

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Amount
	<p><u>SECTION NO.1</u></p> <p><u>BILL NO. 1</u> <u>PRELIMINARIES</u></p> <p><u>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p>The JBCC Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described</p> <p>The JBCC Principal Building Agreement contract data form an integral part of this agreement</p> <p>The JBCC General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the JBCC Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these bills of quantities, amended as hereinafter described</p> <p>The contractor is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause</p> <p>The clauses in the above mentioned documents are hereinafter referred to by clause number and heading only</p> <p>Where any item is not relevant to this agreement such item is marked N/A signifying "not applicable"</p> <p>Where standard clauses or alternatives are not entirely applicable to this agreement such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the abovementioned documents</p> <p><u>PREAMBLES FOR TRADES</u></p> <p>The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained</p> <p>Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles</p> <p>The contractor's prices for all items throughout these bills of quantities shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications</p>		
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STRUCTURE OF THIS PRELIMINARIES BILL

Section A : A recital of the headings of the individual clauses in the aforementioned **JBCC** Principal Building Agreement

Section B : A recital of the headings of the individual clauses in the aforementioned **JBCC** General Preliminaries

Section C : Any special clauses to meet the particular circumstances of the project

PRICING OF PRELIMINARIES

Should the **contractor** select Option A in the **contract data** for the adjustment of **preliminaries**, the amounts entered against the relevant items in these **preliminaries** are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities

SECTION A: PRINCIPAL BUILDING AGREEMENT

Interpretation (A1-A7)

1 Clause 1.0 - Definitions and interpretation

Pricing of bills of quantities

The **contractor** is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this **agreement**. Value Added Tax (VAT) is to be separately stated on the summary page of these **bills of quantities**

Items left unpriced will be deemed to be covered in prices against other items throughout these **bills of quantities** and no claim for any extras arising out of the **contractor's** omission to price any item will be entertained

Prices for all **construction equipment**, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary

Abbreviated descriptions

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The items in these **bills of quantities** utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the **contractor** shall, before submission of his tender, call for a written directive from the **principal agent**, failing which it shall be assumed that the **contractor** has allowed in his pricing for materials and workmanship in terms of international best practice

Legal status of contractor

If the **contractor** constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:

1. These persons are deemed to be jointly and severally liable to the **employer** for the performance of this **agreement**
2. These persons shall notify the **employer** of their leader who has assigned authority to bind the **contractor** and each of these persons
3. The **contractor** shall not alter its composition or legal status without the prior written consent of the **employer**

F:..... V:..... T:.....

2 Clause 2.0 - **Law**, regulations and **notices**

NHBRC levies

The **employer** shall allow for and pay any levies required by the National Home Builders Registration Council (NHBRC). The **contractor** warrants that he is registered and will maintain registration with the NHBRC for the duration of this **agreement** [2.1]

Health and safety

Without limiting the generality of the provisions of clause 2.0, the **contractor's** attention is drawn to the provisions of Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993. It is specifically stated that the **employer** shall prepare a documented health and safety specification for the **works** (refer to Annexure C for a copy of the relevant specification) and that the **employer** shall ensure that the **contractor** has made provision for the cost of health and safety measures during the execution of the works. The **contractor** shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification [2.1]

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The **contractor** shall:

1. Comply with the health and safety specification for the **works**
2. Prepare and agree with the health and safety consultant the health and safety plan for the **works**
3. Co-operate with the health and safety consultant in all respects
4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification
5. Conform to the conditions contained in the **employer's** safety specification

F:..... V:..... T:.....

Item

3 Clause 3.0 - Offer and acceptance

F:..... V:..... T:.....

Item

4 Clause 4.0 - Cession and assignment

F:..... V:..... T:.....

Item

5 Clause 5.0 - Documents

Value Added Tax

Provision is made in the summary page of these **bills of quantities** for the inclusion of Value Added Tax (VAT)

Priced document as specification

Clause 5.4 is deemed to be deleted

The **principal agent** shall decide which portion of the **priced document** may be used as a specification of **materials and goods** or methods, if any

Not Applicable

F:..... V:..... T:.....

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6	<p>Clause 6.0 - Employer's agents</p> <p>Delegated authority</p> <p>The authority of the principal agent to issue contract instructions [17.1] and perform duties for specific aspects of the works is delegated to agents as follows [6.2]. This does not preclude the principal agent from issuing such contract instructions:</p> <p>1. <u>Architect</u></p> <p>1.1 Duties [6.2] :</p> <p>In keeping with the wishes of the principal agent, the architect is responsible for the architectural design, functional design and quality inspection of the works</p> <p>1.1 Give opinion on aspects of the works which are not in accordance with the agreement</p> <p>1.2 Supply the specified number of drawings</p> <p>1.3 Issue instructions if bills of quantities is to be used as a specification</p> <p>1.4 Be responsible for primary co-ordination of design elements</p> <p>1.5 Receive through the contractor and accept design documentation undertaken by subcontractors</p> <p>1.6 Issue contract instructions to the contractor regarding:</p> <p>1.6.1 Alteration to design, quality or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>1.6.2 Removal of any materials and goods from the site and the substitution of any materials and goods thereof</p> <p>1.6.3 Removal or re-execution of any work</p> <p>1.6.4 Opening up of work for inspection</p> <p>1.6.5 Testing of work and materials and goods</p> <p>1.6.6 Protection of the works</p> <p>1.6.7 Making good physical loss and repairing damage to the works</p> <p>1.6.8 Lists for practical completion and final completion</p> <p style="text-align: right;">Carried to Collection</p> <p>PRELIMINARIES Bill No. 1 Preliminaries</p>			
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- 1.6.9 Compliance with Acts of Parliament, regulations and bylaws
 - 1.7 Witness the handing over to the **contractor** of pegs, beacons and datum levels
 - 1.8 Define levels and provide the **contractor** with the necessary information to set out the **works**
 - 1.9 Acceptance of design by **subcontractors**
 - 1.10 Inspect the **works** from time to time and give the **contractor** interpretation and guidance on the standard and state of completion required for **practical completion**
 - 1.11 Inspect the **works** for **practical completion**
 - 1.12 Issue the **list for practical completion** and re-inspect upon request of the **contractor**
 - 1.13 Issue the **certificate of practical completion**
 - 1.14 Inspect the **works** at the end of the **defects** liability period
 - 1.15 Issue the **list for final completion** and re-inspect upon request of the **contractor**
 - 1.16 Issue the **certificate of final completion**
 - 1.2 **Contract instructions** [6.2; 17.1] :
- In keeping with the wishes of the **principal agent**, the architect shall on behalf of the **principal agent** issue the following **contract instructions**
- 1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the **agreement** other than in the **JBCC** Principal Building Agreement
 - 1.2.2 Alteration to design, standards or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
 - 1.2.3 The **site** [13.0]
 - 1.2.4 Compliance with the **law**, regulations and bylaws [2.1]
 - 1.2.5 Provision and testing of samples of **materials and goods** and/or of finishes and assemblies of elements of the **works**
 - 1.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]
 - 1.2.7 Removal or re-execution of work

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1.2.8 Removal or substitution of any **materials and goods**

1.2.9 Protection of the **works**

1.2.10 Making good physical loss and repairing damage to the **works** [23.2.2]

1.2.11 Rectification of **defects** [21.2]

1.2.12 A **list for practical completion** specifying outstanding or defective work to be rectified to achieve **practical completion**, a **list for completion** and a **list for final completion** specifying outstanding or defective work to be rectified to achieve **final completion**

1.2.13 Expenditure of **budgetary allowances, prime cost amounts and provisional sums**

1.2.14 Appointment of a **subcontractor** [14.0; 15.0]

1.2.15 Work by **direct contractors** [16.0]

2. Quantity surveyor

2.1 Duties [6.2] :

In keeping with the wishes of the **principal agent**, the quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the **works**

2.1 Consult with the **contractor** in correction of rates or errors and discrepancies

2.2 Complete the **contract data**

2.3 Supply the specified number of unpriced **bills of quantities**

2.4 Identify in the **contract data** any changes to the standard **JBCC** documentation and determine any loss and expense to the **contractor** caused by non-disclosure thereof

2.5 Deal with amounts paid by the **contractor** to authorities having jurisdiction over the **works**

2.6 Measure and value the making good of physical loss or damage

2.7 Issue **contract instructions** to the **contractor** regarding:

2.7.1 Rectification of discrepancies and errors in description or omissions in **contract documents**

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- 2.7.2 Furnishing proof of payment to **subcontractors**
- 2.7.3 **Budgetary allowances** and work executed by the **contractor**
- 2.7.4 Contingency and other monetary provisions included in the **contract sum**
- 2.8 Prepare nominated and/or selected subcontract tender documents
- 2.9 Receive proof from the **contractor** that the **contractor's** payment obligations have been met in respect of **subcontractors**
- 2.10 Act on **employer's** instructions to pay **subcontractors** directly
- 2.11 Adjustment of the **contract value** in respect of a revision to the date of **practical completion**
- 2.12 Calculate **penalties** for non-completion upon receipt of the relevant information from the **principal agent**
- 2.13 Valuation of payment claims for **payment certificates**
- 2.14 Calculate default and compensatory **interest** (if any) due to the **parties**
- 2.15 With each valuation for payment issue:
 - 2.15.1 A statement to the **contractor** and each **subcontractor** showing the amount certified for the relevant **subcontractor**
 - 2.15.2 A statement to the **employer** and **contractor** showing the total amount certified
 - 2.15.3 **A recovery statement**
- 2.16 Determine the value of adjustments to the **contract value**
- 2.17 Receive from the **contractor** details of expense and loss claims and assess such claims
- 2.18 Prepare the **final account** and submit to the **contractor**
- 2.2 **Contract instructions** [6.2; 17.1] :
 - 2.2.1 No **contract instructions** delegated to the quantity surveyor
- 3. Civil and structural engineer

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3.1 Duties [6.2] :

In keeping with the wishes of the **principal agent**, the civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the **works**

3.1 Give opinion on aspects of the **works** which are not in accordance with the **agreement**

3.2 Supply the specified number of drawings

3.3 Issue instructions if **bills of quantities** is to be used as a specification

3.4 Receive and accept design documentation undertaken by **subcontractors**

3.5 Issue **contract instructions** to the **contractor** regarding:

3.5.1 Alteration to design, quality or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**

3.5.2 Removal of any **materials and goods** from the **site** and the substitution of any **materials and goods** thereof

3.5.3 Removal or re-execution of any work

3.5.4 Opening up of work for inspection

3.5.5 Testing of work and **materials and goods**

3.5.6 Protection of the **works**

3.5.7 Making good physical loss and repairing damage to the **works**

3.5.8 Compliance with Acts of Parliament, regulations and bylaws

3.6 Define levels and provide the **contractor** with the necessary information to set out the **works**

3.7 Acceptance of design by **subcontractors**

3.8 Inspect the **works** from time to time and give the **contractor** interpretation and guidance on the standard and state of completion required for **practical completion**

3.9 Inspect the **works** for **practical completion**

3.10 Issue the **list for practical completion** and re-inspect upon request of the **contractor**

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- 3.11 Inspect the **works** at the end of the **defects** liability period
- 3.12 Issue the **list for final completion** and re-inspect upon request of the **contractor**
- 3.2 **Contract instructions** [6.2; 17.1] :
- 3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the **agreement** other than in the **JBCC** Principal Building Agreement
- 3.2.2 Alteration to design, standards or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
- 3.2.3 The **site** [13.0]
- 3.2.4 Compliance with the **law**, regulations and bylaws [2.1]
- 3.2.5 Provision and testing of samples of **materials and goods** and/or of finishes and assemblies of elements of the **works**
- 3.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]
- 3.2.7 Removal or re-execution of work
- 3.2.8 Removal or substitution of any **materials and goods**
- 3.2.9 Protection of the **works**
- 3.2.10 Making good physical loss and repairing damage to the **works** [23.2.2]
- 3.2.11 Rectification of **defects** [21.2]
- 3.2.12 A **list for practical completion** specifying outstanding or defective work to be rectified to achieve **practical completion**, a **list for completion** and a **list for final completion** specifying outstanding or defective work to be rectified to achieve **final completion**

4. Mechanical engineer

4.1 Duties [6.2] :

In keeping with the wishes of the **principal agent**, the mechanical engineer is responsible for all aspects of mechanical engineering design and quality inspection of the **works** and, where appointed by the **employer** for quantity surveying services in respect of the mechanical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions

- 4.1 Give opinion on aspects of the **works** which are not in accordance with the **agreement**

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- 4.2 Supply the specified number of drawings
- 4.3 Issue instructions if **bills of quantities** is to be used as a specification
- 4.4 Receive and accept design documentation undertaken by **subcontractors**
- 4.5 Issue **contract instructions** to the **contractor** regarding:
 - 4.5.1 Alteration to design, quality or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
 - 4.5.2 Removal of any **materials and goods** from the site and the substitution of any **materials and goods** thereof
 - 4.5.3 Removal or re-execution of any work
 - 4.5.4 Opening up of work for inspection
 - 4.5.5 Testing of work and **materials and goods**
 - 4.5.6 Protection of the **works**
 - 4.5.7 Making good physical loss and repairing damage to the **works**
 - 4.5.8 Compliance with Acts of Parliament, regulations and bylaws
- 4.6 Provide the **contractor** with the necessary information to set out the **works**
- 4.7 Acceptance of design by **subcontractors**
- 4.8 Inspect the **works** from time to time and give the **contractor** interpretation and guidance on the standard and state of completion required for **practical completion**
- 4.9 Inspect the **works** for **practical completion**
- 4.10 Issue the **list for practical completion** and re-inspect upon request of the **contractor**
- 4.11 Inspect the **works** at the end of the **defects** liability period
- 4.12 Issue the **list for final completion** and re-inspect upon request of the **contractor**
- 4.13 Quantity surveying functions and duties:
 - 4.13.1 Consult with the **contractor** and/or **subcontractors** in correction of rates or errors and discrepancies

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- 4.13.2 Supply the specified number of unpriced **bills of quantities**
- 4.13.3 Deal with amounts paid by the **contractor** and/or **subcontractors** to authorities having jurisdiction over the **works**
- 4.13.4 Measure and value the making good of physical loss or damage
- 4.13.5 Issue **contract instructions** to the **contractor** regarding:
 - 4.13.5.1 Rectification of discrepancies and errors in description or omissions in **contract documents**
 - 4.13.5.2 Furnishing proof of payment to **subcontractors**
 - 4.13.5.3 **Budgetary allowances** and work executed by the **contractor** and/or **subcontractors**
 - 4.13.5.4 Contingency and other monetary provisions included in the **contract sum**
- 4.13.6 Prepare nominated and/or selected subcontract tender documents
- 4.13.7 Valuation of payment claims for **payment certificates**
- 4.13.8 Determine the value of adjustments to the **contract value**
- 4.13.9 Receive from the **contractor** and/or **subcontractors** details of expense and loss claims and assess such claims
- 4.13.10 Prepare the **final account** and submit to the **contractor** and/or **subcontractors** as the case may be
- 4.2 **Contract instructions** [6.2; 17.1] :
 - 4.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the **agreement** other than in the **JBCC** Principal Building Agreement
 - 4.2.2 Alteration to design, standards or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
 - 4.2.3 Compliance with the **law**, regulations and bylaws [2.1]
 - 4.2.4 Provision and testing of samples of **materials and goods** and/or of finishes and assemblies of elements of the **works**
 - 4.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]
 - 4.2.6 Removal or re-execution of work

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- 4.2.7 Removal or substitution of any **materials and goods**
- 4.2.8 Protection of the **works**
- 4.2.9 Making good physical loss and repairing damage to the **works** [23.2.2]
- 4.2.10 Rectification of **defects** [21.2]
- 4.2.11 A **list for practical completion** specifying outstanding or defective work to be rectified to achieve **practical completion**, a **list for completion** and a **list for final completion** specifying outstanding or defective work to be rectified to achieve **final completion**
5. Electrical engineer
- 5.1 Duties [6.2] :
- In keeping with the wishes of the **principal agent**, the electrical engineer is responsible for all aspects of electrical engineering design and quality inspection of the **works** and, where appointed by the **employer** for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions
- 5.1 Give opinion of aspects of the **works** which are not in accordance with the **agreement**
- 5.2 Supply the specified number of drawings
- 5.3 Issue instructions if **bills of quantities** is to be used as a specification
- 5.4 Receive and accept design documentation undertaken by **subcontractors**
- 5.5 Issue **contract instructions** to the **contractor** regarding:
- 5.5.1 Alteration to design, quality or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
- 5.5.2 Removal of any **materials and goods** from the **site** and the substitution of any **materials and goods** therefor
- 5.5.3 Removal or re-execution of any work
- 5.5.4 Opening up of work for inspection
- 5.5.5 Testing of work and **materials and goods**

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5.5.6	Protection of the works		
5.5.7	Making good physical loss and repairing damage to the works		
5.5.8	Compliance with Acts of Parliament, regulations and bylaws		
5.6	Provide the contractor with the necessary information to set out the works		
5.7	Acceptance of design by subcontractors		
5.8	Inspect the works from time to time and give the contractor interpretation and guidance on the standard and state of completion required for practical completion		
5.9	Inspect the works for practical completion		
5.10	Issue the list for practical completion and re-inspect upon request of the contractor		
5.11	Inspect the works at the end of the defects liability period		
5.12	Issue the list for final completion and re-inspect upon request of the contractor		
5.13	Quantity surveying functions and duties:		
5.13.1	Consult with the contractor and/or subcontractors in correction of rates or errors and discrepancies		
5.13.2	Supply the specified number of unpriced bills of quantities		
5.13.3	Deal with amounts paid by the contractor and/or subcontractors to authorities having jurisdiction over the works		
5.13.4	Measure and value the making good of physical loss or damage		
5.13.5	Issue contract instructions to the contractor regarding:		
5.13.5.1	Rectification of discrepancies and errors in description or omissions in contract documents		
5.13.5.2	Furnishing proof of payment to subcontractors		
5.13.5.3	Budgetary allowances and work executed by the contractor and/or subcontractors		
5.13.5.4	Contingency and other monetary provisions included in the contract sum		
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- 5.13.6 Prepare nominated and/or selected subcontract tender documents
- 5.13.7 Valuation of payment claims for **payment certificates**
- 5.13.8 Determine the value of adjustments to the **contract value**
- 5.13.9 Receive from the **contractor** and/or **subcontractors** details of expense and loss claims and assess such claims
- 5.13.10 Prepare the **final account** and submit to the **contractor** and/or **subcontractors** as the case may be
- 5.2 **Contract instructions** [6.2; 17.1] :
- 5.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the **agreement** other than in the **JBCC** Principal Building Agreement
- 5.2.2 Alteration to design, standards or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
- 5.2.3 Compliance with the **law**, regulations and bylaws [2.1]
- 5.2.4 Provision and testing of samples of **materials and goods** and/or of finishes and assemblies of elements of the **works**
- 5.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]
- 5.2.6 Removal or re-execution of work
- 5.2.7 Removal or substitution of any **materials and goods**
- 5.2.8 Protection of the **works**
- 5.2.9 Making good physical loss and repairing damage to the **works** [23.2.2]
- 5.2.10 Rectification of **defects** [21.2]
- 5.2.11 A **list for practical completion** specifying outstanding or defective work to be rectified to achieve **practical completion**, a **list for completion** and a **list for final completion** specifying outstanding or defective work to be rectified to achieve **final completion**

6. Wet services engineer

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6.1 Duties [6.2] :

In keeping with the wishes of the **principal agent**, the wet services engineer is responsible for all aspects of wet services engineering design and quality inspection of the **works**

6.1 Give opinion on aspects of the **works** which are not in accordance with the **agreement**

6.2 Supply the specified number of drawings

6.3 Issue instructions if **bills of quantities** is to be used as specification

6.4 Receive and accept design documentation undertaken by **subcontractors**

6.5 Issue **contract instructions** to the **contractor** regarding:

6.5.1 Alteration to design, quality or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**

6.5.2 Removal of any **materials and goods** from the **site** and the substitution of any **materials and goods** thereof

6.5.3 Removal or re-execution of any work

6.5.4 Opening up of work for inspection

6.5.5 Testing of work and **materials and goods**

6.5.6 Protection of the **works**

6.5.7 Making good physical loss and repairing damage to the **works**

6.5.8 Compliance with Acts of Parliament, regulations and bylaws

6.6 Provide the **contractor** with the necessary information to set out the **works**

6.7 Acceptance of design by **subcontractors**

6.8 Inspect the **works** from time to time and give the **contractor** interpretation and guidance on the standard and state of completion required for **practical completion**

6.9 Inspect the **works** for **practical completion**

6.10 Issue the **list for practical completion** and re-inspect upon request of the **contractor**

6.11 Inspect the **works** at the end of the **defects** liability period

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- 6.12 Issue the **list for final completion** and re-inspect upon request of the **contractor**
- 6.2 **Contract instructions** [6.2; 17.1] :
- 6.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the **agreement** other than in the **JBCC** Principal Building Agreement
- 6.2.2 Alteration to design, standards or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
- 6.2.3 Compliance with the **law**, regulations and bylaws [2.1]
- 6.2.4 Provision and testing of samples of **materials and goods** and/or of finishes and assemblies of elements of the **works**
- 6.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]
- 6.2.6 Removal or re-execution of work
- 6.2.7 Removal or substitution of any **materials and goods**
- 6.2.8 Protection of the **works**
- 6.2.9 Making good physical loss and repairing damage to the **works** [23.2.2]
- 6.2.10 Rectification of **defects** [21.2]
- 6.2.11 A **list for practical completion** specifying outstanding or defective work to be rectified to achieve **practical** completion, a **list for completion** and a **list for final completion** specifying outstanding or defective work to be rectified to achieve **final completion**

7. Fire consultant

7.1 Duties [6.2] :

In keeping with the wishes of the **principal agent**, the fire consultant is responsible for all aspects of rational fire design and quality inspection of the **works**

- 7.1 Give opinion on aspects of the **works** which are not in accordance with the **agreement**
- 7.2 Supply the specified number of drawings
- 7.3 Issue instructions if **bills of quantities** is to be used as specification
- 7.4 Receive and accept design documentation undertaken by **subcontractors**

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- 7.5 Issue **contract instructions** to the **contractor** regarding:
 - 7.5.1 Alteration to design, quality or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
 - 7.5.2 Removal of any **materials and goods** from the **site** and the substitution of any **materials and goods** thereof
 - 7.5.3 Removal or re-execution of any work
 - 7.5.4 Opening up of work for inspection
 - 7.5.5 Testing of work and **materials and goods**
 - 7.5.6 Protection of the **works**
 - 7.5.7 Making good physical loss and repairing damage to the **works**
 - 7.5.8 Compliance with Acts of Parliament, regulations and bylaws
- 7.6 Provide the **contractor** with the necessary information to set out the **works**
- 7.7 Acceptance of design by **subcontractors**
- 7.8 Inspect the **works** from time to time and give the **contractor** interpretation and guidance on the standard and state of completion required for **practical completion**
- 7.9 Inspect the **works** for **practical completion**
- 7.10 Issue the **list for practical completion** and re-inspect upon request of the **contractor**
- 7.11 Inspect the **works** at the end of the **defects** liability period
- 7.12 Issue the **list for final completion** and re-inspect upon request of the **contractor**
- 7.2 **Contract instructions** [6.2; 17.1] :
 - 7.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the **agreement** other than in the **JBCC** Principal Building Agreement
 - 7.2.2 Alteration to design, standards or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
 - 7.2.3 Compliance with the **law**, regulations and bylaws [2.1]

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	<p>7.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>7.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>7.2.6 Removal or re-execution of work</p> <p>7.2.7 Removal or substitution of any materials and goods</p> <p>7.2.8 Protection of the works</p> <p>7.2.9 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>7.2.10 Rectification of defects [21.2]</p> <p>7.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>8. <u>Health and safety consultant</u></p> <p>8.1 Duties [6.2] :</p> <p>In keeping with the wishes of the principal agent, the health and safety consultant is responsible for all aspects of health and safety of the works. Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the works. He shall:</p> <p>8.1.1 Act as the employer's agent in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended</p> <p>8.1.2 Prepare and update the health and safety specification for the works</p> <p>8.1.3 Agree with the contractor the health and safety plan for the works</p> <p>8.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations</p> <p>8.1.5 Stop the execution of the works where the agreed specification or plan is not adhered to</p> <p>F:..... V:..... T:.....</p>			
7	<p>Clause 7.0 - Design responsibility</p> <p>F:..... V:..... T:.....</p>		Item	
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	<u>Insurances and securities (A8-A11)</u>		
8	<p>Clause 8.0 - Works risk</p> <p>F:..... V:..... T:.....</p>	Item	
9	<p>Clause 9.0 - Indemnities</p> <p>F:..... V:..... T:.....</p>	Item	
10	<p>Clause 10.0 - Insurances</p> <p>F:..... V:..... T:.....</p>	Item	
11	<p>Clause 11.0 - Securities</p> <p>Guarantee for payment</p> <p>The employer shall provide to the contractor a guarantee for payment in the amount ofR and (R.....) [11.5.1]. The contractor shall consequently waive his lien or right of continuing possession of the works [11.10]</p> <p>Extension of waiver of lien</p> <p>The contractor shall ensure that a waiver of lien is included in all subcontracts and that the works executed on the site are kept free of all liens and other encumbrances at all times [11.10]</p> <p>F:..... V:..... T:.....</p>	Item	
12	<p><u>Execution (A12 - A17)</u></p> <p>Clause 12.0 - Obligations of the parties</p> <p>Office accommodation</p> <p>The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18]</p> <p>Notice board</p> <p>The contractor shall erect in a position approved by the principal agent, maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the principal agent listing the names and logos of the employer, the contractor and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18]</p>		
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Statutory and other notices

The **contractor** shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the **works** by the **contractor**. The **contractor** shall pay all deposits or fees in this regard

It is, however, specifically recorded that the **employer** shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto

F:..... V:..... T:.....

Item

13 Clause 13.0 - Setting out

F:..... V:..... T:.....

Item

14 Clause 14.0 - Nominated **subcontractors**

F:..... V:..... T:.....

Item

15 Clause 15.0 - Selected **subcontractors**

F:..... V:..... T:.....

Item

16 Clause 16.0 - **Direct contractors**

Attendance on direct contractors

In respect of **direct contractors** the **contractor** shall:

1. Designate an area for the **direct contractor** to establish a temporary office and workshop and storage of equipment and materials
2. Allow the use of personnel welfare facilities, where provided
3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation
4. Permit the **direct contractor** to use erected scaffolding, hoisting facilities, etc provided by the **contractor**, in common with others having the like right, while it remains erected on the **site** [16.1]

F:..... V:..... T:.....

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17	<p>Clause 17.0 - Contract instructions</p> <p>Site instructions</p> <p>Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor</p> <p>F:..... V:..... T:.....</p> <p><u>Completion (A18 - A24)</u></p>	Item	
18	Clause 18.0 - Interim completion	N/A	
19	<p>Clause 19.0 - Practical completion</p> <p>F:..... V:..... T:.....</p>	Item	
20	<p>Clause 20.0 - Completion in sections</p> <p>F:..... V:..... T:.....</p>	Item	
21	<p>Clause 21.0 - Defects liability period and final completion</p> <p>F:..... V:..... T:.....</p>	Item	
22	<p>Clause 22.0 - Latent defects liability period</p> <p>F:..... V:..... T:.....</p>	Item	
23	<p>Clause 23.0 - Revision of the date for practical completion</p> <p>Substitution of materials and goods</p> <p>The removal or substitution of any materials and goods which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value [17.1.8; 23.1 & 2]</p> <p>F:..... V:..... T:.....</p>	Item	
24	<p>Clause 24.0 - Penalty for late or non-completion</p> <p>F:..... V:..... T:.....</p> <p><u>Payment (A25 - A27)</u></p>	Item	
25	Clause 25.0 - Payment		
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	<p>Prices submitted</p> <p>Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of this agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of final completion, it shall be in writing</p> <p>F:..... V:..... T:.....</p>		
26	<p>Clause 26.0 - Adjustment of the contract value and final account</p> <p>Fluctuations in costs</p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [26.9.5]</p> <p>Tenant installation/user requirements delayed</p> <p>There is a possibility that certain works related to tenant installation/user requirements may have to be delayed and may consequently not be executed prior to practical completion</p> <p>Should the contractor be instructed to do so he shall execute this work under the conditions pertaining to this agreement on the basis that a separate amount for preliminaries appurtenant to this work (if applicable) is agreed to between the contractor and the principal agent and on condition that instruction to proceed with such work is given to him within a period of three (3) calendar months after the date of practical completion of the works</p> <p>The employer reserves the right to omit such work without compensation to the contractor for loss of profit or any other loss which the contractor may suffer as a result of such omission</p> <p>Cost of claims</p> <p>All costs incurred by the contractor in the preparation of claims shall be borne by the contractor. This provision shall not preclude an adjudicator or an arbitrator appointed in terms of this agreement [30.6 & 7] from making a determination on costs</p> <p>Claims from subcontractors</p> <p>The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation in order to assist the principal agent in adjudicating the claim [26.6]</p> <p>F:..... V:..... T:.....</p>	Item	
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27	<p>Clause 27.0 - Recovery of expense and/or loss</p> <p>F:..... V:..... T:.....</p> <p><u>Suspension and termination (A28 - A29)</u></p>	Item	
28	<p>Clause 28.0 - Suspension by the contractor</p> <p>F:..... V:..... T:.....</p>	Item	
29	<p>Clause 29.0 - Termination</p> <p>F:..... V:..... T:.....</p> <p><u>Dispute resolution (A30)</u></p>	Item	
30	<p>Clause 30.0 - Dispute resolution</p> <p>F:..... V:..... T:.....</p>	Item	
31	<p><u>Agreement</u></p> <p>The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties</p> <p>F:..... V:..... T:.....</p>	Item	
32	<p><u>Contract data</u></p> <p>Tenderer's selections</p> <p>Before submission of his tender the contractor is to complete the tenderer's selections in the contract data</p> <p>F:..... V:..... T:.....</p> <p><u>SECTION B: GENERAL PRELIMINARIES</u></p> <p><u>Definitions and interpretation (B1)</u></p>	Item	
33	<p>Clause 1.1 - Definitions</p> <p>F:..... V:..... T:.....</p>	Item	
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34	Clause 1.2 - Interpretation F:..... V:..... T:..... Documents (B2)	Item	
35	Clause 2.1 - Checking of documents F:..... V:..... T:.....	Item	
36	Clause 2.2 - Provisional bills of quantities Multiple procurement These bills of quantities are in multiple procurement format ie the "wet trades" - earthworks, concrete, formwork and reinforcement, precast concrete, masonry, waterproofing and sub-surface drainage - are provisionally measured and the subsequent trades are budgetary allowances and/or provisional sums F:..... V:..... T:.....	Item	
37	Clause 2.3 - Availability of construction information F:..... V:..... T:.....	Item	
38	Clause 2.4 - Ordering of materials and goods F:..... V:..... T:..... Previous work and adjoining properties (B3)	Item	
39	Clause 3.1 - Previous work - dimensional accuracy F:..... V:..... T:.....	Item	
40	Clause 3.2 - Previous work - defects F:..... V:..... T:.....	Item	
41	Clause 3.3 - Inspection of adjoining properties F:..... V:..... T:.....	Item	
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	<u>The site (B4)</u>		
42	Clause 4.1 - Handover of site in stages F:..... V:..... T:.....	Item	
43	Clause 4.2 - Enclosure of the works F:..... V:..... T:.....	Item	
44	Clause 4.3 - Geotechnical and other investigations F:..... V:..... T:.....	Item	
45	Clause 4.4 - Encroachments F:..... V:..... T:.....	Item	
46	Clause 4.5 - Existing premises occupied F:..... V:..... T:.....	Item	
47	Clause 4.6 - Services - known F:..... V:..... T:.....	Item	
	<u>Management of contract (B5)</u>		
48	Clause 5.1 - Management of the works F:..... V:..... T:.....	Item	
49	Clause 5.2 - Progress meetings F:..... V:..... T:.....	Item	
50	Clause 5.3 - Technical meetings F:..... V:..... T:.....	Item	
	<u>Samples, shop drawings and manufacturer's instructions (B6)</u>		
51	Clause 6.1 - Samples of materials F:..... V:..... T:.....	Item	
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52	Clause 6.2 - Workmanship samples F:..... V:..... T:.....	Item	
53	Clause 6.3 - Shop drawings F:..... V:..... T:.....	Item	
54	Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....	Item	
	<u>Deposits and fees (B7)</u>		
55	Clause 7.1 - Deposits and fees F:..... V:..... T:.....	Item	
	<u>Temporary services (B8)</u>		
56	Clause 8.1 - Water F:..... V:..... T:.....	Item	
57	Clause 8.2 - Electricity F:..... V:..... T:.....	Item	
58	Clause 8.3 - Ablution and welfare facilities F:..... V:..... T:.....	Item	
59	Clause 8.4 - Communication facilities F:..... V:..... T:.....	Item	
	<u>Prime cost amounts (B9)</u>		
60	Clause 9.1 - Responsibility for prime cost amounts		
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	<u>Attendance on subcontractors (B10)</u>		
61	Clause 10.1 - General attendance <u>User note</u> <i>General attendance is defined as being the duties of the contractor in terms of clause 12.2 of the JBCC n/s subcontract agreement</i> F:..... V:..... T:.....	Item	
62	Clause 10.2 - Special attendance Where required special attendance shall be stated against the relevant selected subcontract amount in the bills of quantities <u>General (B11)</u>	Item	
63	Clause 11.1 - Protection of the works F:..... V:..... T:.....	Item	
64	Clause 11.2 - Protection/isolation of existing works and works occupied in sections F:..... V:..... T:.....	Item	
65	Clause 11.3 - Security of the works F:..... V:..... T:.....	Item	
66	Clause 11.4 - Notice before covering work F:..... V:..... T:.....	Item	
67	Clause 11.5 - Disturbance Disturbance All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever F:..... V:..... T:.....	Item	
68	Clause 11.6 - Environmental disturbance		
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Controlling all forms of pollution

The **contractor** shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the **site** during the **construction period** due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc

The **contractor** is to ensure that all roads which border the **site** and are used by the **contractor** during the execution of the **works** are kept clean and free of any dirt or debris caused by the execution of the **works**

Environmental management plan

The **employer** has prepared an environmental management plan (EMP) (refer to Annexure D for a copy of the relevant plan). The **contractor** shall price opposite this item for compliance with all the requirements of such EMP

F:..... V:..... T:.....

