ceramic pot 400 - 450mm diameter.....	99.70	22170
22171	Glazed ceramic pot 450 - 550mm diameter.....	124.60	22171
22172	Glazed ceramic pot 550 - 1000mm diameter.....	186.80	22172

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>	A \$	
22173	Unglazed pot in variety of shapes and colours with perimeter of inner rim n.e. 2000mm.....	24.90	22173
22174	Unglazed pot in variety of shapes and colours with perimeter of inner rim 2000 - 4000mm.....	24.90	22174
22175	Unglazed pot in variety of shapes and colours with perimeter of inner rim 4000 - 6000mm.....	37.40	22175
22176	Unglazed pot in variety of shapes and colours with perimeter of inner rim 6000 - 8000mm.....	37.40	22176
22177	Polished, coloured fibre-glass pot in variety of shapes and colours with perimeter of inner rim n.e. 2000mm.....	498.20	22177
22178	Polished, coloured fibre-glass pot in variety of shapes and colours with perimeter of inner rim 2000 - 4000mm.....	622.70	22178
22179	Polished, coloured fibre-glass pot in variety of shapes and colours with perimeter of inner rim 4000 - 6000mm.....	747.20	22179
22180	Polished, coloured fibre-glass pot in variety of shapes and colours with perimeter of inner rim 6000 - 8000mm.....	871.80	22180
22181	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. 2000mm.....	747.20	22181
22182	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 - 4000mm.....	871.80	22182
22183	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 - 6000mm.....	996.30	22183
22184	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 - 8000mm.....	1,245.40	22184
22185	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. 2000mm.....	498.20	22185
22186	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 - 4000mm.....	622.70	22186
22187	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 - 6000mm.....	747.20	22187
22188	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 - 8000mm.....	871.80	22188
22189	Natural granite pots in variety of shapes, finishes and colours with stands and inner rim n.e. 2000mm.....	498.20	22189
22190	Natural granite pots in variety of shapes, finishes and colours with stands and inner rim 2000 - 4000mm.....	622.70	22190
22191	Natural granite pots in variety of shapes, finishes and colours with stands and inner rim 4000 - 6000mm.....	747.20	22191
22192	Natural granite pots in variety of shapes, finishes and colours with stands and inner rim 6000 - 8000mm.....	871.80	22192

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>		A \$																					
22193	Concrete pots in variety of shapes with perimeter of inner rim n.e. 2000mm.....	622.70		22193																				
22194	Concrete pots in variety of shapes with perimeter of inner rim 2000 - 4000mm.....	747.20		22194																				
22195	Concrete pots in variety of shapes with perimeter of inner rim 4000 - 6000mm.....	871.80		22195																				
22196	Concrete pots in variety of shapes with perimeter of inner rim 6000 - 8000mm.....	996.30		22196																				
22197	Stainless steel plant containers in variety of shapes with perimeter of inner rim n.e. 2000mm.....	622.70		22197																				
22198	Stainless steel plant containers in variety of shapes with perimeter of inner rim 2000 - 4000mm.....	747.20		22198																				
22199	Stainless steel plant containers in variety of shapes with perimeter of inner rim 4000 - 6000mm.....	871.80		22199																				
22200	Stainless steel plant containers in variety of shapes with perimeter of inner rim 6000 - 8000mm.....	996.30		22200																				
22201	Supply and plant seasonal flower 150 - 300mm high, 150 - 300mm spread including appropriate sized pot with tray.....	24.90		22201																				
22202	Supply and plant seasonal flowers 300 - 450mm high, 300 - 400mm spread including appropriate sized pot with tray.....	37.40		22202																				
22203	Supply and plant seasonal flowers 450 - 600mm high, 400 - 550mm spread including appropriate sized pots with trays.....	62.30		22203																				
22204	Supply and plant seasonal flowers 600 - 900mm high, 550 - 750mm spread including appropriate sized pots with trays.....	87.20		22204																				
22205	Supply and plant flowering plant from the Orchidaceae family with appropriate sized pot with tray.....	99.70		22205																				
	Supply and fix in position artificial plants as described and specified including appropriate sized pots with trays : -																							
	<i>Each</i>																							
			<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4">Height</th> </tr> <tr> <th>N.e 900mm</th> <th>900 - 1200mm</th> <th>1200 - 1500mm</th> <th>1500 - 1800mm</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> <tbody> <tr> <td style="text-align: center;">249.10</td> <td style="text-align: center;">622.70</td> <td style="text-align: center;">996.30</td> <td style="text-align: center;">3,736.20</td> </tr> </tbody> </table>	Height				N.e 900mm	900 - 1200mm	1200 - 1500mm	1500 - 1800mm	A	B	C	D	\$	\$	\$	\$	249.10	622.70	996.30	3,736.20	
Height																								
N.e 900mm	900 - 1200mm	1200 - 1500mm	1500 - 1800mm																					
A	B	C	D																					
\$	\$	\$	\$																					
249.10	622.70	996.30	3,736.20																					
22206	Trees.....			22206																				
	<i>Each</i>		A \$																					
22207	Extra over Item 22206D for each addition of 1000mm height or part thereof.....	1,245.40		22207																				

Item

Item

PART IILB - 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)

Each
22208

Shrubs.....

Height			
N.e 300mm	300 - 600mm	600 - 900mm	900 - 1200mm
A	B	C	D
\$	\$	\$	\$
124.60	186.80	249.10	373.60

22208

Each
22209

Palms.....

Height				
N.e 1000mm	1000 - 1500mm	1500 - 2000mm	2000 - 3000mm	3000 - 4000mm
A	B	C	D	E
\$	\$	\$	\$	\$
373.60	498.20	747.20	996.30	1,245.40

22209

Each
22210

Extra over Item 22209E for each addition of 1000mm height or part thereof.....

A
\$
249.10

22210

Each
22211

Bamboo.....

Height		
500 - 1200mm	1200 - 1500mm	1500 - 2100mm
A	B	C
\$	\$	\$
311.40	373.60	498.20

22211

Each
22212

Extra over Item 22211C for each addition of 600mm height or part thereof.....

A
\$
249.10

22212

Item

Item

PART IILB - 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	
		\$	\$	\$	\$	\$	
22213	Conifers.....	373.60	498.20	747.20	996.30	1,245.40	22213

		A	
		\$	
22214	Extra over Item 22213E for each addition of 500mm height or part thereof.....	249.10	22214

		Height	200 - 300mm	300 - 450	
		Spread	200 - 450mm	450 - 700mm	
			A	B	
			\$	\$	
22215	Ground covers.....		37.40	62.30	22215

		Shoot Length				
		N.e 600mm	600 - 900mm	900 - 1200mm	1200 - 1800mm	
		A	B	C	D	
		\$	\$	\$	\$	
22216	Climbers.....	37.40	49.80	62.30	87.20	22216

		A	
		\$	
22217	Turf (decorative).....	622.70	22217

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 \$		
22218	Hydro-mulching on spray-concrete or other non-soil surface.....	1,090.30		22218
22219	Broadcast seed.....	10.00		22219
22220	Supply and lay grass sprigs (grass species excluding Cynodon dactylon 'Tifway T419').....	24.40		22220
22221	Supply and lay grass sprigs of species Cynodon dactylon 'Tifway T419'.....	31.50		22221
22222	Supply and lay turf (grass species excluding Cynodon dactylon 'Tifway T419').....	43.60		22222
22223	Supply and lay Cynodon dactylon 'Tifway T419' species turf	49.80		22223
22224	Lay only turfs on flat or slopes areas.....	19.20		22224
22225	Spray hydroseeding to surfaces of slope n.e. 30 degree from horizontal.....	29.30		22225
22226	Ditto exceeding 30 degree from horizontal	32.40		22226
	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 \$		
22227	Groundcovers, herbaceous, climbers, small shrubs or any height and spread.....	12.50		22227
22228	Large shrubs of any height and spread / bamboos n.e. 1200mm height.....	24.90		22228
22229	Bamboos exc. 1200mm height.....	62.30		22229
		Location within the Site	Location outside the Site	
	<i>Each</i>	A \$	B \$	
22230	Transplant trees/palms/conifers 150 - 450 mm diameter at breast height.....	1,833.90	2,727.40	22230
22231	Ditto 450 - 900 mm diameter at breast height.....	3,686.70	4,674.20	22231
22232	Ditto 900 - 1,350 mm diameter at breast height.....	4,871.80	8,163.50	22232
22233	Ditto 1,350 - 1,800 mm diameter at breast height.....	16,552.40	26,333.40	22233
22234	Ditto 1,800 - 2,250 mm diameter at breast height.....	32,446.50	47,258.90	22234

Item			Item																																
	PART III.D - TRANSPLANTING (CONT'D)	<table border="1" style="float: right; margin-left: auto;"> <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> </table>		Slope Inclination		30° - 45°	exceeding 45°	A	B	\$	\$																								
Slope Inclination																																			
30° - 45°	exceeding 45°																																		
A	B																																		
\$	\$																																		
22235	<p><i>Each</i></p> <p>Extra over either of Items 22230 to 22234 inclusive on slope inclination.....</p>	622.70	1,245.40																																
	<p>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 : -</p>																																		
	<i>Number per month</i>	<table border="1" style="float: right; margin-left: auto;"> <tr><th>A</th></tr> <tr><th>\$</th></tr> </table>		A	\$																														
A																																			
\$																																			
22236	Bamboos, shrubs, ground covers, herbaceous, climbers / small palms and conifers / standard trees or below.....	12.50	22236																																
22237	Large palms and conifer / heavy standard trees.....	93.40	22237																																
22238	Semi mature trees or above.....	124.60	22238																																
	<p>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 : -</p>																																		
		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><th colspan="8">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></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></tr> <tr><th>\$</th><th>\$</th><th>\$</th><th>\$</th><th>\$</th><th>\$</th><th>\$</th><th>\$</th></tr> </table>		Stem Diameter								0 - 50mm	50 - 100mm	100 - 200mm	200 - 350mm	350 - 500mm	500 - 600mm	600 - 700mm	700 - 800mm	A	B	C	D	E	F	G	H	\$	\$	\$	\$	\$	\$	\$	\$
Stem Diameter																																			
0 - 50mm	50 - 100mm	100 - 200mm	200 - 350mm	350 - 500mm	500 - 600mm	600 - 700mm	700 - 800mm																												
A	B	C	D	E	F	G	H																												
\$	\$	\$	\$	\$	\$	\$	\$																												
22239	Root prune trees / palms / conifers.....	18.70	24.90	124.60	373.60	747.20	1,245.40	1,619.00	1,992.60	22239																									
	PART III.E - TREE FELLING AND PRUNING / SURGERY WORKS																																		
		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><th colspan="5">DBH</th></tr> <tr><th>95 - 150mm</th><th>150 - 300mm</th><th>300 - 450mm</th><th>450 - 600mm</th><th>600 - 750mm</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> </table>		DBH					95 - 150mm	150 - 300mm	300 - 450mm	450 - 600mm	600 - 750mm	A	B	C	D	E	\$	\$	\$	\$	\$												
DBH																																			
95 - 150mm	150 - 300mm	300 - 450mm	450 - 600mm	600 - 750mm																															
A	B	C	D	E																															
\$	\$	\$	\$	\$																															
22240	Fell tree including grubbing up roots and stumps and clearing away all arisings, filling in voids with approved materials, where required, and making good all disturbed ground surfaces to match existing	1,013.30	1,519.90	2,026.50	3,005.10	3,039.80	22240																												
	<i>Per square metre</i>			<table border="1" style="float: right; margin-left: auto;"> <tr><th>A</th></tr> <tr><th>\$</th></tr> </table>		A	\$																												
A																																			
\$																																			
22241	Prune climbers and groundcovers.....			10.00	22241																														

Item

Item

PART III E - TREE FELLING AND PRUNING / SURGERY WORKS (CONT'D)

Each

A
\$

22242	Prune for crown cleaning of whip trees / seedling trees / shrubs / bamboos / herbaceous plants.....	10.00	22242
22243	Prune for crown cleaning of standard trees / light standard trees / small conifers / palms (Group A, B, C and E).....	21.40	22243
22244	Prune for crown cleaning of semi-mature trees / heavy standard trees / large conifers / palms (Group D) / transplanted trees of overall height n.e. 7 m.....	94.20	22244
22245	Prune for crown cleaning of transplanting trees of overall height between 7 - 18 m.....	376.60	22245
22246	Prune for crown thinning of whip trees / seedling trees / shrubs / bamboos / herbaceous plants.....	21.40	22246
22247	Prune for crown thinning of standard trees / light standard trees / small conifers / palms (Group A, B, C and E).....	41.40	22247
22248	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.....	188.30	22248
22249	Prune for crown thinning of transplanted trees of overall height between 7 - 18 m.....	753.20	22249

Diameter			
100 - 200mm	200 - 300mm	300 - 400mm	exceeding 400mm
A	B	C	D
\$	\$	\$	\$
62.30	373.60	622.70	1,245.40

Each

22250	Extra over either of Items 22244 to 22245 and Items 22248 to 22249 inclusive for limb reduction / removal cut for each limb of diameter.....		22250
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PART IV - ESTABLISHMENT WORKS

(Note : The following items 22251 to 22264 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing.)