Item

69 Clause 11.7 - **Works** cleaning and clearing

F:..... V:..... T:.....

Item

70 Clause 11.8 - Vermin

F:..... V:..... T:.....

Item

71 Clause 11.9 - Overhand work

F:..... V:..... T:.....

Item

72 Clause 11.10 - Tenant installations

F:..... V:..... T:.....

Item

73 Clause 11.11 - Advertising

F:..... V:..... T:.....

Item

SECTION C: SPECIFIC PRELIMINARIES

74 Warranties for materials and workmanship

Where warranties for materials and/or workmanship are called for, the **contractor** shall obtain a written warranty, addressed to the **employer**, from the entity supplying the materials and/or executing the work and shall deliver same to the **principal agent** on **final completion** of the contract

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	<p>The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written notice to do so</p> <p>The warranty will not be enforced if the work is damaged by defects in the execution of the works, in which case the responsibility for replacement shall rest entirely with the contractor</p> <p>F:..... V:..... T:.....</p>			
75	<p>Overtime</p> <p>Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> <p>F:..... V:..... T:.....</p>	Item		
76	<p>Cooperation of the contractor for cost management</p> <p>It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the contract value does not exceed the budget</p> <p>F:..... V:..... T:.....</p>	Item		
77	<p>Overloading</p> <p>The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works eg scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense</p> <p>F:..... V:..... T:.....</p>	Item		
78	<p>Propping of floors below</p> <p>The contractor is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of materials and goods and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the principal agent and the cost thereof shall be borne by the contractor</p> <p>F:..... V:..... T:.....</p>	Item		
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79	<p>Testing of flat roof waterproofing for watertightness</p> <p>Flat roof waterproof areas shall be flooded and kept "ponded" for at least forty eight (48) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing</p> <p>F:..... V:..... T:.....</p>	Item	
80	<p>Health and safety</p> <p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specification [2.1]</p> <p>Health and safety</p> <p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works (refer to Annexure C) for a copy of the relevant specification) and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification [2.1]</p> <p>The contractor shall:</p> <ol style="list-style-type: none"> 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification <p>F:..... V:..... T:.....</p>	Item	
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81	<p>Broad based black economic empowerment (BBBEE)</p> <p>Tenders submitted will be evaluated taking into account their empowerment rating</p> <p>The employer will be monitoring the broad based black economic empowerment (BBBEE) status of the contractor throughout the execution of the works</p> <p>The contractor is to submit to the principal agent on an annual basis a schedule of spend, split into vendors engaged as subcontractors and suppliers indicating their BBBEE rating including proof of the said rating</p> <p>F:..... V:..... T:.....</p>	Item	
82	<p>Advertising rights</p> <p>The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting his obligations under this agreement</p> <p>F:..... V:..... T:.....</p>	Item	
83	<p>Confidentiality</p> <p>The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works</p> <p>No information regarding this project shall be published or disclosed without the prior written consent of the employer</p> <p>F:..... V:..... T:.....</p>	Item	
84	<p>Media releases</p> <p>All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the employer</p> <p>The contractor together with his subcontractors shall not, without the prior written consent of the employer, cause any statement or advertisement connected with this project to be printed, screened or aired by the media</p> <p>F:..... V:..... T:.....</p>	Item	
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SUMMARY OF CATEGORIES

Category : Fixed R.....

Category : Value R.....

Category : Time R.....

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Item No	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 1</u></p> <p><u>ALTERATIONS</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 102</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Nature of the work</u></p> <p>Tenderers are advised to visit the site and to satisfy themselves as to the nature and extent of the work to be done for the proper completion of the work</p> <p>The existing buildings will be in occupation during the progress of the work and due allowance must be made for the work being carried out at such times and in such manner as will least interfere with the routine of the occupants and as may be directed by the Principal Agent</p> <p>The submission of a tender will imply that the Contractor has physically visited the site and fully understands the content and extend of the work described in this Bill and no claims in this respect will be afterwards entertained</p> <p><u>Dimensions</u></p> <p>Measurements given are approximate and the Contractor is advised to view the site and any existing structures. The Contractor is to acquaint himself thoroughly in respect of the exact measurements and any errors to the tendered rates in this regard will be for the Contractor's expense</p>				
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General

The Contractor shall carry out the work with as little mess and noise possible and with a minimum of disturbance to the occupants. The Contractor shall provide proper protection and provide and erect any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the Principal Agent, and remove when directed

Where doors, windows, etc are described as taken out, this shall be understood to include for removal of all beads, architraves, ironmongery, etc. Doors, windows, etc that are to be re-fixed are to be provided with new architraves

Doors, fanlights, fittings, frames, linings, windows, etc which are to be re-used shall be thoroughly overhauled before re-fixing including taking off, easing and re-hanging, cramping up, re-wedging as required and making good cramps, dowels, etc and easing, oiling, adjusting and repairing ironmongery if necessary, replacing any glass damaged in removal or subsequently and stopping up all nails and scaw holes with tinted plastic wood filler to match timber, unless otherwise described

Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good to match existing

With regard to building up openings in existing walls, cement screeds and pavings, granolithic, etc shall be levelled and prepared for the raising of brickwork

Making good of finishes shall be deemed to include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary

CONFIRMATION OF QUANTITIES PRIOR TO REMOVAL

The contractor shall confirm agreement of the following provisional quantities with the Quantity Surveyor, prior to removal thereof from site, failing which the quantities will be deemed to be accepted.

Demolition of existing prefabricated buildings

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Single Storey Buildings:

Building deemed to include integrated concrete walkway with half-round precast concrete stormwater channel, unreinforced or reinforced concrete surface beds including floor finishes, columns, prefabricated insulated pressed chipboard panels, small parts brickwork, steel balustrading and handrails, glazed steel burglar bar windows with steel stone guards or framed mesh grids, internal and external timber doors with timber or steel door frames with steel gates, electrical fittings, electrical cables and pipes, sanitary fittings and plumbing pipes, double pitch asbestos roof covering on timber roof trusses with timber bracing and ceilings including fascias and barge boards, rainwater goods, etc..

Open covered walkway links

Walkway with asbestos flat ribbed roof sheets on timber purlins or rails on steel portals on unreinforced concrete surface bed, etc..

Explosives

No explosives whatsoever may be used for the demolitions

Existing services

Special care is to be taken not to interfere unnecessarily with any water supply pipes or other piping that may be met with and found necessary to disconnect or cut, are to be effectively stopped off and any new connections that may be necessary are to be made with proper fittings and to the satisfaction of the Principal Agent to whom due notice must be given of any alterations to the existing services

Special care is to be taken not to interfere unnecessarily with any electric light, power or telephone wires, fittings, etc. that may be met with, and notice is to be given to the Principal Agent when any disconnections or removal of wires, etc. are necessary and the Contractor is to afford every facility to the Electricians carrying out this work

Any water supply pipes, sewer pipes or other piping that may be met and found necessary to disconnect or cut, are to be effectively disconnected and any new connections that may be necessary are to be made with proper fittings to the satisfaction of the Principal Agent, to whom due notice must be given of any such necessary alterations

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Protection

In taking down and removing existing work the utmost care is to be observed to avoid any structural or other damage to the remaining portions of the buildings. The contractor must also protect all work not removed such as walls, floors, doors, windows or other joinery, loose and fixed fittings and electrical appliances, etc., from damage during the progress of the work and provide all necessary materials for so doing. The contractor will be held solely responsible for any damage to persons or property and for the safety of the structure throughout the whole of this contract and must make good at his own expense any damage that may occur

Credits, etc

Old materials from the pulling down (except such as are described to be re-used or handed over) are to become the property of the contractor who shall allow credit in his unit rates of the relevant items

Old materials for re-use are to be carefully removed, stored and protected from injury including making good any damaged or defective parts as required before refixing. Old materials described to be handed over are to be carefully removed and neatly stacked on site where directed. The remainder of the old materials and all rubbish to be immediately carted away and the site left clean and unencumbered

None of the old materials are to be used for new work except where specifically described as being set aside for re-use

Materials, etc

The materials to be used and work to be done to be similar in all respects to that described for new work insofar as they concur. All work in making good is to be properly jointed to the existing

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Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

NOTE: The contractor must refer to the Architect's demolitions drawings annexed to these tender documents in order to understand the full requirements and descriptions of the works before pricing

REMOVAL OF EXISTING WORK

Breaking down and removing brickwork etc

1	Half brick wall	m2	45	
	A : 0 B : 0 C : 0 D : 0			
	E : 45 K : 0 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			
2	One brick wall	m2	25	
	A : 0 B : 0 C : 0 D : 0			
	E : 25 K : 0 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			

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<u>Taking out doors, windows, etc. including thresholds, sills, etc. and setting aside for re-use (refixing and building up openings elsewhere)</u>					
3	Timber single door and frame 864 x Complete 3 x 28w, 1200mm x 600mm, recessed luminaire complete with lamps, low brightness louvers, control gear and mounting accessories, with 5A plug top(3m) high overall from half brick wall A : 0 B : 0 C : 0 D : 0 E : 2 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	2		
4	Timber single door and frame 762 x 2032mm high overall from half brick wall A : 0 B : 0 C : 0 D : 0 E : 8 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	8		
5	Window size 600 x 900mm high - W02 A : 0 B : 0 C : 0 D : 0 E : 5 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	5		
6	Aluminium door with sidelight including frame 1100 x 2125mm high A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
7	Aluminium shopfront 4220 x 4500mm high A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
8	Aluminium shopfront 6220 x 4500mm high A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
<u>Taking out/off and removing sundry metalwork</u>					
9	Steel frame 813 x 2032mm high overall from one brick wall A : 0 B : 0 C : 0 D : 0 E : 2 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	2		
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10	Glazed aluminium panels size 930mm x 2100mm high A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
11	Existing balustrade 1000mm high A : 0.0 B : 0.0 C : 0.0 D : 0.0 E : 0.0 K : 0.0 L : 0.0 M : 0.0 N : 0.0 O : 0.0 P : 0.0 Q : 0.0 <u>Taking up and removing waterproofing etc.</u>	No			
12	Existing roof waterproofing, including all flashing, fillets and screed A : 0 B : 0 C : 0 D : 0 E : 139 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>	m2	139		
13	Suspended ceilings including cornices, suspension grid, hangers, etc A : 0 B : 0 C : 0 D : 0 E : 135 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	135		
14	Drywall partitioning 2.1m high including doors, ironmongery, glazed borrowed lights, etc A : 0 B : 0 C : 0 D : 0 E : 3 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	3		
15	Drywall partitioning 4.5m high including doors, ironmongery, glazed borrowed lights, etc A : 0 B : 0 C : 0 D : 0 E : 7 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Taking up and removing vinyl floor coverings, carpeting, etc.</u>	m	7		
16	Carpet floor covering including preparing screed A : 0 B : 0 C : 0 D : 0 E : 74 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	74		
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17	230mm wide vinyl decals from shopfront and make good for new branding A : 0 B : 0 C : 0 D : 0 E : 8 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Taking up and removing joinery fittings, etc.</u>	m	8		
18	Demolish existing counter size 5200 long x 600 wide on plan A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Taking out and removing ironmongery</u>	No	1		
19	Toilet paper holder from wall A : 0 B : 0 C : 0 D : 0 E : 4 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Taking out and removing sundry joinery work</u>	No	4		
20	Timber skirtings from gypsum plasterboard partitions etc. A : 0 B : 0 C : 0 D : 0 E : 350 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	350		
21	Tile skirting etc. A : 0 B : 0 C : 0 D : 0 E : 65 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Hacking up/off and removing granolithic, screeds, plaster, etc. from concrete or brickwork and preparing surfaces for new screeds, plaster, etc.</u>	m	65		
22	90mm Screed from floors A : 0 B : 0 C : 0 D : 0 E : 45 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	45		
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<p><u>Hacking up/off and removing ceramic tile floor and wall finishes including removing mortar bed or backing and preparing concrete or brick surfaces for new screed, plaster or tile finishes</u></p>				
23	Tiles to walls		m2	21
	A : 0	B : 0	C : 0	D : 0
	E : 21	K : 0	L : 0	M : 0
	N : 0	O : 0	P : 0	Q : 0
24	Tiles to floors		m2	64
	A : 0	B : 0	C : 0	D : 0
	E : 64	K : 0	L : 0	M : 0
	N : 0	O : 0	P : 0	Q : 0
<p><u>Taking out and removing piping, sanitary fittings, etc. including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)</u></p>				
25	Remove and make good wash hand basin complete with waste pipes, blank off water supply and remove counters and shop fittings etc		No	2
	A : 0	B : 0	C : 0	D : 0
	E : 2	K : 0	L : 0	M : 0
	N : 0	O : 0	P : 0	Q : 0
26	Remove and make good existing prep bowl complete with waste pipes and blank off water supply and remove counters and shop fittings etc		No	1
	A : 0	B : 0	C : 0	D : 0
	E : 1	K : 0	L : 0	M : 0
	N : 0	O : 0	P : 0	Q : 0
27	Remove and make good rain spouts in existing parapet walls		No	12
	A : 0	B : 0	C : 0	D : 0
	E : 12	K : 0	L : 0	M : 0
	N : 0	O : 0	P : 0	Q : 0
28	Remove and make good rain water pipes 4750mm high		No	12
	A : 0	B : 0	C : 0	D : 0
	E : 12	K : 0	L : 0	M : 0
	N : 0	O : 0	P : 0	Q : 0
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	<p><u>Taking out and removing piping, sanitary fittings, etc. including disconnecting piping from fittings and setting aside for later re-use</u></p>				
29	Remove and make good water closet A : 0 B : 0 C : 0 D : 0 E : 4 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	4		
30	Remove and make good wash hand basin complete with waste pipes, blank off water supply and remove counters and shop fittings etc A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
31	Remove and make good two bowl stainless steel sink including blank off water supply and remove counters and shop fittings etc A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
	<p><u>Re-installing of existing sanitary fitting including, piping, etc. including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)</u></p>				
32	Re-install and make good water closet A : 0 B : 0 C : 0 D : 0 E : 4 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	4		
33	Re-install and make good wash hand basin complete with waste pipes, blank off water supply and reinstall counters and shop fittings etc A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
	Carried to Collection				
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34	Re-install and make good two bowl stainless steel sink including counter top unit A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Taking out and removing paving aside for later re-use</u>	No	1		
35	60mm Standard interlocking roadstone paving A : 0 B : 0 C : 0 D : 0 E : 7 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>BUILDING UP OPENINGS</u> <u>Brickwork in NFP bricks in class II mortar in building up openings, including bonding new to existing and making good cement plaster on one side (making good paintwork elsewhere)</u>	m2	7		
36	One brick walls A : 0 B : 0 C : 0 D : 0 E : 17 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	17		
37	Cutting toothings and bonding new brickwork to existing A : 0 B : 0 C : 0 D : 0 E : 8 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>OPENINGS THROUGH EXISTING WALLS ETC</u> <u>Breaking out for and forming openings through brick walls for new doors and frames including necessary precast concrete lintels and making good plaster on one side and into reveals and face brickwork on other side and into reveals and with concretethresholds with steel trowelled finish (new doors and frames and making good paintwork elsewhere)</u>	m2	8		
38	Opening for door with timber frame 1800 x 2032mm high overall through one brick wall A : 0 B : 0 C : 0 D : 0 E : 6 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	6		
	Carried to Collection				R
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	<u>Breaking out for and forming openings through brick walls for new windows including necessary precast concrete lintels and making good plaster on both sides and into reveals and with plastered brick sill on outside and flat plastered sill on inside (new windows and making good paintwork elsewhere)</u>				
39	Opening for window 600 x 680mm high overall through one brick wall A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
40	Opening for window 1200 x 1105mm high overall through one brick wall A : 0 B : 0 C : 0 D : 0 E : 5 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	5		
	<u>BUDGETARY ALLOWANCE</u>				
	<u>Budgetary allowances may be omitted or reduced at the Sole discretion of the Client and Principal Agent and the Contractor shall not be entitled to claim for any loss by way of reductions or omissions</u>				
41	Allow the sum of R100,000.00 (One Hundred Thousand) for making safe and removing any existing services A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.00 L : 0.00 M : 0.00 N : 0.00 O : 1.00 P : 0.00 Q : 0.00		Item		100,000.00
	Carried to Collection			R	
	BUILDING WORKS Bill No. 1 Alterations				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 2</u></p> <p><u>EARTHWORKS</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 104</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "South African National Building Regulations: Specification Of Materials And Methods To Be Used - "SANBR"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Preambles</u></p> <p>The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.</p> <p><u>Proprietary Products In Descriptions</u></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <p><u>Nature Of Material To Be Excavated</u></p> <p>The material to be excavated is assumed to be predominantly of a composition that will allow excavation in "earth" as specified, but including a percentage of excavation in "soft rock" and "hard rock"</p> <p><u>Carting Away Of Excavated Material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations, or alternatively, from stock piles situated on the building site</p>			
	Carried to Collection			R
	BUILDING WORKS Bill No. 2 Earthworks			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Density Testing On Filling

Rates for filling, etc.. shall include for all density and soil type testing to prove that the specified compaction is achieved

When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally

Formwork

Formwork to sides of bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

Reinforced Concrete

All reinforced concrete is to be compacted with a mechanical vibrator.

All concrete work shall comply to SABS 1200G and no crusher run from Goldfields may be used on this Project.

The contractor is referred to the previous Bills for preambles and full descriptions of work in this Bill, unless otherwise described.

The removal and disposal of existing asbestos building materials shall be in strict accordance with the Asbestos Regulations, 2001 as published in the Government Gazette, Vol. 440, No 23108, 10 February 2002, No 155 and rates must allow for this.

View site

Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained

Explosives

No explosives whatsoever may be used for demolition purposes unless otherwise stated

Carried to Collection

BUILDING WORKS
 Bill No. 2
 Earthworks

R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

General

The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

DEMOLITIONS ETC

Breaking up and remove including necessary excavations, footings, backfilling, compaction, etc.

1	Half brick wall	m2	236	
	A : 0 B : 0 C : 0 D : 0			
	E : 236 K : 0 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			
2	One brick wall	m2	167	
	A : 0 B : 0 C : 0 D : 0			
	E : 167 K : 0 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			

Carried to Collection

BUILDING WORKS
 Bill No. 2
 Earthworks

R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

3	Dry wall A : 0 B : 0 C : 0 D : 0 E : 95 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	95		
4	Plinth Slab A : 0 B : 0 C : 0 D : 0 E : 23 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	23		
5	Retaining wall A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 662 O : 0 P : 0 Q : 0	m2	662		
<u>BULK EXCAVATION, FILLING, ETC</u>					
<u>EXCAVATIONS ETC</u>					
<u>Excavation in earth not exceeding 2m deep:</u>					
6	Basement A : 0 B : 0 C : 0 D : 0 E : 0 K : 4644 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m3	4,644		
<u>Excavation in earth exceeding 2m and not exceeding 4m deep:</u>					
7	Basement A : 0 B : 0 C : 0 D : 0 E : 0 K : 4644 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m3	4,644		
<u>Excavation in earth exceeding 4m and not exceeding 6m deep:</u>					
8	Basement A : 0 B : 0 C : 0 D : 0 E : 0 K : 4644 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m3	4,644		
Carried to Collection					
BUILDING WORKS Bill No. 2 Earthworks				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Excavation in earth within basement (basement level exceeding 4m and not exceeding 6m deep below ground level):</u>					
9	Not exceeding 2m deep to reduce levels to final levels under floors etc A : 0 B : 0 C : 0 D : 0 E : 0 K : 348 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m3	348		
<u>Back excavation of vertical sides of excavations in earth for working space including backfilling compacted to 95% Mod AASHTO density</u>					
10	Not exceeding 500mm deep for placing and removing formwork to walls etc, 2 500mm away from excavated face A : 0 B : 0 C : 0 D : 0 E : 0 K : 116 L : 0 M : 0 N : 44 O : 0 P : 0 Q : 0	m2	160		
11	Exceeding 500mm and not exceeding 1.5m deep for placing and removing formwork to walls etc, 2500mm away from excavated face A : 0 B : 0 C : 0 D : 0 E : 0 K : 232 L : 0 M : 0 N : 89 O : 0 P : 0 Q : 0	m2	321		
12	Exceeding 1.5m and not exceeding 3m deep for placing and removing formwork to walls etc, 2500mm away from excavated face A : 0 B : 0 C : 0 D : 0 E : 0 K : 348 L : 0 M : 0 N : 133 O : 0 P : 0 Q : 0	m2	481		
13	Exceeding 3m and not exceeding 4.5m deep for placing and removing formwork to walls etc, 2500mm away from excavated face A : 0 B : 0 C : 0 D : 0 E : 0 K : 348 L : 0 M : 0 N : 133 O : 0 P : 0 Q : 0	m2	481		
14	Exceeding 4.5m and not exceeding 6m deep for placing and removing formwork to walls etc, 2500mm away from excavated face A : 0 B : 0 C : 0 D : 0 E : 0 K : 348 L : 0 M : 0 N : 133 O : 0 P : 0 Q : 0	m2	481		
Carried to Collection					
BUILDING WORKS Bill No. 2 Earthworks				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

15	Exceeding 6m and not exceeding 7.5m deep for placing and removing formwork to walls etc, 2500mm away from excavated face A : 0 B : 0 C : 0 D : 0 E : 0 K : 348 L : 0 M : 0 N : 133 O : 0 P : 0 Q : 0 <u>Extra over all excavations for carting away</u>	m2	481		
16	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor A : 0 B : 0 C : 0 D : 0 E : 0 K : 24381 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Keeping excavations free of water</u>	m3	24,381		
17	Keeping excavations free of water other than subterranean water <u>De-watering of seepage water and water from other sub-soil sources</u>			Item	
18	Provide pump with minimum 1500 litre/hour capacity at 15m head, including maintenance and removal A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
19	Provide necessary hoses for the above including couplings etc A : 0 B : 0 C : 0 D : 0 E : 0 K : 100 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	100		
20	Allow for pumping (one pump) A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 250.00 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00 <u>EXCAVATION, FILLING, ETC. OTHER THAN BULK</u>	Hrs	250.00		
Carried to Collection					
BUILDING WORKS Bill No. 2 Earthworks					R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Excavation in earth not exceeding 2m deep below reduced level</u> <u>(reduced level exceeding 2m and not exceeding 4m below</u> <u>ground level)</u>					
21	Trenches		m3	2,004	
	A : 0 B : 0 C : 0 D : 0				
	E : 11 K : 1921 L : 72 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
22	Holes		m3	599	
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 583 L : 16 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
23	Lift pits		m3	235	
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 235 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
<u>Extra over trench and hole excavations in earth for excavation:</u>					
24	Soft rock		m3	63	
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 58 L : 5 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
25	Hard rock		m3	63	
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 58 L : 5 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
<u>Back excavation of vertical sides of excavations in earth for</u> <u>working space including backfilling compacted to 95% Mod</u> <u>AASHTO density</u>					
26	Exceeding 500mm and not exceeding 1,5m deep for placing and removing formwork to walls etc 500mm away from excavated face		m2	812	
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 778 L : 35 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
Carried to Collection					
BUILDING WORKS Bill No. 2 Earthworks					R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Extra over all excavations for carting away</u>					
27	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	410		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 401 L : 9 M : 0 N : 0 O : 0 P : 0 Q : 0				
<u>Risk of collapse of excavations</u>					
28	Sides of excavations not exceeding 1,5m deep	m2	2,514		
	A : 0 B : 0 C : 0 D : 0 E : 32 K : 2273 L : 210 M : 0 N : 0 O : 0 P : 0 Q : 0				
<u>Keeping excavations free of water</u>					
29	Keeping excavations free of all water other than subterranean water		Item		
<u>FILLING ETC</u>					
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 95% Mod AASHTO density</u>					
30	Backfilling to trenches, holes, etc. (LI)	m3	1,727		
	A : 0 B : 0 C : 0 D : 0 E : 6 K : 1672 L : 49 M : 0 N : 0 O : 0 P : 0 Q : 0				
<u>Clean sand filling supplied by contractor, mixed with 5% cement and compacted to 100% Mod AASHTO</u>					
31	Under floors, steps, paving, etc..	m3	120		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 116 L : 4 M : 0 N : 0 O : 0 P : 0 Q : 0				
<u>Imported earth filling type G5 supplied by the Contractor compacted in a minimum of 2 layers 150mm thick to 95%Mod. AASHTO density under all surface beds</u>					
32	Backfilling to trenches, holes, etc. (LI)	m3	334		
	A : 0 B : 0 C : 0 D : 0 E : 2 K : 320 L : 12 M : 0 N : 0 O : 0 P : 0 Q : 0				
Carried to Collection					
BUILDING WORKS					
Bill No. 2					
Earthworks					
				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Imported earth filling type G6 supplied by the Contractor compacted in 150mm thick layers to 93% Mod. AASHTO density under all surface beds</u>				
33	Under floors etc. (LI) A : 0 B : 0 C : 0 D : 0 E : 0 K : 1345 L : 32 M : 0 N : 0 O : 0 P : 0 Q : 0	m3	1,377	
34	Backfilling to trenches, holes, etc. (LI) A : 0 B : 0 C : 0 D : 0 E : 0 K : 697 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m3	697	
<u>Compaction of surfaces</u>				
35	Compaction of ground surface in trenches and holes, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density A : 0 B : 0 C : 0 D : 0 E : 9 K : 2087 L : 73 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	2,169	
36	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density A : 0 B : 0 C : 0 D : 0 E : 0 K : 4639 L : 85 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	4,724	
<u>Prescribed density tests on filling</u>				
37	"Modified AASHTO Density" test A : 0 B : 0 C : 0 D : 0 E : 0 K : 50 L : 2 M : 0 N : 0 O : 0 P : 0 Q : 0	No	52	
<u>SOIL POISONING</u>				
Carried to Collection				
BUILDING WORKS Bill No. 2 Earthworks				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Soil insecticide in accordance with SANS 5859</u>					
38	To bottoms and sides of trenches etc.	m2	4,683		
	A : 0 B : 0 C : 0 D : 0 E : 41 K : 4359 L : 283 M : 0 N : 0 O : 0 P : 0 Q : 0				
39	Under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m2	4,724		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 4639 L : 85 M : 0 N : 0 O : 0 P : 0 Q : 0				
Carried to Collection					R
BUILDING WORKS Bill No. 2 Earthworks					

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 2

Earthworks

COLLECTION

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BUILDING WORKS

Bill No. 2

Earthworks

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 3</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 110,111,112,113,114</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cost Of Tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the architect. (Test cubes are measured separately)Should the strength required for the concrete in any portion of the structure not be attained in the test cubes, or should any concrete whatsoever be defective the portion in question is to be demolished and replaced at the expense of the Contractor.</p> <p><u>Reinforced Concrete</u></p> <p>All reinforced concrete is to be compacted with a mechanical vibrator.</p> <p>All concrete work shall comply to SABS 1200G and no crusher run from Goldfields may be used on this Project.</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p>			
	Carried to Collection			R
	<p>BUILDING WORKS</p> <p>Bill No. 3</p> <p>Concrete, Formwork and Reinforcement</p>			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Formwork

Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use

The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.

All formwork shall include for propping to not exceeding 3500mm high unless otherwise described.

Formwork to sides of walls and columns shall be to walls and columns not exceeding 3500mm high unless otherwise described.