Square metre per month

A
\$

22251	Basic monthly establishment operations for climbers and groundcovers.....	2.50	22251
22252	Basic monthly establishment operations for grass area.....	3.80	22252
22253	Basic monthly establishment operations for seasonal flowers.....	8.10	22253

Item			Item
PART IV - ESTABLISHMENT WORKS (CONT'D)			
(Note : The following items 22251 to 22264 inclusive will only be paid for, if ordered by the Maintenance Surveyor in writing)			
	<i>Number per month</i>	A \$	
22254	Basic monthly establishment operations for semi-mature trees of above.....	9.40	22254
22255	Basic monthly establishment operations for heavy standard trees, large palms and large conifers.....	7.50	22255
22256	Basic monthly establishment operations for standard trees, medium palms and small conifers.....	5.00	22256
22257	Basic monthly establishment operations for light standard trees.....	3.10	22257
22258	Basic monthly establishment operations for whip trees / seedling trees / shrubs / bamboos / herbaceous plants.....	0.40	22258
22259	Basic monthly establishment operations for aquatic plants.....	0.50	22259
22260	Basic monthly establishment operations for indoor semi-mature trees or above.....	5.00	22260
22261	Basic monthly establishment operations for indoor heavy standard trees, large palms and large conifers.....	5.00	22261
22262	Basic monthly establishment operations for indoor standard trees, medium palms and small conifers.....	5.00	22262
22263	Basic monthly establishment operations for indoor potted plants.....	1.00	22263
22264	Basic monthly establishment operations for transplanting trees.....	148.60	22264
PART V - SUNDRIES			
Plant identification:			
	<i>Number Per Works Order</i>	A \$	
22265	Collect, handle and transport plant specimen(s) to AFCD for identification.....	1,183.10	22265
	<i>Each</i>		
22266	Submit written report for reporting to relevant Government Authorities.....	685.00	22266

Section 23

GEOTECHNICAL WORKS

SECTION 23

GEOTECHNICAL WORKS

SPECIAL CONDITIONS

Measurement generally	SC23.01	<p>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.</p> <p>The rates for inspection scaffolding will only be paid for, if : -</p> <ul style="list-style-type: none"> (a) No other works will be executed by the Contractor and it is ordered in writing by the Maintenance Surveyor; and (b) The scaffolding will be taken down and clear away after the use for inspection or uses by other Government departments or other contractor employed by Government. <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Measurement of mats for erosion control	SC23.02	<p>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.</p>
Measurement of surface protection	SC23.03	<p>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.</p>
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>

SPECIAL CONDITIONS

Measurement of topographic survey (Cont'd)	SC23.04 (Cont'd)	The rate for topographic survey will only be paid for if order in writing by the Maintenance Surveyor.
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, 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. (k) Protecting the exposed surfaces of excavation by any necessary means.
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SPECIAL CONDITIONS

PART I - EARTHWORK ON EXISTING SLOPES

Rates for excavation on existing slopes (Cont'd)

SC23.06 (Cont'd)

- (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) Apart from probe tests measured separately, 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 ArchSD internet website via the pathway referred therein.

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.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

Preliminary Stripping

Rates for preliminary stripping of top soil (Cont'd)

SC23.10 (Cont'd)

- (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, recording 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, recording and submitting survey records.
- (h) Reinstatement of over-stripped area.
- (i) Removing surplus soil and debris.

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.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

Inspection Scaffolding

**Rates for
inspection
scaffolding
(Cont'd)**

**SC23.12
(Cont'd)**

- (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.

Probe test

**Rates for
GEO
probe test**

SC23.13

The rates for GEO probe test shall include for :-

- (a) Carrying out all test and soil samples by the personnel of a Hong Kong Laboratories Accreditation Scheme (HOKLAS) accredited laboratory using their own equipment and providing such labour and assistance as may be required.
- (b) Collect samples selected by the Maintenance Surveyor.
- (c) Report work.
- (d) Payment of all charges incurred.
- (e) All apparatus and calibration, and associated equipment.
- (f) Filling up holes.
- (g) In the case of testing the works carried out by the Contractor, re-testing up to the satisfaction of the Maintenance Surveyor.

Surface Protection

**Rates for
chunam**

SC23.14

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).

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

Surface Protection

**Rates for
chunam
(Cont'd)**

**SC23.14
(Cont'd)**

- (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.

**Rates for
sprayed
concrete**

SC23.15

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**

SC23.16

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

SC23.17

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

SC23.18

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

SC23.19

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.

Rates for sealing and infilling rock joints

SC23.20

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.

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 (Cont'd)

SC23.20 (Cont'd)

- (e) Reinforcement.
- (f) Masonry infilling.

Rates for concrete buttress

SC23.21

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

SC23.22

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.
- (d) Water, compressed air and drilling fluids.
- (e) Washing out holes.
- (f) Grouting.
- (g) Protective treatment to stud components.
- (h) Recording and submitting records.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

Soil Nails

Rates for soil nails

SC23.23

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 drill holes.
- (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.
- (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

SC23.24

The rates for soil nails with double corrosion protection shall further include for : -

- (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

SC23.25

The rates for pull out tests and performance tests on soil nails shall further include for : -

- (a) Setting up, operating, calibrating and maintaining load jacks.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

Soil Nails

**Rates for
pull out tests
and performance
tests on soil
nails (Cont'd)**

**SC23.25
(Cont'd)**

- (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**

SC23.26

The rates for relief drains shall further include for : -

- (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.
- (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**

SC23.27

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 drill holes.
- (e) Water, compressed air and drilling fluids.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

Drainage and Erosion Control

**Rates for
raking drains
(Cont'd)**

**SC23.27
(Cont'd)**

- (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.

**Rates for
maintenance of
raking drains**

SC23.28

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) Provision of new removable inner liner as per ArchSD Standard Drawing No. C2403 if required by the Maintenance Surveyor.
- (c) Disposal of the old inner liner in an environmentally acceptable way as agreed by the Maintenance Surveyor.

**Rates for
mats for
erosion control**

SC23.29

The rates for 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.

**Rates for
forming opening
to rock mesh
and erosion mat
on slope**

SC23.30

The rates for forming opening to rock mesh and erosion mat on slope shall further include for : -

- (a) Setting-out works, wire trimming and making good opening.

SPECIAL CONDITIONS

PART II - SLOPE TREATMENTS

Geotechnical Instrumentation and Sundries

Rates for tree rings and planter holes	SC23.31	<p>The rates for tree rings and planter holes in sprayed concrete shall, in addition to the requirements of Special Conditions Clause SC23.15, include for : -</p> <ul style="list-style-type: none"> (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.
Rates for supply and installation of survey monitoring point	SC23.32	<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 12mm diameter or other similar and approved with tapered lower end firmly embedded in stone or concrete and protected hemispherical upper end with 1mm 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	SC23.33	<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	SC23.34	<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 may be 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	SC23.35	<p>The rate shall include for provision of labour / supervisory staff and diameter for measuring of groundwater level.</p>
Rates for safety fence	SC23.36	<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)	SC23.36 (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	SC23.37	<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 (Hong Kong Government).
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Geotechnical Works found in other Sections of this Schedule

Turfing and grassing to slopes	SC23.38	Turfing and grassing to slopes can be found in Section 22 - Landscape Work of this Schedule.
Drainage system to slopes	SC23.39	Drainage system to slopes can be found in Section 13 - Plumbing and Drainage of this Schedule.
Concrete works to slopes	SC23.40	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	SC23.41	Steel railing and staircase to slopes can be found in Section 10 - Steel and Metal Work of this Schedule.
Paintwork to slopes	SC23.42	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.....	87.80	23001
23002	Load surplus excavated materials and remove from Site.....	124.60	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.....	91.80	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 will only be paid for, if ordered by the Maintenance Surveyor in writing.)	154.80	23004
	SOIL - CEMENT FILLING		
	<i>Per cubic metre</i>	A \$	
23005	Soil-cement filling including compacting and finishing surfaces as required.....	189.50	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)	147.30	23006

Item			Item																																		
PART II - SLOPE TREATMENTS																																					
PRELIMINARY STRIPPING																																					
<i>Per square metre</i>		A \$																																			
23007	Preliminary stripping of top soil in any depth.....	32.40	23007																																		
23008	Preliminary stripping of impermeable surfaces in any thickness.....	47.10	23008																																		
INSPECTION SCAFFOLDING																																					
<i>Per square metre</i>		A \$																																			
23009	Inspection scaffolding.....	68.10	23009																																		
PROBE TEST																																					
<i>Each</i>		A \$																																			
23010	GEO probe test n.e. 3.00 m deep.....	1,486.50	23010																																		
23011	Ditto 3.00 - 6.00 m deep.....	2,494.80	23011																																		
SURFACE PROTECTION																																					
<i>Per square metre</i>		A \$																																			
23012	Chunam, 50 mm thick.....	97.00	23012																																		
23013	Ditto with single layer of 50 x 50 x 2.7 mm wire diameter galvanized welded mesh.....	259.90	23013																																		
23014	Chunam, 75 mm thick.....	133.40	23014																																		
23015	Ditto with single layer of 50 x 50 x 2.7 mm wire diameter galvanized welded mesh.....	315.30	23015																																		
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 :-		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="5">Sprayed concrete with mesh</th> </tr> <tr> <th colspan="4">Single layer mesh</th> <th>Double layer mesh</th> </tr> <tr> <th>Thickness (mm)</th> <th>75</th> <th>100</th> <th>125</th> <th>150</th> <th>200</th> </tr> </thead> <tbody> <tr> <td></td> <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></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> <tr> <td></td> <td style="text-align: right;">194.00</td> <td style="text-align: right;">239.10</td> <td style="text-align: right;">270.30</td> <td style="text-align: right;">294.50</td> <td style="text-align: right;">438.30</td> </tr> </tbody> </table>		Sprayed concrete with mesh					Single layer mesh				Double layer mesh	Thickness (mm)	75	100	125	150	200		A	B	C	D	E		\$	\$	\$	\$	\$		194.00	239.10	270.30	294.50	438.30
Sprayed concrete with mesh																																					
Single layer mesh				Double layer mesh																																	
Thickness (mm)	75	100	125	150	200																																
	A	B	C	D	E																																
	\$	\$	\$	\$	\$																																
	194.00	239.10	270.30	294.50	438.30																																
<i>Per square metre</i>																																					
23016	Sprayed concrete to slopes.....		23016																																		

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		
			\$	\$	\$		
23017	<p><i>Per square metre</i></p> <p>Sprayed concrete to slopes.....</p>		119.60	151.80	185.70	23017	
	Grade 20 or 20MPa sprayed concrete, without mesh, and with 50 mm diameter weepholes at 1.50 m staggered centres in each direction :-						
		Sprayed concrete without mesh					
		Thickness (mm)	50	75			
			A	B			
			\$	\$			
23018	<p><i>Per square metre</i></p> <p>Sprayed concrete to slopes.....</p>		101.90	136.90		23018	
23019	<p><i>Per square metre</i></p> <p>Extra over either of Items 23016 to 23018 inclusive for colour pigments in sprayed concrete in accordance with ASTM C979.....</p>				A \$	22.90	23019
23020	<p><i>Per number</i></p> <p>Supply and installation of slope registration sign plate as ArchSD Standard Drawing Nos. 7116_01 to 7116_05.....</p>					85.70	23020
23021	Take down and clear away ditto.....					25.50	23021
23022	Take down and set aside for re-use ditto.....					31.90	23022
23023	Fix only ditto.....					44.70	23023