Formworks to soffits of solid etc. shall be deemed to be slabs not exceeding 250mm thick unless otherwise described

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

LIGHTWEIGHT CONCRETE

Carried to Collection

R

BUILDING WORKS
 Bill No. 3
 Concrete, Formwork and Reinforcement

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<u>Lightweight concrete</u>				
1	50 x 50mm Triangular fillet against walls etc	m	467		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 467 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
	<u>25MPa/19mm concrete</u>				
2	Thickening under surface beds etc.	m3	288		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 278 L : 10 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
	<u>10MPa/19mm concrete</u>				
3	In filling to cavities of hollow walls	m3	138		
	A : 0 B : 0 C : 0 D : 0 E : 2 K : 99 L : 37 M : 0 N : 0 O : 0 P : 0 Q : 0				
4	Surface blinding under footings and bases	m3	108		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 104 L : 4 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
	<u>25MPa/19mm concrete</u>				
5	Strip footings	m3	952		
	A : 0 B : 0 C : 0 D : 0 E : 2 K : 914 L : 36 M : 0 N : 0 O : 0 P : 0 Q : 0				
6	Column bases	m3	397		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 389 L : 8 M : 0 N : 0 O : 0 P : 0 Q : 0				
	Carried to Collection				
	BUILDING WORKS Bill No. 3 Concrete, Formwork and Reinforcement			R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

7	Columns in foundations (Provisional)	m3	13		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 12 L : 1 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
	<u>30MPa/19mm Concrete</u>				
8	Lift shaft bases	m3	35		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 35 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
9	Surface beds on waterproofing	m3	334		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 324 L : 10 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
10	Ramps	m3	104		
	A : 0 B : 0 C : 0 D : 0				
	E : 2 K : 99 L : 3 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
11	Steps, urinal steps, cupboard platforms, etc	m3	105		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 105 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
12	Bottoms and sides of floor ducts	m3	256		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 256 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
13	Slabs including beams and inverted beams	m3	1,754		
	A : 0 B : 0 C : 0 D : 0				
	E : 2 K : 1752 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
14	Raking slabs, ramps, etc including beams and inverted beams	m3	198		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 198 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
	Carried to Collection				
	BUILDING WORKS				
	Bill No. 3				
	Concrete, Formwork and Reinforcement				
				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

15	Stairs including landings, beams and inverted beams	m3	45	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 45 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0			
16	Shaft walls	m3	154	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 154 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0			
17	Retaining walls	m3	854	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 557 L : 0 M : 0 N : 297 O : 0 P : 0 Q : 0			
18	Walls cast in panels	m3	160	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 160 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0			
	<u>45MPa/19mm concrete</u>			
19	Columns	m3	51	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 51 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0			
	<u>TEST BLOCKS.</u>			
	<u>Test blocks:</u>			
20	Prepare set of three 150 x 150 x 150mm concrete strength test cubes, label and send to an approved laboratory for testing, pay all charges and submit report to the Regional Representative. Only successful tests will be paid for.	Sets	99.8	
	A : 0.0 B : 0.0 C : 0.0 D : 0.0 E : 0.2 K : 94.0 L : 5.5 M : 0.0 N : 0.0 O : 0.0 P : 0.0 Q : 0.0			
	<u>FINISHING TOP SURFACE OF CONCRETE</u>			
	Carried to Collection			
	BUILDING WORKS Bill No. 3 Concrete, Formwork and Reinforcement			R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

21	<p><u>Finishing top surfaces of concrete smooth with a power float</u></p> <p>Surface beds, slabs, etc..</p> <p style="text-align: right;">m2</p> <p style="text-align: right;">8,370</p> <p style="margin-left: 40px;"> A : 0 B : 0 C : 0 D : 0 E : 12 K : 8273 L : 85 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>			
22	<p><u>Finish top surfaces of concrete to an evenly ribbed non-slip surface</u></p> <p>Ramps</p> <p style="text-align: right;">m2</p> <p style="text-align: right;">798</p> <p style="margin-left: 40px;"> A : 0 B : 0 C : 0 D : 0 E : 12 K : 786 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>			
23	<p><u>Concrete hardener</u></p> <p>Prepare and apply a.b.e.@plate surface hardener of malleable metal armouring at a rate of 7-9kg/m2 and protection layer of a.b.e dura.@cure curing compound in accordance with manufacturer's specifications</p> <p style="text-align: right;">m2</p> <p style="text-align: right;">285</p> <p style="margin-left: 40px;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 285 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>			
24	<p><u>10MPa/19mm concrete</u></p> <p><u>PRECAST HOLLOW CORE SLABS</u></p> <p><u>"Echo Slabs" or equally approved prefabricated prestressed concrete slabs</u></p> <p>250mm Thick composite precast hollow core slab comprising 1200 x 200mm precast hollow core planks with 28no. 5mm diameter reinforcing wires, 38no. 9.53mm diameter strands, 2no. 12mm strands, 12no. 12.5mm strands, in lengths not exceeding 2,5m, laid abutting along edges including bedding and grouting between joints, temporary false support exceeding 3.5m and not exceeding 5m, topping (elsewhere) etc.</p> <p style="text-align: right;">m2</p> <p style="text-align: right;">70</p> <p style="margin-left: 40px;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 70 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>			
	<p><u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u></p>			
	<p>Carried to Collection</p>			R
	<p>BUILDING WORKS Bill No. 3 Concrete, Formwork and Reinforcement</p>			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<u>Rough formwork to soffits</u>				
25	Bases, ramps, etc. (Provisional)	m2	536		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 518 L : 17 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
26	Rectangular columns in foundations	m2	71		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 65 L : 6 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
27	Stairs with sloping soffits	m2	567		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 567 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
28	Inner face of shaft walls	m2	1,360		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1360 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
	<u>Boxing in rough formwork to form</u>				
29	25 x 25mm Vertical chamfers at corners	m	799		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 799 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
30	25 x 25mm Chamfer along top or bottom edge	m	1,827		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1827 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>				
	<u>Smooth formwork to sides:</u>				
31	Retaining walls with total height exceeding 10.5m and not exceeding 12m above bearing level	m2	2,516		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1856 L : 0 M : 0				
	N : 660 O : 0 P : 0 Q : 0				
	Carried to Collection				
	BUILDING WORKS				
	Bill No. 3				
	Concrete, Formwork and Reinforcement				
				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

32	Edges, risers, ends and reveals not exceeding 300mm high or wide. A : 0 B : 0 C : 0 D : 0 E : 0 K : 1030 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Smooth formwork to soffits:</u>	m	1,030	
33	Stairs with sloping soffits A : 0 B : 0 C : 0 D : 0 E : 0 K : 157 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	157	
34	Beams propped up exceeding 3,5m and not exceeding 5m high A : 0 B : 0 C : 0 D : 0 E : 0 K : 92 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u> <u>Smooth formwork to sides</u>	m2	92	
35	Retaining walls with total height exceeding 10.5m and not exceeding 12m above bearing level A : 0 B : 0 C : 0 D : 0 E : 0 K : 1856 L : 0 M : 0 N : 660 O : 0 P : 0 Q : 0	m2	2,516	
36	Rectangular columns with total height exceeding 3,5m and not exceeding 5m above bearing level A : 0 B : 0 C : 0 D : 0 E : 0 K : 404 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	404	
37	Walls with total height exceeding 3,5m and not exceeding 5m above bearing level A : 0 B : 0 C : 0 D : 0 E : 0 K : 1360 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	1,360	
38	Beams propped up exceeding 3,5m and not exceeding 5m above bearing level A : 0 B : 0 C : 0 D : 0 E : 0 K : 740 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	740	
Carried to Collection				R
BUILDING WORKS Bill No. 3 Concrete, Formwork and Reinforcement				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

39	Inverted beams above concrete A : 0 B : 0 C : 0 D : 0 E : 0 K : 526 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	526	
40	Edges, risers, ends and reveals not exceeding 300mm high or wide A : 0 B : 0 C : 0 D : 0 E : 0 K : 1026 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	1,026	
41	Sloping and stepped outer edges of stairs 340mm high extreme A : 0 B : 0 C : 0 D : 0 E : 0 K : 83 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	83	
42	Walls A : 0 B : 0 C : 0 D : 0 E : 0 K : 1280 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	1,280	
<u>Smooth formwork to soffits</u>				
43	Slabs with sloping soffits exceeding 250mm and not exceeding 500mm thick propped up exceeding 3,5m and not exceeding 5,0m high off sloping surfaces A : 0 B : 0 C : 0 D : 0 E : 0 K : 285 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	285	
44	Slabs exceeding 250mm and not exceeding 500mm thick propped up exceeding 3.5m and not exceeding 5m high A : 0 B : 0 C : 0 D : 0 E : 12 K : 5559 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	5,571	
<u>SMOOTH SPECIAL FORMWORK (DEGREE OF ACCURACY 1)</u>				
Carried to Collection				
BUILDING WORKS Bill No. 3 Concrete, Formwork and Reinforcement				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Smooth formwork to sides with double 10 x 10mm "V" chamfer strips at 850mm centres</u>					
45	Retaining walls with total height exceeding 3,5m and not exceeding 5m above bearing level	m2	245		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 245 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
46	Walls	m2	145		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 145 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
47	Walls with total height exceeding 3,5m and not exceeding 5m above bearing level	m2	69		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 69 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
<u>PERMANENT FORMWORK</u>					
<u>1,2mm "Bond-Lok" galvanised steel permanent decking system to soffits or equally approved</u>					
48	Decking for slabs with ends laid on brick walls	m2	567		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 567 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
49	Decking for slabs fixed to steel bearers, including cutting and fitting around shear studs	m2	410		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 220 L : 190 M : 0 N : 0 O : 0 P : 0 Q : 0				
<u>MOVEMENT JOINTS ETC</u>					
<u>Expansion joints with 10mm bitumen impregnated softboard between vertical concrete and brick surfaces</u>					
50	10mm Joints not exceeding 300mm high	m	1,157		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1007 L : 150 M : 0 N : 0 O : 0 P : 0 Q : 0				
Carried to Collection					
BUILDING WORKS Bill No. 3 Concrete, Formwork and Reinforcement				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<u>Expansion joints with approved jointex between vertical brick and horizontal concrete surfaces</u>				
51	10mm Joints not exceeding 300mm wide	m	1,095		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 990 L : 105 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>Saw-cut joints</u>				
52	3 x 65mm Saw cut joints reamed out to 6mm wide in top of concrete surface bed	m	721		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 695 L : 26 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>Vertical joggle construction joints through concrete, including thick cement slurry to one face</u>				
53	Surface beds not exceeding 300mm thick	m	601		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 579 L : 21 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>Joint fillers</u>				
	Note: All joint filling to be carried out by experienced workmen and in accordance with the Manufacturers instructions. Both sides of joints must be taped to avoid overspill				
54	Prime 3 x 16mm sawcut joint with A.B.E. Epidermix 317 primer, press in 10mm diameter Ethacord joint filler and fill up remainder of joint with A.B.E. Durakol 25F sealant	m	721		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 695 L : 26 M : 0 N : 0 O : 0 P : 0 Q : 0				
55	Rake out top 42mm depth of 10m softboard joint filler, prime joint with A.B.E. Epidermix 317 primer, press in 30mm diameter Ethacord joint filler and fill up remainder of joint with A.B.E. Durakol 25F sealant	m	555		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 555 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
	Carried to Collection				
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

56	Rake out top 42mm depth of 10m softboard joint filler in short lengths, prime joint with A.B.E. Epidermix 317 primer, press in 30mm diameter Ethacord joint filler and fill up remainder of joint with A.B.E. Durakol 25F sealant A : 0 B : 0 C : 0 D : 0 E : 0 K : 678 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	678		
<u>REINFORCEMENT (PROVISIONAL)</u>					
<u>Mild steel reinforcement to structural concrete work</u>					
57	8mm Diameter bars	t	0.77		
	A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.74 L : 0.02 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00				
58	10mm diameter bars	t	2.37		
	A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 2.35 L : 0.02 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00				
<u>High tensile steel reinforcement to structural concrete work</u>					
59	10mm diameter bars	t	46.74		
	A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.04 K : 46.46 L : 0.05 M : 0.00 N : 0.19 O : 0.00 P : 0.00 Q : 0.00				
60	12mm diameter bars	t	46.74		
	A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.04 K : 46.46 L : 0.05 M : 0.00 N : 0.19 O : 0.00 P : 0.00 Q : 0.00				
61	16mm diameter bars	t	340.23		
	A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.13 K : 322.33 L : 0.28 M : 0.00 N : 17.49 O : 0.00 P : 0.00 Q : 0.00				
62	20mm diameter bars	t	103.96		
	A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.05 K : 102.67 L : 0.50 M : 0.00 N : 0.74 O : 0.00 P : 0.00 Q : 0.00				
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

63	25mm Diameter bars A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 46.56 L : 0.56 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00 <u>Fabric reinforcement</u>	t	47.12	
64	Type Ref S193 fabric reinforcement in concrete surface beds, slabs, etc A : 0 B : 0 C : 0 D : 0 E : 12 K : 1815 L : 85 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	1,912	
65	Type REF 395 fabric reinforcement in concrete surface beds, slabs, etc A : 0 B : 0 C : 0 D : 0 E : 0 K : 572 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>POST-TENSIONED REINFORCEMENT (PROVISIONAL)</u> <u>BUDGETARY ALLOWANCE</u> <u>Budgetary allowances may be omitted or reduced at the Sole discretion of the Client and Principal Agent and the Contractor shall not be entitled to claim for any loss by way of reductions or omissions</u>	m2	572	
66	Allow a budgetary amount of R200,000.00 (Two Hundred Thousand) for Post-tensioning to ground beams - Block-K		Item	
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BUILDING WORKS Bill No. 3 Concrete, Formwork and Reinforcement				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO.4</u></p> <p><u>PRECAST CONCRETE</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2008) before pricing this bill</p> <p>CPAP Work Group 112 shall apply ("Escalatable Tender" Alternative)</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Sizes</u></p> <p>Blocks, sills, etc measured linear shall be made in suitable lengths. Large size setting out drawings shall be prepared where necessary and submitted to the architect for approval before moulds are made</p> <p><u>General</u></p> <p>Where kerbstones, blocks, etc are laid in ground, descriptions shall be deemed to include necessary excavation, filling in and ramming</p> <p><u>Preparation of concrete floor beds, slabs, etc for pavings</u></p> <p>Concrete surfaces shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. Surfaces shall then be wetted and kept damp for at least six hours before slushing with 1:2 cement/sand and while still wet, pavings, etc shall be laid on a 1:4 cement mortar bed not exceeding 25mm thick and jointed and pointed with hollowed joints. Sand shall be clean, sharp river sand</p>				
	Carried to Collection				R
	BUILDING WORKS Bill No. 4 Precast Concrete				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

PRECAST CONCRETE COPINGS ETC

Precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing

1	270 x 180mm Thick overall copings weathered on top to 230mm thick along one edge, with drip groove in bottom along one edge	m	250	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 250 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0			
2	300 x 75mm Thick overall copings weathered on top to 230mm thick along one edge, with drip groove in bottom along one edge	m	80	
	A : 0 B : 0 C : 0 D : 0 E : 80 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0			

BUDGETARY ALLOWANCE

Carried to Collection

R

BUILDING WORKS
 Bill No. 4
 Precast Concrete

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Budgetary allowances may be omitted or reduced at the Sole discretion of the Client and Principal Agent and the Contractor shall not be entitled to claim for any loss by way of reductions or omissions

3 Allow a budgetary amount of R300,000.00 (Three Hundred Thousand) for precast concrete staircases for Block - K

Item

Carried to Collection

R

BUILDING WORKS
 Bill No. 4
 Precast Concrete

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 4

Precast Concrete

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BUILDING WORKS
 Bill No. 4
 Precast Concrete

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No	Quantity	Rate	Amount
<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 5</u></p> <p><u>MASONRY</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 118</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Hollow walls</u></p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole</p> <p><u>User note</u></p> <p><i>The following preamble generally applies for works in hot and humid coastal areas</i></p> <p><u>Bagged and sealed walls</u></p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p style="text-align: right;">Carried to Collection</p> <p>BUILDING WORKS Bill No. 5 Masonry</p>			<hr/> R <hr/>

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Pointing

Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.

Samples, etc.

Rates for brickwork, faced brickwork, etc. shall include for all required samples

Samples of all masonry building units, except those for walls described as loadbearing, shall consist of a minimum of 6 units. Samples of building units described as loadbearing, shall consist of a minimum of 30 units from every 30000 units delivered to site.

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
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- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

BRICKWORK IN FOUNDATIONS

Loadbearing brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar

1	Mass brickwork in piers	m3	0.3	
	A : 0.0 B : 0.0 C : 0.0 D : 0.0			
	E : 0.0 K : 0.0 L : 0.3 M : 0.0			
	N : 0.0 O : 0.0 P : 0.0 Q : 0.0			

Carried to Collection

BUILDING WORKS
 Bill No. 5
 Masonry

R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

2	One brick walls. A : 0 B : 0 C : 0 D : 0 E : 13 K : 458 L : 44 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Brickwork reinforcement:</u>	m2	514		
3	Brick reinforcement 150mm wide built into brick walls with sufficient laps at end joints, angles and intersections (measured net) A : 0 B : 0 C : 0 D : 0 E : 39 K : 1832 L : 215 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>SUPERSTRUCTURE BRICKWORK</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>	m	2,085		
4	Piers A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0	m3	1		
5	Half brick walls A : 0 B : 0 C : 0 D : 0 E : 28 K : 560 L : 60 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Loadbearing brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u>	m2	648		
6	One brick walls A : 0 B : 0 C : 0 D : 0 E : 10 K : 4060 L : 186 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	4,256		
7	One brick parapet walls A : 0 B : 0 C : 0 D : 0 E : 22 K : 0 L : 186 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	208		
8	270mm Hollow walls of two half brick skins including wire ties A : 0 B : 0 C : 0 D : 0 E : 0 K : 1976 L : 372 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	2,348		
Carried to Collection					R
BUILDING WORKS Bill No. 5 Masonry					

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Brickwork reinforcement:</u>					
9	Brick reinforcement 75mm wide built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	4,281		
	A : 0 B : 0 C : 0 D : 0				
	E : 106 K : 3938 L : 237 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
10	Brick reinforcement 150mm wide built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	10,840		
	A : 0 B : 0 C : 0 D : 0				
	E : 125 K : 7785 L : 2930 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
<u>Prestressed fabricated precast lintels including necessary temporary supports:</u>					
11	110 x 70mm Lintels in lengths not exceeding 3m.	m	14		
	A : 0 B : 0 C : 0 D : 0				
	E : 4 K : 0 L : 10 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
12	150 x 75mm Lintels in lengths not exceeding 3m	m	606		
	A : 0 B : 0 C : 0 D : 0				
	E : 4 K : 554 L : 49 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
13	110 x 70mm Lintels in lengths exceeding 3m and not exceeding 4.5m.	m	876		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 876 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
<u>Turning pieces to lintels, etc.:</u>					
14	150mm Wide turning piece to lintels etc..	m	210		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 210 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
15	280mm Wide turning piece to lintels etc..	m	120		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 120 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
<u>FACE BRICKWORK</u>					
Carried to Collection					
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<u>Approved face bricks pointed with recessed horizontal and vertical joints</u>				
16	Extra over brickwork for face brickwork A : 0 B : 0 C : 0 D : 0 E : 9 K : 593 L : 223 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	825		
17	Extra over brickwork for face brickwork to piers A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 25 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	25		
	<u>Brick-on-edge header course copings, sills, etc. of approved face bricks, pointed with flush recessed joints on all exposed faces</u>				
18	225mm Wide sill set sloping and slightly projecting A : 0 B : 0 C : 0 D : 0 E : 22 K : 20 L : 15 M : 0 N : 0 O : 0 P : 0 Q : 0	m	58		
19	Extra over brickwork for brick-on-edge header course lintel A : 0 B : 0 C : 0 D : 0 E : 22 K : 20 L : 15 M : 0 N : 0 O : 0 P : 0 Q : 0	m	58		
	<u>FIBRE CEMENT WINDOW CILLS</u>				
	<u>15mm Thick natural grey cills in single length bedded in 4:1 sand cement mortar including metal lugs, etc.:</u>				
20	140mm Wide cills set flat and slightly projecting. A : 0 B : 0 C : 0 D : 0 E : 22 K : 20 L : 15 M : 0 N : 0 O : 0 P : 0 Q : 0	m	58		
	<u>PAVING</u>				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Quarry tiles, cement, terrazzo and similar tiles, precast concrete bricks, blocks, etc</u>				
	Tiles shall be of approved manufacture, well burnt or cured, and uniform and true in size, shape and colour				
	Carried to Collection				
	BUILDING WORKS Bill No. 5 Masonry				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<p><u>Preparation of concrete floor beds, slabs, etc for pavings</u></p> <p>Concrete surfaces shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. Surfaces shall then be wetted and kept damp for at least six hours before slushing with 1:2 cement/sand and while still wet, pavings, etc shall be laid on a 1:4 cement mortar bed not exceeding 25mm thick and jointed and pointed with hollowed joints. Sand shall be clean, sharp river sand</p> <p><u>Paving of 200 x 150 x 50mm precast concrete brown non-interlocking paving locks laid on 25mm thick river sand bed, including preparation of ground or filling</u></p>				
21	<p>Paving in herringbone pattern laid to falls on 25mm thick sand bedding</p> <p style="margin-left: 40px;">A : 0 B : 0 C : 0 D : 0</p> <p style="margin-left: 40px;">E : 10 K : 0 L : 0 M : 0</p> <p style="margin-left: 40px;">N : 0 O : 0 P : 0 Q : 0</p>	m ²	10		
22	<p>Fair raking cutting</p> <p style="margin-left: 40px;">A : 0 B : 0 C : 0 D : 0</p> <p style="margin-left: 40px;">E : 5 K : 0 L : 0 M : 0</p> <p style="margin-left: 40px;">N : 0 O : 0 P : 0 Q : 0</p>	m	5		
23	<p><u>Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing</u></p> <p>300 x 100mm High kerbs (SANS 927 fig 8C) with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint</p> <p style="margin-left: 40px;">A : 0 B : 0 C : 0 D : 0</p> <p style="margin-left: 40px;">E : 15 K : 0 L : 0 M : 0</p> <p style="margin-left: 40px;">N : 0 O : 0 P : 0 Q : 0</p>	m	15		
	<p>Carried to Collection</p>			R	
	<p>BUILDING WORKS Bill No. 5 Masonry</p>				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 5

Masonry

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BUILDING WORKS

Bill No. 5

Masonry

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 6</u></p> <p><u>WATERPROOFING</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 120</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Waterproofing</u></p> <p>Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs</p>			
	Carried to Collection			R
	BUILDING WORKS Bill No. 6 Waterproofing			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

DAMP PROOFING OF WALLS AND FLOORS

One layer of 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)

1	In walls, under cills, etc..	m2	380	
	A : 0 B : 0 C : 0 D : 0 E : 10 K : 294 L : 75 M : 0 N : 0 O : 0 P : 0 Q : 0			

One layer of 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:

2	Under surface beds.	m2	2,402	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 2317 L : 85 M : 0 N : 0 O : 0 P : 0 Q : 0			

WATERPROOFING TO ROOFS, BASEMENT, ETC

Carried to Collection

BUILDING WORKS
 Bill No. 6
 Waterproofing

R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<p><u>Cementitious waterproofing system (suitable for tiling) comprising patching defects with polymer modified flexible (PMF) waterproofing slurry and three full coats PMF waterproofing slurry applied with a brush to a final dry film thickness of 2 to 3mm</u></p> <p>3 On sides of beams m2 112</p> <p>A : 0 B : 0 C : 0 D : 0 E : 0 K : 112 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0</p>				
<p><u>Prime with one coat bitumen primer and one layer 4mm fully bonded waterproof membrane comprising two bitumen layers reinforced with woven spunbonded polyester fabric and coated with polyethelene film for heat bonding, laid with 100mm side and 150mm end laps</u></p> <p>4 On flat roofs m2 1,895</p> <p>A : 0 B : 0 C : 0 D : 0 E : 139 K : 1756 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0</p>				
<p>5 100mm high flashing, including sealing top edge with mastic in m 80</p> <p>A : 0 B : 0 C : 0 D : 0 E : 80 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0</p>				
<p><u>4mm "Derbigum SP" or equally approved fully bonded waterproofing</u></p> <p>6 On walls m2 2,516</p> <p>A : 0 B : 0 C : 0 D : 0 E : 0 K : 1856 L : 0 M : 0 N : 660 O : 0 P : 0 Q : 0</p>				
<p>7 On sides of beams m2 84</p> <p>A : 0 B : 0 C : 0 D : 0 E : 14 K : 70 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0</p>				
<p>8 Additional membrane 150mm girth at internal and external angles m 467</p> <p>A : 0 B : 0 C : 0 D : 0 E : 0 K : 467 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0</p>				
<p style="text-align: center;">Carried to Collection</p> <p>BUILDING WORKS Bill No. 6 Waterproofing</p>			<p style="text-align: center;">R</p>	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>One layer "Hydroduct 220" prefabricated geocomposite waterproofing membrane or similar approved</u>					
9	On walls (Provisional) A : 0 B : 0 C : 0 D : 0 E : 0 K : 1856 L : 0 M : 0 N : 660 O : 0 P : 0 Q : 0	m2	2,516		
10	Sealing edges to brickwork or concrete A : 0 B : 0 C : 0 D : 0 E : 0 K : 233 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	233		
<u>20mm Cuspated HDPE retention core</u>					
11	On floors A : 0 B : 0 C : 0 D : 0 E : 0 K : 20 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	20		
<u>PROTECTIVE STONE DRESSING</u>					
<u>Clean crushed stone dressing free of pyrite or other contaminants, of 20 - 25mm stone evenly spread with larger stones around outlets</u>					
12	50mm Thick on waterproofing to flat roofs A : 0 B : 0 C : 0 D : 0 E : 0 K : 1756 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	1,756		
<u>PROTECTIVE ROOFING PAINT</u>					
<u>Two coats bituminous aluminium paint</u>					
13	On waterproofing to roofs A : 0 B : 0 C : 0 D : 0 E : 139 K : 430 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	569		
<u>WATERPROOFING OF WALLS AND FLOORS</u>					
Carried to Collection					
BUILDING WORKS Bill No. 6 Waterproofing				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<u>One primer coat and one slurry coat Cemflex</u>				
14	On bottoms and sides of plant boxes	m2	120		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 120 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>JOINT SEALANTS, ETC.</u>				
	<u>Silicone sealing compound including backing cord, bond breaker, primer, etc.</u>				
15	10 x 10mm In joints between frames and walls	m	78		
	A : 0 B : 0 C : 0 D : 0 E : 21 K : 19 L : 38 M : 0 N : 0 O : 0 P : 0 Q : 0				
	Carried to Collection				R
	BUILDING WORKS Bill No. 6 Waterproofing				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 6

Waterproofing

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BUILDING WORKS
 Bill No. 6
 Waterproofing

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 7</u></p> <p><u>ROOF COVERINGS</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 124</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Straight cutting</u></p> <p>Descriptions of all roof coverings are deemed to include for all straight cutting</p> <p><u>Flashings</u></p> <p>Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet in order to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary.</p>			
	Carried to Collection			R
	BUILDING WORKS Bill No. 7 Roof Covering			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

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ROOF COVERINGS, ETC.

PROFILED METAL SHEETING AND ACCESSORIES

0.8mm Thick "Kliplok 406" double -interlocking or equally approved profiled galvanised roof sheeting with CLEAN COLORBOND finish on one side with a minimum coating class of AZ150 and the reverse side with grey epoxy primer/standard backing coat or modified polyester , fixed in single length with 0.6mm galvanised sheet iron accessories to timber and or steel purlins (elsewhere) in strict accordance with the manufacturer's specification and fixing details, with and including all necessary polyclosers, lap sealers, stitching, etc. on:

1	Roof covering with pitch not exceeding 7 degrees	m2	691												
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 691</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 691	L : 0	M : 0	N : 0	O : 0	P : 0	Q : 0		
A : 0	B : 0	C : 0	D : 0												
E : 0	K : 691	L : 0	M : 0												
N : 0	O : 0	P : 0	Q : 0												
2	SM flashings 376mm girth, 2 times bent along length	m	158												
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 158</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 158	L : 0	M : 0	N : 0	O : 0	P : 0	Q : 0		
A : 0	B : 0	C : 0	D : 0												
E : 0	K : 158	L : 0	M : 0												
N : 0	O : 0	P : 0	Q : 0												

Carried to Collection

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BUILDING WORKS
 Bill No. 7
 Roof Covering

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

3	<p>Aluminium shadow line cover strip 84mm girth, 3 times bent along length</p> <p style="text-align: right;">m</p> <p style="text-align: right;">158</p> <p style="margin-left: 40px;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 158 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>0.53mm Thick "Kliplok 700" double -interlocking or equally approved profiled galvanised roof sheeting with CLEAN COLORBOND finish on one side with a minimum coating class of AZ150 and the reverse side with grey epoxy primer/standard backing coat or modified polyester , fixed in single length with 0.6mm galvanised sheet iron accessories to timber and or steel purlins (elsewhere) in strict accordance with the manufacturer's specification and fixing details, with and including all necessary polyclosers, lap sealers, stitching, etc, on:</u></p>				
4	<p>Roof covering with pitch not exceeding 26 degrees</p> <p style="text-align: right;">m2</p> <p style="text-align: right;">138</p> <p style="margin-left: 40px;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 138 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
5	<p>Extra over roof covering for galvanized zincal IBR ridge cap, size 450x480x0.4mm</p> <p style="text-align: right;">m</p> <p style="text-align: right;">18</p> <p style="margin-left: 40px;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 18 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>ROOF INSULATION</u></p> <p><u>135mm "Isoboard" or equally approved high density 12 kg / m3 rigid extruded polystyrene insulation board with isopine/edge bevelled finish</u></p>				
6	<p>Insulation boarding in 600mm widths with longitudinal tongue and groove joints, laid over timber trusses (at approximately 1200mm centres) and fixed concurrent with timber purlins, including holes through boards etc</p> <p style="text-align: right;">m2</p> <p style="text-align: right;">76</p> <p style="margin-left: 40px;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 76 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
Carried to Collection					
BUILDING WORKS Bill No. 7 Roof Covering					
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

7	<p><u>80mm Thick "LAMBDABOARD" or equally approved polyisocyanurate foam core rigid board with a minimum density of 34kg/m3 faced on both sides with natural mineral</u></p> <p>Insulation boarding in 1220mm widths with longitudinal tongue and groove joints, fixed on top of concrete slabs with plastic washers and plugs at 300mm centres including pre-drilled holes through concrete slabs and boards etc</p>	m2	235														
	<table style="width: 100%; border: none;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 235</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 235	L : 0	M : 0	N : 0	O : 0	P : 0	Q : 0				
A : 0	B : 0	C : 0	D : 0														
E : 0	K : 235	L : 0	M : 0														
N : 0	O : 0	P : 0	Q : 0														
8	<p><u>80mm "Isoboard" or equally approved high density 32-36 kg / m3 rigid extruded polystyrene insulation board with isopine/edge bevelled finish</u></p> <p>Insulation boarding in 600mm widths with longitudinal tongue and groove joints, laid over timber trusses (at approximately 1200mm centres) and fixed concurrent with timber purlins, including holes through boards etc</p>	m2	277														
	<table style="width: 100%; border: none;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 277</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 277	L : 0	M : 0	N : 0	O : 0	P : 0	Q : 0				
A : 0	B : 0	C : 0	D : 0														
E : 0	K : 277	L : 0	M : 0														
N : 0	O : 0	P : 0	Q : 0														
9	<p><u>"Sisalation FR430" or equally approved heavy duty insulation</u></p> <p>Insulation laid taut over purlins (at approximately 800mm centres) and fixed concurrent with roof covering including galvanised steel straining wires</p>	m2	829														
	<table style="width: 100%; border: none;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 691</td> <td>L : 138</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 691	L : 138	M : 0	N : 0	O : 0	P : 0	Q : 0				
A : 0	B : 0	C : 0	D : 0														
E : 0	K : 691	L : 138	M : 0														
N : 0	O : 0	P : 0	Q : 0														
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>																
10	<p><u>Polycarbonate " Controlite" façade system or equally approved with double glazing, inside DP 16mm, 1040mm on the exterior with acoustic insulation of 27 dBA, fixed to upstand beams of roof all in accordance with manufactures specification (to be installed by approved specialist)</u></p> <p>Side cladding to gable ends etc</p>	m2	172														
	<table style="width: 100%; border: none;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 172</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 172	L : 0	M : 0	N : 0	O : 0	P : 0	Q : 0				
A : 0	B : 0	C : 0	D : 0														
E : 0	K : 172	L : 0	M : 0														
N : 0	O : 0	P : 0	Q : 0														
	Carried to Collection																
	BUILDING WORKS Bill No. 7 Roof Covering			R													

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 7

Roof Covering

COLLECTION

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Amount

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Carried Forward to Summary of Section No. 2

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BUILDING WORKS

Bill No. 7

Roof Covering

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 8</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 126</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Prefabricated trusses shall be fabricated in a factory by a truss fabricator who has been awarded a Certificate of Competence by the Institute of Timber Construction and is approved by the Principal Agent.</p> <p>All trusses shall be designed by a registered Professional Engineer in accordance with SABS Code of Practice for Design of Timber Structures.</p> <p>The complete structure shall be inspected by the truss designer to ensure that the manufacture and erection details have been complied with.</p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p><u>Joinery</u></p> <p>Descriptions of frames shall be deemed to include frames, transomes, rails, etc.</p>			
	Carried to Collection			R
	BUILDING WORKS Bill No. 8 Carpentry and Joinery			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Decorative thermosetting plastic laminate covering

Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish

Decorative laminates are to comply with SABS 1S0 4586 and SABS 1405

Particle board:

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

Construction

All measurement to be checked on site prior to construction of units

Carcasses, shelves, doors and drawers

Worktops, etc. shall be 32mm thick post formed waterproof board finished with formica

Carcasses, shelves, doors, etc. shall be 22mm thick solid laminated blackboard with pine veneer

Drawer backs and sides, etc. shall be formed of 12mm thick particle board

Backs and drawer bottoms, etc. shall be formed of 4.8mm thick tempered hardboard

All exposed edges shall be 12mm pine edging strip

Work surfaces

Work surfaces shall be formed of 21mm shutterboard sanded both sides with 1.2mm general purpose Formica on one side and 1mm "Backer" veneer on the other side with all exposed edges finished to match

Hinges

Hinges shall be brass butt hinges

One pair for lower doors

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BUILDING WORKS
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Bolts and Catches

Doors shall be provided with magnetic door catches

Locks

Lockable cupboards shall include approved cupboard locks

Pull handles

Doors and drawers shall include approved pull handles

Drawer guides

Drawers shall glide on white epoxy-coated drawer runners

Wall bands

Adjustable shelves shall be supported on wall bands with locking snap-in clips

PREFABRICATED ROOF TRUSSES, ETC.

SUPPLEMENTARY PREAMBLES

Dimensions in descriptions of trusses are nominal and actual measurements are to be obtained from the architect/engineer and/or taken on site before design or fabrication commences

Timber roof structure shall be fully designed, constructed of South African pine and certified on completion by a firm of Specialist Timber Roof Designers and Manufacturers

Trusses are at maximum Complete 3 x 28w, 1200mm x 600mm, recessed luminaire complete with lamps, low brightness louvers, control gear and mounting accessories, with 5A plug top(3m) centres

Roof covering is IBR Roof sheets on purlins

Ceilings are 9.5mm sheeting (with skimming) on 38 x 38mm brandering

The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the Architect and/or the site before design or fabrication commences

Prices shall include designs and certification on completion. The designs shall be availed to the Structural Engineer on award of the contract

Carried to Collection

BUILDING WORKS
 Bill No. 8
 Carpentry and Joinery

R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

1	Double pitch trusses for rectangular shaped building, size overall 4.51 x 5.37m on plan (Guard House)	No	1	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0			
2	Double pitch trusses for rectangular shaped building, size overall 12.08 x 8.12m on plan (Auction House)	No	1	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0			
	<u>"SA Pine" or equally approved timber</u>			
3	114 x 38mm Wall plates	m	65	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 65 M : 0 N : 0 O : 0 P : 0 Q : 0			

Carried to Collection

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BUILDING WORKS
 Bill No. 8
 Carpentry and Joinery

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

4	50 x 76mm Purlins A : 0 B : 0 C : 0 D : 0 E : 0 K : 438 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>EAVES, VERGES, ETC.</u> <u>"NUTEC" or equally approved fascial and barge boards:</u>	m	438	
5	12 x 300mm Fascia and barge boards, including galvanised steel H-profile joiners, etc.. A : 0 B : 0 C : 0 D : 0 E : 0 K : 243 L : 105 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>SKIRTINGS</u> <u>Hardwood timber:</u>	m	348	
6	100mm high skirting, plugged with masonry nails at 450mm maximum centres. A : 0 B : 0 C : 0 D : 0 E : 21 K : 3422 L : 44 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>DOORS, ETC</u> <u>Note</u> Refer to attached door schedules for details of doors <u>SUPPLEMENTARY PREAMBLES</u> <u>Fire doors</u> Fire doors are to be in accordance with SANS 1253 <u>Heavy duty flush panel single leaf solid core timber doors with 200mm high stainless steel kick plates to either leaf, hung to steel frames</u>	m	3,487	
7	40mm Door 813 x 2380mm high - D03/D08 A : 0 B : 0 C : 0 D : 0 E : 0 K : 31 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	31	
Carried to Collection				R
BUILDING WORKS Bill No. 8 Carpentry and Joinery				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<p><u>Heavy duty flush panel equal leaf double solid core timber doors with 200mm high stainless steel kick plates to either leaf, including door closer hung to steel frames</u></p>			
8	<p>40mm Door 1620 x 2368mm high - D04</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 0 K : 19 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	No	19	
	<p><u>Heavy duty flush panel equal leaf double solid core timber doors, hung to steel frames</u></p>			
9	<p>40mm door 1136 x 2368mm high - D07</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 0 K : 15 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	No	15	
10	<p>40mm door 1330 x 2368mm high - D09</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 0 K : 15 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	No	15	
	<p><u>Heavy duty flush panel single semi solid timber doors, hung to steel frames</u></p>			
11	<p>40mm Door 813x 2368mm high - D01</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 1 K : 18 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	No	19	
	<p><u>Heavy duty solid core doors leaf, hung to steel frames</u></p>			
12	<p>40mm Door 760 x 2050mm high - D02</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 3 K : 18 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	No	21	
13	<p>40mm door 813 x 2032mm high - D1</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 3 K : 0 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	No	3	
	Carried to Collection			
	<p>BUILDING WORKS Bill No. 8 Carpentry and Joinery</p>			R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

14	40mm door 1613 x 2093mm high - D01 A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 2 M : 0 N : 0 O : 0 P : 0 Q : 0	No	2		
15	40mm door 813 x 2125mm high - D02 A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 8 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Pyropanel equal leaf double fire door "Class A" with 60minutes fire rating with self closer or Equally approved fire doors hung to steel frame</u>	No	8		
16	48mm Door 1652 x 2368mm high - (FD01) A : 0 B : 0 C : 0 D : 0 E : 0 K : 17 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Pyropanel equal leaf double fire door "Class B" with 120 minutes fire rating with self closer or Equally approved fire doors hung to steel frame</u>	No	17		
17	48mm Door 1620 x 2368mm high - (FD03) A : 0 B : 0 C : 0 D : 0 E : 0 K : 10 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Class B single leaf fire door with 120 minutes fire rating with self closer or Equally approved fire doors hung to steel frame</u>	No	10		
18	40mm Door 900 x 2368mm high - (FD02) A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Class B single leaf fire door with 120 minutes fire rating with self closer or Equally approved fire doors hung to steel frame</u>	No	1		
19	40mm Door 1330 x 2368mm high - (FD04) A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>SPECIALISED DOORS</u>	No	1		
Carried to Collection					R
BUILDING WORKS Bill No. 8 Carpentry and Joinery					

20	<p><u>"DORMAKABA" or equally approved sliding door complete with automated sliding door drive system with 130W power consumption, subframes, ironmongery, glass, sealing, etc and fixing to brickwork or concrete (Colour approved by Architect and End-User)</u></p> <p>1631 x 2400 mm high - D10</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>JOINERY FITTINGS</u></p> <p>NOTE: The following fittings have been measured as complete units i.e. the components of the units have not been separately measured. The description therefore of such units shall be deemed to include all components, assembling, housing, notching, gluing, blocking, planting on and screwing with countersunk screws, edge strips, cut out for sinks, decorative plastic finish, glass, ironmongery, metalwork, wall mounting brackets, paint or varnish finishes, etc.</p> <p>The references are to the Architect's drawings annexed to these tender documents for tender purposes in order to understand the full requirements and descriptions of the works</p> <p><u>THE FOLLOWING IN BUILDING E (VISITOR'S CENTRE)</u></p> <p><u>Sawn Softwood</u></p>	No	1	
21	<p>Reception desk (SF1) overall size 3600 long x 900 wide x 1150mm high with tops, sides, bottom, division, shelf, back, brackets, fixings, etc complete as per architect's drawing number STAGE 4ID-800 - GF Rev.E</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1	
<p>Carried to Collection</p>				R
<p>BUILDING WORKS Bill No. 8 Carpentry and Joinery</p>				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

22	<p>Kitchen sink floor cupboard (SF2), overall size 2290 long x 600 wide x 1200mm high with top, sides, bottom, division, shelf, back, hinged doors including 500mm wide openings for double steel sink complete as per architect's drawing number STAGE 4ID-801 -GF Rev.E</p> <p style="text-align: right;">No</p> <p style="text-align: right;">1</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 1 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>THE FOLLOWING IN BUILDING K (NEW HEAD OFFICE BUILDING)</u></p> <p><u>Sawn Softwood</u></p>				
23	<p>Security office desk (SF1), L shaped, overall size 5 360mm long x 900mm wide x 1 150mm high, complete as per architect's drawing number STAGE 4ID-800 Rev D</p> <p style="text-align: right;">No</p> <p style="text-align: right;">1</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
24	<p>Reception desk (SF2), overall size 4 490mm long x 900mm wide x 1 150mm high, complete as per architect's drawing number STAGE 4ID-801 Rev.D</p> <p style="text-align: right;">No</p> <p style="text-align: right;">1</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
25	<p>Reception wall feature (SF3), overall size 5140mm long x 175mm wide x 3950 mm high, complete as per architect's drawing number STAGE 4ID-802 Rev.D</p> <p style="text-align: right;">No</p> <p style="text-align: right;">1</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
26	<p>Female Vanity wall counter (SF4) 1800 long x 600 wide x 300mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, including openings for three basin holes complete as per architect's drawing number STAGE 4ID-803 -GF Rev.D</p> <p style="text-align: right;">No</p> <p style="text-align: right;">4</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 4 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
Carried to Collection					
<p>BUILDING WORKS Bill No. 8 Carpentry and Joinery</p>					R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

27	<p>Male Vanity wall counter (SF5) 2200 long x 600 wide x 300mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, including openings for three basin holes complete as per architect's drawing number STAGE 4ID-804 -GF Rev.D</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 4 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	4		
28	<p>Boardroom floor cupboard (SF6) 4116 long x 500 wide x 600mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, etc.. complete as per architect's drawing number STAGE 4ID-80D -GF. Rev.D</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1		
29	<p>Boardroom floor cupboard (SF7) 5628 long x 500 wide x 600mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, etc.. complete as per architect's drawing number STAGE 4ID-806 -GF Rev.D</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1		
30	<p>Boardroom floor cupboard (SF8) 5250 long x 500 wide x 600mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, etc.. complete as per architect's drawing number STAGE 4ID-807 -GF Rev.D</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1		
31	<p>Business centre workstation (SF9) overall size 4670 long x 600 wide x 750mm high with 30x30x3mm thick square tube mild steel support frame, brackets, fixings, etc. complete as per architect's drawing number STAGE 4ID-808 Rev.D</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1		
Carried to Collection					R
BUILDING WORKS Bill No. 8 Carpentry and Joinery					

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

32	Pause area sink floor cupboard (SF10), overall size 2480 long x 600 wide x 1200mm high with top, sides, bottom, division, shelf, back, hinged doors including 500mm wide openings for double steel sink complete as per architect's drawing number STAGE 4ID-809 Rev.D A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
33	Pause area floor cupboard (SF11) overall size 2400 long x 600 wide x 1200mm high with top, sides, bottom, division, shelf, back, hinged doors etc complete as per architect's drawing number STAGE 4ID-811 Rev.D A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
34	Pause area high counter (SF12) overall size 2650 long x 800 wide x 1100mm high with 30x30x3mm thick square tube mild steel support frame, brackets, fixings, etc. etc.. complete as per architect's drawing number STAGE 4ID-812 Rev.D A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
35	Boardroom wall cupboard (SF13) 3955 long x 500 wide x 600mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, etc.. complete as per architect's drawing number STAGE 4ID-813 Rev.B A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
36	Boardroom floor cupboard (SF14) 3165 long x 500 wide x 600mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, etc.. complete as per architect's drawing number STAGE 4ID-814 Rev.B A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
Carried to Collection					R
BUILDING WORKS Bill No. 8 Carpentry and Joinery					

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

37	<p>Boardroom floor cupboard (SF15) 2905 long x 500 wide x 600mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, etc.. complete as per architect's drawing number STAGE 4ID-815 Rev.B</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1		
38	<p>Boardroom floor cupboard (SF16) 3165 long x 500 wide x 600mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, etc.. complete as per architect's drawing number STAGE 4ID-816 Rev.B</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1		
39	<p>Pause area sink floor cupboard (SF17), overall size 3720 long x 600 wide x 1200mm high with top, sides, bottom, division, shelf, back, hinged doors including 552mm wide openings for double steel sink complete as per architect's drawing number STAGE 4ID-817 Rev.B</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1		
40	<p>Boardroom floor cupboard (SF18) 3320 long x 500 wide x 600mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, etc.. complete as per architect's drawing number STAGE 4ID-818 Rev.B</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1		
41	<p>Boardroom floor cupboard (SF19) 3320 long x 500 wide x 600mm high with top, sides, bottom, division, shelf, back, hinged doors, brackets, fixings, etc.. complete as per architect's drawing number STAGE 4ID-819 Rev.B</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	1		
Carried to Collection					R
<p>BUILDING WORKS Bill No. 8 Carpentry and Joinery</p>					

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
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PHASE 1 (Buildings E,K & L)

42	Pause area sink floor cupboard (SF20), overall size 4140 long x 600 wide x 1200mm high with top, sides, bottom, division, shelf, back, hinged doors including 500mm wide openings for double steel sink complete as per architect's drawing number STAGE 4ID-820 Rev.D	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
43	Pause area high counter (SF12) overall size 2650 long x 800 wide x 1100mm high with 30x30x3mm thick square tube mild steel support frame, brackets, fixings, etc. etc.. complete as per architect's drawing number STAGE 4ID-821 Rev.D	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
<p><u>THE FOLLOWING IN BUILDING L (NEW AUCTION BUILDING & GUARD HOUSE)</u></p> <p><u>Sawn Softwood</u></p>					
44	Kitchen sink floor cupboard (SF1), overall size 1360 long x 600 wide x 1200mm high with top, sides, bottom, division, shelf, back, hinged doors including 500mm wide openings for single steel sink complete as per architect's drawing number STAGE 4ID-800 -GF Rev.b	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0				
45	Security worktop (SF2) overall size 2500 long x 600 wide x 720mm high with 30x30x3mm thick square tube mild steel support frame, brackets, fixings, etc. complete as per architect's drawing number STAGE 4ID-801 Rev.B	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0				
<p><u>PANELLING ETC</u></p>					
Carried to Collection					
BUILDING WORKS Bill No. 8 Carpentry and Joinery				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

46	<p><u>Fabric panels with Natural FS280 profile and a noise reduction coefficient of 0,8 complete with all accessories as per architects specification, installed in accordance with the manufacturer's recommendations.</u></p> <p>Acoustic wall panelling size 2500 x 12000mm high with vertical panels at 1000mm centres</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 941 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	m2	941	
Carried to Collection				R
BUILDING WORKS Bill No. 8 Carpentry and Joinery				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 8

Carpentry and Joinery

COLLECTION

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Amount

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BUILDING WORKS

Bill No. 8

Carpentry and Joinery

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No	Quantity	Rate	Amount
<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 9</u></p> <p><u>CEILING PARTITIONS AND ACCESS FLOORING</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 129</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Ceilings</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Bulkheads</u></p> <p>Bulkheads are defined as those portions of ceilings which are stepped down from the general ceiling level in a particular room or area and which generally occur along the perimeter. Their purpose is either to conceal services or to create architectural features</p> <p>Bulkheads have only been described as such where they conform to the above definition and where the horizontal or vertical dimensions do not exceed 900mm. Where these dimensions are more than 900mm such portions of ceilings have been included in the appropriate general items of ceilings</p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p style="text-align: right;">Carried to Collection</p> <p>BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring</p>			<hr/> R <hr/>

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Steel components

All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

NAILED UP CEILINGS

6.5mm "Lafarge" or equally approved gypsum plasterboard with 63mm wide bishop strips of mesh scrim nailed over joints and the whole finished with gypsum skim plaster trowelled to a smooth polished surface

1	Horizontal ceilings, including 38 x 38mm sawn softwood bandering in one direction at 320mm centres	m2	821													
	<table border="0" style="width: 100%;"> <tr> <td style="width: 25%;">A : 0</td> <td style="width: 25%;">B : 0</td> <td style="width: 25%;">C : 0</td> <td style="width: 25%;">D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 691</td> <td>L : 130</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 691	L : 130	M : 0	N : 0	O : 0	P : 0	Q : 0			
A : 0	B : 0	C : 0	D : 0													
E : 0	K : 691	L : 130	M : 0													
N : 0	O : 0	P : 0	Q : 0													

Carried to Collection

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BUILDING WORKS
 Bill No. 9
 Ceilings, Partitions and Access Flooring

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

2	<p>Extra over ceiling for 600 x 600mm trap door of 52 x 114mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening.</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 2 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>Gypsum plasterboard cornices</u></p>	No	2	
3	<p>50mm Coved cornices</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 93 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>SUSPENDED CEILINGS, CORNICES, ETC.</u></p> <p><u>Proprietary suspended ceilings</u></p> <p>Electric light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance shall be made accordingly for their support, inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing shall take cognisance thereof)</p> <p>Prices shall include all straight and raking cutting, standard H-section metal cover strips, jointing strips, etc.</p> <p>Rates for the applicable items contained in this Bill are to allow for all necessary "Scaffolding and Special Scaffolding" for the works to be carried out at all levels and heights as required on site</p> <p>Where air-conditioning ducts, electric cables trays, pipes, etc., fall in the way of suspended ceiling strap hangers provision must be made for bridging across these obstructions with suitable mild steel brackets and bearers, etc., as necessary in order to affix the ceiling strap hangers thereto. No extra claim will be entertained where the aforementioned obstructions prevent the ceiling strap hangers from being fixed in the correct ceiling grid positions</p> <p>Rates for all bulkheads are to include for all intersections with other bulkheads, angles, ends, corners and mitres, etc.</p> <p>Tenderers are to include in their rates for all necessary expansion joints and movement joints and submit the proposed details of these joints for the approval of the Architect</p> <p><u>CEILING TIMBERS, BEADS, INSULATION, ETC</u></p>	m	93	
	<p>Carried to Collection</p>			R
	<p>BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring</p>			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<p><u>1200 x 600 x 9mm Thick suspended gypsum plasterboard embossed white vinyl clad ceiling supported on and including approved pre-painted exposed T24 tee suspension system including galvanized main tees, cross tees, hold-down clips, wedges, reinforcement spines etc.,</u></p>					
4	<p>Ceilings suspended not exceeding 1m below concrete soffits</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 0 K : 3049 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	m2	3,049		
5	<p>Ceilings suspended exceeding 1m and not exceeding 2m below concrete soffits</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 0 K : 125 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	m2	125		
6	<p>Ceilings suspended exceeding 2m and not exceeding 3m below concrete soffits</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 0 K : 345 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	m2	345		
7	<p>Extra over ceiling for forming opening for 600 x 600mm opening for ventilation/air conditioning diffuser</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 0 K : 120 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	No	120		
8	<p>Extra over ceiling for forming opening for 1200 x 600mm light fitting</p> <p>A : 0 B : 0 C : 0 D : 0</p> <p>E : 0 K : 30 L : 0 M : 0</p> <p>N : 0 O : 0 P : 0 Q : 0</p>	No	30		
<p>Carried to Collection</p>					
<p>BUILDING WORKS</p> <p>Bill No. 9</p> <p>Ceilings, Partitions and Access Flooring</p>					R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<p><u>600 x 600 x 15mm Thick "OWA" or equally approved white pre-painted square edge horizontal suspended acoustic ceiling supported on and including Construct S3a exposed demountable pre-painted exposed T24 tee suspension system or equally approved complete with galvanised mild steel main tees, cross tees, holding down clips, wedges, etc., suspended not exceeding 1200mm centres, strictly in accordance with the manufacturer's instructions</u></p>				
9	Ceilings suspended not exceeding 1m below concrete soffits A : 0 B : 0 C : 0 D : 0 E : 0 K : 1251 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	1,251		
10	Extra over ceiling for forming opening for 600 x 600mm opening for ventilation/air conditioning diffuser A : 0 B : 0 C : 0 D : 0 E : 0 K : 23 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	23		
11	Extra over ceiling for forming opening for 1200 x 600mm light fitting A : 0 B : 0 C : 0 D : 0 E : 0 K : 16 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	16		
	<p><u>1200 x 600 x 15mm Thick "OWA" or equally approved white pre-painted square edge horizontal suspended acoustic ceiling supported on and including Construct S3a exposed demountable pre-painted exposed T24 tee suspension system or equally approved complete with galvanised mild steel main tees, cross tees, holding down clips, wedges, etc., suspended not exceeding 1200mm centres, strictly in accordance with the manufacturer's instructions</u></p>				
12	Ceilings suspended not exceeding 1m below concrete soffits A : 0 B : 0 C : 0 D : 0 E : 0 K : 650 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	650		
13	Ceilings suspended exceeding 1m and not exceeding 2m below concrete soffits A : 0 B : 0 C : 0 D : 0 E : 0 K : 5 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	5		
	Carried to Collection				
	BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

14	Extra over ceiling for forming opening for 600 x 600mm opening for ventilation/air conditioning diffuser A : 0 B : 0 C : 0 D : 0 E : 0 K : 5 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	5		
15	Extra over ceiling for forming opening for 1200 x 600mm light fitting A : 0 B : 0 C : 0 D : 0 E : 0 K : 10 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>9.5mm "Rhino" gypsum plasterboard with 63mm wire scrim or similar approved backing over joints and the whole plastered with 6mm thick cretestone plaster and finished in gypsum plaster trowelled to a smooth even surface on screw-up concealed tee suspension system including main and cross tees, necessary hangers, grids, etc</u>	No	10		
16	Ceilings suspended not exceeding 1m below concrete soffits A : 0 B : 0 C : 0 D : 0 E : 135 K : 555 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	690		
17	Ceilings suspended exceeding 1m and not exceeding 2m below concrete soffits A : 0 B : 0 C : 0 D : 0 E : 0 K : 208 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	208		
18	Ceilings suspended exceeding 2m and not exceeding 3m below concrete soffits A : 0 B : 0 C : 0 D : 0 E : 0 K : 120 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	120		
19	Horizontal portion of bulkheads 250mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 120 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	120		
Carried to Collection					
BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring					R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

20	Horizontal portion of bulkheads 360mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 360 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	360		
21	Horizontal portion of bulkheads 500mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 320 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	320		
22	Horizontal portion of bulkheads 600mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 333 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	333		
23	Horizontal portion of bulkheads 665mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 235 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	235		
24	Horizontal portion of bulkheads 730mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 225 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	225		
25	Horizontal portion of bulkheads 800mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 560 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	560		
26	Horizontal portion of bulkheads 95mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 230 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	230		
Carried to Collection					
BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring					R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

27	Vertical portion of bulkheads 100mm high, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 2144 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	2,144		
28	Vertical portion of bulkheads 150mm high, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 2946 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	2,946		
29	Vertical portion of bulkheads 200mm high, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 2133 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	2,133		
30	Extra over ceiling for forming hole for 100mm diameter downlighters A : 0 B : 0 C : 0 D : 0 E : 0 K : 160 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>12.5mm "Rhino" gypsum plasterboard with 63mm wire scrim or similar approved backing over joints and the whole plastered with 6mm thick cretestone plaster and finished in gypsum plaster trowelled to a smooth even surface on screw-up concealed tee suspension system including main and cross tees, necessary hangers, grids, etc</u>	No	160		
31	Ceilings suspended not exceeding 1m below concrete soffits A : 0 B : 0 C : 0 D : 0 E : 0 K : 245 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	245		
32	Horizontal portion of bulkheads 250mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 124 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	124		
	Carried to Collection				R
	BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

33	Horizontal portion of bulkheads 360mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 102 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	102		
34	Horizontal portion of bulkheads 500mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 120 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	120		
35	Horizontal portion of bulkheads 600mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 120 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	120		
36	Horizontal portion of bulkheads 665mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 130 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	130		
37	Horizontal portion of bulkheads 730mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 145 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	145		
38	Horizontal portion of bulkheads 95mm wide, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 89 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	89		
39	Vertical portion of bulkheads 200mm high, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 145 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	145		
Carried to Collection					
BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

40	Vertical portion of bulkheads 100mm high, suspended not exceeding 1m below steel trusses A : 0 B : 0 C : 0 D : 0 E : 0 K : 124 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	124		
41	Extra over ceiling for forming hole for 100mm diameter downlighters A : 0 B : 0 C : 0 D : 0 E : 0 K : 120 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>12.5mm "Rhino" moisture resistant gypsum plasterboard with 63mm wire scrim or similar approved backing over joints and the whole plastered with 6mm thick crestone plaster and finished in gypsum plaster trowelled to a smooth even surface on screw-up concealed tee suspension system including main and cross tees, necessary hangers, grids, etc</u>	No	120		
42	Galvanised metal lathing laid on top of ceiling boards fixed to brickwork A : 0 B : 0 C : 0 D : 0 E : 135 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Cornices to suspended ceilings</u>	m2	135		
43	LSM25 shadowline prepainted cornice plugged to wall. A : 0 B : 0 C : 0 D : 0 E : 21 K : 4115 L : 47 M : 0 N : 0 O : 0 P : 0 Q : 0	m	4,183		
44	Vertical aluminium corner trim to bulkheads A : 0 B : 0 C : 0 D : 0 E : 0 K : 3456 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Ceiling and roof void insulation</u>	m	3,456		
45	"Isover Aerolite" 135mm mineral wool or equally insulation with black tissue finish laid over suspended ceilings A : 0 B : 0 C : 0 D : 0 E : 0 K : 4855 L : 130 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>PARTITIONS</u>	m2	4,985		
Carried to Collection					R
BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring					

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Gyproc Standard Ultrasteel Stud Drywall Partitions

Note: Wall paper and/or paint and varnish finishes are measured elsewhere

90mm "Gyproc drywall" or equally approved partitioning system comprising steel studding formed of 63.5mm top and bottom tracks with vertical studs at maximum 600mm centres, friction fitted or pop-riveted to the top and bottom tracks with similar additional vertical studs as necessary at abutments, ends, etc and covered as described with wallboard screwed to studding with "Drywall" screws at maximum 220mm centres. Boards are to be butt jointed and finished with "Rhino" tape and "Readymix D" jointing compound all in accordance with the manufacturer's instructions. Intersections and abutments are measured separately and descriptions shall be deemed to include any additional studs, corner beads, jointing compound, tape, etc

46	Partition 2720mm high with top track plugged to suspended ceiling system and bottom track plugged to concrete floor.	m	691												
	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">A : 0</td> <td style="width: 25%;">B : 0</td> <td style="width: 25%;">C : 0</td> <td style="width: 25%;">D : 0</td> </tr> <tr> <td>E : 24</td> <td>K : 660</td> <td>L : 7</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 24	K : 660	L : 7	M : 0	N : 0	O : 0	P : 0	Q : 0		
A : 0	B : 0	C : 0	D : 0												
E : 24	K : 660	L : 7	M : 0												
N : 0	O : 0	P : 0	Q : 0												
47	Extra over partition for solid core flush doors 813 x 2032mm high (Door D02) with commercial veneer covering on both sides, hung to and including standard natural anodised aluminium door frame with one pair of 100mm nylon washered aluminium hinges and additional studding, trimming, etc	No	2												
	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">A : 0</td> <td style="width: 25%;">B : 0</td> <td style="width: 25%;">C : 0</td> <td style="width: 25%;">D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 0</td> <td>L : 2</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 0	L : 2	M : 0	N : 0	O : 0	P : 0	Q : 0		
A : 0	B : 0	C : 0	D : 0												
E : 0	K : 0	L : 2	M : 0												
N : 0	O : 0	P : 0	Q : 0												
48	Extra over partition for heavy duty flush panel single leaf solid core timber doors with hardboard (D06), hung to and including standard natural anodised aluminium door frame with one pair of 100mm nylon washered aluminium hinges and additional studding, trimming, etc	No	19												
	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">A : 0</td> <td style="width: 25%;">B : 0</td> <td style="width: 25%;">C : 0</td> <td style="width: 25%;">D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 19</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 19	L : 0	M : 0	N : 0	O : 0	P : 0	Q : 0		
A : 0	B : 0	C : 0	D : 0												
E : 0	K : 19	L : 0	M : 0												
N : 0	O : 0	P : 0	Q : 0												

Carried to Collection

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BUILDING WORKS
 Bill No. 9
 Ceilings, Partitions and Access Flooring

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

49	<p>Extra over partition for heavy duty flush panel equal leaf double solid core timber doors with hardboard (D05), hung to and including standard natural anodised aluminium door frame with one pair of 100mm nylon washered aluminium hinges and additional studding, trimming, etc</p> <p style="text-align: right;">No</p> <p style="text-align: center;">5</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 5 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
50	<p>Extra over partition for solid core flush doors 1620 x 2380mm high (Door D05) with commercial veneer covering on both sides, hung to and including standard natural anodised aluminium door frame with one pair of 100mm nylon washered aluminium hinges and additional studding, trimming, etc</p> <p style="text-align: right;">No</p> <p style="text-align: center;">6</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 6 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>132mm "Gyproc drywall" or equally approved partitioning system comprising steel studding formed of 102mm top and bottom tracks with vertical studs at maximum 600mm centres, friction fitted or pop-riveted to the top and bottom tracks with similar additional vertical studs as necessary at abutments, ends, etc and covered as described with one 15mm thick "rhinoboard firestop" or equally approved board on both sides screwed to studding with "Drywall" screws at maximum 220mm centres. Boards are to be butt jointed and finished with "Rhino" tape and "Readymix D" jointing compound all in accordance with the manufacturer's instructions. Intersections and abutments are measured separately and descriptions shall be deemed to include any additional studs, corner beads, jointing compound, tape, etc</u></p>				
51	<p>Partition 3400mm high with top track plugged to concrete soffit and bottom track plugged to concrete floor.</p> <p style="text-align: right;">m</p> <p style="text-align: center;">65</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 60 L : 5 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
Carried to Collection					
BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring					
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

52	Extra over partition for solid core flush doors 813 x 2032mm high (Door D1) with commercial veneer covering on both sides, hung to and including standard natural anodised aluminium door frame with one pair of 100mm nylon washered aluminium hinges and additional studding, trimming, etc A : 0 B : 0 C : 0 D : 0 E : 15 K : 23 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Extra over 2720mm high 'Gyproc Standard' or equally approved Ultrasteel Stud Drywall Partition for :</u>	No	38		
53	Vertical Abutment. A : 0 B : 0 C : 0 D : 0 E : 120 K : 239 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	359		
54	Corner intersection. A : 0 B : 0 C : 0 D : 0 E : 0 K : 185 L : 234 M : 0 N : 0 O : 0 P : 0 Q : 0	No	419		
55	T-intersection. A : 0 B : 0 C : 0 D : 0 E : 0 K : 68 L : 120 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Extra over 3400mm high 'Gyproc Standard' or equally approved Ultrasteel Stud Drywall Partition for :</u>	No	188		
56	Vertical Abutment A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 123 M : 0 N : 0 O : 0 P : 0 Q : 0	No	123		
57	Corner intersection. A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 120 M : 0 N : 0 O : 0 P : 0 Q : 0	No	120		
58	T-intersection. A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 112 M : 0 N : 0 O : 0 P : 0 Q : 0	No	112		
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BUILDING WORKS Bill No. 9 Ceilings, Partitions and Access Flooring					R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

TOILET CUBICLE PARTITIONS

"Vitraflex" or equally approved toilet cubicles consisting of 20mm thick charcoal melamine faced particle board, doors and stiles of laminated construction with outer skins of vitreous enamelled steel sheets bonded to wood particle board, all framed in powder coated aluminium channel section beading, top rails and fixing components and fitted with all necessary ironmongery comprising standard indicating bolts, combined coat hooks and door stops, toilet roll holders and rubber buffers

59	Partition 1800 x 1920mm high	No	62
	A:0 B:0 C:0 D:0		
	E:0 K:60 L:2 M:0		
	N:0 O:0 P:0 Q:0		
60	Door 740 x 1780mm high - D02	No	44
	A:0 B:0 C:0 D:0		
	E:0 K:42 L:2 M:0		
	N:0 O:0 P:0 Q:0		
61	Full stile 210mm x 1920mm high	No	21
	A:0 B:0 C:0 D:0		
	E:0 K:20 L:1 M:0		
	N:0 O:0 P:0 Q:0		
62	Wall stile 105mm wide and 1920mm high	No	32
	A:0 B:0 C:0 D:0		
	E:0 K:30 L:2 M:0		
	N:0 O:0 P:0 Q:0		
63	End stile 145mm wide and 1920mm high	No	2
	A:0 B:0 C:0 D:0		
	E:0 K:0 L:2 M:0		
	N:0 O:0 P:0 Q:0		

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BUILDING WORKS
 Bill No. 9
 Ceilings, Partitions and Access Flooring

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 9

Ceilings, Partitions and Access Flooring

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BUILDING WORKS

Bill No. 9

Ceilings, Partitions and Access Flooring

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 10</u></p> <p><u>FLOOR COVERINGS</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 130</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Trade Names</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior written approval from the Representative / Agent</p> <p><u>Fixing</u></p> <p>Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc</p>			
	Carried to Collection			R
	BUILDING WORKS Bill No. 10 Floor Coverings			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

Note

Contractor must refer to the attached Architects 'floor finishes layouts' for more details and pricing purposes - Annexure C of this document

FLOOR COVERINGS

500 x 500mm "Belgotex" or equally approved carpet tile

1	On floors	m2	3,425												
	<table border="0" style="width: 100%;"> <tr> <td style="width: 25%;">A : 0</td> <td style="width: 25%;">B : 0</td> <td style="width: 25%;">C : 0</td> <td style="width: 25%;">D : 0</td> </tr> <tr> <td>E : 105</td> <td>K : 3273</td> <td>L : 47</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 105	K : 3273	L : 47	M : 0	N : 0	O : 0	P : 0	Q : 0		
A : 0	B : 0	C : 0	D : 0												
E : 105	K : 3273	L : 47	M : 0												
N : 0	O : 0	P : 0	Q : 0												

600 x 600mm "Limegreen" or equally approved carpet tile

2	On floors	m2	345												
	<table border="0" style="width: 100%;"> <tr> <td style="width: 25%;">A : 0</td> <td style="width: 25%;">B : 0</td> <td style="width: 25%;">C : 0</td> <td style="width: 25%;">D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 345</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 345	L : 0	M : 0	N : 0	O : 0	P : 0	Q : 0		
A : 0	B : 0	C : 0	D : 0												
E : 0	K : 345	L : 0	M : 0												
N : 0	O : 0	P : 0	Q : 0												

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BUILDING WORKS
 Bill No. 10
 Floor Coverings

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

3	<p><u>"Belgotex" or equally approved wall to wall carpet</u></p> <p>On floors - FF9</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 160 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>"Kiaat" or equally approved durable timber stage flooring 20-25mm thick with kiln-dried to a moisture contents of 6-8% complete with an underlay/insulation to sub-floor of plywood 18-25mm to support the boards and timber joists 400 -600mm apart with bearers composed of hardwood for additional support beneath the joists, floor to be sanded smoothly and sealed with multiple coats of high quality durable polyurethane sealant and treated with a non-slip finish all in accordance with specialist design and the Architect and Structural Engineers approval.</u></p>	m2	160	
4	<p>On auditorium stage floor</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 230 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>SKIRTINGS, NOSINGS, ETC</u></p> <p><u>Aluminium skirtings, nosings, etc</u></p>	m2	230	
5	<p>100mm high Aluminium skirting screwed at 450mm maximum centres - SK1</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 78 K : 435 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	m	513	
6	<p>100mm high Aluminium skirting screwed at 450mm maximum centres - SK2</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 56 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	m	56	
7	<p>10mm high Aluminium tile straight edge strip between carpets, and between carpets and tiles</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 213 L : 88 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	m	301	
Carried to Collection				R
BUILDING WORKS Bill No. 10 Floor Coverings				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

8	85 x 30mm Natural anodised aluminium double retro-fit stair nosing with bright coloured PVC inserts, plugged A : 0 B : 0 C : 0 D : 0 E : 0 K : 345 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	345		
9	25 x 25mm Natural anodised aluminium stage edge trim glued A : 0 B : 0 C : 0 D : 0 E : 0 K : 245 L : 56 M : 0 N : 0 O : 0 P : 0 Q : 0	m	301		
<u>POLISH, SEALERS, ETC</u>					
<u>Silicone sealing compound etc.</u>					
10	10 x 10mm In joints between skirting and floors A : 0 B : 0 C : 0 D : 0 E : 134 K : 456 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	590		
Carried to Collection					
BUILDING WORKS Bill No. 10 Floor Coverings				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 10

Floor Coverings

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BUILDING WORKS
 Bill No. 10
 Floor Coverings

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 11</u></p> <p><u>IRONMONGERY</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 132</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Finishes to ironmongery</u></p> <p>Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list :</p> <p>CH Chromium plated SC Satin chromium plated PT Epoxy coated PB Polished brass PL Polished and lacquered BS Satin bronze and lacquered AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black GE Grey enamelled SE Silver enamelled SD Sanded</p> <p><u>Trade Names</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior written approval from the Representative / Agent</p>			
	Carried to Collection			R
	<p>BUILDING WORKS Bill No. 11 Ironmongery</p>			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

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- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

IRONMONGERY FIXED TO DOORS, ETC.