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 \$	
23024	Scaling and trimming of rock slopes including boulders n.e. 0.2 m³.....	123.50	23024
23025	Mesh protection as ArchSD Standard Drawing No. C2205.....	157.80	23025
23026	Take down and clear away ditto.....	63.80	23026
<i>Per cubic metre</i>			
23027	Sealing rock joints with 1:3 cement mortar.....	554.40	23027
23028	Infilling rock joints with no fine concrete.....	540.50	23028
23029	Ditto but with Grade 20 or 20MPa concrete.....	779.60	23029
23030	Ditto but with soil-cement fill.....	443.50	23030
23031	Ditto but with masonry bedded in cement mortar.....	571.70	23031
23032	Ditto but with proprietary epoxy mortar.....	1,697.90	23032
23033	Concrete Grade 20 or 20MPa buttress.....	1,039.50	23033
23034	Concrete Grade 30 or 30MPa buttress.....	1,143.50	23034
23035	Split rocks or boulders exceeding 0.20 m³ and remove from Site.....	459.10	23035
(Note : - The above Item 23032 will only be paid for, if ordered by the Maintenance Surveyor in writing.)			
ROCK DOWELS			
Supply and install rock dowels as detailed in ArchSD Standard Drawing No. C2202 : -			
		Rock dowels diameter (mm)	
		25	32
		40	50
<i>Each</i>		A	B
		\$	\$
		C	D
		\$	\$
23036	Rock dowels n.e. 2.00 m long.....	749.90	796.50
23037	Ditto 2.00 - 3.00 m long.....	1,129.40	1,170.60
23038	Ditto 3.00 - 4.00 m long.....	1,458.50	1,550.20
23039	Ditto 4.00 - 5.00 m long.....	1,746.40	2,054.80
23040	Ditto 5.00 - 6.00 m long.....	2,314.60	2,456.00
23041	Ditto 6.00 - 7.00 m long.....	2,865.50	3,034.30
23042	Add to Item 23041 for each additional 1.00 m or part thereof in length.....	394.80	414.80
		466.60	522.10

Item

Item

PART II - SLOPE TREATMENTS (CONT'D)

SOIL NAILS

Supply and install soil nails as detailed in ArchSD Standard Drawing No. C2106/1, C2106/2 and C2106/3 :-

Each

Soil nails diameter (mm)			
25	32	40	50
A	B	C	D
\$	\$	\$	\$
1,536.80	1,759.30	1,866.60	1,948.70
2,349.80	2,494.70	2,686.00	2,820.50
2,677.10	2,867.50	3,170.20	3,527.40
3,019.90	3,240.40	3,585.10	3,925.20
3,362.80	3,609.80	3,995.90	4,317.40
3,698.70	3,980.60	4,248.10	4,712.40
4,034.70	4,385.00	4,821.20	5,114.30
4,490.10	4,718.00	5,237.80	5,784.80
4,708.20	5,094.40	5,647.50	6,199.60
5,045.90	5,470.70	6,057.30	6,681.00
5,501.40	5,951.00	6,602.10	7,276.50
5,839.10	6,327.30	7,008.40	7,713.10
6,176.80	6,698.40	7,418.10	8,080.40
384.60	422.70	476.40	545.70

23043	Soil nail n.e. 3.00 m long.....	1,536.80	1,759.30	1,866.60	1,948.70	23043
23044	Ditto 3.00 - 4.00 m long.....	2,349.80	2,494.70	2,686.00	2,820.50	23044
23045	Ditto 4.00 - 5.00 m long.....	2,677.10	2,867.50	3,170.20	3,527.40	23045
23046	Ditto 5.00 - 6.00 m long.....	3,019.90	3,240.40	3,585.10	3,925.20	23046
23047	Ditto 6.00 - 7.00 m long.....	3,362.80	3,609.80	3,995.90	4,317.40	23047
23048	Ditto 7.00 - 8.00 m long.....	3,698.70	3,980.60	4,248.10	4,712.40	23048
23049	Ditto 8.00 - 9.00 m long.....	4,034.70	4,385.00	4,821.20	5,114.30	23049
23050	Ditto 9.00 - 10.00 m long.....	4,490.10	4,718.00	5,237.80	5,784.80	23050
23051	Ditto 10.00 - 11.00 m long.....	4,708.20	5,094.40	5,647.50	6,199.60	23051
23052	Ditto 11.00 - 12.00 m long.....	5,045.90	5,470.70	6,057.30	6,681.00	23052
23053	Ditto 12.00 - 13.00 m long.....	5,501.40	5,951.00	6,602.10	7,276.50	23053
23054	Ditto 13.00 - 14.00 m long.....	5,839.10	6,327.30	7,008.40	7,713.10	23054
23055	Ditto 14.00 - 15.00 m long.....	6,176.80	6,698.40	7,418.10	8,080.40	23055
23056	Add to Item 23055 for each additional 1.00 m or part thereof in length.....	384.60	422.70	476.40	545.70	23056

Item		Soil nails diameter (mm)			Item
		25	32	40	
		A	B	C	
		\$	\$	\$	
PART II - SLOPE TREATMENTS (CONT'D)					
SOIL NAILS (CONT'D)					
Supply and install soils nails with double corrosion protection as detailed in ArchSD Drawing No. R1043/3 and R1043/3-1 and as specified in the Specification					
	<i>Each</i>				
23057	Soil nail n.e. 3.00 m long.....	2,079.00	2,113.70	2,148.30	23057
23058	Ditto 3.00 - 4.00 m long.....	2,772.00	2,806.70	2,841.30	23058
23059	Ditto 4.00 - 5.00 m long.....	3,465.00	3,499.70	3,534.30	23059
23060	Ditto 5.00 - 6.00 m long.....	4,158.00	4,192.70	4,227.30	23060
23061	Ditto 6.00 - 7.00 m long.....	4,851.00	4,885.70	4,920.30	23061
23062	Ditto 7.00 - 8.00 m long.....	5,544.00	5,578.70	5,613.30	23062
23063	Ditto 8.00 - 9.00 m long.....	6,237.00	6,271.70	6,306.30	23063
23064	Ditto 9.00 - 10.00 m long.....	6,930.00	6,968.50	6,999.30	23064
23065	Ditto 10.00 - 11.00 m long.....	7,623.00	7,657.70	7,692.30	23065
23066	Ditto 11.00 - 12.00 m long.....	8,316.00	8,350.70	8,385.30	23066
23067	Ditto 12.00 - 13.00 m long.....	9,009.00	9,043.70	9,078.30	23067
23068	Ditto 13.00 - 14.00 m long.....	9,702.00	9,736.70	9,771.30	23068
23069	Ditto 14.00 - 15.00 m long.....	10,395.00	10,429.70	10,464.30	23069
23070	Add to Item 23069 for each additional 1.00 m or part thereof in length.....	693.00	727.70	762.30	23070
	<i>Each</i>				
23071	Pull-out test of any diameter.....			11,610.00	23071
23072	Performance test of any diameter.....			3,728.30	23072

Item			Item						
	PART II - SLOPE TREATMENTS (CONT'D)								
	DRAINAGE AND EROSION CONTROL								
	<i>Each</i>	A \$							
23073	Relief drains 200 mm wide, length n.e. 1.50 m, as detailed in ArchSD Standard Drawing No. C2404.....	308.40	23073						
23074	Ditto for length 1.50 - 3.00 m.....	671.10	23074						
23075	Ditto for length 3.00 - 4.50 m.....	1,058.00	23075						
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Overall length of each drain</th> </tr> <tr> <th>n.e. 25.00 m</th> <th>exceeding 25.00 m</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A \$</td> <td style="text-align: center;">B \$</td> </tr> </tbody> </table>		Overall length of each drain		n.e. 25.00 m	exceeding 25.00 m	A \$	B \$
Overall length of each drain									
n.e. 25.00 m	exceeding 25.00 m								
A \$	B \$								
	<i>Per linear metre</i>								
23076	Raking drains Type 1 upwards at 0° - 45° to the horizontal as detailed in ArchSD Standard Drawing No. C2403.....	153.50	175.00	23076					
23077	Ditto but Type 2.....	187.50	245.00	23077					
23078	Ditto but Type 3.....	241.50	297.40	23078					
	<i>Per item</i>								
23079	Mobilization for maintenance of raking drains, including flushing with a clean air/water jet with a suitable pressure as agreed by the Maintenance Surveyor, in accordance with the requirements as paragraphs 16 & 17 of ETWB TC(W) No. 10/91.....		6,540.30	23079					
	<i>Per number</i>								
23080	Extra over Item 23079 for completion, to the satisfaction of the Maintenance Surveyor, maintenance of raking drains, including flushing with a clean air/water jet with a suitable pressure in accordance with the requirements at paragraphs 16 & 17 of ETWB TC(W) No. 10/91.....		401.90	23080					

Item

Item

PART II - SLOPE TREATMENTS (CONT'D)

DRAINAGE AND EROSION CONTROL (CONT'D)

Proprietary mats for erosion prevention/control on level or slope complying with the following specification including all necessary fixing accessories and all in accordance with manufacturer's instructions : -

Supply and fix
A
S

Per square metre

Material	Dense three-dimensional filament structure open matting fused totally where filaments cross and added with carbon black and UV stabilizers to secure resistance to weathering and UV radiation	
Colour	Black	
Thickness	≥ 20 mm	
Density	≥ 25 kg/m ³	
Free volume	≥ 95%	
Area holding capacity (The quantity of soil retained in the mat)	≥ 19.7 x 10 ⁶ mm ³ /m ²	
Polymer type	Polyamide 6	
Polymer density	≥ 1140 kg/m ³	
Tensile strength :		
- longitudinal direction	≥ 2.0 kN/m tested to DIN 53857	
- transverse direction	≥ 1.2 kN/m tested to EN 10319	
- of the joints	≥ 0.6 kN/m tested to EN 10319	
Chemical resistance	Resistant to all chemicals in concentrations normally contained in the earth and surface water	
Temperature resistance	-30°C to +100°C	
Inflammability	Classification B2 tested to DIN 4102	
Smoke formation	Low and suitable for used in tunnels	
Toxicity	None and suitable for use in potable water reservoirs	
Rodent damage	No nutritive value to support burrowing animals and rodents	
Environmental protection	Inert and not harmful to the environment	

23081 Proprietary mat for erosion prevention..... 64.10 23081

23082 Take down and clear away ditto..... 19.10 23082

Material	Four layers of dense webs of polyethylene monofilaments thermally welded together	
Colour	Black or green	
Weight	≥ 450 gm/m ²	
Thickness	≥ 18 mm	
Filament diameter	≥ 0.75 mm	
Porosity	≤ 90 %	
Tensile strength	≥ 3.2 kN/m	tested to BS 6906 : Part 1 : 1987
Elongation	≥ 360 %	tested to BS 6906 : Part 1 : 1987
Water flow rate	> 1000 L/sec/m ²	tested to ASTM D4491-89

23083 Proprietary mat for erosion control..... 55.40 23083

23084 Take down and clear away ditto..... 17.90 23084

Item

Item

PART II - SLOPE TREATMENTS (CONT'D)

DRAINAGE AND EROSION CONTROL (CONT'D)

Proprietary drainage filter system on level or slope complying with the following specification including all necessary fixing accessories and all in accordance with manufacturer's instructions : -

Supply and fix
A
S

Per square metre

Composite drainage unit	Material	A light and flexible geocomposite matting composed of a drainage core of looped polypropylene filaments and nonwoven filter fabric on both sides thermally bonded together over the entire area and where filaments cross	
	Colour	Black	
	Thickness	≧ 9 mm	
	Weight	≧ 540 g/m ²	
	Discharge	≧ 2.00 l/s/m at 20 kPa ≧ 0.80 l/s/m at 50 kPa	tested to EN ISO 12958 under hydraulic gradient 1:1
Filter fabric alone	Water permeability	mean value 110 mm/s mean value 180 μm	tested to EN ISO 11058 at VI ₁₅₀ tested to EN ISO 12956 at opening size O ₉₀
	Weight	mean value 90 g/m ² tested to EN 965	
	Thickness	mean value 0.4 mm tested to EN 964-1	
	Tensile strength	mean value 5 kN/m tested to EN 10319 at machine direction	
	Tensile strength	mean value 6 kN/m tested to EN 10319 at cross machine direction	
	Elongation at break	mean value 33 % tested to EN 10319 at machine direction	
	Resistance to static puncture	mean value 0.8 kN/m tested to EN 12236	
	Dynamic perforation resistance	mean value 48 mm tested to EN 918	

23085 Proprietary drainage filter mat suitable to protect vertical surfaces of shallow underground building structures against seepage and for horizontal drainage layer for lightweight green roof constructions and flower planters

72.80 23085

Geotextile wrap	Material	A geocomposite vertical drainage blanket composed of a plastic cusplates inner core (cuspatation on both sides) over wrapped with a heat-bonded non-woven geotextile filter fabric bonded on one side only	
	Mean peak strength	≧ 9 kN/m	tested to AS 3706.2 at machine direction
		≧ 8 kN/m	tested to AS 3706.2 at cross machine direction
	Trap tear	≧ 320 N tested to AS 3706.3 and ASTM D4533	
	Grab tensile	≧ 730 N tested to AS 2001.2.3	
	CBR burst strength	≧ 1800 N tested to AS 3706.4 and BS 6906:Part 4	
	Drop cone	≧ 1150 mm tested to AS 3706.5	
	G rating	> 1000 Nmm ^{0.5} tested to AS 3706.2	
	G classification	Mod robust tested to AS 3706.2	
	Pore size	< 120 μm	tested to AS 3706.7 at EOS O ₉₅
< 75 μm		tested to AS 3706.7 at O ₉₅ when dry	
Permeability	> 275 l/m ² /s tested to AS 3706.9 at flow rate of 10 cm head		
HDPE plastic core	Core profile	Raised cuspatation on both sides (square shaped)	
	Weight	≧ 900 g/m ²	
	Colour	Black	
	Fungus resistance	Excellent	
	Crush strength	≧ 250 kPa	
	Core thickness	≧ 18 mm	

23086 Proprietary drainage blanket suitable to reduce hydrostatic pressure behind structural walls

108.10 23086

Item

Item

PART II - SLOPE TREATMENTS (CONT'D)

DRAINAGE AND EROSION CONTROL (CONT'D)

Proprietary drainage filter system on level or slope complying with the following specification including all necessary fixing accessories and all in accordance with manufacturer's instructions : - (Cont'd)

Supply
and
fix
A
S

Per square metre

Drainage structure	Material	A composite drainage filter structure composed of a three dimensional, high impact and creep resistance polymeric drainage core panel factory bonded to an anti-clogging filter fabric and adhered with a polymeric backing	
	Thickness	≅ 10.2 mm	
	Inplane flow rate	≅ 261 l/min./m width at 400 kPa	tested to ASTM D 4716
	Compressive strength	≅ 790 kN/m ²	tested to ASTM D 1621
Filter fabric	Material	High flow non-woven needle-punched fabric	
	Apparent opening size	≅ 0.085 mm	tested to BS 6906 Part 1, Part 2 and Part 4
	Puncture resistance	≅ 2250 N	tested to BS 6906 Part 1, Part 2 and Part 4
	Tensile strength	≅ 13.5 kN/m	tested to BS 6906 Part 1, Part 2 and Part 4

23087 Proprietary drainage core panel suitable for vertical application behind foundation walls, basement cavity walls and tunnel walls.....

129.60

23087

Drainage structure	Material	A composite drainage filter structure composed of a three dimensional, high impact and creep resistance polymeric drainage core panel factory bonded to an anti-clogging filter fabric	
	Thickness	≅ 10.2 mm	
	Inplane flow rate	≅ 302 l/min./m width at 400 kPa	tested to ASTM D 4716
	Compressive strength	≅ 862 kN/m ²	tested to ASTM D 1621
Filter fabric	Material	Woven monofilament anti-clogging fabric	
	Apparent opening size	≅ 0.30 mm	tested to BS 6906 Part 1, Part 2 and Part 4
	% opening	≅ 10 %	
	Puncture resistance	≅ 2700 N	tested to BS 6906 Part 1, Part 2 and Part 4
	Tensile strength	≅ 41 kN/m	tested to BS 6906 Part 1, Part 2 and Part 4 at machine direction
		≅ 30 kN/m	tested to BS 6906 Part 1, Part 2 and Part 4 at cross machine direction

23088 Proprietary drainage core panel suitable for vertical and horizontal surfaces of planter boxes and roof gardens.....

149.00

23088

Item				Item																				
PART II - SLOPE TREATMENTS (CONT'D)																								
DRAINAGE AND EROSION CONTROL (CONT'D)																								
		A																						
		\$																						
	<i>Per cubic metre</i>																							
23089	Coarse granular filter (Filter B).....	270.30		23089																				
23090	Fine granular filter (Filter A).....	262.20		23090																				
		A																						
		\$																						
<i>Each</i>																								
23091	Filter drainage pipe as detailed in ArchSD Standard Drawing No. C2302, 50 mm diameter, length n.e. 3.00 m.....	90.10		23091																				
23092	Ditto, for length 3.00 - 6.00 m.....	149.00		23092																				
<table border="1" style="margin-left: auto; margin-right: 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> <tr> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">32.70</td> <td style="text-align: center;">68.80</td> <td style="text-align: center;">104.80</td> <td style="text-align: center;">140.90</td> </tr> </tbody> </table>					Diameter of opening (mm)				n.e. 500	500 - 1000	1000 - 1500	1500 - 2000	A	B	C	D	\$	\$	\$	\$	32.70	68.80	104.80	140.90
Diameter of opening (mm)																								
n.e. 500	500 - 1000	1000 - 1500	1500 - 2000																					
A	B	C	D																					
\$	\$	\$	\$																					
32.70	68.80	104.80	140.90																					
23093	Form opening to rock mesh or erosion control mat on slope.....			23093																				
GEOTECHNICAL INSTRUMENTATION AND SUNDRIES																								
		A																						
		\$																						
<i>Per month</i>																								
23094	Monitoring operation at each survey monitoring point.....	225.20		23094																				
<i>Each</i>																								
23095	Supply and installation of survey monitoring point.....	370.80		23095																				
23096	Dismantle and remove survey monitoring point, reinstatement of disturbed surfaces and making good.....	10.40		23096																				
23097	Monitoring operation at each standpipe piezometer.....	13.20		23097																				

Item			Item	
PART II - SLOPE TREATMENTS (CONT'D)				
GEOTECHNICAL INSTRUMENTATION AND SUNDRIES (CONT'D)				
	<i>Each</i>	A \$		
23098	Construct tree rings in sprayed concrete as detailed in ArchSD Standard Drawing No. C2104, inner ring diameter n.e. 800 mm.....	253.00	23098	
23099	Ditto 800 - 1,200 mm.....	338.90	23099	
23100	Ditto 1,200 - 1,800 mm.....	508.00	23100	
23101	Ditto 1,800 - 2,400 mm.....	637.60	23101	
23102	Ditto 2,400 - 3,000 mm.....	844.80	23102	
23103	150 mm Diameter perforated pipe planter holes not exceeding 600 mm long with top soil mix in chunam, sprayed concrete or masonry facing slope.....	45.10	23103	
23104	300 mm Ditto.....	91.40	23104	
	<i>Per square metre</i>			
23105	Carry out topographic survey..... (Note : - This item will only be paid for, if ordered by the Maintenance Surveyor in writing.)	3.50	23105	
SAFETY FENCE				
		Erect, maintain, take down and clear away	Erect, maintain and left in position	
	<i>Per linear metre</i>	A \$	B \$	
23106	Safety fence "Type A" as detailed in Drawing Nos. C2501/1B and C2501/2B.....	1,774.10	1,462.20	23106
23107	Safety fence "Type A with Highway barrier" as detailed in Drawing Nos. C2501/1B, C2501/2B and H2112.....	2,016.60	1,853.80	23107
23108	Safety fence "Type B" as detailed in Drawing Nos. C2502/1C and C2502/2C.....	2,113.70	1,975.10	23108

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") from the register at the website : http://www.lcsd.gov.hk/LEISURE/LP/gc/tree
		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 preserved trees including Old and Valuable Trees	SC24.05	<p>The rates for preservation and protection measures for Old and Valuable Trees shall include for : -</p> <ul style="list-style-type: none"> (a) All works, materials and services for preservation and protection for 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 preserved
trees including
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 measures for preserved trees other than Old and Valuable Trees shall include for : -

- (a) All works, materials and services for preservation and protection to 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	<p>The rates for reports on photographic record of each preserved tree including Old and Valuable Tree shall include for : -</p> <p>(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.</p> <p>(b) Taking updated photographs of preserved trees including OVT.</p>
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INDEPENDENT TREE SPECIALIST

Measurement of independent tree specialist	SC24.11	<p>The measurement for the items for independent tree specialist (hereinafter referred to as ITS) shall be the duration in which the services of an ITS is stated in the Works Order and provided in accordance with the Contract.</p>
Rates for independent tree specialist	SC24.12	<p>The rates for "ITS" shall include for : -</p> <p>(a) Payment for wages for the ITS.</p> <p>(b) Provision of services required from the ITS as stipulated in the Contract including conducting tree surveys, site surveys and soil tests, submitting reports and providing advice.</p> <p>(c) All works, materials and services for employment of the ITS and provision of the services required from the ITS in accordance with the Contract including payment of all fees and charges, provision of facilities and attendance on the ITS.</p>

AFTERCARE TO OLD AND VALUABLE TREES

Measurement of aftercare to Old and Valuable Trees	SC24.13	<p>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.</p>
Rates for aftercare to each Old and Valuable Tree	SC24.14	<p>The rates for "aftercare to each Old and Valuable Tree" shall include for : -</p> <p>(a) All works, materials and services for providing aftercare to OVT in accordance with the Contract.</p> <p>(b) Tree maintenance work, work of repair to damage or health deterioration, or precautionary or mitigation measures against damage.</p> <p>(c) Removal of all debris and surplus materials off the Site.</p> <p>(d) Reinstatement of the affected areas.</p>

Item			Item
	PRESERVATION AND PROTECTION OF PRESERVED TREES		
	<i>Per month</i>	A \$	
24001	Preservation and protection measures for each Old and Valuable Tree.....	3,038.20	24001
24002	Preservation and protection measures for each existing tree other than Old and Valuable Tree.....	182.30	24002
	TREE SURVEY		
	<i>Per number</i>	A \$	
24003	Tree survey of each existing tree including Old and Valuable Tree.....	158.00	24003
24004	Reports on photographic record of each preserved tree including Old and Valuable Tree.....	121.50	24004
	INDEPENDENT TREE SPECIALIST		
	<i>Per number-month</i>	A \$	
24005	Independent tree specialist.....	20,100.00	24005
	AFTERCARE TO OLD AND VALUABLE TREES		
	<i>Per month</i>	A \$	
24006	Aftercare to each Old and Valuable Tree.....	2,187.50	24006

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 Old and Valuable Trees	SC25.02	The items for provision of termite treatment to Old and Valuable Tree (OVT) shall be measured based on each OVT where termite infestation around the OVT 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 Old and Valuable Trees

SC25.05

The rates for termite treatment to 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 OVT.
- (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 OVT 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 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.

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.

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 (Cont'd)

- 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.
- 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.