Bolts and latches:

1	Grade 316 Satin stainless steel bath/wc indicator complete with turn.	No	182	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 180 L : 2 M : 0 N : 0 O : 0 P : 0 Q : 0			
2	"UNION 37651LH" aluminium or equally approved, single or multitrack helping hand disabled facility indicator bolt with anodised silver finish.	No	6	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 5 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0			

HINGES, BOLTS, ETC

Carried to Collection

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BUILDING WORKS
 Bill No. 11
 Ironmongery

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Approved</u>				
3	100mm Brass butt hinges A : 0 B : 0 C : 0 D : 0 E : 24 K : 23 L : 12 M : 0 N : 0 O : 0 P : 0 Q : 0	No	59	
4	150mm Brass barrel bolt and shoots A : 0 B : 0 C : 0 D : 0 E : 0 K : 120 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	120	
5	150mm Brass necked bolt A : 0 B : 0 C : 0 D : 0 E : 0 K : 152 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	152	
<u>LOCKS</u>				
<u>Approved</u>				
6	"DORMAKABA" or equally approved satin nickel 40.5 Europrofile nickel plated ESP 5pin single cylinder (Master Keyed) A : 0 B : 0 C : 0 D : 0 E : 3 K : 100 L : 12 M : 0 N : 0 O : 0 P : 0 Q : 0	No	115	
7	"DORMAKABA" or equally approved 63mm Europrofile nickel plated ESP 5pin knob cylinder A : 0 B : 0 C : 0 D : 0 E : 0 K : 19 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	19	
8	"DORMAKABA" or equally approved sash lock A : 0 B : 0 C : 0 D : 0 E : 0 K : 52 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	52	
9	"DORMAKABA" or equally approved cylinder deadlock A : 0 B : 0 C : 0 D : 0 E : 0 K : 68 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	68	
<u>HANDLES</u>				
Carried to Collection				
BUILDING WORKS Bill No. 11 Ironmongery				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Approved</u>				
10	140mm "ABLOY INOXI 3-19SS/DH072" or equally approved stainless steel pull handle with roses	Pairs	15.0	
	A : 0.0 B : 0.0 C : 0.0 D : 0.0			
	E : 3.0 K : 0.0 L : 12.0 M : 0.0			
	N : 0.0 O : 0.0 P : 0.0 Q : 0.0			
11	"DORMAKABA" or equally approved 2x stainless steel pull handle	Pairs	30.0	
	A : 0.0 B : 0.0 C : 0.0 D : 0.0			
	E : 0.0 K : 30.0 L : 0.0 M : 0.0			
	N : 0.0 O : 0.0 P : 0.0 Q : 0.0			
12	"DORMAKABA" or equally approved 1x stainless steel 62x44mm ring flush pull handle,	Pairs	30.0	
	A : 0.0 B : 0.0 C : 0.0 D : 0.0			
	E : 0.0 K : 30.0 L : 0.0 M : 0.0			
	N : 0.0 O : 0.0 P : 0.0 Q : 0.0			
13	"DORMAKABA" or equally approved 1x 300x300mm straight tubular pull handle BTB,	Pairs	19.0	
	A : 0.0 B : 0.0 C : 0.0 D : 0.0			
	E : 0.0 K : 19.0 L : 0.0 M : 0.0			
	N : 0.0 O : 0.0 P : 0.0 Q : 0.0			
<u>Sundries :</u>				
14	"ABLOY LH04PZPZ" or equally approved stainless steel cylinder escutcheon	Sets	3.0	
	A : 0.0 B : 0.0 C : 0.0 D : 0.0			
	E : 3.0 K : 0.0 L : 0.0 M : 0.0			
	N : 0.0 O : 0.0 P : 0.0 Q : 0.0			
<u>LETTERS, NAMEPLATES, ETC</u>				
15	Approved 150 x 150 x 1,2mm thick stainless steel plate engraved with disabled symbol	No	8	
	A : 0 B : 0 C : 0 D : 0			
	E : 1 K : 6 L : 1 M : 0			
	N : 0 O : 0 P : 0 Q : 0			
Carried to Collection				
BUILDING WORKS Bill No. 11 Ironmongery				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

16	<p>Approved 150 x 150 x 1,2mm thick stainless steel plate engraved with male or female symbol</p> <p style="text-align: right;">No</p> <p style="text-align: right;">32</p> <p>A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 2 M : 0 N : 30 O : 0 P : 0 Q : 0</p> <p><u>BATHROOM FITTINGS</u></p> <p><u>Grab rails</u></p>			
17	<p>"Washroom System" or equally approved 750 x 260mm stainless steel grab bar, code : CNTXBR</p> <p style="text-align: right;">No</p> <p style="text-align: right;">8</p> <p>A : 0 B : 0 C : 0 D : 0 E : 1 K : 6 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0</p>			
18	<p>"Washroom System" or equally approved 300 x 300 x 300mm stainless steel grab rail, code : CNTXPAR</p> <p style="text-align: right;">No</p> <p style="text-align: right;">8</p> <p>A : 0 B : 0 C : 0 D : 0 E : 1 K : 6 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0</p>			
19	<p>"Washroom System" or equally approved 600mm stainless steel grab rail, code : CNTX600</p> <p style="text-align: right;">No</p> <p style="text-align: right;">12</p> <p>A : 0 B : 0 C : 0 D : 0 E : 0 K : 12 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0</p> <p><u>Toilet roll holders</u></p>			
20	<p>"Washroom System" or equally approved stainless steel toilet roll holder code:CHR672, size 140 x 295 x 128mm high for two rolls, wall mounted</p> <p style="text-align: right;">No</p> <p style="text-align: right;">54</p> <p>A : 0 B : 0 C : 0 D : 0 E : 4 K : 45 L : 5 M : 0 N : 0 O : 0 P : 0 Q : 0</p> <p><u>Dispensers etc:</u></p>			
21	<p>130 x 110 x 215mm high, stainless steel 400ml spray soap dispenser, plugged - W01</p> <p style="text-align: right;">No</p> <p style="text-align: right;">12</p> <p>A : 0 B : 0 C : 0 D : 0 E : 0 K : 12 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0</p>			
Carried to Collection				R
<p>BUILDING WORKS Bill No. 11 Ironmongery</p>				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

22	1,2/1,5mm thick satin stainless steel soap dispenser, size 100 x 134 x 304mm high,with replaceable and refillable 1 litre container and cylinder lock with Franke key, plugged and screwed to wall with stainless steel screws A : 0 B : 0 C : 0 D : 0 E : 1 K : 6 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0	No	8		
23	0.8mm thick stainless paper towel dispenser, size 275 x 112 x 355mm high with loading capacity 500-800 pcs, with folded front covering, inspection windows on sides and a cylinder lock with standard key, wall mounted A : 0 B : 0 C : 0 D : 0 E : 0 K : 10 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	10		
24	Stainless steel lever operated hand sanitiser bracket, sized to suit 500mmml bottle, wall mounted A : 0 B : 0 C : 0 D : 0 E : 0 K : 5 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	5		
	<u>Waste Containers:</u>				
25	"Washroom Systems" or equally approved stainless waste container, size 360x 460 x 170mm high with lock, wall mounted A : 0 B : 0 C : 0 D : 0 E : 0 K : 17 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	17		
	<u>SUNDRIES</u>				
	<u>Approved</u>				
26	38mm Diameter rubber door stop (grade 304) plugged A : 0 B : 0 C : 0 D : 0 E : 5 K : 174 L : 15 M : 0 N : 0 O : 0 P : 0 Q : 0	No	194		
27	Grade 304 Stainless steel hat and coat hook with rubber buffer. A : 0 B : 0 C : 0 D : 0 E : 0 K : 2 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	2		
	Carried to Collection				
	BUILDING WORKS Bill No. 11 Ironmongery				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

28	190 x 35 x 65mm three utility stainless hook, wall mounted A : 0 B : 0 C : 0 D : 0 E : 0 K : 2 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	2		
29	" Prescatech" or equally approved wall bracket large 900 x 50mm , wall mounted A : 0 B : 0 C : 0 D : 0 E : 0 K : 2 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	2		
30	"DORMAKABA" or equally approved stainless steel round cylinder escutcheon A : 0.0 B : 0.0 C : 0.0 D : 0.0 E : 0.0 K : 120.0 L : 0.0 M : 0.0 N : 0.0 O : 0.0 P : 0.0 Q : 0.0	Sets	120.0		
<u>AUDITORIUM SEATING</u>					
<u>"Rodlin WAVE" 590mm with writing tablet or equally approved auditorium seating</u>					
31	Automatic tip-up seats fully upholstered in weaver's vulcan contract fabric including a PU common arm and fold-away PP writing tablet, fixed to concrete floor. A : 0 B : 0 C : 0 D : 0 E : 0 K : 512 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	512		
<u>PELMETS AND CURTAIN TRACKS</u>					
<u>In accordance with "TBC" catalogue or equally approved acoustic curtain system</u>					
32	'Motorised' main traverse with backup power and a main boarder/valance. 'Valour' acoustic curtain size 22 000mm x 5 500mm, 1000 grams per square meter, with Noise Reduction Coefficient of 0.7 - 1.0 and Sound Transmission Class to Eng.Spec. and a fullness ratio of 60%, curtain to be treated with a fire retardant, SANS 10400, complete with a track system hung all in accordance with specialist / manufacturers specification and details. Colour to the approval of the Architect. A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
Carried to Collection					
BUILDING WORKS Bill No. 11 Ironmongery					
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

LETTERS, NAMEPLATES, ETC

Specification

Descriptions of all signage types are to be read and priced in conjunction with architect's Drawing no 2020-140-E2-A-540 & 541)

In accordance with manufacturers details and specification and Architects approval

33	<p>75mm thick 930mm x 300mm high x 4no. brushed aluminium overhead 'directional signage' with black engraved graphics, letter or numeral, fixed to roof structure with 25 x 25mm brushed aluminium hangers</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 12 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	12		
34	<p>75mm thick 930mm x 300mm high brushed aluminium overhead mounted 'ablution signage' with black engraved graphics, letter or numeral, fixed to roof structure with 25 x 25mm brushed aluminium hangers</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 7 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	7		
35	<p>100mm thick 930mm x 2550mm high brushed aluminium free-standing black uPVC 'Interchangeable name and direction signage system' with signage base fixed to concrete plinth 500x930mm wide</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 6 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>	No	6		

Carried to Collection

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BUILDING WORKS
 Bill No. 11
 Ironmongery

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

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Ironmongery

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 12</u></p> <p><u>STRUCTURAL STEELWORK (PROVISIONAL)</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 134</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork.</p> <p>All bolts to be M16 electro-galvanised.</p> <p>All steelwork to be hot dip galvanised to ISO 1461-1999</p> <p><u>General</u></p> <p>All dimensions are to be checked with engineer's drawings and any discrepancies brought to the Principal's project manager's attention before any construction work commences</p> <p><u>Structural Steelwork</u></p> <p style="text-align: right;">Carried to Collection</p> <p>BUILDING WORKS Bill No. 12 Structural Steelwork</p>				<hr/> R <hr/>

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

All structural steelwork shall be fabricated and erected in accordance with the latest edition of SABS 1200H

All dimensions shall be checked on site before shop drawings commence. Any discrepancies shall be brought to the attention of the Principal's project manager

A complete set of shop drawings shall be submitted to the engineer for approval before fabrication commences. The contractor shall allow one week for checking and approval by the Principal's project manager, and shall also allow for any possible changes to drawings

The contractor shall design all welds and, where necessary, gussets of sufficient strength, shall be approved to obtain the required weld strength

Setting out points (S.O.P's) at member centroids shall conform to those shown on general arrangement drawings. No eccentricities, except those shown on the engineer's drawings, shall be allowed

All structural steelwork shall be grade 300W except cold formed hollow sections which shall be commercial grade

A certificate from the steel manufacturer in which the grade of the structural steel is verified shall be handed to the Principal's project manager for approval

All structural bolts shall be grade 8.8 unless otherwise noted

The proposed method and sequence of erection of the structure shall be submitted to the Principal's Project Manager for written approval. Such submission is to take place at time of shop drawing submittal. The contractor shall indicate the proposed method of propping to ensure stability of the structure during erection. Such stability during erection remains the contractor's responsibility. Where temporary bracing and propping is necessary, the contractor shall be responsible for the design, erection, maintenance and removal (where necessary) of such supports. Proposal of such bracing or propping shall be submitted to the Principal's project manager at an early stage for written approval

Structural steel to be engineered to be smooth i.e. no welding spatter, sharp edges, slag etc.. should be present prior to the application of the final painting coat

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BUILDING WORKS
 Bill No. 12
 Structural Steelwork

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Protective treatment of structural steelwork

Structural steelwork described as "galvanised" hereunder shall be hot dip galvanised in accordance with SABS 763 and SABS 0214 after fabrication.

Where on site welding is unavoidable, the resulting welded joints shall be thoroughly cleaned and cold galvanised to the approval of the Principal's project manager

Finishing coats are measured under "Paintwork"

Painting

Paint to structural steelwork is measured elsewhere

Workshop details:

Workshop detail drawings must be inspected and approved by engineer before manufacturing commences. Structural steelwork must be checked and approved by the engineer after fabrication and before erection

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

STEEL COLUMNS AND BEAMS

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BUILDING WORKS
 Bill No. 12
 Structural Steelwork

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u>					
1	203 x 203mm x 46.2kg/m Parallel flange columns A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 11.29 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	11.29		
<u>Welded beams in single lengths with flat bearer and connection plates, bolted to steel</u>					
2	265 x 203mm x 46kg/m Channel beams A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 8.42 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	8.42		
<u>STEEL TRUSSES, GIRDERS, ETC</u>					
<u>Welded roof trusses of angle section rails, braces, cleats, etc. and flat section bearer, gusset and connection plates bolted to steel</u>					
3	125 x 75mm x 13.5kg/m I-section rafters A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 1.70 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	1.70		
4	75 x 75mm x 6,54kg/m H-section steel tube A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.61 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.61		
5	125 x 75mm x 8,89kg/m H-section steel tube A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.14 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.14		
6	Monopitched trusses 8,30 x 0,918m high extreme A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 1.76 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	1.76		
<u>STEEL PURLINS, GIRTS, BRACING, ETC</u>					
Carried to Collection					
BUILDING WORKS Bill No. 12 Structural Steelwork				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Purlins and girts, bolted to steel</u>					
7	175 x 75 x 20 x 3mm Purlins A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.86 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.86		
8	50 x 76 Steel Angle Iron @5.65kg/m A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 2.32 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	2.32		
9	50 x 50 x 3mm Angled bracing A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.35 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.35		
<u>STEEL FLOORS, STAIRS, ETC</u>					
<u>GALVANISED STEEL FLOORS, STAIRS, ETC</u>					
<u>Welded and bolted suspended floor and stairs to workshop</u>					
10	200 x 100mm x 22.4kg/m Channel columns A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.54 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.54		
11	200 x 100mm x 22.4kg/m Channel Beams A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.18 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.18		
12	200mm x 100mm I-section haunches A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.04 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.04		
13	Framing to stair 1.3 x 7.3m overall on plan and rising approximately 4m high, of channel columns and bearers and flat stringers A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.77 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.77		
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

14	"Vastrap" plate floor panels A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.21 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.21		
15	"Vastrap" plate treads 1300mm long x 250mm wide with 25mm turn-down nosing A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.72 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 0.00	t	0.72		
<u>BOLTS, FASTENERS, ETC</u>					
16	High tensile bolts (class 8.8) A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.21 L : 0.00 M : 0.00 N : 0.00 O : 0.00 P : 0.00 Q : 2.40	t	2.61		
<u>PAINTING</u>					
<u>Touch-up primer, one coat undercoat to micron dry film thickness and one finishing coat to micron dry film thickness</u>					
17	On structural steel columns, beams, etc A : 0 B : 0 C : 0 D : 0 E : 0 K : 13 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	13		
18	On steel trusses, etc A : 0 B : 0 C : 0 D : 0 E : 0 K : 540 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	540		
19	On steel rafters, etc A : 0 B : 0 C : 0 D : 0 E : 0 K : 43 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	43		
20	On steel staircases, etc A : 0 B : 0 C : 0 D : 0 E : 0 K : 121 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	121		
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

21	<p>On box gutters, etc</p> <p style="margin-left: 20px;">A : 0 B : 0 C : 0 D : 0</p> <p style="margin-left: 20px;">E : 0 K : 122 L : 0 M : 0</p> <p style="margin-left: 20px;">N : 0 O : 0 P : 0 Q : 0</p> <p><u>BOLTS, FASTNERS, ETC</u></p> <p><u>Bolts to columns, beams, angles, etc.</u></p>	m2	122	
22	<p>16mm Diameter holding down bolt 390 mm long embedded in exact position in concrete</p> <p style="margin-left: 20px;">A : 0 B : 0 C : 0 D : 0</p> <p style="margin-left: 20px;">E : 0 K : 145 L : 0 M : 0</p> <p style="margin-left: 20px;">N : 0 O : 0 P : 0 Q : 0</p>	No	145	
<p>Carried to Collection</p>				R
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 13</u></p> <p><u>METALWORK</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 136</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions of bolts, anchors, etc.</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers. Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete. Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p>			
	Carried to Collection			R
	BUILDING WORKS Bill No. 13 Metalwork			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Aluminium doors, windows, etc..

All sub-contractors executing the aluminium work must be "AAAMSA" registered members.

Extruded aluminium section caselite or similar approved to comply with "AAAMSA" specification.

All windows, doors and shopfronts to be designed and supplied by manufacturer to sustain windloads as per SABS 0160/1989(5.5). AAAMSA Performance Test Certificates for A2 products must be provided prior to commencement on site. To avoid the possibility of thermal stress fracture in the glass it is always advisable that a thermal stress evaluation be conducted by the glass manufacturer. All glass edges of panes to be polished

Glass thickness to comply with OB. Part N-Glazing and S.A.B.S 0137.

The Architect has designed the windows, doors and shopfronts layout aesthetics. The sub-contractors are to design and cater for water tightness and rain resistance for the location of the site. Epoxy powder coating is to have 15 years coastal guarantee against peeling and discolouration.

The Sub-Contractor shall also provide a warranty for all safety glazing against delamination and colour degradation for a period not less than 5 years.

The drawings issued with this document need not necessarily contain all the information which may be relevant to this contract and the tenderer is advised to visit the offices of the Architect and study all drawings related to this contract. No claim whatsoever will be entertained should the tenderer fail to heed this device.

Specifically

Rates for aluminium windows, shopfronts, doors and curtain wall shall include for the following:

- (a) All design (where required) including proof of conformance/ compliance with specifications and the furnishings of required tests/ guarantees.
- (b) Provision of all fixed / opening lights/sashes, fittings,hinges,seals and glazing beads
- (c) All ironmongery as implied and specification
- (d) Glazing complete
- (e) Provision of a waterproofing guarantee
- (f) Completion of a design indemnity letter provided by the Architect

Carried to Collection

BUILDING WORKS
 Bill No. 13
 Metalwork

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

- (g) Provision of shop drawings for Architect's approval
- (h) Approval by the Architect of the aluminium profile and colour sample prior to manufacturing
- (i) Framework and structural support to shopfronts to be sized by specialist and inclusion in drawings including provision for compliance with wind load requirements
- (j) Allowance in design for tolerances to cater for expansion and contraction of aluminium
- (k) Fixing complete into proformed openings
- (l) Suitably protecting all exposed surfaces by an approved method such protection is to be removed at completion of the contract and all work is to be cleaned down and left perfect
- (m) Pointing all round external windows, doors, curtain walls and shopfronts adjoining the structure with approved 'Secomastic' non hardening waterproofing compound
- (n) Sub-contractor to provide Architect with guarantee for workmanship provided.

The quantities have been measured on an overall basis taking into account that the drawings will be issued to the tenderers and tenderers will be producing their own designs.

Accordingly the measurements are not in accordance with the Standard System of measurement.

The simplified overall basis of measurement applied herein is intended to provide a basis for tenders to be based upon the same basic quantities and for final measurement and valuation of the works as executed.

It is, furthermore, the only basis of measurement upon which final remeasurement and valuation will be made.

If tenderers require any additional items to be measured or taken into account in remeasurement they are to set these out at the end of this Bill in the space provided and include the cost in their tender. Tenders and rate will be assumed to include all sundry items and everything necessary for the completion of the work in accordance with the intent of the design.

Sub-Contractor

The sub-contractor shall supply all scaffolding, hoisting and craneage necessary.

Carried to Collection

BUILDING WORKS
 Bill No. 13
 Metalwork

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

ALUMINIUM BALUSTRADES, ETC

Powder coated aluminium balustrades to stairs, balconies walkways, ramps, etc

1	Horizontal balustrading 1000mm high comprising of 50 x 50mm handrail, 50 x 10mm continuous top rail, 50 x 50mm square hollow section balusters at not exceeding 1.2m centres and bottom rail welded between balusters, the balustrading filled in horizontally with 12mm diameter rods at 100mm centres welded between balusters and balusters welded to 150 x 150 x 6mm aluminium plate and 16mm diameter x 150mm long aluminium rod epoxy grouted into and including mortice in concrete or brickwork	m	356	
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A : 0	B : 0	C : 0	D : 0
E : 0	K : 356	L : 0	M : 0
N : 0	O : 0	P : 0	Q : 0

Carried to Collection

BUILDING WORKS
 Bill No. 13
 Metalwork

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

2	Raking balustrading 1000mm high comprising of 50 x 50mm handrail, 50 x 12mm continuous top rail, 50 x 50mm square hollow section balusters at not exceeding 1.25m centres and bottom rail welded between balusters, the balustrading filled in horizontally with 12mm diameter rods at 100mm centres welded between balusters and balusters welded to 150 x 150 x 6mm aluminium plate and 16mm diameter x 150mm long aluminium rod epoxy grouted into and including mortice in concrete or brickwork	m	23		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 15 L : 8 M : 0 N : 0 O : 0 P : 0 Q : 0				
3	Extra over balustrading for ramped intersection of horizontal and raking balustrading.	No	80		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 80 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
4	Extra over balustrading for top and bottom rail for 90 degree bend	No	162		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 150 L : 12 M : 0 N : 0 O : 0 P : 0 Q : 0				
5	Extra over balustrading for end closure	No	62		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 50 L : 12 M : 0 N : 0 O : 0 P : 0 Q : 0				
6	Extra over balustrading for raking end closure	No	68		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 56 L : 12 M : 0 N : 0 O : 0 P : 0 Q : 0				
7	Extra over for bend	No	34		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 34 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>Welded handrails fixed to stair walls</u>				
8	50mm External diameter x 3mm thick continuous pipe handrails	m	157		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 157 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
	Carried to Collection				
	BUILDING WORKS Bill No. 13 Metalwork			R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

9	1000mm high powder coated aluminium handrail fixed to wall	m	88		
	A:0 B:0 C:0 D:0				
	E:0 K:88 L:0 M:0				
	N:0 O:0 P:0 Q:0				
10	Extra over for L-intersection	No	90		
	A:0 B:0 C:0 D:0				
	E:0 K:90 L:0 M:0				
	N:0 O:0 P:0 Q:0				
11	Extra over for ramp or knee	No	30		
	A:0 B:0 C:0 D:0				
	E:0 K:30 L:0 M:0				
	N:0 O:0 P:0 Q:0				
12	Bracket of 12mm diameter bar 200mm girth, once bent and with one end welded to rail and other end fish-tailed and epoxy grouted into and including mortice in brickwork	No	13		
	A:0 B:0 C:0 D:0				
	E:0 K:13 L:0 M:0				
	N:0 O:0 P:0 Q:0				
<u>GALVANISED STEEL WELDED SCREENS, GATES, ETC</u>					
<u>Galvanised mild steel security panels and gates</u>					
13	Single gate type 898 x 2059mm high - D02	No	1		
	A:0 B:0 C:0 D:0				
	E:0 K:0 L:1 M:0				
	N:0 O:0 P:0 Q:0				
14	Double gate 1675 x 2080mm high - D01	No	2		
	A:0 B:0 C:0 D:0				
	E:0 K:0 L:2 M:0				
	N:0 O:0 P:0 Q:0				
<u>HOT DIPPED GALVANISED PRESSED STEEL DOOR FRAMES</u>					
<u>1.2mm Double rebated frames to suite half brick walls</u>					
15	Frame for door 813 x 2032mm high - D1	No	3		
	A:0 B:0 C:0 D:0				
	E:3 K:0 L:0 M:0				
	N:0 O:0 P:0 Q:0				
Carried to Collection					
BUILDING WORKS					
Bill No. 13					
Metalwork					
				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

16	Frame for door 1000 x 2050mm high - D01 A:0 B:0 C:0 D:0 E:1 K:18 L:0 M:0 N:0 O:0 P:0 Q:0	No	19	
17	Frame for door 760 x 2050mm high - D02 A:0 B:0 C:0 D:0 E:3 K:18 L:0 M:0 N:0 O:0 P:0 Q:0	No	21	
<u>1.2mm Double rebated red-oxide dipped steel frames suitable for one brick walls</u>				
18	Frame for door 813 x 2380mm high - D03 A:0 B:0 C:0 D:0 E:0 K:31 L:0 M:0 N:0 O:0 P:0 Q:0	No	31	
19	Frame for door 1620 x 2380mm high - D04 A:0 B:0 C:0 D:0 E:0 K:19 L:0 M:0 N:0 O:0 P:0 Q:0	No	19	
20	Frame for door 1620 x 2380mm high - (FD01) A:0 B:0 C:0 D:0 E:0 K:17 L:0 M:0 N:0 O:0 P:0 Q:0	No	17	
21	Frame for door 1620 x 2032mm high - (FD03) A:0 B:0 C:0 D:0 E:0 K:10 L:0 M:0 N:0 O:0 P:0 Q:0	No	10	
22	Frame for door 900 x 2040mm high - (FD02) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1	
23	Frame for door 1238 x 2400mm high - D07 A:0 B:0 C:0 D:0 E:0 K:15 L:0 M:0 N:0 O:0 P:0 Q:0	No	15	
Carried to Collection				R
BUILDING WORKS Bill No. 13 Metalwork				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

24	Frame for door 1432 x 2400mm high - D09 A : 0 B : 0 C : 0 D : 0 E : 0 K : 15 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>1,2mm Double rebated frames suitable for one brick walls</u>	No	15		
25	Frame for door 1613 x 2093mm high - D01 A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 2 M : 0 N : 0 O : 0 P : 0 Q : 0	No	2		
26	Frame for door 813 x 2125mm high - D02 A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 8 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>ALUMINIUM WINDOWS, DOORS, ETC</u> <u>Note</u> Contractor must refer to attached Architects window /fenestration Schedule for details of windows and pricing purposes (Glazing as per fenestration schedule description applies to perimeter windows, curtain walls and perimeter aluminium doors with glazing) - Annexure C of this document Doors and windows shall comply with AAAMSA design criteria Ironmongery functionality and strength to comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass shall meet safety requirements and shall comply with SAGGA regulations Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed	No	8		
	Carried to Collection				R
	BUILDING WORKS Bill No. 13 Metalwork				

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G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Powder coated aluminium windows or equally approved system, complete with subframes, ironmongery, glass, sealing, etc and fixing to brickwork or concrete.(Colour to be approved by Architect and End-User)</u>					
27	Purpose made window, size 1200 x 900 mm high - (W01) A : 0 B : 0 C : 0 D : 0 E : 4 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	4		
28	Purpose made window, size 1190 x 1190 mm high - (W01) A : 0 B : 0 C : 0 D : 0 E : 0 K : 115 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	115		
<u>ALUMINIUM SHOPFRONTS, ETC</u> <u>Naturally anodized aluminium shopfronts or equally approved system complete with subframes, ironmongery, glazed in accordance with SANS 10400 Part N etc, with minimum 75mm kickplate and fixing to brickwork or concrete all in accordance with the manufacturers specifications and instructions (Colour to be approved by Architect and End-User)</u>					
29	Purpose made shopfront, 1200 x 2660mm high - (SF1) A : 0 B : 0 C : 0 D : 0 E : 0 K : 35 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	35		
30	Purpose made shopfront, 1800 x 2660mm high - (SF2) A : 0 B : 0 C : 0 D : 0 E : 0 K : 13 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	13		
31	Purpose made shopfront, 2100 x 2660mm high - (SF3) A : 0 B : 0 C : 0 D : 0 E : 0 K : 19 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	19		
Carried to Collection				R	
BUILDING WORKS Bill No. 13 Metalwork					

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

32	Purpose made shopfront, 2860 x 2660mm high - (SF4) A:0 B:0 C:0 D:0 E:0 K:13 L:0 M:0 N:0 O:0 P:0 Q:0	No	13		
33	Purpose made shopfront, 3800 x 2660mm high - (SF5) A:0 B:0 C:0 D:0 E:0 K:3 L:0 M:0 N:0 O:0 P:0 Q:0	No	3		
34	Purpose made shopfront, 3228 x 3655mm high - (SF6) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
35	Purpose made shopfront, 2730 x 3655mm high with single door size 1290 x 3038mm high - (SF7) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
36	Purpose made shopfront, 6308 x 3655mm high - (SF8) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
37	Purpose made shopfront, 5200 x 2660mm high - (SF9) A:0 B:0 C:0 D:0 E:0 K:2 L:0 M:0 N:0 O:0 P:0 Q:0	No	2		
38	Purpose made shopfront, 1290 x 2660mm high - (SF10) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
39	Purpose made shopfront, 520 x 3655mm high - (SF11) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
Carried to Collection					
BUILDING WORKS Bill No. 13 Metalwork					R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

40	Purpose made shopfront, 520 x 3315mm high - (SF12) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
41	Purpose made shopfront, 3228 x 3315mm high - (SF13) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
42	Purpose made shopfront, 2780 x 3315mm high with single door size 1390 x 2720mm high - (SF14) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
43	Purpose made shopfront, 900 x 2270mm high - (SF15) A:0 B:0 C:0 D:0 E:0 K:4 L:0 M:0 N:0 O:0 P:0 Q:0	No	4		
44	Purpose made shopfront, 1523 x 3010mm high - (SF16) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
45	Purpose made shopfront, 8300 x 1955mm high - (SF17) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
<u>ALUMINIUM CURTAIN WALLS</u>					
Carried to Collection					
BUILDING WORKS Bill No. 13 Metalwork				R	

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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PHASE 1 (Buildings E,K & L)

Powder coated or equally approved curtain wall system complete with subframes, ironmongery, glazed in accordance with SANS 10400 Part N Schedule 1 and SANS 10137:2011, fitted with friction stays, glazing beads with vinyl and finpile sealing, waterproofing etc and fixing to brickwork or concrete (Charcoal in Colour or equally approved by Architect and End-User) in as per manufacturer's shop drawings and instructions

46	Purpose made curtain wall, 9265 x 6885mm high with two double door 1322 x 2695mm high - (CW1)	No	1
	A:0 B:0 C:0 D:0		
	E:0 K:1 L:0 M:0		
	N:0 O:0 P:0 Q:0		
47	Purpose made curtain wall, 16285 x 6875mm high with four double doors 1430 x 2695mm high - (CW2)	No	1
	A:0 B:0 C:0 D:0		
	E:0 K:1 L:0 M:0		
	N:0 O:0 P:0 Q:0		
48	Purpose made curtain wall, 4815 x 3655mm high with one double door 1129 x 3035mm high - (CW3)	No	1
	A:0 B:0 C:0 D:0		
	E:0 K:1 L:0 M:0		
	N:0 O:0 P:0 Q:0		
49	Purpose made curtain wall, 11260 x 3655mm high with two double doors, x1no size 1390 x 3035mm high and x1no size 1308 x 3035mm high - (CW4)	No	1
	A:0 B:0 C:0 D:0		
	E:0 K:1 L:0 M:0		
	N:0 O:0 P:0 Q:0		
50	Purpose made curtain wall, 3240 x 3655mm high with one double doors 1035 x 3035mm high - (CW5)	No	1
	A:0 B:0 C:0 D:0		
	E:0 K:1 L:0 M:0		
	N:0 O:0 P:0 Q:0		