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)

- SC25.26** 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.....	5.80	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	3,465.00	25002
25003	Add to Item 25002 for each additional 10 m ² or part thereof in area	577.50	25003
25004	Provide termite treatment to each Old and Valuable Tree including applying approved termite colony toxicant to the infested area around the OVT, 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.....	9,240.00	25004
<i>Per month</i>			
25005	Provide regular inspection and monitoring services of the termite bait stations to each Old and Valuable Tree including applying approved chemical bait as required and preparation and submission of all necessary information and reports.....	1,386.00	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.....	5,486.30	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.....	1,559.30	25007
25008	Add to Item 25007 for each multiple suspected Red Imported Fire Ant mound.....	357.40	25008
25009	Collect specimen of suspected Red Imported Fire Ant.....	1,212.80	25009
25010	Add to Item 25009 for each additional specimen collection.....	505.60	25010
<i>Per item</i>			
25011	Reporting to relevant Government Authorities.....	1,443.80	25011

Item			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>	A \$	
25012	Submit a proposal of controlling Red Imported Fire Ant.....	2,310.00	25012
	<i>Per square metre</i>		
25013	Clear and remove mulch from Site.....	11.60	25013
25014	Pest control over infested area.....	2.30	25014
	<i>Per item</i>		
25015	Pest control up to five confirmed Red Imported Fire Ant mounds.....	1,155.00	25015
	<i>Each</i>		
25016	Add to Item 25015 for each subsequent confirmed Red Imported Fire Ant mound.....	231.00	25016
	<i>Per item</i>		
25017	Submit written report after each controlling service.....	1,155.00	25017
SURVEILLANCE MONITORING OF THE CONFIRMED RED IMPORTED FIRE ANTS			
	<i>Per item</i>	A \$	
25018	Carry out surveillance visit up to five confirmed Red Imported Fire Ant mounds.....	1,155.00	25018
	<i>Each</i>		
25019	Add to Item 25018 for each subsequent confirmed Red Imported Fire Ant mound.....	346.50	25019
	<i>Per item</i>		
25020	Submit written report after each surveillance visit.....	1,155.00	25020

Section 61

SITE SAFETY

SECTION 61

SITE SAFETY

SPECIAL CONDITIONS

Particular Specification	SC61.01	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.
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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>
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SAFETY PLAN

Complete Draft Safety Plan

Measurement of complete draft Safety Plan	SC61.03	The item for “complete draft Safety Plan” shall be measured and paid for when the draft Safety Plan has been submitted and the content is in order when confirmed by the Maintenance Surveyor in writing.
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Rates for complete draft Safety Plan	SC61.04	<p>The rates for “complete draft Safety Plan” shall include for : -</p> <ul style="list-style-type: none"> (a) Prepare and complete the draft Safety Plan incorporating the details required by the Contract. (b) Submit the draft Safety Plan to the Maintenance Surveyor. (c) Attend ad hoc meetings with the Maintenance Surveyor to discuss the draft Safety Plan.
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Complete Safety Plan

Measurement of complete Safety Plan	SC61.05	The item for “complete Safety Plan” shall be measured and paid for when the Maintenance Surveyor is satisfied and confirmed in writing that the Safety Plan has been completed and it meets all requirements of the Contract at the time of its completion and copies distributed.
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SPECIAL CONDITIONS

Rates for complete Safety Plan

SC61.06

The rates for “complete Safety Plan” shall include for : -

- (a) Develop and complete the Safety Plan based on the draft Safety Plan and taking into account comments given by the Maintenance Surveyor or any other parties.
- (b) Distribute the Safety Plan to all relevant parties.

Updating of Safety Plan

Measurement of updating of Safety Plan

SC61.07

The item for “updating of Safety Plan” shall be measured for the period of time commencing from the completion of the Safety Plan until the date of substantial completion of the last Works Order or an earlier or later date notified by the Maintenance Surveyor.

No measurement shall be made for the “updating of Safety Plan” for any period of time in which the Contractor fails to discharge any of its contractual obligations in respect of reviewing, revising updating the Safety Plan.

Rates for updating of Safety Plan

SC61.08

The rates for “updating of Safety Plan” shall include for : -

- (a) Review, update and revise the Safety Plan taking also into account of comments made on the Safety Plan by the Maintenance Surveyor and any other parties.
- (b) Update risk assessment for the work scheduled at least for the next two months.
- (c) Review and establish safety and health provisions, safe working procedures and method statements.
- (d) Update emergency and rescue procedures.
- (e) Distribute the revisions of the Safety Plan to all relevant parties.

PROVIDE SAFETY OFFICER

Provide Safety Officer

Measurement of provide Safety Officer

SC61.09

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.

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.

No measurement shall be made after the date of substantial completion of the last Works Order or an earlier or later date notified by the Maintenance Surveyor.

No measurement shall be made for any period of time in which the Safety Officer fails to discharge any of his duties.

SPECIAL CONDITIONS

**Rates for provide
Safety Officer**

SC61.10

The rates for “provide Safety Officer” shall include for : -

- (a) Submission to the Maintenance Surveyor for approval of the qualifications and experience of the proposed Safety Officer.
- (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) Performance of all duties of the Safety Officer.
- (d) Maintenance of the safety diary.

SITE SAFETY MANAGEMENT COMMITTEE

Attend Site Safety Management Committee

**Measurement
of attend
Site Safety
Management
Committee**

SC61.11

The measurement shall commence from the date of the first meeting of the Site Safety Management Committee until the substantial completion of the last Works Order 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 any such 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**

SC61.12

The rates for “attend Site Safety Management Committee” shall include for : -

- (a) Attend Site Safety Management Committee meetings and complete the agenda of the meetings.
- (b) Arrange inspection of the Site by members of the Site Safety Management Committee before meetings.
- (c) Provide necessary assistance for the proper functioning of the Site Safety Management Committee.
- (d) Submission of a monthly safety report for consideration at the meeting.

SITE SAFETY COMMITTEE

Attend Site Safety Committee

**Measurement
of attend
Site Safety
Committee**

SC61.13

The measurement shall commence from the date of the first meeting of the Site Safety Committee until the substantial completion of the last Works Order 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 any such Committee meeting in accordance with the Contract or fails to deal with any of the matters associated with such Committee in a satisfactory manner.

SPECIAL CONDITIONS

Rates for attend Site Safety Committee

SC61.14

The rates for “attend Site Safety Committee” shall include for : -

- (a) Establish the Site Safety Committee.
- (b) Arrange and give adequate notice to relevant parties of the Site Safety Committee meeting to be held for that month.
- (c) Attend at 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

SC61.15

Only those safety walks conducted in accordance with Particular Specification for Site Safety during the period between the date for the commencement of the Works and the date of substantial completion of the last Works Order 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) Any Suspension Notice has been issued by the Labour Department pursuant to the Occupational Safety and Health Ordinance in respect of any activities on the Site until the notice has been revoked or the operation of that notice is suspended.
- (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.
- (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.

Rates for arrange and attend weekly safety walk

SC61.16

The rates for “arrange and attend weekly safety walk” shall include for : -

- (a) Arranging and giving adequate notice to relevant parties of the safety walk.
- (b) Using a comprehensive checklist during the walk to identify and record, and subsequently rectifying any deficiencies noted in the safety provisions.
- (c) Preparing reports on safety walks and safety inspections conducted.
- (d) Implementing and upkeeping all measures stipulated in the Safety Plan and maintaining the effectiveness of all such provisions for the duration of the Contract.

SPECIAL CONDITIONS

**Rates for
arrange and
attend weekly
safety walk
(Cont'd)**

**SC61.16
(Cont'd)**

- (e) Safety inspections including, but not be limited to : -
- (i) scaffolding;
 - (ii) temporary electrical supply; and
 - (iii) site cleanliness;
- (f) Implementing the decisions and recommendations made by the Site Safety Management Committee on matters of safety and health.

PROVIDE SAFETY TRAINING

Provide Trade Specific Advanced Safety Training to Skilled Workers

**Measurement
of provide
trade specific
advanced safety
training to
skilled workers**

SC61.17

The item for “provide trade specific advanced safety training to skilled workers” shall be paid on a per worker basis subject to the production of a “Silver Card” issued by the Construction Industry Training Authority as evidence in accordance with Particular Specification for Site Safety. Payment shall only be made for attending the second day of the two-day trade specific advanced safety training course. No payment will be made if the second day of the course is attended : -

- (a) before the skilled worker starts works on Site; or
- (b) after the skilled worker has left the Site.

**Rates for
provide trade
specific advanced
safety training to
skilled workers**

SC61.18

The rates for “provide trade specific advanced safety training to skilled workers” shall include for : -

- (a) Arranging skilled workers to attend the “Silver Card” training course organised by the Construction Industry Training Authority or any other recognised courses notified by the Maintenance Surveyor.
- (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 Site Specific Safety Induction Training

**Measurement
of provide
site specific
safety induction
training**

SC61.19

The item for “provide site specific safety induction training” shall be measured on a per person per talk basis. Refresher talks required by the Contract shall also be measured.

Adjustment to payment or no payment will be made to the item for “provide site specific safety induction training” if the Maintenance Surveyor 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.

SPECIAL CONDITIONS

**Rates for
provide site
specific safety
induction training**

SC61.20

The rates for “provide site specific safety induction training” shall include for : -

- (a) Site specific safety induction talks conducted in accordance with Particular Specification for Site Safety.
- (b) The necessary facilities, trainers and demonstration equipment for compliance 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.

Provide Tool Box Talks

**Measurement of
provide tool
box talks**

SC61.21

The item for “provide tool box talks” shall be measured on a per worker per talk basis on a frequency of one talk per worker every two weeks in accordance with Particular Specification for Site Safety. Adjustment to payment or no payment to be made to the item for “provide tool box talks” if the Maintenance Surveyor 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.

**Rates for
provide tool
box talks**

SC61.22

The rates for “provide tool box talks” shall include for : -

- (a) Tool box talks conducted in accordance with Particular Specification for Site Safety.
- (b) The 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. or other training kits of comparable standard approved 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.

Item			Item
SCHEDULE FOR PAY FOR SAFETY SCHEME			
(Note :- No pre-priced rates are provided in Items 61001 to 61007 inclusive in this Section. The rates of these items will be provided under individual Term Contract.			
The rates set out in this Section will 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 item</i>			
61001	Complete draft Safety Plan.....	-	61001
61002	Complete Safety Plan.....	-	61002
<i>Per month</i>			
61003	Updating of Safety Plan.....	-	61003
<i>Per number-month</i>			
61004	Provide Safety Officer.....	-	61004
<i>Per month</i>			
61005	Attend Site Safety Management Committee.....	-	61005
61006	Attend Site Safety Committee.....	-	61006
<i>Per number-week</i>			
61007	Arrange and attend weekly safety walk.....	-	61007
<i>Per number</i>			
61008	Provide trade specific advanced safety training to skilled workers.....	650.00	61008
61009	Provide site specific induction training.....	100.00	61009
61010	Provide tool box talks.....	30.00	61010

Section 62

SITE CLEANLINESS AND TIDINESS

SECTION 62

SITE CLEANLINESS AND TIDINESS

SPECIAL CONDITIONS

Particular Specification	SC62.01	<p>This Section shall be read and used in conjunction with the Particular Specification for Daily Cleaning and Weekly Tidying and relevant Conditions of Contract adopted for the Contract.</p>
Particular Preamble	SC62.02	<p>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 the upkeep of site cleanliness and tidiness 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>
Measurement of "Daily Cleaning"	SC62.03	<p>The measurement of "Daily Cleaning" shall be made after cleaning and tidying up work of the Site of a Works Order for a Cleaning Day is carried out satisfactorily in accordance with Clause 1(c) "Daily Cleaning" of Particular Specification for Daily Cleaning and Weekly Tidying. The measurement of this item for a Cleaning Day shall be the area of the Public Cleaning Areas in a Works Order for that Cleaning Day. The daily cleaning for the areas of the Site other than the Public Cleaning Areas shall be deemed to be included in the rates of other items of work for such Works Order and shall not be measured for payment.</p> <p>The extent of the Public Cleaning Areas required for cleaning shall be determined by the Maintenance Surveyor's Representative for each Works Order.</p> <p>The Contractor shall not be entitled to any payment for the item for "Daily Cleaning" for a Works Order on a Cleaning Day if the performance of the Contractor on cleanliness and tidiness for any part of the Site including areas other than the Public Cleaning Areas of such Works Order for that Cleaning Day is not carried out to the satisfaction of the Maintenance Surveyor's Representative. For the avoidance of doubt, the measurement for "Daily Cleaning" for each Works Order on a Cleaning Day shall be either in full or none.</p> <p>The Contractor shall not be entitled to any payment for the item for "Daily Cleaning" for more than one day for the cleaning and tidying up work carried out by the Contractor in one Cleaning Day.</p>
Rates for "Daily Cleaning"	SC62.04	<p>The item for "Daily Cleaning" shall include for : -</p> <ul style="list-style-type: none"> (a) Daily cleaning on each Cleaning Day. (b) Development of inspection checklist for the daily cleaning, and its revision.