Carried to Collection

R

BUILDING WORKS
 Bill No. 13
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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PHASE 1 (Buildings E,K & L)

51	Purpose made curtain wall, 3880 x 3655mm high with one double doors 1293 x 3035mm high - (CW6)	No	1		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
52	Purpose made curtain wall, 5800 x 3655mm high with one double door 1450 x 3035mm high - (CW7)	No	1		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
53	Purpose made curtain wall, 1219 x 3655mm high - (CW8)	No	1		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
54	Purpose made curtain wall, 2400 x 3655mm high - (CW9)	No	1		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
55	Purpose made curtain wall, 852 x 3655mm high - (CW10)	No	1		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
56	Purpose made curtain wall, 3381 x 3655 mm high - (CW11)	No	1		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
57	Purpose made curtain wall, 13191 x 3655mm high with two double doors 1416 x 2375mm high - (CW12)	No	1		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
58	Purpose made double door, 1720 x 2390mm high - (CW13)	No	2		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 2 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
	Carried to Collection				
	BUILDING WORKS				
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
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PHASE 1 (Buildings E,K & L)

59	Purpose made curtain wall, 1926 x 3655mm high - (CW14) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
60	Purpose made curtain wall, 4575 x 3655mm high - (CW15) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
61	Purpose made curtain wall, 1350 x 3695mm high - (CW16) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
62	Purpose made curtain wall, 4260 x 3655mm high - (CW17) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
63	Purpose made curtain wall, 1420 x 3655mm high with one double door 1420 x 3060mm high - (CW18) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
64	Purpose made curtain wall, 1280 x 1870mm high - (CW19) A:0 B:0 C:0 D:0 E:0 K:2 L:0 M:0 N:0 O:0 P:0 Q:0	No	2		
65	Purpose made curtain wall, 1441 x 3655mm high with one double door 1341 x 3060mm high - (CW20) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
66	Purpose made curtain wall, 3547 x 3695mm high - (CW21) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
Carried to Collection					
BUILDING WORKS					
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
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PHASE 1 (Buildings E,K & L)

67	Purpose made curtain wall, 4850 x 3315mm high with one double door 1138 x 2695mm high - (CW22)	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
68	Purpose made curtain wall, 11274 x 3315mm high with three double doors, x2no size 1287 x 2695mm high and x1no size 1136 x 2695mm high - (CW23)	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
69	Purpose made curtain wall, 3255 x 3315mm high with one single door 1035 x 2695mm high - (CW24)	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
70	Purpose made curtain wall, 3880 x 3315mm high with - (CW25)	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
71	Purpose made curtain wall, 5776 x 3315mm high - (CW26)	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
72	Purpose made curtain wall, 1219 x 3315mm high - (CW27)	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
73	Purpose made curtain wall, 2400 x 3315mm high - (CW28)	No	1		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
Carried to Collection					
BUILDING WORKS Bill No. 13 Metalwork				R	

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PHASE 1 (Buildings E,K & L)

74	Purpose made curtain wall, 850 x 3315mm high - (CW29) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
75	Purpose made curtain wall, 3385 x 3315mm high - (CW30) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
76	Purpose made curtain wall, 13190 x 3315mm high - (CW31) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
77	Purpose made curtain wall, 1925 x 3315mm high - (CW32) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
78	Purpose made curtain wall, 3335 x 3320mm high - (CW33) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
79	Purpose made curtain wall, 1350 x 3315mm high - (CW34) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
80	Purpose made curtain wall, 1219 x 3315mm high - (CW35) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
81	Purpose made curtain wall, 1258 x 3315mm high - (CW36) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
Carried to Collection					
BUILDING WORKS Bill No. 13 Metalwork					R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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PHASE 1 (Buildings E,K & L)

82	Purpose made curtain wall, 3498 x 3315mm high with one double door 1749 x 2695mm high - (CW37)	No	1		
	A:0 B:0 C:0 D:0				
	E:0 K:1 L:0 M:0				
	N:0 O:0 P:0 Q:0				
83	Purpose made curtain wall, 1511 x 3315mm high - (CW38)	No	1		
	A:0 B:0 C:0 D:0				
	E:0 K:1 L:0 M:0				
	N:0 O:0 P:0 Q:0				
84	Purpose made curtain wall, 1280 x 1870mm high - (CW39)	No	1		
	A:0 B:0 C:0 D:0				
	E:0 K:1 L:0 M:0				
	N:0 O:0 P:0 Q:0				
85	Purpose made curtain wall, 1499 x 3315mm high with one double door 1399x 2720mm high - (CW40)	No	1		
	A:0 B:0 C:0 D:0				
	E:0 K:1 L:0 M:0				
	N:0 O:0 P:0 Q:0				
86	Purpose made curtain wall, 3547 x 3315mm high - (CW41)	No	1		
	A:0 B:0 C:0 D:0				
	E:0 K:1 L:0 M:0				
	N:0 O:0 P:0 Q:0				
87	Purpose made curtain wall, 13797 x 857mm average hight - (CW42)	No	1		
	A:0 B:0 C:0 D:0				
	E:0 K:1 L:0 M:0				
	N:0 O:0 P:0 Q:0				
88	Purpose made curtain wall, 7200 x 1098mm high - (CW43)	No	1		
	A:0 B:0 C:0 D:0				
	E:0 K:1 L:0 M:0				
	N:0 O:0 P:0 Q:0				
89	Purpose made curtain wall, 13797 x 852mm average hight - (CW44)	No	1		
	A:0 B:0 C:0 D:0				
	E:0 K:1 L:0 M:0				
	N:0 O:0 P:0 Q:0				
Carried to Collection					
BUILDING WORKS					
Bill No. 13					
Metalwork					
				R	

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PHASE 1 (Buildings E,K & L)

90	Purpose made curtain wall, 3938 x 685mm average hight - (CW45) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
91	Purpose made curtain wall, 14400 x 753mm high - (CW46) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
92	Purpose made curtain wall, 3938 x 685mm average hight - (CW47) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
93	Purpose made curtain wall, 5349 x 709mm average hight - (CW48) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
94	Purpose made curtain wall, 10315 x 803mm high - (CW49) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
95	Purpose made curtain wall, 5349 x 709mm average hight - (CW50) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
96	Purpose made curtain wall, 5349 x 709mm average hight - (CW51) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
97	Purpose made curtain wall, 10965 x 803mm average hight - (CW52) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
98	Purpose made curtain wall, 5349 x 709mm average hight - (CW53) A:0 B:0 C:0 D:0 E:0 K:1 L:0 M:0 N:0 O:0 P:0 Q:0	No	1		
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ALUMINIUM SCREENS

Specification

Descriptions of screens are to be read and priced in conjunction with architect's specification

Powder coated screens as per "angled modular" system or equally approved, complete with 1.8mm thick panels at centres including bullnose fascia etc fixed to façade of building over windows all in accordance with manufactures specification & detail (to be installed by approved specialist)

99	Purpose made screen, 1830 x 914 x 125mm high - M03	No	40	
	A : 0 B : 0 C : 0 D : 0			
	E : 0 K : 40 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			

ALUMINIUM LOUVRE UNITS

Specification

Descriptions of all louvre types are to be read and priced in conjunction with architect's specification

Approved extruded 200 x 45mm powder coated aluminium louvre blades at a pitch (142 deg. angle to be varied on site) with support rafters all fixed to brickwork or concrete with brackets to manufactures specification & detail (to be installed by approved specialist)

100	Horizontal Louvre to façade of building - M02	m2	325	
	A : 0 B : 0 C : 0 D : 0			
	E : 0 K : 325 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			

STEEL RECORD-ROOM AND STRONGROOM DOORS, VENTILATORS, ETC

Standard strongroom doors etc. suitable for 230mm walls, fixed to brickwork or concrete

Drawings

Descriptions of strong room doors are to be read and priced in conjunction with architect's door schedule

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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101	<p>"SANS 1253:2003" or equally approved right hand record room door and frame, constructed with a 6mm steel, finished with grey zinc resistant primer, size 850 x 1980mm high overall with a mass of 160kg - SRD01</p> <p style="text-align: center;">No</p> <p style="text-align: center;">3</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 3 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p> <p><u>CAST IRON GRATING, COVERS ,ETC</u></p> <p><u>Rectangular grid steel grating on frame fixed to upstand beam complete with all fittings</u></p>				
102	<p>900 x 4935mm grating and frame</p> <p style="text-align: center;">No</p> <p style="text-align: center;">1</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
103	<p>900 x 7310mm grating and frame</p> <p style="text-align: center;">No</p> <p style="text-align: center;">1</p> <p style="text-align: center;"> A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 </p>				
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 14</u></p> <p><u>PLASTERING</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 142</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p>			
	Carried to Collection			R
	<p>BUILDING WORKS</p> <p>Bill No. 14</p> <p>Plastering</p>			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Panels

Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width

Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints

Laying

Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels

Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels

After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated

Curing, seasoning and protection

Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying

Colour

Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

SCREEDS

1	30mm Thick on floors and landings	m2	1,772	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 1673 L : 99 M : 0 N : 0 O : 0 P : 0 Q : 0			
2	50mm Thick on floors and landings	m2	3,393	
	A : 0 B : 0 C : 0 D : 0 E : 120 K : 3273 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0			
3	40mm Thick on floors and landings	m2	112	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 112 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0			
4	30mm on treads and risers in door openings	m2	45	
	A : 0 B : 0 C : 0 D : 0 E : 1 K : 41 L : 3 M : 0 N : 0 O : 0 P : 0 Q : 0			

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

5	Average 90mm Thick to falls and cross falls to outlets on floors A : 0 B : 0 C : 0 D : 0 E : 139 K : 0 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	139		
6	60mm Thick on floors A : 0 B : 0 C : 0 D : 0 E : 0 K : 70 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	70		
7	Average 90mm thick on floors to falls and currents A : 0 B : 0 C : 0 D : 0 E : 0 K : 1756 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	1,756		
	<u>GRANOLITHIC</u>				
	<u>Untinted granolithic on concrete</u>				
8	50mm Thick on floors and landings A : 0 B : 0 C : 0 D : 0 E : 0 K : 134 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	134		
9	50mm Thick on concrete ramps A : 0 B : 0 C : 0 D : 0 E : 0 K : 115 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	115		
10	50mm Thick on treads and risers of stairs including reedings A : 0 B : 0 C : 0 D : 0 E : 0 K : 157 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	157		
11	Average 50mm Thick to falls and cross falls to outlets on floors A : 0 B : 0 C : 0 D : 0 E : 0 K : 235 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	235		
	<u>INTERNAL PLASTER</u>				
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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PHASE 1 (Buildings E,K & L)

<u>4:1 cement plaster on brickwork</u>					
12	On walls			m2	12,167
	A : 0 B : 0 C : 0 D : 0				
	E : 88 K : 11216 L : 864 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
13	On narrow widths			m2	27
	A : 0 B : 0 C : 0 D : 0				
	E : 9 K : 11 L : 7 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
<u>One coat 4:1 cement plaster on concrete</u>					
14	On projecting and isolated beams			m2	135
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 135 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
15	On raking soffits of stairs			m2	350
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 350 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
<u>EXTERNAL PLASTER</u>					
<u>4:1 cement plaster on brickwork</u>					
16	On walls			m2	1,926
	A : 0 B : 0 C : 0 D : 0				
	E : 22 K : 1383 L : 521 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>					
17	"Mentex Angle Bead" or equally approved galvanised steel corner protectors fixed to brickwork or concrete			m	1,234
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1234 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
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18	3 x 25mm Flat section solid brass dividing strips let into screeds between different floor finishes	m	456		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 456 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
19	"Kirk" or equally approved ASE 100 trim to all exposed tiled edges	m	650		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 650 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 15</u></p> <p><u>TILING</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 144</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Fixing</u></p> <p>Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding</p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat</p> <p>Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts from the "Tal Professional" ("Ceresit Tylon") range of products as recommended by the manufacturer of the tiles</p>			
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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PHASE 1 (Buildings E,K & L)

Quantity Breakdown

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WALL TILING

200 x 200mm White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted jointing compound

1	On walls in isolated panels, splashbacks, etc.	m2	45	
	A : 0 B : 0 C : 0 D : 0 E : 10 K : 30 L : 5 M : 0 N : 0 O : 0 P : 0 Q : 0			

600 x 600mm porcelain tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted grout

2	On walls	m2	1,096	
	A : 0 B : 0 C : 0 D : 0 E : 6 K : 1016 L : 73 M : 0 N : 0 O : 0 P : 0 Q : 0			

FLOOR TILING

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<u>900 x 450mm porcelain floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted "Tal"grout</u>					
3	On floors and landings A : 0 B : 0 C : 0 D : 0 E : 0 K : 1307 L : 26 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	1,333		
4	On treads 280mm wide A : 0 B : 0 C : 0 D : 0 E : 0 K : 513 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	513		
5	On risers 170mm high A : 0 B : 0 C : 0 D : 0 E : 0 K : 513 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	513		
6	100mm High skirting tiles to treads and risers of stairs A : 0 B : 0 C : 0 D : 0 E : 0 K : 83 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	83		
<u>600 x 600 x 8.6mm porcelain floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted "Tal" or equally approved grout</u>					
7	On floors and landings A : 0 B : 0 C : 0 D : 0 E : 80 K : 478 L : 26 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	584		
8	On treads 280mm wide A : 0 B : 0 C : 0 D : 0 E : 0 K : 150 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	150		
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BUILDING WORKS Bill No. 15 Tiling					

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9	On risers 170mm high A : 0 B : 0 C : 0 D : 0 E : 0 K : 150 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m	150		
10	100mm High skirting tiles to treads and risers of stairs A : 0 B : 0 C : 0 D : 0 E : 180 K : 35 L : 70 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>600 x 600 x 8.6mm non-slip ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted "Ta" or equally approved grout</u>	m	285		
11	On floors A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 20 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>600 x 600 x 8.6mm non-slip porcelain floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted "Ta" or equally approved grout</u>	m2	20		
12	On floors A : 0 B : 0 C : 0 D : 0 E : 0 K : 301 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>600 x 600 x 20mm non-slip out door porcelain floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted "Ta" or equally approved grout, bedded in a cement slurry on 25-30mm thick semi-dry mortar</u>	m2	301		
13	On floors A : 0 B : 0 C : 0 D : 0 E : 15 K : 555 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	m2	570		
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PHASE 1 (Buildings E,K & L)

<u>Porcelain cut tile skirting</u>					
14	Skirting 100mm high	m	659		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 659 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
<u>SUNDRIES</u>					
<u>Aluminium dividing strips</u>					
15	10mm Aluminium straight edge strip between tiles	m	910		
	A : 0 B : 0 C : 0 D : 0				
	E : 34 K : 876 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
16	10mm Aluminium tile edge strip to tiles	m	1,324		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 1254 L : 70 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
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Item No		Quantity	Rate	Amount
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	<p>BUILDING WORKS</p> <p>Bill No. 16</p> <p>Plumbing and Drainage</p>			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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Stainless steel basins, sinks, wash troughs, urinals, etc

Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0)

Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8)

Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8)

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

Sealing of edges

Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone

"Polycop" polypropylene pipes:

Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated

Pipes shall be firmly fixed to walls etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

Concrete pipes:

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

uPVC pipes and fittings:

Soil, waste and vent pipes and fittings shall be solvent weld jointed

uPVC pressure pipes and fittings:

Pipes for water supply shall be of the class stated

Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

Carried to Collection

BUILDING WORKS
 Bill No. 16
 Plumbing and Drainage

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints

Copper pipes:

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground

Fixing of pipes

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc., casting in, building in or suspending not exceeding 1m below suspension level

Reducing fittings

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc. will be entertained

Wire gratings

Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings

Excavations

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

Laying, backfilling, bedding, etc.. of pipes

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

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 Plumbing and Drainage

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc. shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

Flush pans

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

Stainless steelbasins, sinks, wash troughs, urinals, etc..

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

Waste unions

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

Paper wrapping to pipes

Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings

Disinfection of water pipework

Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere)

"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with ?% overlaps

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including mastic, tape, "Layflat" sheeting, securing of same, etc

Prices for wrapping of pipes shall include for all work as described to couplings in the length

Laying, backfilling, bedding, etc of pipes

Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled

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 Bill No. 16
 Plumbing and Drainage

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Where no manufacturers' instructions exist, pipes shall be laid in accordance with Clauses 5.1 and 5.2 of each of the following:

- SABS 1200L : Medium-pressure pipelines
- SABS 1200LD : Sewers
- SABS 1200LE : Stormwater drainage

Pipe trenches, etc shall be backfilled in accordance with Clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200DB : Earthworks (Pipe trenches)

Pipes shall be bedded in accordance with Clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB : Bedding (Pipes)

Unless otherwise described bedding of rigid pipes shall be Class B bedding

General

Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc are given separately)

Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends

Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 95% Mod AASHTO density and disposal of surplus material on site

Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)

Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)

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 Bill No. 16
 Plumbing and Drainage

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

SUBSOIL DRAINAGE

1	19mm Crushed stone encasing to pipes	m3	235	
	A : 0 B : 0 C : 0 D : 0			
	E : 0 K : 235 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			
2	U34 Bidim geofabric filter blanket wrapped around stone encasing with 150mm side and 300mm end laps including stitching	m2	2,322	
	A : 0 B : 0 C : 0 D : 0			
	E : 0 K : 2322 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			
3	160mm Slotted uPVC agricultural pipes laid in stone encasing	m	345	
	A : 0 B : 0 C : 0 D : 0			
	E : 0 K : 345 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			
4	Extra for 160mm capped end	No	50	
	A : 0 B : 0 C : 0 D : 0			
	E : 0 K : 50 L : 0 M : 0			
	N : 0 O : 0 P : 0 Q : 0			

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
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5	Extra for 160mm bend A : 0 B : 0 C : 0 D : 0 E : 0 K : 20 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	20		
6	160 x 300mm Reducing junction A : 0 B : 0 C : 0 D : 0 E : 0 K : 20 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	20		
<u>RAINWATER DISPOSAL</u>					
<u>Galvanised steel gutters.</u>					
7	220x 200mm x 3mm Eaves gutters A : 0 B : 0 C : 0 D : 0 E : 0 K : 79 L : 36 M : 0 N : 0 O : 0 P : 0 Q : 0	m	115		
8	Extra over 220 x 200 mm eaves gutter for outlet for 50 x 75 mm downpipe A : 0 B : 0 C : 0 D : 0 E : 0 K : 10 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	10		
9	150x 150mm Eaves gutters A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 36 M : 0 N : 0 O : 0 P : 0 Q : 0	m	36		
10	Extra over 150 x 150 mm eaves gutter for stopped end A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 12 M : 0 N : 0 O : 0 P : 0 Q : 0	No	12		
11	Extra over 150 x 150 mm eaves gutter for angle A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 12 M : 0 N : 0 O : 0 P : 0 Q : 0	No	12		
12	Extra over 150 x 150 mm eaves gutter for outlet for 50 x 75 mm downpipe A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 8 M : 0 N : 0 O : 0 P : 0 Q : 0	No	8		
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

13	50 x 75mm Rainwater pipes A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 18 M : 0 N : 0 O : 0 P : 0 Q : 0	m	18		
14	Extra over 50 x 75 mm rainwater pipe for bend A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 8 M : 0 N : 0 O : 0 P : 0 Q : 0	No	8		
15	Extra over 50 x 75 mm rainwater pipe for shoe A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 8 M : 0 N : 0 O : 0 P : 0 Q : 0	No	8		
16	Extra over 50 x 75 mm rainwater pipe for eaves or plinth offset 900 mm projection A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 8 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>uPVC class 34 pipes</u>	No	8		
17	220mm Diameter vertical pipes A : 0 B : 0 C : 0 D : 0 E : 0 K : 414 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Extra over uPVC class 34 pipes for fittings</u>	m	414		
18	220mm Diameter plain bend A : 0 B : 0 C : 0 D : 0 E : 0 K : 92 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>Fullbore outlets</u>	No	92		
19	CI full bore 100x180 "DOME GRATE & ADAPT 3505" or equal 180 degree outlet type, joined to uPVC pipe and set in top of concrete slab A : 0 B : 0 C : 0 D : 0 E : 0 K : 46 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0 <u>SANITARY FITTINGS AND GEYSERS</u>	No	46		
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Stainless steel</u>					
20	Single bowl drip sink overall size 600 x 500 x 258mm "Hospital Products" or equally approved with 40mm waste outlet, fitted with ss hinged bucket grid to wall A : 0 B : 0 C : 0 D : 0 E : 0 K : 1 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0	No	1		
21	Single end bowl drop on sink overall size 900 x 500mm " Quinline" or equally approved with one 340 x 370 x 140mm deep bowls, fitted onto cupboard (elsewhere measured) including PVC trap with 50/90mm waste fitting , Code QLX611 A : 0 B : 0 C : 0 D : 0 E : 0 K : 4 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0	No	5		
<u>"Vaal" or equally approved</u>					
22	White semi-rectangular basin, size 510 x 400 x 170mm deep "Daisy" or equally approved wall mounted with three semi-punched tapholes, including integrated overflow and chainstay hole, bolted to wall with 2No.10mm bolts and sealed with silicone sealant where basin meets wall as per architect's instruction. A : 0 B : 0 C : 0 D : 0 E : 1 K : 6 L : 5 M : 0 N : 0 O : 0 P : 0 Q : 0	No	12		
23	White basin, size 455 x 290 x 210mm deep "Bantam" or equally approved wall mounted with two semi-punched tapholes, including integrated overflow and chainstay hole, bolted to wall with 2No.10mm bolts and sealed with silicone sealant where basin meets wall as per architect's instruction. A : 0 B : 0 C : 0 D : 0 E : 1 K : 40 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0	No	42		
24	WC suite comprising a white pan size 583 x 355mm, with "Orchid" or equally approved top inlet 90 degrees wall hung open rim pan, with exposed top entry flushpipe, pan connector and vacuum breaker with thermoset seat stainless steel hinges including toilet seat A : 0 B : 0 C : 0 D : 0 E : 0 K : 39 L : 4 M : 0 N : 0 O : 0 P : 0 Q : 0	No	43		
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

30	Star sink mixer <div style="display: flex; justify-content: space-between;"> A : 0 B : 0 C : 0 D : 0 </div> <div style="display: flex; justify-content: space-between;"> E : 0 K : 4 L : 1 M : 0 </div> <div style="display: flex; justify-content: space-between;"> N : 0 O : 0 P : 0 Q : 0 </div>	No	5		
31	FJ2.100CP "Standard Flushmaster " toilet flush valve <div style="display: flex; justify-content: space-between;"> A : 0 B : 0 C : 0 D : 0 </div> <div style="display: flex; justify-content: space-between;"> E : 0 K : 39 L : 4 M : 0 </div> <div style="display: flex; justify-content: space-between;"> N : 0 O : 0 P : 0 Q : 0 </div>	No	43		
	<u>TRAPS ETC</u>				
32	50mm stainless steel vacuum bottle trap <div style="display: flex; justify-content: space-between;"> A : 0 B : 0 C : 0 D : 0 </div> <div style="display: flex; justify-content: space-between;"> E : 1 K : 40 L : 5 M : 0 </div> <div style="display: flex; justify-content: space-between;"> N : 0 O : 0 P : 0 Q : 0 </div>	No	46		
	<u>SANITARY PLUMBING</u>				
	<u>Black flexible rubber</u>				
33	50mm P-trap <div style="display: flex; justify-content: space-between;"> A : 0 B : 0 C : 0 D : 0 </div> <div style="display: flex; justify-content: space-between;"> E : 0 K : 0 L : 3 M : 0 </div> <div style="display: flex; justify-content: space-between;"> N : 0 O : 0 P : 0 Q : 0 </div>	No	3		
34	50mm S-trap <div style="display: flex; justify-content: space-between;"> A : 0 B : 0 C : 0 D : 0 </div> <div style="display: flex; justify-content: space-between;"> E : 0 K : 12 L : 0 M : 0 </div> <div style="display: flex; justify-content: space-between;"> N : 0 O : 0 P : 0 Q : 0 </div>	No	12		
	<u>Gulleys, inspection chambers, etc..</u>				
35	110mm uPVC gully with grate not exceeding 1000mm deep complete with plastered brickwork kerb all round and fitted with a 250 x 250 x 3 mm thick galvanised mild steel cover drilled for finger hole <div style="display: flex; justify-content: space-between;"> A : 0 B : 0 C : 0 D : 0 </div> <div style="display: flex; justify-content: space-between;"> E : 0 K : 6 L : 3 M : 0 </div> <div style="display: flex; justify-content: space-between;"> N : 0 O : 0 P : 0 Q : 0 </div>	No	9		
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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PHASE 1 (Buildings E,K & L)

36	Brick inspection chamber, 600 x 450 mm and not exceeding 1000mm deep internally plastered internally and including all necessary excavation, backfilling, compaction and disposal of surplus material (manhole cover and frame elsewhere)	No	6		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 6 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>ELECTRIC WATER HEATERS</u>				
	<u>5 Litre "Kwikot" or equally approved</u>				
37	318 x 150 x 460mm over-basin electric water heater	No	5		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 4 L : 1 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>HOLES ETC</u>				
	<u>Core drilling hole exceeding 100mm and not exceeding 200mm diameter</u>				
38	340 Thick reinforced concrete slab, beam, wall, etc	No	138		
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 138 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0				
	<u>BUDGETARY ALLOWANCES</u>				
	<u>Budgetary allowances may be omitted or reduced at the Sole discretion of the Client and Principal Agent and the Contractor shall not be entitled to claim for any loss by way of reductions or omissions</u>				
39	Allow the sum of R150,000.00 (One Hundred and Fifty Thousand) for Water, Sewer and Stormwater Connection costs to be carried out by the Local Municipality		Item		150,000.00
40	Provide the amount of R10,000.00 (Ten Thousand) Nett for and test the whole of the plumbing services, sanitary fittings, pumps, etc. and in stages as deemed necessary, including chlorination, complete to the satisfaction of the architect and the local authority, replace any defective work free of charge, including any necessary re-testing and leave perfect on completion.		Item		10,000.00
	A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.00 L : 0.00 M : 0.00 N : 0.00 O : 1.00 P : 0.00 Q : 0.00				
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 17</u></p> <p><u>ELECTRICAL WORKS</u></p> <p><u>The Electrical Bill of Quantities is contained in a separate document ANNEXURE D, ELECTRICAL TENDER DOCUMENT, which is to be priced in full by the Contractor in terms of the Agreement and Schedule of Conditions of Building Contract and all other supplementary documentation contained in the above mentioned ANNEXURE D and in these Bills of Quantities. The amount obtained from the Summary of the above mentioned ANNEXURE D is to be fully inclusive of all necessary allowances, except Value Added Tax which will be added in the Final Summary of these Bills of Quantities, and is to be entered as a sum in the provided column</u></p>				
1	<p>Electrical installation brought forward from the summary of ANNEXURE D, ELECTRICAL TENDER DOCUMENT, excluding Value Added Tax.</p>		Item		
	<p>Carried Forward to Summary of Section No. 2</p>			R	
	<p>BUILDING WORKS Bill No. 17 Electrical Work</p>				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 18</u></p> <p><u>MECHANICAL INSTALLATION</u></p> <p><u>The Mechanical Bill of Quantities is contained in a separate document ANNEXURE E, MECHANICAL TENDER DOCUMENT, which is to be priced in full by the Contractor in terms of the Agreement and Schedule of Conditions of Building Contract and all other supplementary documentation contained in the above mentioned ANNEXURE E and in these Bills of Quantities. The amount obtained from the Summary of the above mentioned ANNEXURE E is to be fully inclusive of all necessary allowances, except Value Added Tax which will be added in the Final Summary of these Bills of Quantities, and is to be entered as a sum in the provided column</u></p>				
1	<p>Mechanical installation brought forward from the summary of ANNEXURE E, MECHANICAL TENDER DOCUMENT, excluding Value Added Tax.</p>		Item		
	<p>Carried Forward to Summary of Section No. 2</p>			R	
	<p>BUILDING WORKS Bill No. 18 Mechanical Work</p>				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 19</u></p> <p><u>GLAZING</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 150</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Trade Names</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior written approval from the Representative / Agent</p>			
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

TOPS, SHELVES, DOORS, MIRRORS, ETC

6mm Copper-free toughened with bevel edged mirrored glass fixed with mirror tape and dome capped mirror screws with plugged to tiled splashback

1	Mirror 900 x 1700mm high	No		31
	A : 0 B : 0 C : 0 D : 0			
	E : 2 K : 26 L : 4 M : 0			
	N : 0 O : 0 P : 0 Q : 0			

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
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G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 20</u></p> <p><u>PAINTWORK</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 152</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General</u></p> <p>All floors shall be swept clean, walls dusted down and surfaces not being painted covered and protected against spotting before any painting is carried out.</p> <p>All walls, ceiling and similar plastered surfaces shall be perfectly dry and in a fit state to receive paint finishes before the application of any paint.</p> <p>All paint shall comply with the South African Bureau of Standard Specifications and the containers must bear the SABS mark.</p> <p><u>Preparation of Surfaces</u></p> <p>The preparation of surfaces before painting will be as follows:</p> <p><u>Skirting with paint finish</u></p> <p>Ensure that the surface is clean and dry. Rub down with fine glass paper and dust off loose particles.</p> <p><u>Skirting with varnish finish</u></p> <p>Ensure that the surface is clean and dry. Rub down with fine glass paper and dust off loose particles.</p>			
	Carried to Collection			R
	BUILDING WORKS Bill No. 20 Paintwork			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Galvanised steel

Ensure that the surface is clean and dry. Temporary protective coating should be removed by scrubbing and washed off with clean water.

Exterior plaster paint finish

Remove all plaster splashes, loose material and surface contamination by brushing or scraping. Using the appropriate filler, make good minor defects, which may not be bridged by the paint coating. Allow drying, and ensure that any powder residues are removed.

Interior plaster paint finish

Remove all plaster splashes, loose material and surface contamination by brushing or scraping. Using the appropriate filler, make good minor defects, which may not be bridged by the paint coating. Allow drying, and ensure that any powder residues are removed.

Quantity Breakdown

In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:

- A- Building A - New Permanent Fleet Building
- B- Building B - Damaged Vehicle Storage & GTAC
- C- Building C - Admin Building
- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre**
- K- Building K - New Head Office Building (Incl.Auditorium)**
- L- Building L - New Auction Building & Guard House**
- M- Multi-Storey VIP Parkade
- N- External works**
- O- Provisional Sums & Budgetary Allowances**
- P- Preliminaries**
- Q- General**

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

PAINTWORK ETC TO NEW WORK

ON FLOATED PLASTER SURFACES

Carried to Collection

R

BUILDING WORKS
 Bill No. 20
 Paintwork

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

1	<p><u>Prepare surfaces and remove all loose material, apply one coat "Plascon Professional PP950" or equivalent plaster primer, one universal undercoat, two coats "Plascon Essential Collection Mandarin Tusk 49 Double Velvet Sheen" or equally approved paint on:</u></p> <p>On internal walls</p> <p style="margin-left: 40px;">A : 0 B : 0 C : 0 D : 0 E : 77 K : 8176 L : 757 M : 0 N : 0 O : 0 P : 0 Q : 0</p>	m2	9,010	
2	<p><u>Prepare surfaces and remove all loose material, apply one coat alkaline resistant pure acrylic filler coat and coat acrylic PVA paint on:</u></p> <p>On external walls</p> <p style="margin-left: 40px;">A : 0 B : 0 C : 0 D : 0 E : 22 K : 1383 L : 521 M : 0 N : 0 O : 0 P : 0 Q : 0</p>	m2	1,926	
<u>ON CONCRETE</u>				
3	<p><u>Prepare substrate and apply approved primer or similar approved and two coats approved high build epoxy enamel or similar approved (colour to architects approval) all in accordance with the manufacturer's instructions:</u></p> <p>On internal walls</p> <p style="margin-left: 40px;">A : 0 B : 0 C : 0 D : 0 E : 234 K : 654 L : 120 M : 0 N : 0 O : 0 P : 0 Q : 0</p>	m2	1,008	
4	<p>Columns</p> <p style="margin-left: 40px;">A : 0 B : 0 C : 0 D : 0 E : 0 K : 202 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0</p>	m2	202	
5	<p>On ceilings and beams</p> <p style="margin-left: 40px;">A : 0 B : 0 C : 0 D : 0 E : 0 K : 397 L : 0 M : 0 N : 0 O : 0 P : 0 Q : 0</p>	m2	397	
Carried to Collection				
BUILDING WORKS Bill No. 20 Paintwork				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>One ground coat "Keim concretal fixative" and one coat "Keim concretal lasur" or similar approved silicate-based opaque protective coating on</u>																	
6	External walls <table style="margin-left: 20px; border: none;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 3136</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 660</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 3136	L : 0	M : 0	N : 660	O : 0	P : 0	Q : 0	m2	3,796		
A : 0	B : 0	C : 0	D : 0														
E : 0	K : 3136	L : 0	M : 0														
N : 660	O : 0	P : 0	Q : 0														
7	Isolated columns <table style="margin-left: 20px; border: none;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 202</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 202	L : 0	M : 0	N : 0	O : 0	P : 0	Q : 0	m2	202		
A : 0	B : 0	C : 0	D : 0														
E : 0	K : 202	L : 0	M : 0														
N : 0	O : 0	P : 0	Q : 0														
<u>ON PLASTERBOARD</u>																	
<u>Prepare, prime nail heads and strips with zinc chromate primer, one universal undercoat and two finishing coats of semi-gloss PVA on:</u>																	
8	On ceilings and cornices <table style="margin-left: 20px; border: none;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 135</td> <td>K : 2508</td> <td>L : 130</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 135	K : 2508	L : 130	M : 0	N : 0	O : 0	P : 0	Q : 0	m2	2,773		
A : 0	B : 0	C : 0	D : 0														
E : 135	K : 2508	L : 130	M : 0														
N : 0	O : 0	P : 0	Q : 0														
9	Gypsum board partitioning. <table style="margin-left: 20px; border: none;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 131</td> <td>K : 3931</td> <td>L : 66</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 131	K : 3931	L : 66	M : 0	N : 0	O : 0	P : 0	Q : 0	m2	4,128		
A : 0	B : 0	C : 0	D : 0														
E : 131	K : 3931	L : 66	M : 0														
N : 0	O : 0	P : 0	Q : 0														
<u>ON FIBRE CEMENT</u>																	
<u>Prepare and apply one coat zinc chromate to nail heads and H-spline strips, one universal undercoat, stop and apply two finishing coats of eggshell enamel on:</u>																	
10	On fascias and barge boards <table style="margin-left: 20px; border: none;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>C : 0</td> <td>D : 0</td> </tr> <tr> <td>E : 0</td> <td>K : 73</td> <td>L : 0</td> <td>M : 0</td> </tr> <tr> <td>N : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> </table>	A : 0	B : 0	C : 0	D : 0	E : 0	K : 73	L : 0	M : 0	N : 0	O : 0	P : 0	Q : 0	m2	73		
A : 0	B : 0	C : 0	D : 0														
E : 0	K : 73	L : 0	M : 0														
N : 0	O : 0	P : 0	Q : 0														
<u>ON METAL</u>																	
Carried to Collection																	
BUILDING WORKS Bill No. 20 Paintwork					R												

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<u>Spot priming defects in pre-primed surfaces with zinc chromate primer and one undercoat and two coats high gloss alkyd enamel paint on steel</u>				
11	On pressed steel door frames	m2	202		
	A : 0 B : 0 C : 0 D : 0				
	E : 10 K : 178 L : 14 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
12	On strongroom doors, frames and ventilators	m2	10		
	A : 0 B : 0 C : 0 D : 0				
	E : 0 K : 10 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
	<u>ON WOOD</u>				
	<u>Stop, sand down, prepare and apply two coats polyurethane varnish on:</u>				
13	On doors	m2	1,647		
	A : 0 B : 0 C : 0 D : 0				
	E : 568 K : 1006 L : 73 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
	<u>Prepare and apply one coat pink wood primer, stop and apply two finishing coats of egg shell finish enamel on:</u>				
14	Interior doors	m2	14		
	A : 0 B : 0 C : 0 D : 0				
	E : 14 K : 0 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				
	<u>PREPARATORY WORK TO EXISTING WORK</u>				
	<u>Previously painted plastered surfaces</u>				
	Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
	<u>Previously painted metal surfaces</u>				
	Prepare surfaces by means of wire brushing, sand and approved cleaning agent, primed surfacing of all members of steel palisade panel with zinc chromate primer and apply one universal undercoat in zinc chromate and two coats enamel paint, all applied to manufacture's specifications				
	Carried to Collection				
	BUILDING WORKS				
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Previously painted wood surfaces

Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth

PAINTWORK, ETC TO PREVIOUSLY PAINTED WORK

ON INTERNAL FLOATED PLASTER SURFACES

Two coats superior quality acrylic emulsion paint for interior and exterior use on surfaces in sound condition

15	On internal walls	m2	444		
	A : 0 B : 0 C : 0 D : 0				
	E : 444 K : 0 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				

16	On external walls	m2	350		
	A : 0 B : 0 C : 0 D : 0				
	E : 350 K : 0 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				

ON METAL SURFACES

One coat of an approved undercoat and two coats of approved gloss enamel paint

17	On door frames	m2	7		
	A : 0 B : 0 C : 0 D : 0				
	E : 7 K : 0 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				

ON WOOD SURFACES

Two coats interior quality paint, on work in sound condition

18	On doors	m2	12		
	A : 0 B : 0 C : 0 D : 0				
	E : 12 K : 0 L : 0 M : 0				
	N : 0 O : 0 P : 0 Q : 0				

Carried to Collection

BUILDING WORKS
 Bill No. 20
 Paintwork

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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 20

Paintwork

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BUILDING WORKS
 Bill No. 20
 Paintwork

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>BILL NO. 21</u></p> <p><u>PAPERHANGING</u></p> <p><u>WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG 130</u></p> <p>NOTE: The tenderer is advised to study the Model Preambles for Trades (2017) published by the Association of South African Quantity Surveyors before pricing this bill</p> <p><u>Quantity Breakdown</u></p> <p>In this Section No.2 of the Bills of Quantities, a breakdown of the total quantities into various buildings/blocks for Phase 1(One) in 'Bold Text' is indicated below each description to each building/block as follows:</p> <p>A- Building A - New Permanent Fleet Building B- Building B - Damaged Vehicle Storage & GTAC C- Building C - Admin Building D- Building D - LMV Workshop & Panel Beating Workshop E- Building E - Visitors Centre K- Building K - New Head Office Building (Incl.Auditorium) L- Building L - New Auction Building & Guard House M- Multi-Storey VIP Parkade N- External works O- Provisional Sums & Budgetary Allowances P- Preliminaries Q- General</p> <p>It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.</p> <p><u>All wall paper shall be of a brand approved by the architect.</u></p>			
	Carried to Collection			R
	BUILDING WORKS Bill No. 21 Paperhanging			

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

<u>Decorative wall paper by "Hertex Fabrics, Design-Canary Islands or equally approved (Wallpaper to be installed by wallpaper specialist)</u>				
1	On plastered walls.	m2	2,163	
	A : 0 B : 0 C : 0 D : 0 E : 15 K : 2033 L : 114 M : 0 N : 0 O : 0 P : 0 Q : 0			
2	On dry walls.	m2	1,218	
	A : 0 B : 0 C : 0 D : 0 E : 37 K : 1109 L : 72 M : 0 N : 0 O : 0 P : 0 Q : 0			
Carried to Collection				
BUILDING WORKS Bill No. 21 Paperhanging				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 2

Bill No. 21

Paperhanging

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BUILDING WORKS
 Bill No. 21
 Paperhanging

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Bill No	SECTION SUMMARY - BUILDING WORKS	Page No	Amount
	BUILDING WORKS		
	SECTION SUMMARY - BUILDING WORKS		
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4	Precast Concrete	77	
5	Masonry	84	
6	Waterproofing	90	
7	Roof Covering	95	
8	Carpentry and Joinery	110	
9	Ceilings, Partitions and Access Flooring	125	
10	Floor Coverings	130	
11	Ironmongery	139	
12	Structural Steelwork	147	
13	Metalwork	168	
14	Plastering	175	
15	Tiling	181	
16	Plumbing and Drainage	194	
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	BUILDING WORKS		Page No		Amount
	<u>SECTION SUMMARY - BUILDING WORKS</u>				
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ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Item No	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 3</u></p> <p><u>BILL NO. 2</u></p> <p><u>PAVINGS ETC.</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Standardized Specification</u></p> <p>The Standardized Specification for Civil Engineering Construction of the South African Bureau of Standards shall apply throughout in respect of this section of the contract, in addition to the additions and saving the exceptions set out in this bill.</p> <p>A copy of the said specification shall be furnished by the Contractor and shall be kept on site</p> <p><u>Testing of material and filling</u></p> <p>Descriptions of earth filling, compaction, etc shall be deemed to include for all necessary testing required in accordance with the SABS 1200 series</p> <p><u>Precast concrete block road surfacing</u></p> <p>Paving shall be laid in accordance with SABS 1200 MJ, SANS 1058 and the Concrete Masonry Association's specifications</p> <p>Clean sand shall be swept into joints between roadstones at completion</p>				
				R
<p>Carried to Collection</p>				
<p>EXTERNAL WORKS Bill No. 1 Road Works, Pavings, Walkways, Etc.</p>				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Quantity Breakdown

In this Section No. 2 of the Bills of Quantities a breakdown of the total quantities into the various buildings/blocks is indicated below each description to each block as follows:

- A- Building A - New Permanent Fleet Building
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- D- Building D - LMV Workshop & Panel Beating Workshop
- E- Building E - Visitors Centre
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- L- Building L - New Auction Building & Guard House
- M- Multi-Storey VIP Parkade
- N- External works
- O- Provisional Sums & Budgetary Allowances
- P- Preliminaries
- Q- General

It should be noted that due to "rounding off" factor marginal differences can occur between the sum of the parts to the total given in the quantity column. For pricing purposes only the amount in the quantity column is to be used.

PAVING TO PARKING ETC.

Site clearance

1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m2	4,671	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 4671 O : 0 P : 0 Q : 0			

Earthworks etc

Open face excavation in earth over sloping site

2	Open face excavation in paving bed and depositing excavated material in prescribed stock piles on site	m3	2,803	
	A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 2803 O : 0 P : 0 Q : 0			

Carried to Collection

R

EXTERNAL WORKS
 Bill No. 1
 Road Works, Pavings, Walkways, Etc.

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<u>Imported earth filling types supplied by the Contractor compacted in maximum 150mm thick layers</u>				
10	Basecourse fill of C4 material (G6 stabilised) in accordance with SABS 1200 ME, compacted to 97% Mod AASHTO density A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 701 O : 0 P : 0 Q : 0	m3	701		
11	Sub-base of G5 material in accordance with SABS 1200 ME, compacted to 96% Mod AASHTO density A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 701 O : 0 P : 0 Q : 0	m3	701		
12	Selected fill of G6 material in accordance with SABS 1200 ME, compacted to 95% Mod AASHTO density A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 701 O : 0 P : 0 Q : 0	m3	701		
	<u>Compaction of surfaces</u>				
13	Rip and compaction of in-situ material to a min of 93% Mod. AASHTO density. A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 4671 O : 0 P : 0 Q : 0	m2	4,671		
	<u>Prescribed density tests on filling</u>				
14	"Modified AASHTO Density" test A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 80 O : 0 P : 0 Q : 0	No	80		
	<u>Approved Weedkiller</u>				
15	Surface of earth under paved areas A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 4671 O : 0 P : 0 Q : 0	m2	4,671		
	<u>Paving etc</u>				
	Carried to Collection				
	EXTERNAL WORKS Bill No. 1 Road Works, Pavings, Walkways, Etc.				R

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<u>80mm Thick double zig-zag type SA charcoal interlocking precast concrete paving blocks complying with SANS 1058 laid with butt joints on and including 30mm thick sand bed complying with SANS 1200MJ with sand swept into joints complete to architects detail</u>				
16	Paving to falls and cross falls, including edge blocks or straight cutting along straight and slightly curved kerbs (kerbs elsewhere) A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 4671 O : 0 P : 0 Q : 0	m2	4,671		
17	Circular cutting to paving A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 234 O : 0 P : 0 Q : 0 <u>Kerbing etc</u> <u>Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing</u>	m	234		
18	150 x 300mm High kerbs (SANS 927 fig 3) with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint, including excavation, backfilling, etc A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 430 O : 0 P : 0 Q : 0 <u>Paintwork</u> <u>Prepare and apply one coat white reflective road marking paint on precast concrete paving blocks, etc</u>	m	430		
19	100mm Wide line A : 0 B : 0 C : 0 D : 0 E : 0 K : 0 L : 0 M : 0 N : 631 O : 0 P : 0 Q : 0	m	631		
	Carried to Collection			R	
	EXTERNAL WORKS Bill No. 1 Road Works, Pavings, Walkways, Etc.				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 3

Bill No. 1

Road Works, Pavings, Walkways, Etc.

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EXTERNAL WORKS

Bill No. 1

Road Works, Pavings, Walkways, Etc.

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

	<u>Construction Industry Development Board (CIDB) Training</u>				
2	Provide the amount of R600,000.00 (Six Hundred Thousand) for CIDB training A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.00 L : 0.00 M : 0.00 N : 0.00 O : 1.00 P : 0.00 Q : 0.00		Item		600,000.00
	<u>Community Liaison Officer (CLO)</u>				
3	Provide the amount of R204,000.00 (Two Hundred and Four Thousand) for Community Liaison Officer (CLO)		Item		204,000.00
	<u>Builders Work</u>				
4	Allow the Provisional Amount of R500,000.00 (Five Hundred Thousand) for builders work in connection with specialist work A : 0.00 B : 0.00 C : 0.00 D : 0.00 E : 0.00 K : 0.00 L : 0.00 M : 0.00 N : 0.00 O : 1.00 P : 0.00 Q : 0.00		Item		500,000.00
	Carried to Collection			R	
	BUDGETARY ALLOWANCES Bill No. 1 Budgetary Allowances				

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No. 4

Bill No. 1

Budgetary Allowances

COLLECTION

**Page
No**

Amount

Total Brought Forward from Page No.

218

Total Brought Forward from Page No.

219

Total Brought Forward from Page No.

220

Carried to Final Summary

R

BUDGETARY ALLOWANCES
 Bill No. 1
 Budgetary Allowances

ADDITIONS AND REFURBISHMENTS OF G-FLEET - PHASE 2
G-FLEET MANAGEMENT
FOR GAUTENG DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT
PHASE 1 (Buildings E,K & L)

Section No	<u>FINAL SUMMARY</u>	Page No		Amount
1	PRELIMINARIES	35		
2	BUILDING WORKS	211		
3	EXTERNAL WORKS	217		
4	BUDGETARY ALLOWANCES	221		
	SUB-TOTAL		R	
	<u>ADD: VALUE ADDED TAX AT 15%</u>		R	
	Carried to Form of Tender		R	

**G-FLEET UPGRADE
ELECTRICAL INSTALLATIONS SUMMARY**

ITEM	DESCRIPTION	AMOUNT R
1,0	Building E - Electrical Installations - Bill of Quantities	R
2,0	Building K - Electrical Installations - Bill of Quantities	R
3,0	Building L - Electrical Installations - Bill of Quantities	R
TOTAL ELECTRICAL INSTALLATIONS (EXCLUDING VAT) TO BE CARRIED FORWARD TO PAGE 195 OF MAIN BOQ		R

**G-FLEET BUILDING E_VISITORS CENTRE
ELECTRICAL INSTALLATIONS
COST ESTIMATE SUMMARY**

2024/05/01

ITEM	DESCRIPTION	AMOUNT R	
8.1.0	PRELIMINARY & GENERAL		
8.2.0	LOW VOLTAGE DISTRIBUTION	R	-
8.3.0	SMALL POWER INSTALLATION	R	-
8.4.0	LIGHTING INSTALLATION	R	-
8.5.0	LABELLING, EARTHING & BONDING, TESTING & COMMISSIONING	R	-
8.6.0	ELECTRONICS CABLES SUPPORT AND CONDUITING	R	-
8.7.0	PROVISIONAL SUMS	R	-
	TOTAL ELECTRICAL INSTALLATION (EXCLUDING VAT) CARRIED TO SUMMARY	R	

**GG-FLEET BUILDING E_ VISITORS CENTRE
ELECTRICAL INSTALLATION
BILLS OF QUANTITIES**

ITEM	DESCRIPTION	UNIT	QTY	RATE R	AMOUNT R
	BILL NO 7				
8.1.0	PRELIMINARY & GENERAL				
	<p>The Tenderer shall allow for whatever cost he may consider necessary for Preliminary and General to carry out the Electrical Installation as detailed in the Conditions of Contract, the Specification and the Bills of Quantity for the Electrical Installation and Reticulation and as indicated on the Electrical Installation and Reticulation layout drawings for this project</p>				
8.1.1	Fixed Obligations	Sum	1		
8.1.2	Value Related Obligations	Sum	1		
8.1.3	Time Related Obligations	Sum	1		
8.1.4	Preparation of "as built" electrical drawings	Sum	1		
8.1.5	Supply Operating and Maintenance manuals for the various electrical components	Sum	1		
8.1.6	Any other items not mentioned above (Please specify)				
(a)					
(b)					
(c)					
	TOTAL FOR PRELIMINARY & GENERAL CARRIED FORWARD TO SUMMARY PAGE				

Item	Description	Unit	Quantity	Rate	Amount
8.3.1	Conduits				
	Supply and install SABS approved PVC and galvanised conduit complete with bends, joints, adaptors, couplings, saddles, cutting, etc, cast in concrete, built or chased into brickwork or surface mounted to any surface				
8.3.1.1	20mm dia PVC Conduit	m	100		
8.3.1.2	25mm dia PVC Conduit	m	50		
8.3.1.3	20mm dia Galvanized Conduit	m	30		
8.3.1.4	25mm dia Galvanized Conduit	m	0		
8.3.2	Fittings and Accessories				
	Supply and install fittings and accessories complete with all necessary conduit boxes, screws, cover plates, labelling, cradles, including holes, drilling, etc.				
8.3.2.1	16A, Double 3-Pin flush wall mounted switched socket outlet including chasing and making good	No	2		
8.3.2.2	16A, Single 3-Pin flush wall mounted switched socket outlet including chasing and making good	No	2		
8.3.2.3	16A, Single 3-Pin Surface wall mounted switched socket outlet	No	R/O		
8.3.2.4	30A three phase flush surface wall mounted isolator	No	R/O		
8.3.2.5	20A double pole single phase flush surface wall mounted isolator	No	3		
8.3.2.6	30A three phase surface wall mounted isolator	No	R/O		
8.3.2.7	20A double pole single phase weather proof isolator	No	3		
8.3.3	Power Skirting				
	Supply and install 2 Compartment 2 cover steel type power-skirting as per specification and drawings complete with cover-plates, splices, earthing, powder coating, etc				
8.3.3.1	Two compartment powerskirting	m	30		
8.3.3.2	Ditto 90 deg external/internal elbow	No	4		
8.3.3.3	Ditto 45 deg external/internal elbow	No	2		
8.3.3.4	Ditto T-piece	No	0		
8.3.3.5	Ditto end caps	No	5		
	Supply and install the following fittings on the power skirting complete with all the necessary accessories:				
8.3.3.6	Telephone and data outlet cover plates	No	15		
8.3.3.7	16A White SSO on powerskirting, complete with pre-punched cover.	No	15		
8.3.3.7	16A Red SSO on powerskirting, complete with pre-punched cover.	No	15		
CARRIED FORWARD TO NEXT PAGE					R 0,00
BROUGHT FORWARD FROM PREVIOUS PAGE					R 0,00

Item	Description	Unit	Quantity	Rate	Amount
8.4.1	Conduits				
	Supply and install SABS approved PVC and galvanised conduit complete with bends, joints, adaptors, couplings, saddles, cutting, etc, cast in concrete, built or chased into brickwork or surface mounted to any surface				
8.4.1.1	20mm dia PVC Conduit	m	300		
8.4.1.2	25mm dia PVC Conduit	m	R/O		
8.4.1.3	25mm dia Galvanized Conduit	m	R/O		
8.4.2	LUMINAIRES				
	The supply, installation and electrical connection of light fittings, including cost of fittings, complete with lamps, including bolts, nuts, brackets, cabyre with 5A plug/top, cut-outs in ceiling, identification marks, etc.				
8.4.2.1	Type A2 - 40W 1200x600 recessed LED slab complete with acrylic diffuser, similar or equal to BEKA's DARI.IP20.	No	5		
8.4.2.2	Type A2E - 40W 1200x600 recessed LED slab complete with acrylic diffuser and battery backup, similar or equal to BEKA's DARI.IP20.	No	2		
8.4.2.3	Type A1 - Type A1 - 35W 600x600 recessed LED slab complete with acrylic diffuser, similar or equal to BEKA's DARI.IP20.	No	6		
8.4.2.4	Type D3 - 8W LED downlight 120mm complete with driver and 3m cordset, Similar or equal to LED lighting DL MHR.	No	13		
8.4.2.5	Type B1 - 15W High pressure die-cast aluminium luminaire complete with acrylic diffuser,similar or equal to BEKA series 30. IP65.	No	R/O		
8.4.2.6	Type B1 E- 15W High pressure die-cast aluminium luminaire complete with acrylic diffuser,similar or equal to BEKA series 30. with emergency battery backup. IP65.	No	R/O		
8.4.3	<u>LIGHT SWITCHES AND SENSORS</u>				
	screws, cover plates, etc.				
8.4.3.1	16A one lever one-way switch	No	5		
8.4.3.2	16A one lever two-way switch	No	R/O		
8.4.3.3	The light and motion duo sensor, equal to Osram's DUO	No	3		
8.4.3.4	5A, 3 Pin unswitched socket outlet fitted in trunking	No	26		
8.4.4	CONDUCTORS & CABLES				
	600/1000V PVC insulated copper conductors into conduit, trunking or powerskirting, including conductor identification labels, terminating, etc.				
8.4.4.1	2.5mm ² conductor	m	700		
CARRIED FORWARD TO NEXT PAGE					R 0,00
BROUGHT FORWARD FROM PREVIOUS PAGE					R 0,00
PVC insulated earth conductor into conduit, trunking, etc.					
8.4.4.2	2.5 mm ² green PVC insulated earth conductor	m	R/O		

**G-FLEET BUIDLING K_ NEW HEAD OFFICE BUILDING
ELECTRICAL INSTALLATIONS
COST ESTIMATE SUMMARY**

2024/05/01

ITEM	DESCRIPTION	AMOUNT R	
3.1.0	PRELIMINARY & GENERAL		
3.2.0	LOW VOLTAGE DISTRIBUTION	R	-
3.3.0	SMALL POWER INSTALLATION	R	-
3.4.0	LIGHTING INSTALLATION	R	-
3.5.0	LABELLING, EARTHING & BONDING, TESTING & COMMISSIONING	R	-
3.6.0	ELECTRONICS CABLES SUPPORT AND CONDUITING	R	-
3.7.0	PROVISIONAL SUMS	R	-
	TOTAL ELECTRICAL INSTALLATION (EXCLUDING VAT) CARRIED TO SUMMARY		

**G-FLEET BUIDLING K_ NEW HEAD OFFICE BUILDING
ELECTRICAL INSTALLATION
BILLS OF QUANTITIES**

ITEM	DESCRIPTION	UNIT	QTY	RATE R	AMOUNT R
	BILL NO 3				
3.1.0	PRELIMINARY & GENERAL				
	<p>The Tenderer shall allow for whatever cost he may consider necessary for Preliminary and General to carry out the Electrical Installation as detailed in the Conditions of Contract, the Specification and the Bills of Quantity for the Electrical Installation and Reticulation and as indicated on the Electrical Installation and Reticulation layout drawings for this project.</p>				
3.1.1	Fixed Obligations	Sum	1		
3.1.2	Value Related Obligations	Sum	1		
3.1.3	Time Related Obligations	Sum	1		
3.1.4	Preparation of "as built" electrical drawings	Sum	1		
3.1.5	Supply Operating and Maintenance manuals for the various electrical components	Sum	1		
3.1.6	Any other items not mentioned above (Please specify)				
(a)					
(b)					
(c)					
	TOTAL FOR PRELIMINARY & GENERAL CARRIED FORWARD TO SUMMARY PAGE				

Item	Description	Unit	Quantity	Rate	Amount
G-FLEET BUIDLING K_ NEW HEAD OFFICE BUILDING					
	Bill No. 3				
3.2.0	LOW VOLTAGE DISTRIBUTION				
	Supply and installation of the items as detailed below. All material used shall be SABS approved.				
3.2.1	DISTRIBUTION BOARDS				
3.2.1.1	Supply and Install new Distribution Board (DB-GF1) complete with all accessories sheet metal frames, sub-frames, bus-bars, fixtures and fittings as specified with all equipment fitted in factory.		1		
3.2.1.2	Supply and Install new Distribution Board (DB-GF2) complete with all accessories sheet metal frames, sub-frames, bus-bars, fixtures and fittings as specified with all equipment fitted in factory.		1		
3.2.1.3	Supply and Install new Distribution Board (DB-FF1) complete with all accessories sheet metal frames, sub-frames, bus-bars, fixtures and fittings as specified with all equipment fitted in factory.		1		
3.2.1.4	Supply and Install new Distribution Board (DB-FF2) complete with all accessories sheet metal frames, sub-frames, bus-bars, fixtures and fittings as specified with all equipment fitted in factory.		1		
3.2.1.5	Supply and Install new Distribution Board (DB-LM) complete with all accessories sheet metal frames, sub-frames, bus-bars, fixtures and fittings as specified with all equipment fitted in factory.		1		
3.2.1.6	Supply and Install new Distribution Board (DB-UPS) complete with all accessories sheet metal frames, sub-frames, bus-bars, fixtures and fittings as specified with all equipment fitted in factory.		1		
3.2.1.7	Supply and Install ICT 40U floor standing cabinets		6		
3.2.2	CABLES				
	Supply, install, terminate and connect 600/1000V PVC/SWA/PVC/Cu cable including drilling, bolting, lugs, number tags, core markers, glands, shrouds, etc.				
3.2.2.1	4 core x120mm ² copper cable	m	550		
3.2.2.2	4 core x95mm ² copper cable	m	200		
3.2.2.3	4 core x16m ² copper cable	m	200		
3.2.2.4	4 core x6m ² copper cable	m	150		
	Cable Terminations				
	Supply and install 600/1000V PVC/SWA/PVC/Cu cable termination.				
3.2.2.5	120 mm ² x 4 core	No	6		
3.2.2.6	95 mm ² x 4 core	No	8		
3.2.2.7	16 mm ² x 4 core	No	16		
3.2.2.8	6 mm ² x 4 core	No	10		
	Bare copper earth conductor laid underground, into conduit, trunking, etc.				

Item	Description	Unit	Quantity	Rate	Amount
3.3.0	SMALL POWER INSTALLATION				
3.3.1	Conduits				
	Supply and install SABS approved PVC and galvanised conduit complete with bends, joints, adaptors, couplings, saddles, cutting, etc, cast in concrete, built or chased into brickwork or surface mounted to any surface				
3.3.1.1	20mm dia PVC Conduit	m	5000		
3.3.1.2	25mm dia PVC Conduit	m	4000		
3.3.1.3	20mm dia Galvanized Conduit	m	1000		
3.3.1.4	25mm dia Galvanized Conduit	m	1000		
3.3.2	Fittings and Accessories				
	Supply and install fittings and accessories complete with all necessary conduit boxes, screws, cover plates, labelling, cradles, including holes, drilling, etc.				
3.3.2.1	16A, Double 3-Pin flush wall mounted switched socket outlet including chasing and making good	No	170		
3.3.2.2	16A, Single 3-Pin flush wall mounted switched socket outlet including chasing and making good	No	130		
3.3.2.3	16A, Single 3-Pin Surface wall mounted switched socket outlet	No	150		
3.3.2.4	30A three phase flush surface wall mounted isolator	No	5		
3.3.2.5	20A double pole single phase surface or recessed mounted isolator	No	30		
3.3.2.6	30A three phase surface mounted isolator	No	10		
3.3.2.7	20A double pole single phase weather proof isolator	No	10		
3.3.2.8	80A three phase weather proof isolator	No	10		
3.3.2.9	Floor box with outlets for a work station as per the specification and drawings, complete with all accessories	No	12		
3.3.3	Power Skirting				
	Supply and install 2 Compartment 2 cover steel type power-skirting as per specification and drawings complete with cover-plates, splices, earthing, powder coating, etc				
3.3.3.1	Two compartment powerskirting	m	800		
3.3.3.2	Ditto 90 deg external/internal elbow	No	35		
3.3.3.3	Ditto 45 deg external/internal elbow	No	20		
3.3.3.4	Ditto T-piece	No	20		
3.3.3.5	Ditto end caps	No	240		
	Supply and install the following fittings on the power skirting complete with all the necessary accessories:				
3.3.3.6	50x50mm Telephone and data outlet cover plates	No	250		
CARRIED FORWARD TO NEXT PAGE					R 0,00

Item	Description	Unit	Quantity	Rate	Amount
	BROUGHT FORWARD FROM PREVIOUS PAGE				R 0,00
3.3.3.7	16A White SSO on powerskirting, complete with pre-punched cover.	No	250		
3.3.3.8	16A Red SSO on powerskirting, complete with pre-punched cover.	No	250		
3.3.4	WIRING CHANNELS				
	Perforated Cable Tray				
	Supply and install perforated cable tray including fixing to steel/concrete structure with necessary bends, brackets, clamps, couplers, etc.				
3.3.4.1	200mm medium duty, mild steel pre-galvanized perforated tray	m	200		
3.3.4.2	Horizontal bends	No	2		
3.3.4.3	Equal Tee	No	3		
3.3.4.4	External/Internal Bend	No	2		
3.3.4.5	4 way	No	10		
3.3.5	CONDUCTORS				
	600/1000V PVC insulated copper conductors into conduit, trunking or powerskirting, including conductor identification labels, terminating, etc.				
3.3.5.1	2.5mm ² conductor	m	5000		
3.3.5.2	4.0mm ² conductor	m	10000		
	PVC insulated earth conductor into conduit, trunking, etc.				
3.3.5.3	4 mm ² green PVC insulated earth conductor	m	4000		
	Bare copper earth conductor laid underground, into conduit, trunking, etc.				
3.3.5.4	2.5 mm ² BCEW	m	2500		
3.3.5.5	4 mm ² BCEW	m	5000		
3.3.6	Conduit Boxes				
	Surface or flush mounted conduit boxes including fixing to conduit with necessary locknuts, adaptors, bushes, etc.				
3.3.6.1	60mm Round outlet box	No	100		
3.3.6.2	100 x 100 x 50mm Outlet box	No	650		
3.3.6.3	100 x 50 x 50mm Outlet box	No	200		
3.3.6.4	60mm Round cover plate	No	50		
3.3.6.5	100 x 50mm cover plate	No	30		
3.3.6.6	Supply and install 3.5m utility pole complete with four telephone and data outlet kit, four normal SSOs and four dedicated SSOs	No	30		
	TOTAL FOR SMALL POWER INSTALLATIONS CARRIED FORWARD TO SUMMARY PAGE				R 0,00

Item	Description	Unit	Quantity	Rate	Amount
3.4.0	LIGHTING INSTALLATIONS				
3.4.1	Conduits				
	Supply and install SABS approved PVC and galvanised conduit complete with bends, joints, adaptors, couplings, saddles, cutting, etc, cast in concrete, built or chased into brickwork or surface mounted to any surface				
3.4.1.1	20mm dia PVC Conduit	m	5000		
3.4.1.2	25mm dia PVC Conduit	m	1500		
3.4.1.3	25mm dia Galvanized Conduit	m	1000		
3.4.2	LUMINAIRES				
	The supply, installation and electrical connection of light fittings, including cost of fittings, complete with lamps, including bolts, nuts, brackets, cabtyre with 5A plug/top, cut-outs in ceiling, identification marks, etc.				
3.4.2.1	Type A1 - 35W 600x600 recessed LED slab complete with acrylic diffuser, similar or equal to BEKA's DARI.IP20.	No	30		
3.4.2.2	Type A2 - 40W 1200x600 recessed LED slab complete with acrylic diffuser, similar or equal to BEKA's DARI.IP20.	No	230		
3.4.2.3	Type A2E - 40W 1200x600 recessed LED slab complete with acrylic diffuser and battery backup, similar or equal to BEKA's DARI.IP20.	No	120		
3.4.2.4	Type S1 - 35W 1200mm surface LED luminaire complete with diffuser. IP20	No	10		
3.4.2.5	Type D3 - 8W LED downlight 120mm complete with driver and 3m cordset, Similar or equal to LED lighting DL MHR	No	160		
3.4.2.5	Type D4 - 15W LED downlight similar or equal to Bergstorm Andromeda UGR19 . IP20	No	60		
3.4.2.7	Type B1 - 15W High pressure die-cast aluminium luminaire complete with acrylic diffuser,similar or equal to BEKA series 30. IP65	No	30		
3.4.2.8	Type B1E- 15W High pressure die-cast aluminium luminaire complete with acrylic diffuser,similar or equal to BEKA series 30. with emergency battery backup. IP65	No	20		
3.4.2.9	Type L1- 35W 1200mm black surface linear LED luminaire, Similar or equal to Regent Lighting. IP20	No	300		
3.4.3	LIGHT SWITCHES AND SENSORS				
	Light switches, complete with all necessary connections, labelling, screws, cover plates, etc.				
3.4.3.1	16A one lever one-way switch	No	170		
3.4.3.2	16A one lever two-way switch	No	20		
3.4.3.3	The light and motion duo sensor, equal to Osram's DUO	No	150		
3.4.3.4	5A, 3 Pin unswitched socket outlet fitted in trunking	No	960		
CARRIED FORWARD TO NEXT PAGE					R 0,00