SPECIAL CONDITIONS

Rates for "Daily Cleaning" (Cont'd)	SC62.04 (Cont'd)	<ul style="list-style-type: none"> (c) Assignment of person at supervisory level or higher responsible for the daily inspection and checking after the daily cleaning has been carried out on the Site. (d) Completion of the inspection checklist and preparation of records and photographs for checking by the Maintenance Surveyor's Representative. (e) Inspection of the Site before any work commences to clear any rubbish and debris that may be littered by the public.
Measurement of "Weekly Tidying"	SC62.05	<p>The measurement of "Weekly Tidying" shall be made after the overall cleaning and tidying up work of the Site of a Works Order for a Cleaning Week Day is carried out satisfactorily in accordance with Clause 1(d) "Weekly Tidying" of Particular Specification for Daily Cleaning and Weekly Tidying. The measurement of this item for a satisfactory completed Cleaning Week Day shall be the area of the Public Cleaning Areas in a Works Order for that Cleaning Week Day. The weekly tidying for the areas of the Site other than the Public Cleaning Areas shall be deemed to be included in the rates of other items of work for such Works Order and shall not be measured for payment.</p> <p>The extent of the Public Cleaning Areas required for weekly tidying is identical to those defined for daily cleaning given in Special Conditions Clause SC62.03 herein.</p> <p>The Contractor shall not be entitled to any payment for the item for "Weekly Tidying" for a Works Order on a Cleaning Week Day if the Contractor fails to rectify the identified defects pursuant to Special Conditions Clause SC62.06(e) herein to the satisfaction of the Maintenance Surveyor's Representative before the end of the day (which is not a General Holiday) following the Cleaning Week Day. For the avoidance of doubt, the measurement for "Weekly Tidying" for each Works Order on a Cleaning Week Day shall be either in full or none.</p> <p>The Contractor shall not be entitled to any payment for the item for "Weekly Tidying" for more than one day for the cleaning and tidying up work and/or defects rectification carried out by the Contractor in one Cleaning Week Day.</p>
Rates for "Weekly Tidying"	SC62.06	<p>The item for "Weekly Tidying" shall include for : -</p> <ul style="list-style-type: none"> (a) Weekly tidying of the Site on the Cleaning Week Day. (b) Development of inspection checklist for weekly tidying, and its revision. (c) Assignment of person at supervisory level or higher responsible for the inspection and checking after the weekly tidying has been carried out on the Site. (d) Completion of the inspection checklist and preparation of records and photographs for checking by the Maintenance Surveyor's Representative. (e) Rectification of defects identified by the assigned person as referred to in sub-clause (c) above and/or the Maintenance Surveyor's Representative. (f) Inspection of the Site before any work commences to clear any rubbish and debris that may be littered by the public.

Item	Item
SCHEDULE FOR PAY FOR SITE CLEANLINESS AND TIDINESS	
(Note :- The rates set out in this Section will only be paid for, if ordered by the Maintenance Surveyor in writing and demonstrated compliance with the Particular Specification for Site Cleanliness and Tidiness by the Contractor for these items.)	
<i>Per m²- day</i>	
62001	62001
Daily cleaning.....	1.00
62002	62002
Weekly tidying.....	1.80

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1.00
1.80

Section 63

TRIP TICKET SYSTEM

SECTION 63

TRIP TICKET SYSTEM

SPECIAL CONDITIONS

Particular Specification	SC63.01	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	SC63.02	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	SC63.03	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	SC63.04	<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 Site, 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	SC63.05	<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

SC63.06

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 the 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 the 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>	
63001	63001
Complete Site Management Plan.....	12,000.00
<i>Per month</i>	
63002	63002
Implementation of Site Management Plan.....	1,000.00

Section 64

MONITORING PAYMENT OF WAGES

SECTION 64

MONITORING PAYMENT OF WAGES

SPECIAL CONDITIONS

Particular Specification	SC64.01	This Section shall be read and used in conjunction with the Particular Specification for Monitoring of Wage Payment to Site Personnel and relevant Conditions of Contract adopted for the Contract.
Measurement for operating monitoring system for payment of wages	SC64.02	<p>The item for “operating monitoring system for payment of wages” shall be measured commencing from the date of approval by the Maintenance Surveyor of completion of establishment of monitoring system for payment of wages and the item for “providing Contractor’s Labour Officer” shall commence from the date the Contractor’s Labour Officer provided by the Contractor is approved by the Maintenance Surveyor and reports duty on Site. These items shall not be measured:</p> <p>(a) Where the Works are not divided into Sections, between</p> <p style="padding-left: 40px;">(i) the end of the prescribed time or extended time for completion of the last Works Order except Establishment Works and Aftercare to Old and Valuable Trees due to extension of time which has been granted by the Maintenance Surveyor to the Contractor under sub-clauses (1)(b)(iii), (iv), (vi), (vii) and (viii) of GCC Clause 53; and</p> <p style="padding-left: 40px;">(ii) the date of completion of the last Works Order except Establishment Works and Aftercare to Old and Valuable Trees certified by the Maintenance Surveyor in accordance with GCC Clause 56.</p> <p>For the purpose of calculating the extended time for completion of the Works due to extension of time granted by the Maintenance Surveyor under sub-clauses (1)(b)(iii), (iv), (vi), (vii) and (viii) of GCC Clause 53, the periods of extended time for completion granted under sub-clauses (1)(b)(iii), (iv), (vi), (vii) and (viii) of GCC Clause 53 shall be summed and added to the end of the prescribed time for completion of the last Works Order.</p> <p>(b) Where the Works are divided into Sections, between</p> <p style="padding-left: 40px;">(i) the end of the prescribed time or extended time for completion of the Section of the Works (excluding the Sections for Establishment Works and Aftercare for Old and Valuable Trees) due to extension of time which has been granted by the Maintenance Surveyor to the Contractor under sub-clauses (1)(b)(iii), (iv), (vi), (vii) and (viii) of GCC Clause 53, which happens to be the latest in time (for the purpose of calculating the extended time for completion of each Section of the Works due to extension of time granted by the Maintenance Surveyor under sub-clauses (1)(b)(iii), (iv), (vi), (vii) and (viii) of GCC Clause 53, the periods of extended time for completion granted under sub-clauses (1)(b)(iii), (iv), (vi), (vii) and (viii) of GCC Clause 53 for that Section of the Works shall be summed and added to the end of the prescribed time for completion of that Section of the Works); and</p>

SPECIAL CONDITIONS

Measurement for operating monitoring system for payment of wages (Cont'd)	SC64.02 (Cont'd)	<p>(ii) the date of completion of whichever Section of the Works (excluding the Sections for Establishment Works and Aftercare for Old and Valuable Trees) certified by the Maintenance Surveyor in accordance with GCC Clause 56 which happens to be the latest in time.</p> <p>(c) After the expiry of the Maintenance Period (or where there is more than one such Maintenance Period, after the expiry of the last Maintenance Period other than the Maintenance Periods for Establishment Works and Aftercare for Old and Valuable Trees) where services are required as a consequence of the default of the Contractor.</p>
Measurement and payment for operating monitoring system for payment of wages	SC64.03	<p>No measurement and no payment shall be made for the item “operating monitoring system for payment of wages” for the period where there is any incident of non-compliance with respect to the submission of documents and records in accordance with Particular Specification “Section X” and payment for the item shall therefore be measured on a pro rata basis.</p>
Rate for establishing monitoring system for payment of wages	SC64.04	<p>The item for “establishing monitoring system for payment of wages” is given as a pre-priced rate and shall include for :-</p> <p>(a) Preparation of the monitoring system for payment of wages to the satisfaction of the Maintenance Surveyor.</p> <p>(b) Setting-up the monitoring system for payment of wages and any modifications thereof.</p> <p>(c) Provision for collection and maintenance records of payment of wages to Site Personnel.</p> <p>(d) Opening of accounts in designated bank for relevant parties as required in Particular Specification Clauses X.5 (1) to (2).</p> <p>(e) Nomination of a Contractor’s Labour Officer as required in Particular Specification Clause Y.1.</p> <p>(f) Setting up the attendance recording system for accurate attendance records of Site Personnel and any modifications thereof.</p> <p>(g) Issuing identification cards to Site Personnel and self-employed workers.</p> <p>(h) Insurance for the self-employed workers.</p> <p>(i) Establishing a hotline in the Maintenance Surveyor’s site office to receive enquiries from workers and Site Personnel on employment matters.</p> <p>(j) Advising Site Personnel of the monitoring system and the procedures for reporting wages arrears.</p>

SPECIAL CONDITIONS

Rate for operating monitoring system for payment of wages**SC64.05**

The item for “operating monitoring system for payment of wages” is given as a pre-priced rate. In the event that the rate is 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 Schedule of Rates. In addition, the rate shall also be deemed to include for :

- (a) Operating and maintaining the attendance recording system to obtain accurate attendance records of Site Personnel.
- (b) Controlling the issue of identification cards to Site Personnel and self-employed workers.
- (c) Reviewing, updating and revising the monitoring system for payment of wages taking into account the comments made by the Maintenance Surveyor or any other parties.
- (d) Implementing measures to ensure that payments of wages to Site Personnel are consistent with the records of the attendance recording system.
- (e) Compiling, submitting and maintaining records of payment of wages and other monetary benefits to Site Personnel.
- (f) Observing all statutory and contractual obligations in ensuring proper payment of wages and other monetary benefits to Site Personnel, and any other related obligations, liabilities, risks and profit.
- (g) Providing all necessary assistance to the Labour Relations Officer in the discharge of his duties, functions and responsibilities.
- (h) Maintaining a hotline in the Maintenance Surveyor’s site office.
- (i) Maintaining insurance for the self-employed workers.
- (j) Providing access and assistance to visitors as required under Particular Specification Clause Y.3 including the necessary insurance coverage.

Rate for providing Contractor's Labour Officer**SC64.06**

The item for “Providing Contractor’s Labour Officer” is given as a pre-priced rate. In the event that the rate is 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 Schedule of Rates. In addition, the rate shall include the costs and expenses of providing the Contractor’s Labour Officer and supporting staff inclusive and without limitation to the following :

- (a) Basic salary.
- (b) Gratuity.
- (c) Overtime payment.
- (d) Sundry allowance.
- (e) Housing allowance.
- (f) Travel allowance.
- (g) Leave allowance.

SPECIAL CONDITIONS

Rate for providing Contractor's Labour Officer (Cont'd)	SC64.06 (Cont'd)	(h)	Education allowance.
		(i)	Medical allowance.
		(j)	Dental allowance.
		(k)	Bonus.
		(l)	Contribution to a registered mandatory provident fund scheme
		(m)	All necessary levies, e.g. Construction Industry Council.
		(n)	Insurances.
(o)	Fringe benefits.		

Item	Item	
MONITORING PAYMENT OF WAGES		
<i>Per item</i>		
64001	64001	
Establishing monitoring system for payment of wages.....	A \$ 10,000.00 15,000.00 12,000.00	
<i>Per month</i>		
64002		64002
Operating monitoring system for payment of wages.....		
64003	64003	
Providing Contractor's Labour Officer.....		

Section 65

SUB-CONTRACTOR MANAGEMENT PLAN

SECTION 65

SUB-CONTRACTOR MANAGEMENT PLAN

SPECIAL CONDITIONS

Particular Specification	SC65.01	This Section shall be read and used in conjunction with the Particular Specification for Management of Sub-contractors and relevant Conditions of Contract adopted for the Contract.
Particular Preamble	SC65.02	The pre-priced rates appearing in the items under this Section shall be deemed to have allowed for the value of work in connection with meeting all contractual obligations regarding the Sub-contractor Management Plan (SMP) 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 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.
Measurement of complete Sub-contractor Management Plan	SC65.03	<p>Measurement</p> <p>(a) The item for "complete Sub-contractor Management Plan" shall be measured and paid for when the SMP has been submitted, the content is in order and the Maintenance Surveyor is satisfied and confirmed in writing that it has been completed and it meets all requirements of the contract at the time of its completion.</p> <p>(b) The item for "quarterly updating of Sub-contractor Management Plan" shall be measured and paid for when the quarterly updated SMP has been submitted, the content is in order and the Maintenance Surveyor is satisfied and confirmed in writing that the SMP has been completed and meets all the requirements of the Contract at the time of its completion. The declaration referred to in the Particular Specification for Management of Sub-contractors Clause X.3(2) shall be considered as quarterly updating of the SMP. No measurement shall be made for Contractor's interim notification of major changes of sub-contractor management.</p>
Rate for complete Sub-contractor Management Plan	SC65.04	<p>The item for "complete Sub-contractor Management Plan" shall include for : -</p> <p>(a) Develop and complete the SMP incorporating the details required by the Contract.</p> <p>(b) Submit the required copies of the SMP to the Maintenance Surveyor.</p>
Rate for quarterly updating of Sub-contractor Management Plan	SC65.05	<p>The item for "quarterly updating of Sub-contractor Management Plan" include for : -</p> <p>(a) Reviewing, updating and revising SMP taking into account the changes in the Contractor's sub-contracting arrangement during the period and/or comments made by the Maintenance Surveyor.</p> <p>(b) Submit the required copies of the quarterly updated SMP to the Maintenance Surveyor.</p>

Item	Item
SUB-CONTRACTOR MANAGEMENT PLAN	
<i>Per item</i>	
65001	65001
Complete Sub-contractor Management Plan.....	15,000.00
<i>Each</i>	
65002	65002
Quarterly updating of Sub-contractor Management Plan.....	2,000.00

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\$
15,000.00
2,000.00

Section 66

UNIFORM

SECTION 66

UNIFORM

SPECIAL CONDITIONS

Particular Specification	SC66.01	This Section shall be read and used in conjunction with the Particular Specification for Uniform and relevant Conditions of Contract adopted in the Contract.
Particular Preamble	SC66.02	<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 in this Section, they shall be deemed to allow for the value of work related to the item and for meeting all other related obligations, liabilities, risks and profit. Any aspects where the methods of measurement provided hereunder do not measure any item or exclude the measurement of any item or part thereof, they shall be deemed to have been included in the Contract Percentages allowed for other Sections in the Schedules of Rates.</p>
Rates for “uniform for Site Personnel and self-employed workers”	SC66.03	<p>The item for uniform for Site Personnel and self-employed workers shall include for : -</p> <ul style="list-style-type: none"> (a) Design, provision, maintenance, and removal of uniform for Site Personnel and self-employed workers; (b) Preparing, amending as necessary, and submitting to the Maintenance Surveyor for approval, details of and drawings showing the design of the uniform items; (c) Samples and testing thereof; (d) Replacement of uniform items; (e) Credit value of the uniform items when returned and removed; and (f) Joint audit on the wearing of uniform items.

Item		Item
	<p>UNIFORM</p> <p>(Note :- No pre-priced rate is provided in this Section. The rate of this item will be provided under individual Term Contract.</p> <p>The rate set out in this Section will only be paid for, if ordered by the Maintenance Surveyor in writing and demonstrated compliance with the Particular Specification for Uniform.)</p>	
	<p><i>Per item</i></p>	
66001	Uniform for Site Personnel and self-employed workers.....	66001

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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 relevant to this Section of the Schedule can be viewed on website via the pathway referred therein : -
General Specification for Building issued by Architectural Services Department
<http://www.archsd.gov.hk/en/publications-publicity/publications.aspx>

Page 10-5 of GS2012	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 website
via the pathway referred therein : -
Architectural Services Department, Architectural Standard Drawings
<http://www.archsd.gov.hk/en/publications-publicity/publications.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 website via the pathway referred therein : - Architectural Services Department, Architectural Standard Drawings http://www.archsd.gov.hk/en/publications-publicity/publications.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 website via the pathway referred therein : - Architectural Services Department, Architectural Standard Drawings http://www.archsd.gov.hk/en/publications-publicity/publications.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 website via the pathway referred therein : - Architectural Services Department, Architectural Standard Drawings http://www.archsd.gov.hk/en/publications-publicity/publications.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 website via the pathway referred therein : - Architectural Services Department, Architectural Standard Drawings http://www.archsd.gov.hk/en/publications-publicity/publications.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 website via the pathway referred therein : - Architectural Services Department, Architectural Standard Drawings http://www.archsd.gov.hk/en/publications-publicity/publications.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)		
<p>Note : The following drawings relevant to this Section of the Schedule can be viewed on website via the pathway referred therein : - Architectural Services Department, Architectural Standard Drawings http://www.archsd.gov.hk/en/publications-publicity/publications.aspx</p>		
	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 website via the pathway referred therein : - Architectural Services Department, Architectural Standard Drawings http://www.archsd.gov.hk/en/publications-publicity/publications.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

Attached in this Annex 'A'

Total 16 pages Construction Industry Logo Guidelines issued in January 2011

<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
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Section 11 - Plastering and Finishes

Note : The following drawings relevant to this Section of the Schedule can be viewed on 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	Block paved footway with geogrid
H 5137	Permanent reinstatement of pavement - block paved footway with geogrid

Section 12 - Roadwork and Cable Duct

Note : The following drawings relevant to this Section of the Schedule can be viewed on 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 A	Typical bituminous pavement construction
H 1102 A	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 drawings relevant to this Section of the Schedule can be viewed on website via the pathway referred therein : -
Architectural Services Department, Structural Standard Drawings
<http://www.archsd.gov.hk/en/publications-publicity/publications.aspx>

SD/026	Typical detail of external driveway and carpark ground slab on grade (5 of 5)
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<u>Section</u>	<u>Drawing No./ Reference</u>	<u>Title</u>
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Section 23 - Geotechnical Works

Note : The following drawings relevant to this Section of the Schedule can be viewed on website via the pathway referred therein : -
General Specification for Building issued by Architectural Services Department (Section 26 Appendix Drawings)
<http://www.archsd.gov.hk/en/publications-publicity/publications.aspx>

C2104	Tree Ring
C2106/1	Typical detail of soil nail
C2106/2	Soil nail head details
C2106/3	Soil nail head details for sprayed concrete slope surface
C2202	Typical arrangement of rock dowel
C2205	Fixing of wire mesh to rock face
C2302	Filter blanket for fill slope and filling details at slope crest
C2403	Typical arrangement of raking drains
C2404	Relief drain details

Note : The following drawings relevant to this Section of the Schedule can be viewed on website via the pathway referred therein : -
Civil Engineering and Development Department Standard Drawings
http://www.cedd.gov.hk/eng/publications/standards_handbooks_cost/stan_drawing.htm

C2501/1B	Temporary safety fence (Type A)
C2501/2B	Temporary safety fence (Type A)
C2502/1C	Temporary safety fence (Type B)
C2502/2C	Temporary safety fence (Type B)

Note : The following drawings relevant to this Section of the Schedule can be viewed on 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

H2112A	Beam barriers - Corrugated beam
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<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 website via the pathway referred therein : -
 Architectural Services Department, Architectural Standard Drawings
<http://www.archsd.gov.hk/en/publications-publicity/publications.aspx>

7116_01 (09/00)	Display sign for man-made slopes / retaining walls (1 of 5)
7116_02 (09/00)	Display sign for man-made slopes / retaining walls (2 of 5)
7116_03 (09/00)	Display sign for man-made slopes / retaining walls (3 of 5)
7116_04 (09/00)	Display sign for man-made slopes / retaining walls (4 of 5)
7116_05 (09/00)	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)



CONSTRUCTION INDUSTRY LOGO GUIDELINES

January 2011

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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.

English version (primary)



Picture mark

Word mark

English version (secondary)



Word mark

Stigain

Picture mark

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)



Chinese version (secondary)



Picture mark

Word mark

Picture mark

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

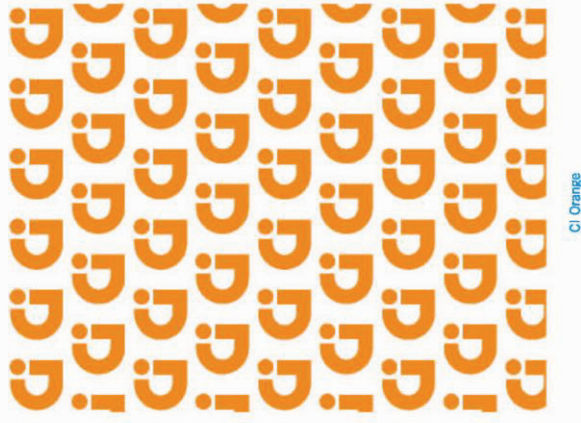
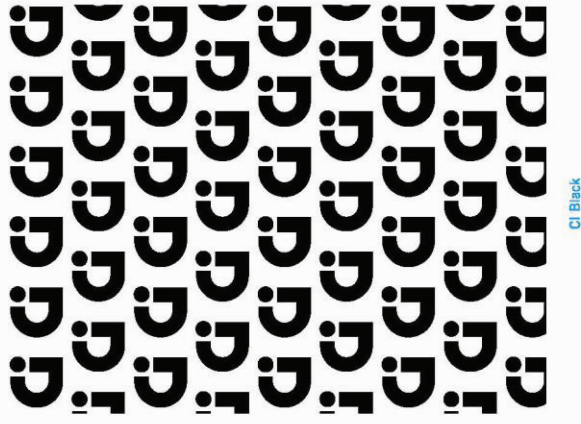
Construction Industry Logo Guidelines 6

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.



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 nest the logo with other typographic elements.



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)

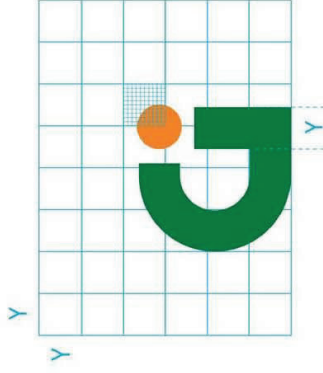
黑體

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

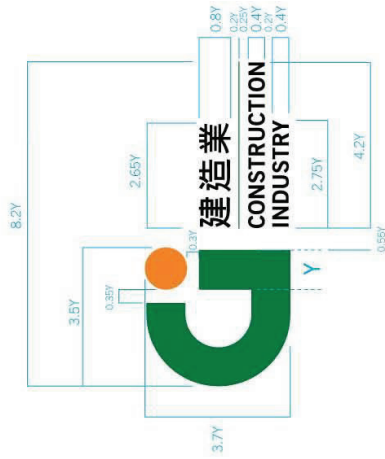
CONSTRUCTION INDUSTRY (CI) LOGO DESIGN

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)

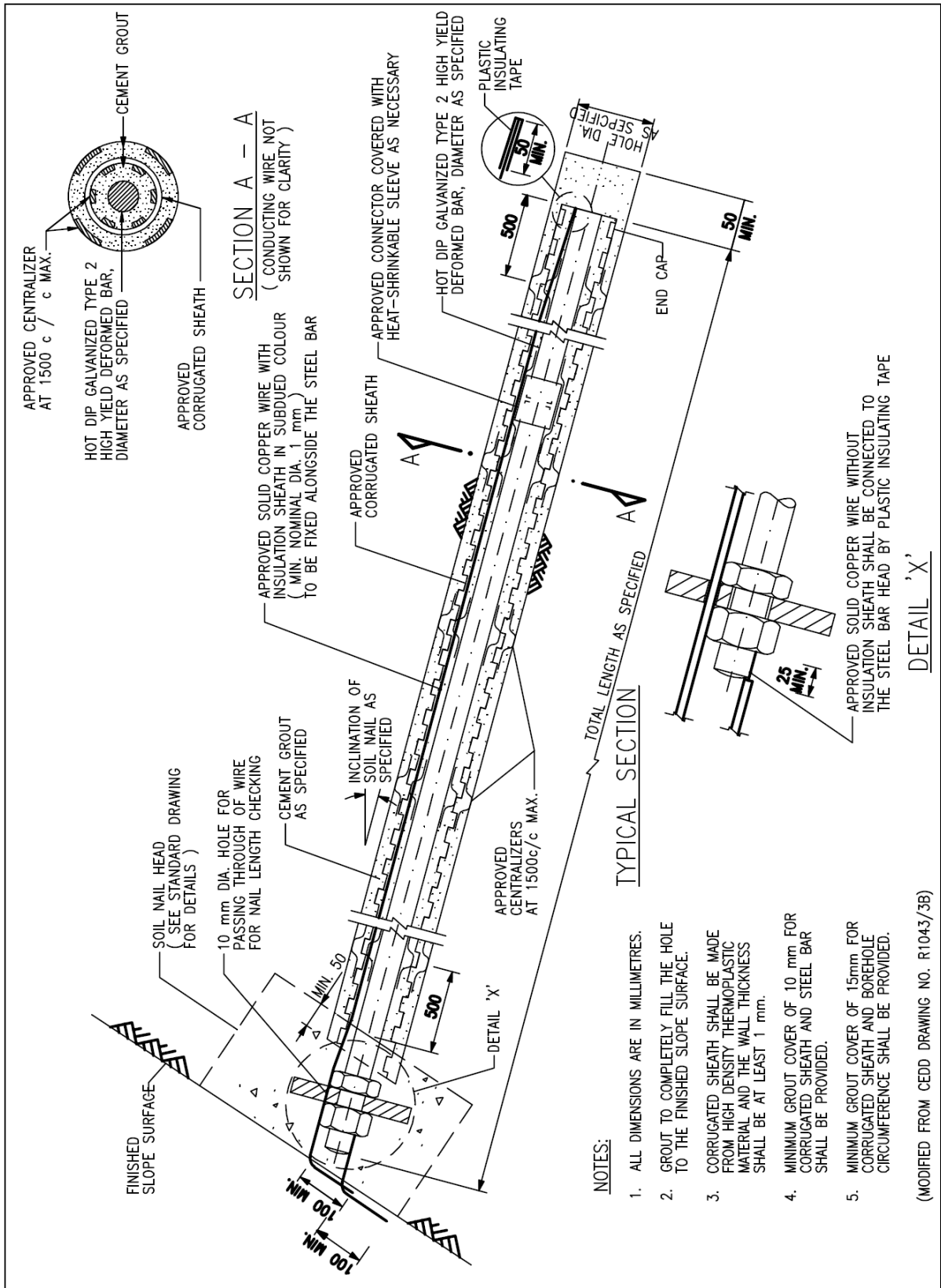


Picture mark + Work mark + Slogan

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.



APPROVED CENTRALIZER
AT 1500 c / c MAX.

HOT DIP GALVANIZED TYPE 2
HIGH YIELD DEFORMED BAR,
DIAMETER AS SPECIFIED

APPROVED
CORRUGATED SHEATH

SECTION A - A
(CONDUCTING WIRE NOT
SHOWN FOR CLARITY)

APPROVED SOLID COPPER WIRE WITH
INSULATION SHEATH IN SUBDUED COLOUR
(MIN. NOMINAL DIA. 1 mm)

APPROVED CORRUGATED SHEATH

APPROVED CONNECTOR COVERED WITH
HEAT-SHRINKABLE SLEEVE AS NECESSARY

HOT DIP GALVANIZED TYPE 2 HIGH YIELD
DEFORMED BAR, DIAMETER AS SPECIFIED

PLASTIC
INSULATING
TAPE

END CAP

TYPICAL SECTION


APPROVED SOLID COPPER WIRE WITHOUT
INSULATION SHEATH SHALL BE CONNECTED TO
THE STEEL BAR HEAD BY PLASTIC INSULATING TAPE

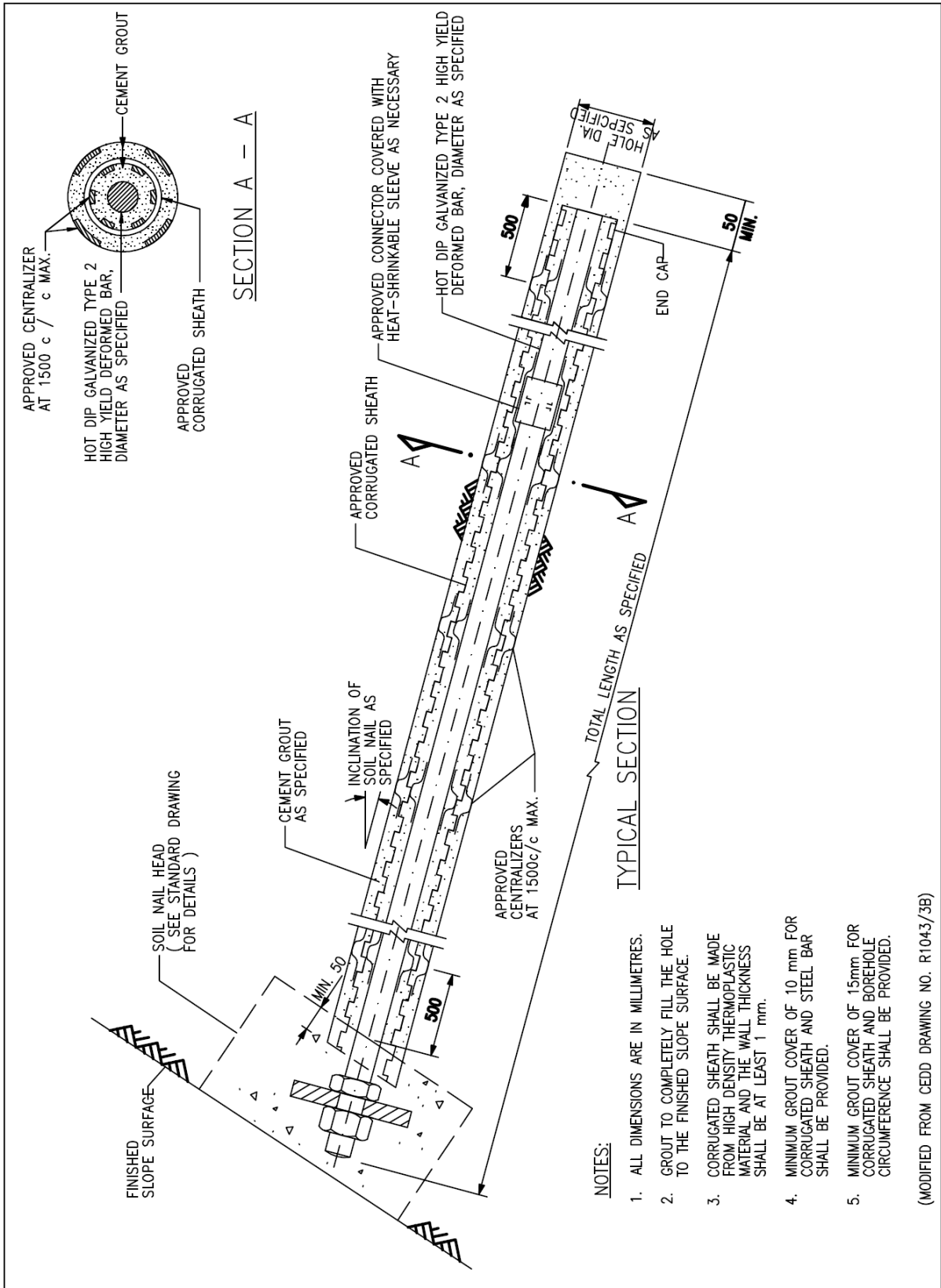
DETAIL 'X'

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>Cassia surattensis</i>	黃槐
<i>Casuarina equisetifolia</i>	木麻黃
<i>Delonix regia</i>	鳳凰木
<i>Elaeocarpus h inanensis</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(紅毛桉)
<i>Ficus altissima</i>	高山榕
<i>Ficus benjamina</i>	垂榕
<i>Ficus binnendijkii</i> 'Alii'	長葉榕
<i>Ficus elastica</i>	印度榕(印度橡樹)
<i>Ficus rumphii</i>	心葉榕(假菩提樹)
<i>Ficus wightiana</i>	雷州榕
<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>Peltophorum 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>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>	密茛萸(三椏苦)
<i>Michelia champaca</i>	黃蘭
<i>Michelia macclurei</i>	展毛含笑
<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>	雨豆樹
<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>Glandulopilosa</i>	腺毛垂柳
<i>Sophora japonica</i>	槐
<i>Swietenia mahogany</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(欒菊)
<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 superba</i> var. <i>japonica</i>	筆管榕
<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.Kaizuka</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	1000-1500	Exceeding 1500
Group B	500-1000	1001-1500	1500-2500	Exceeding 2500
Group C	500-1000	1001-2000	2000-3000	Exceeding 3000
Group D	2000-3000	3001-4000	4000-5000	Exceeding 5000
Group E	500-1000	1001-1500	NA	NA
Group F	500-1000	1001-2000	2000-3000	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

桃榔(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</i> Roxb	三药檳榔
<i>Butia capitata</i> Becc.	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
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15	Mass (Weight) of rolled steel universal columns..... C/15
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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
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43	Mass (Weight) of steel sheet piles..... C/34
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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) BS 4391 : 1972	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) BS 4391 : 1972	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 BS-DD5 : 1971	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/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 7

MASS (WEIGHT) OF
MILD STEEL ROUND BARS

Preferred metric diameter (mm) BS 4461 : 1971	Imperial sizes (inches)	Metric equivalents of imperial sizes (mm)	kg/m*
6			0.22
	1/4	6.350	0.25
8			0.39
	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			2.46
	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 4429 : 1972	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			4.90
	1	25.400	5.06
28			6.15
	1-1/8	28.575	6.40
	1-1/4	31.750	7.91
32			8.03
	1-3/8	34.925	9.57
35			9.61
	1-1/2	38.100	11.38
40			12.55
	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 NUT

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 EN10056-1:1999, 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 EN10056-1:1999, 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 RADIUSED 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	5.00	33.00	508.00	6.30	77.90
	4.00	9.63			6.30	41.40		8.00	98.60
	5.00	11.90	8.00		52.30	10.00		123.00	
	6.30	14.80	10.00		64.90	12.50		153.00	
	8.00	18.50	12.50		80.30	14.20		173.00	
	10.00	22.60	14.20		90.60	16.00		194.00	
114.30	3.20	8.77	16.00		101.00	20.00		241.00	
	4.00	10.90	20.00		125.00	25.00		298.00	
	5.00	13.50	25.00		153.00	30.00		354.00	
	6.30	16.80	323.90		5.00	39.30	40.00	462.00	
	8.00	21.00		6.30	49.30	50.00	565.00		
	10.00	25.70		8.00	62.30	610.00	6.30	93.80	
139.70	4.00	13.40		10.00	77.40		8.00	119.00	
	5.00	16.60		12.50	96.00		10.00	148.00	
	6.30	20.70		14.20	108.50		12.50	184.00	
	8.00	26.00	16.00	121.00	14.20		209.00		
	10.00	32.00	20.00	150.00	16.00		234.00		
	12.50	39.20	25.00	184.00	20.00		291.00		
168.30	4.00	16.20	355.60	5.00	21.30		25.00	361.00	
	5.00	20.10		6.30	26.60		30.00	429.00	
	6.30	25.20		8.00	33.50	40.00	562.00		
	8.00	31.60		10.00	41.40	50.00	691.00		
	10.00	39.00		12.50	51.00				
	12.50	48.00		14.20	62.90				

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		
80 x 40	8.00	12.50	200 x 120	6.30	30.10	
	90 x 50	3.20		6.63	8.00	37.60
		4.00		8.15	10.00	46.30
		5.00		9.99	12.50	56.60
6.30		12.30	250 x 150	6.30	38.00	
8.00	15.00	8.00		47.70		
100 x 50	3.20	7.13		10.00	58.80	
	4.00	8.78		12.50	72.30	
	5.00	10.80		14.20	81.10	
	6.30	13.30	16.00	90.30		
100 x 50	8.00	16.30	260 x 180	6.30	41.90	
	100 x 60	3.20		7.63	8.00	52.70
		4.00		9.41	10.00	65.10
		5.00		11.60	12.50	80.10
6.30		14.20		14.20	90.10	
100 x 60	8.00	17.50	16.00	100.00		
	120 x 60	4.00	10.70	300 x 200	6.30	47.90
		5.00	13.10		8.00	60.30
		6.30	16.20		10.00	74.50
8.00		20.10	12.50		91.90	
10.00		24.30	14.20		103.00	
120 x 80	4.00	11.90	16.00	115.00		
	5.00	14.70	350 x 250	6.30	57.80	
	6.30	18.20		8.00	72.80	
	8.00	22.60		10.00	90.20	
10.00	27.40	12.50		112.00		
140 x 80	4.00	13.20		14.20	126.00	
	5.00	16.30	16.00	141.00		
	6.30	20.20	400 x 200	8.00	72.80	
	8.00	25.10		10.00	90.20	
10.00	30.60	12.50		112.00		
150 x 100	4.00	15.10		14.20	126.00	
	5.00	18.60		16.00	141.00	
	6.30	23.10	450 x 250	8.00	85.40	
	8.00	28.90		10.00	106.00	
10.00	35.30	12.50		131.00		
12.50	42.80	14.20		148.00		
160 x 80	4.00	14.40		16.00	166.00	
	5.00	17.80	500 x 300	10.00	122.00	
	6.30	22.20		12.50	151.00	
	8.00	27.60		14.20	170.00	
	10.00	33.70		16.00	191.00	
12.50	40.90	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