**G-FLEET BUILDING L_ GUARD HOUSE
ELECTRICAL INSTALLATIONS
COST ESTIMATE SUMMARY**

2024/05/01

ITEM	DESCRIPTION	AMOUNT R	
7.1.0	PRELIMINARY & GENERAL		
7.2.0	LOW VOLTAGE DISTRIBUTION	R	-
7.3.0	SMALL POWER INSTALLATION	R	-
7.4.0	LIGHTING INSTALLATION	R	-
7.5.0	LABELLING, EARTHING & BONDING, TESTING & COMMISSIONING	R	-
7.6.0	ELECTRONICS CABLES SUPPORT AND CONDUITING	R	-
7.7.0	PROVISIONAL SUMS	R	-
	TOTAL ELECTRICAL INSTALLATION (EXCLUDING VAT) CARRIED TO SUMMARY	R	-

**G-FLEET BUILDING L_ GUARD HOUSE
ELECTRICAL INSTALLATION
BILLS OF QUANTITIES**

ITEM	DESCRIPTION	UNIT	QTY	RATE R	AMOUNT R
	BILL NO 7				
7.1.0	PRELIMINARY & GENERAL				
	<p>The Tenderer shall allow for whatever cost he may consider necessary for Preliminary and General to carry out the Electrical Installation as detailed in the Conditions of Contract, the Specification and the Bills of Quantity for the Electrical Installation and Reticulation and as indicated on the Electrical Installation and Reticulation layout drawings for this project</p>				
7.1.1	Fixed Obligations	Sum	1		
7.1.2	Value Related Obligations	Sum	1		
7.1.3	Time Related Obligations	Sum	1		
7.1.4	Preparation of "as built" electrical drawings	Sum	1		
7.1.5	Supply Operating and Maintenance manuals for the various electrical components	Sum	1		
7.1.6	Any other items not mentioned above (Please specify)				
(a)					
(b)					
(c)					
	TOTAL FOR PRELIMINARY & GENERAL CARRIED FORWARD TO SUMMARY PAGE				

Item	Description	Unit	Quantity	Rate	Amount
7.3.0	SMALL POWER INSTALLATION				
7.3.1	Conduits				
	Supply and install SABS approved PVC and galvanised conduit complete with bends, joints, adaptors, couplings, saddles, cutting, etc, cast in concrete, built or chased into brickwork or surface mounted to any surface				
7.3.1.1	20mm dia PVC Conduit	m	350		
7.3.1.2	25mm dia PVC Conduit	m	350		
7.3.1.3	20mm dia Galvanized Conduit	m	R/O		
7.3.1.4	25mm dia Galvanized Conduit	m	50		
7.3.2	Fittings and Accessories				
	Supply and install fittings and accessories complete with all necessary conduit boxes, screws, cover plates, labelling, cradles, including holes, drilling, etc.				
7.3.2.1	16A, Double 3-Pin flush wall mounted switched socket outlet including chasing and making good	No	2		
7.3.2.2	16A, Single 3-Pin flush wall mounted switched socket outlet including chasing and making good	No	2		
7.3.2.3	16A, Single 3-Pin Surface wall mounted switched socket outlet	No	R/O		
7.3.2.4	30A three phase flush surface wall mounted isolator	No	R/O		
7.3.2.5	20A double pole single phase flush surface wall mounted isolator	No	4		
7.3.2.6	30A three phase surface wall mounted isolator	No	R/O		
7.3.2.7	20A double pole single phase weather proof isolator	No	3		
7.3.3	Power Skirting				
	Supply and install 2 Compartment 2 cover steel type power-skirting as per specification and drawings complete with cover-plates, splices, earthing, powder coating, etc				
7.3.3.1	Two compartment powerskirting	m	20		
7.3.3.2	Ditto 90 deg external/internal elbow	No	2		
7.3.3.3	Ditto 45 deg external/internal elbow	No	0		
7.3.3.4	Ditto T-piece	No	1		
7.3.3.5	Ditto end caps	No	5		
	Supply and install the following fittings on the power skirting complete with all the necessary accessories:				
7.3.3.6	Telephone and data outlet cover plates	No	5		
7.3.3.7	16A White SSO on powerskirting, complete with pre-punched cover.	No	7		
7.3.3.7	16A Red SSO on powerskirting, complete with pre-punched cover.	No	7		
CARRIED FORWARD TO NEXT PAGE					R 0,00

Item	Description	Unit	Quantity	Rate	Amount
7.4.0	LIGHTING INSTALLATIONS				
7.4.1	Conduits				
	Supply and install SABS approved PVC and galvanised conduit complete with bends, joints, adaptors, couplings, saddles, cutting, etc, cast in concrete, built or chased into brickwork or surface mounted to any surface				
7.4.1.1	20mm dia PVC Conduit	m	350		
7.4.1.2	25mm dia PVC Conduit	m	R/O		
7.4.1.3	25mm dia Galvanized Conduit	m	R/O		
7.4.2	LUMINAIRES				
	The supply, installation and electrical connection of light fittings, including cost of fittings, complete with lamps, including bolts, nuts, brackets, cabtyre with 5A plug/top, cut-outs in ceiling, identification marks, etc.				
7.4.2.1	Type A2 - 40W 1200x600 recessed LED slab complete with acrylic diffuser, similar or equal to BEKA's DARI.IP20.	No	3		
7.4.2.2	Type A2E - 40W 1200x600 recessed LED slab complete with acrylic diffuser and battery backup, similar or equal to BEKA's DARI.IP20.	No	2		
7.4.2.4	Type D3 - 8W LED downlight 120mm complete with driver and 3m cordset, Similar or equal to LED lighting DL MHR.	No	11		
7.4.2.5	Type B1 - 15W High pressure die-cast aluminium luminaire complete with acrylic diffuser, similar or equal to BEKA series 20. IP65.	No	6		
7.4.3	LIGHT SWITCHES AND SENSORS				
	screws, cover plates, etc.				
7.4.3.1	16A one lever one-way switch	No	6		
7.4.3.2	16A one lever two-way switch	No	2		
7.4.3.3	The light and motion duo sensor, equal to Osram's DUO	No	2		
7.4.3.4	5A, 3 Pin unswitched socket outlet fitted in trunking	No	22		
7.4.4	CONDUCTORS & CABLES				
	600/1000V PVC insulated copper conductors into conduit, trunking or powerskirting, including conductor identification labels, terminating, etc.				
7.4.4.1	2.5mm ² conductor	m	600		
CARRIED FORWARD TO NEXT PAGE					R 0,00
BROUGHT FORWARD FROM PREVIOUS PAGE					R 0,00
PVC insulated earth conductor into conduit, trunking, etc.					

ITEM NO	DESCRIPTION	AMOUNT
	<u>G-FLEET UPGRADE</u>	
	<u>MECHANICAL INSTALLATIONS SUMMARY</u>	
1	<u>BUILDING E</u>	R -
1.1	<i>Preliminary and General</i>	R -
1.2	<i>HVAC Installation</i>	R -
1.3	<i>Plumbing Installation</i>	R -
1.4	<i>Sanitary Drainage Installation</i>	R -
1.5	<i>Fire Protection Installation</i>	R -
2	<u>BUILDING K (INCLUDING NEW AUDITORIUM)</u>	
2.1	<i>Preliminary and General</i>	R -
2.2	<i>HVAC Installation</i>	R -
2.3	<i>Plumbing Installation</i>	R -
2.4	<i>Sanitary Drainage Installation</i>	R -
2.5	<i>Fire Protection Installation</i>	R -
2.6	<i>Passenger Lift Installation</i>	R -
3	<u>BUILDING L</u>	
3.1	<i>Preliminary and General</i>	R -
3.2	<i>HVAC Installation</i>	R -
3.3	<i>Plumbing Installation</i>	R -
3.4	<i>Sanitary Drainage Installation</i>	R -
3.5	<i>Fire Protection Installation</i>	R -
TOTAL MECHANICAL INSTALLATIONS (Excluding 15% VAT) TO BE CARRIED FORWARD TO PAGE 196 OF MAIN BOQ		R

G-FLEET: BUILDING E
MECHANICAL INSTALLATIONS
BILLS OF QUANTITIES
INDEX

2024/04/29

<u>ITEM</u>	<u>DESCRIPTION</u>
1	PRELIMINARY & GENERAL
2	HVAC INSTALLATION
3	PLUMBING INSTALLATION
4	SANITARY DRAINAGE INSTALLATION
5	FIRE PROTECTION INSTALLATION
6	SUMMARY

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PRELIMINARY & GENERAL				
	The Tenderer shall allow for whatever cost he may consider necessary for Preliminary and General to carry out the Mechanical Installations as detailed in the Conditions of Contract, the Specifications, the Bills of Quantities, and as indicated on the Tender Drawings.				
1	NOMINATED/SELECTED SUBCONTRACT AGREEMENT				
1.1	Compliance with Nominated/Selected Subcontract Agreement, JBCC	Sum	1		
2	PRELIMINARIES				
2.1	Compliance with Specific Preliminaries of Main Contract	Sum	1		
3	SITE ESTABLISHMENT				
3.1	Allow for all associated services and for storage plant, materials and equipment including protection thereof.	Sum	1		
4	TRANSPORT, RIGGING & LIFTING				
4.1	Provide and arrange transport of all material and equipment to site as well as workmen and staff.	Sum	1		
5	COMMISSIONING AND TESTING				
5.1	Commissioning and Testing. Supply all test equipment and labour for testing, commissioning and adjustments of all portions of the installation, as well as attendance for any inspection and test that the Representative/Agent may call for.	Sum	1		
6	GUARANTEE & MAINTENANCE				
6.1	Comprehensive free maintenance for a period of 12 months (after handover) against defects in equipment and material but wear, tear excluded, including monthly inspection and to be called as and when there are related problems during this period.	Sum	1		
7	TRAINING				
7.1	Training of Operators and Maintenance Staff.	Sum	1		
8	AS BUILT DRAWINGS				
8.1	Submission of 3off 'As Built' drawings indicating the final positioning and layout the mechanical equipment, as installed on site by the Contractor.	Sum	1		
9	OPERATING & MAINTENANCE MANUALS				
9.1	Compilation and submission of 3 No. Operating & Maintenance (O&M) manuals for the mechanical installations, strictly in accordance with the format in the specification.	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<u>AIRCONDITIONING - DX SPLIT SYSTEM</u>					
<p>These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Tender Drawings, which contain the full descriptions of the work to be done, material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Tender Drawings for the full meaning and full descriptions of the work to be done. All materials, equipment, fixings, etc, are to be supplied by the Contractor unless otherwise stated and are deemed to be included in the rates.</p> <p>All rates supplied in this Bill of Quantities will be deemed to include scaffolding to any height and fixing of air conditioning and mechanical ventilation ductwork, piping and wiring, up to and including roof height. All ducts and pipes suspended from concrete slabs, roof, ceiling, etc. shall be deemed to include in the rates all necessary hanger brackets, threaded rod (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab.</p>					
1 <u>CEILING CASSETTE INSTALLATION</u>					
Supply and install an indoor inverter type DX 4-way blow cassette type air conditioning unit, complete with air filter, refrigerant piping, cassette panels, wired controller, condensate drain pump, and connections. Refrigerant gas R410A.					
1,1	3.6 kW DX Ceiling Cassette Unit (CAS-01)	No	1		
1,1	7.1 kW DX Ceiling Cassette Unit (CAS-02)	No	1		
2 <u>MIDWALL UNIT INSTALLATION</u>					
Supply and install an indoor inverter type DX 4-way blow midwall type air conditioning unit, complete with air filter, refrigerant piping, cassette panels, wired controller, condensate drain pump, and connections. Refrigerant gas R410A.					
2,1	2.5 kW DX Ceiling Cassette Unit (MW-01)	No	1		
3 <u>ELECTRICAL & CONTROL WIRING</u>					
3,1	Electrical connection between the indoor air conditioning unit and the outdoor condensing unit, and all interconnecting control wiring. Note: Electrical isolator to be supplied and installed by the Electrical Contractor, and all final electrical connections to the air conditioning unit be carried out by the HVAC Contractor's competent, certified electrician.	Sum	1		
4 <u>REFRIGERANT PIPING</u>					
4,1	Supply and install refrigerant piping and connect to air conditioning units as shown on the Tender drawings.	Sum	1		
5 <u>CONDENSATE PIPING</u>					
5,1	Supply and install 25mm PVC condensate drain pipes and fittings, complete with "P" trap, connect to air conditioning unit and run at fall to the nearest drain point.	m	15		
<u>VENTILATION INSTALLATION</u>					
6 <u>WALL EXTRACT AIR FANS</u>					
Supply, install, test and commission wall-mounted type air extract fan (WEF-01), with weather resistant housing and integral shutter, including threaded rods and sleeve. Fan to be controlled by light switch.					
6,1	(WEF-01) Air Flow Rate: 85 l/s	No	1		
7 <u>DOOR GRILLES</u>					
7,1	400mm x 400mm anodised aluminium door grille (DG-01), complete with telescopic back frame with fixed horizontal louvres.	No	2		
8 <u>SUPPORTS / CONSUMABLES</u>					
8,1	Supply and install suprots/hangers for A/C Equipment, condensate drain piping, refrigerant pipes and electrical cables including galvanized and PVC trunking for all external and internal refrigerant pipes complete with covers.	Sum	1		
9 <u>OTHER</u>					
9,1	Any other items required for the successful completion of the work but not included in this bill of quantities. <i>Please specify:</i>				
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PLUMBING INSTALLATION				
	COLD & HOT WATER INSTALLATION				
	All rates supplied in this bill of quantities will be deemed to include scaffolding to any height and fixing of cold and hot water pipes up to and including roof height. All pipes suspended from concrete slabs, roof, ceiling, etc, shall be deemed to include in the rates all necessary hanger brackets, threaded rod (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab. All cold and hot water pipes are to be chased into walls except where pipes are to be surface-mounted on wall face or run in ceiling voids or inside ducts, and fixed with standard type pipe saddlers and brackets at 1000mm maximum.				
1	PIPING - PEXAL Supply and installation of PEXAL PEX-white pipes for cold water and hot supply pipes completely hung in ceilings or chased in walls, including hanging rods and pipe fittings, valves and clamps.				
1,3	20mm diameter pipe	m	10		
1,4	16mm diameter pipe	m	15		
2	PIPE FITTINGS - PEXAL <u>Extra over pipework for fittings, as shown on the Tender drawings:</u>				
2,2	Ø20mm Equal T-piece	No	2		
2,3	Ø16mm Equal T-piece	No	8		
2,6	Ø20mm Elbow: 90°	No	5		
2,7	Ø16mm Elbow: 90°	No	5		
2,8	Reducer: Ø20mm x Ø16mm	No	5		
3	VALVES				
3,3	Ø20mm Isolation Ball Valve with lever on cold and hot water main pipes	No	3		
3,4	Flexible connector to sanitary fittings	No	4		
3,5	Ø16mm wall plate valve on cold and hot water pipe to sanitary appliance, eg sink, whb, bath, shower or wc.	No	4		
3,7	Ø20mm Male Union Adaptor for Isolation Valves	No	6		
5	HYDROBOIL				
5,1	Supply, and install a 7.5 litre hydroboil (HB), complete with adaptors and pressure reducing & safety relief valve and connecting pipes	No.	1		
6	<u>Electrical and Control Wiring</u>				
6,1	Electrical and control wiring connections between the isolators (provided by the electrical sub-contractor) and heat pumps is to be carried out by the mechanical sub-contractor's competent, certified electrician.	Sum	1		
10	PROVISIONAL ALLOWANCE				
10,1	Allow the amount for connecting into existing services and decommissioning of existing plumbing services	Sum	1		
11	OTHER				
11.1	Any other items required for the successful completion of the work but not included in this bill of quantities. Please specify: (a) (b) (c)				
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SANITARY DRAINAGE INSTALLATION				
	For preambles see "Model Preambles for Trades (2008 Edition)" and applicable Supplementary Preambles as specified in the Trades. The said Model and Supplementary Preambles apply to all work described in this document. Tenderers are therefor referred to these documents for the full meaning and intention of all descriptions and no claims of any kind whatsoever will be entertained in this regard. These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Technical Specifications for the full meaning of descriptions of work to be done and materials and equipment to be used in this service. All materials, equipment, fixings, brackets, etc. are to be supplied by the Contractor unless otherwise stated.				
1	PVC Piping Polyvinyl Chloride (PVC) pipe for above ground use, as 'Marley Pipe Systems', including couplers in the running length, installed in accordance with SANS 10400 and SANS 10252-2:2004				
1.1	Ø50mm uPVC pipe above ground	m	10		
1.2	Ø110mm uPVC pipe above ground	m	10		
2	FITTINGS <u>Extra over PVC pipework fittings, as shown on the drawings:</u>				
2.1	Ø50mm fitting; 135° Access Heel Bend (45° Bend)	No	5		
2.2	Ø50mm fitting; 87.5° Access Heel bend (90° Bend)	No	5		
2.3	Ø110mm fitting; 135° Access Heel Bend (45° Bend)	No	5		
2.4	Ø50mm x Ø50mm x Ø50mm fitting; 87.5° Single Access Heel Junction (Tee)	No	4		
2.5	Ø50mm x Ø50mm x Ø50mm fitting; 135° Single Access Heel Junction (Wye)	No	2		
2.6	Ø110mm x Ø100mm x Ø110mm fitting; 87.5° Single Access Heel Junction	No	2		
2.7	Ø110mm x Ø100mm fitting; 135° Single Access Heel Junction (Wye)	No	2		
2.8	Ø100mm vent 2-way valve	No	1		
3	PAN COLLECTORS				
3.1	Ø110mm Straight pan collars/connector with rubber ring	No	1		
4	WASTE TRAPS				
4.1	Dutton Chrome Plated Bottle Trap, complete with coupling clamps and adapter.	No	2		
5	GULLEY TRAPS				
5.1	Ø110mm gulley trap, complete with P-trap, gulley head and grate, as shown on the drawings	No	2		
6	RODDING EYES				
6.1	Ø110mm PVC rodding eye	No	1		
7	FLOOR DRAINS				
7.1	110mm diameter Floor Drain, including associated pipework and fittings	No	0		
8	PIPING - BELOW GROUND Polyvinyl Chloride (PVC) pipe laid below ground, and not exceeding 1m deep, as 'Marley Pipe Systems' or equal approved, including couplers in the running length, installed in accordance with SANS 10400 and SANS 10252-2:2004				
8.1	Ø110mm uPVC pipe laid below ground, not exceeding 1m deep	No	25		
9	FITTINGS <u>Extra over PVC pipework fittings below ground, as described above, and as shown on the drawings:</u>				
9.1	Ø110mm fitting; 135° Access Heel Bend (45° Bend)	No	5		
9.2	Ø110mm fitting; 87.5° Access Heel bend (90° Bend)	No	5		
9.3	Ø110mm x Ø100mm fitting; 135° Single Access Heel Junction (Wye)	No	3		
10	PROVISIONAL ALLOWANCE				
10.1	Allow the amount for connecting into existing services and decommissioning of existing drainage services	Sum	1		
11	OTHER				
11.1	Any other items required for the successful completion of the work but not included in this bill of quantities. Please specify: (a) (b) (c)				
	TOTAL CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<p>FIRE PROTECTION INSTALLTION</p> <p>These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Technical Specifications for the full meaning of descriptions of work to be done and materials and equipment to be used in this service. All pipes suspended from concrete slabs, roof, ceiling, etc. shall be deemed to include in the rates, all necessary hanger brackets, threaded rod (irrespective of the suspension length or height), nuts, washers, anchors and drilling of holes in the concrete slab. All materials, equipment, fixings, brackets, etc. are to be supplied by the Contractor unless otherwise stated.</p> <p>These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. All materials, equipment, fixings, brackets, etc. are to be supplied by the Contractor unless otherwise stated.</p>				
1	<p>FIRE PROTECTION PIPING</p> <p>Medium class galvanised mild steel (GMS) screwed and socketed pipes to SANS 62, in the running length, and all necessary supports, fixing, brackets, saddlers, holderbats, etc, and painted red in accordance with SANS 10140-3:2003: in the running length, and all necessary supports, fixing, brackets, saddlers, holderbats, etc, and painted red in accordance with SANS 10140-3:2003:</p>				
1.1	Ø25mm pipe	m	12		
2	<p>FITTINGS</p> <p>Extra over GMS pipework fittings, as shown on the Tender drawings:</p>				
2.1	Ø25mm fitting; elbow	No	6		
2.5	Ø25mm x Ø25mm x Ø25mm fitting; Equal T-Piece	No	10		
3	<p>ISOLATING VALVES</p>				
3.1	Ø25mm isolation valve	No	1		
4	<p>FIRE HOSE REELS</p>				
4.1	Supply, install and test 30m SABS approved fire hose reel mounted on wall bracket bolted to wall complete with chromium plated shut-off valve, and diameter 7mm aluminium nozzle.	No	1		
5	<p>FIRE EXTINGUISHERS</p>				
5.1	4.5kg Dry Chemical Powder (DCP) type fire extinguisher with bracket fixed to and including 25 x 100 x 600mm polished hard wood backboard with chamfered edges plugged to brick wall.	No	4		
6	<p>FIRE EQUIPMENT ESCAPE ROUTE SIGNAGE</p>				
6.1	Photoluminescent signage and warning notices in accordance with SANS 1186-1: 2008, and incorporating pictographs, securely fixed to wall, door, ceiling or soffit as shown on fire protection drawings, with aluminium frame.	No	12		
7	<p>OTHER</p>				
7.1	Any other items required for the successful completion of the work but not included in this bill of quantities. <i>Please specify:</i> (a) (b) (c)				
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	AMOUNT
	<p>2024/04/29</p> <p><u>MECHANICAL INSTALLATIONS - BUILDING E</u></p> <p><u>SUMMARY</u></p> <p>PRELIMINARY & GENERAL</p> <p>HVAC INSTALLATION</p> <p>PLUMBING INSTALLATION</p> <p>SANITARY DRAINAGE INSTALLATION</p> <p>FIRE PROTECTION INSTALLATION</p>	
	<p>TOTAL MECHANICAL INSTALLATIONS CARRIED TO MAIN SUMMARY (Excluding 15% VAT)</p>	

G-FLEET: BUILDING K
MECHANICAL INSTALLATIONS
BILLS OF QUANTITIES
INDEX

2024/04/29

<u>ITEM</u>	<u>DESCRIPTION</u>
1	PRELIMINARY & GENERAL
2	HVAC INSTALLATION
3	PLUMBING INSTALLATION
4	SANITARY DRAINAGE INSTALLATION
5	FIRE PROTECTION INSTALLATION
6	SUMMARY

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PRELIMINARY & GENERAL				
	The Tenderer shall allow for whatever cost he may consider necessary for Preliminary and General to carry out the Mechanical Installations as detailed in the Conditions of Contract, the Specifications, the Bills of Quantities, and as indicated on the Tender Drawings.				
1	NOMINATED/SELECTED SUBCONTRACT AGREEMENT				
1.1	Compliance with Nominated/Selected Subcontract Agreement, JBCC	Sum	1		
2	PRELIMINARIES				
2.1	Compliance with Specific Preliminaries of Main Contract	Sum	1		
3	SITE ESTABLISHMENT				
3.1	Allow for all associated services and for storage plant, materials and equipment including protection thereof.	Sum	1		
4	TRANSPORT, RIGGING & LIFTING				
4.1	Provide and arrange transport of all material and equipment to site as well as workmen and staff.	Sum	1		
5	COMMISSIONING AND TESTING				
5.1	Commissioning and Testing. Supply all test equipment and labour for testing, commissioning and adjustments of all portions of the installation, as well as attendance for any inspection and test that the Representative/Agent may call for.	Sum	1		
6	GUARANTEE & MAINTENANCE				
6.1	Comprehensive free maintenance for a period of 12 months (after handover) against defects in equipment and material but wear, tear excluded, including monthly inspection and to be called as and when there are related problems during this period.	Sum	1		
7	TRAINING				
7.1	Training of Operators and Maintenance Staff.	Sum	1		
8	AS BUILT DRAWINGS				
8.1	Submission of 3off 'As Built' drawings indicating the final positioning and layout the mechanical equipment, as installed on site by the Contractor.	Sum	1		
9	OPERATING & MAINTENANCE MANUALS				
9.1	Compilation and submission of 3 No. Operating & Maintenance (O&M) manuals for the mechanical installations, strictly in accordance with the format in the specification.	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<u>AIRCONDITIONING - VRF & DX SPLIT SYSTEMS</u>					
<p>These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Tender Drawings, which contain the full descriptions of the work to be done, material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Tender Drawings for the full meaning and full descriptions of the work to be done. All materials, equipment, fixings, etc, are to be supplied by the Contractor unless otherwise stated and are deemed to be included in the rates.</p> <p>All rates supplied in this Bill of Quantities will be deemed to include scaffolding to any height and fixing of air conditioning and mechanical ventilation ductwork, piping and wiring, up to and including roof height. All ducts and pipes suspended from concrete slabs, roof, ceiling, etc. shall be deemed to include in the rates all necessary hanger brackets, threaded rod (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab.</p>					
1	<u>CEILING CASSETTE VRF INSTALLATION</u>	Supply and install an indoor inverter type VRF 4-way blow cassette type air conditioning unit, complete with air filter, refrigerant piping, cassette panels, wired controller, condensate drain pump, and connections. Refrigerant gas R410A.			
1,1	2.2 kW VRF Ceiling Cassette Unit (CAS-01)	No	12		
1,2	2.8 kW VRF Ceiling Cassette Unit (CAS-02)	No	24		
1,3	3.6 kW VRF Ceiling Cassette Unit (CAS-03)	No	24		
1,4	4.5 kW VRF Ceiling Cassette Unit (CAS-04)	No	31		
1,5	5.6 kW VRF Ceiling Cassette Unit (CAS-05)	No	11		
1,6	7.1 kW VRF Ceiling Cassette Unit (CAS-06)	No	5		
<u>MIDWALL VRF INSTALLATION</u>					
Supply and install an indoor inverter type VRF midwall type air conditioning unit, complete with air filter, refrigerant piping, cassette panels, wired controller, condensate drain pump, and connections. Refrigerant gas R410A.					
1,7	2.2 kW VRF Ceiling Cassette Unit (CAS-01)	No	6		
<u>MIDWALL DX SPLIT INSTALLATION</u>					
Supply and install an indoor inverter type DX split midwall type air conditioning unit, complete with air filter, refrigerant piping, cassette panels, wired controller, condensate drain pump, and connections. Refrigerant gas R410A.					
1,8	2.2 kW DX Midwall Unit (MW-02)	No	4		
<u>DUCTED HIDEAWAY DX SPLIT INSTALLATION</u>					
Supply and install an indoor inverter type DX split ceiling ducted hideway type air conditioning unit, complete with air filter, refrigerant piping, cassette panels, wired controller, condensate drain pump, and connections. Refrigerant gas R410A.					
1,9	28 kW DX Midwall Unit (HW-01)	No	3		
1,10	38 kW DX Midwall Unit (HW-02)	No	1		
2	<u>OUTDOOR VRF UNIT</u>	Supply and install a VRF heat recovery type outdoor condensing unit complete with insulated refrigerant gas and liquid piping and galvanised steel trunking to encase external refrigerant piping, drain pans, anti-vibration mountings, electrical connections, connections to drain points, etc. Refrigerant gas R410A.			
2,1	95.0 kW Outdoor Condensing Unit (ODU-01)	No	1		
2,2	122.0 kW Outdoor Condensing Unit (ODU-02)	No	1		
2,3	129.9 kW Outdoor Condensing Unit (ODU-03)	No	2		
2,4	122.0 kW Outdoor Condensing Unit (ODU-03)	No	2		
2,5	Refrigerant pipe Y - branches Y-joints to connect outdoor units	Sum	1		
2,6	Y-joints to connect MCU's/refrigerant pipe reticulations	Sum	1		
3	<u>Refrigerant Controller units (MCU or BS/BC box)</u>	Including all accessories, fittings, installation, etc. to ensure a fully functioning system as per the specifications and relevant standards			
3,1	6 Port Controller	No	1		
3,2	8 Port Controller	No	5		
3,3	12 Port Controller	No	4		
4	<u>ELECTRICAL & CONTROL WIRING</u>	Electrical connection between the indoor air conditioning unit and the outdoor condensing unit, and all interconnecting control wiring.			
4,1		Sum	1		

	Note: Electrical isolator to be supplied and installed by the Electrical Contractor, and all final electrical connections to the air conditioning unit be carried out by the HVAC Contractor's competent, certified electrician.		
5	REFRIGERANT PIPING		
5,1	Supply and install refrigerant piping and connect to air conditioning units as shown on the Tender drawings.	Sum	1
6	CONDENSATE PIPING		
6,1	Supply and install 25mm / 32mm / 50mm PVC condensate drain pipes and fittings, complete with "P" trap, connect to air conditioning unit and run at fall to the nearest drain point.	m	350
	VENTILATION INSTALLATION		
7	FRESH AIR DUCTWORK FOR DUCTED FANS		
	Supply and install uninsulated round and rectangular sheetmetal ductwork including transformation pieces, bends, tees, spigots, etc, installed on roof, manufactured in accordance with SANS 1238:2005 and SANS 10173:2003, as amended, including all necessary supports, fixing, brackets, flexible connections, etc.		
7,1	Ø500mm Duct	m	25
7,2	Ø450mm Duct	m	45
7,3	Ø400mm Duct	m	10
7,4	Ø350mm Duct	m	45
7,5	Ø300mm Duct	m	60
7,6	Ø250mm Duct	m	35
7,7	Ø200mm Duct	m	245
7,8	Ø150mm Duct	m	75
7,9	Ø150mm Flexible Ducting	m	45
7,10	Ø200mm Flexible Ducting	m	55
7,11	Ø500mm to Ø450mm Transformation Piece	No	8
7,12	Ø500mm to Ø200mm Transformation Piece	No	5
7,13	Ø500mm to Ø300mm Transformation Piece	No	5
7,14	Ø450mm to Ø400mm Transformation Piece	No	12
7,15	Ø450mm to Ø350mm Transformation Piece	No	4
7,16	Ø450mm to Ø300mm Transformation Piece	No	4
7,17	Ø400mm to Ø350mm Transformation Piece	No	3
7,18	Ø400mm to Ø300mm Transformation Piece	No	4
7,19	Ø400mm to Ø250mm Transformation Piece	No	4
7,20	Ø400mm to Ø200mm Transformation Piece	No	5
7,21	Ø350mm to Ø300mm Transformation Piece	No	12
7,22	Ø300mm to Ø250mm Transformation Piece	No	10
7,23	Ø300mm to Ø250mm Transformation Piece	No	10
7,24	Ø250mm to Ø200mm Transformation Piece	No	10
7,25	Ø250mm to Ø150mm Transformation Piece	No	10
7,26	Ø200mm to Ø150mm Transformation Piece	No	15
7,27	Ø250mm Spigot/Takeoff	No	2
7,28	Ø200mm Spigot/Takeoff	No	75
7,29	Ø150mm Spigot/Takeoff	No	45
7,30	Ø300mm tee	No	1
7,31	Ø400mm tee	No	2
7,32	Ø450mm tee	No	6
7,33	Ø500mm tee	No	10
7,34	Ø250mm bend	No	10
7,35	Ø200mm bend	No	10
8	AIR TERMINALS		
8,1	600 x 600 mm constant volume supply air diffuser (CV-01), spigot size: 150mm (volume flow rates indicated on Tender Drawings)	No	65
8,2	600 x 600 mm constant volume supply air diffuser (CV-02), spigot size: 200mm (volume flow rates indicated on Tender Drawings)	No	45

9	<u>BALANCING DAMPERS</u>		
9,1	Manual Volume damper (VCD-01) : size Ø150mm	No	65
9,2	Manual Volume damper (VCD-02) : size Ø200mm	No	45
9,3	Manual Volume damper (VCD-03) : size Ø250mm	No	5
10	<u>DUCTED FRESH AIR FANS</u>		
	Supply and install a ducted fresh air fan, complete with flanges, attenuators, filters, weather louvres, mounting feet, accessories, and electrical and control wiring.		
10,1	(FAF-01) Air Flow Rate: 113 l/s	No	1
10,2	(FAF-02) Air Flow Rate: 285 l/s	No	1
10,3	(FAF-03) Air Flow Rate: 668 l/s	No	1
10,4	(FAF-04) Air Flow Rate: 743 l/s	No	1
10,5	(FAF-05) Air Flow Rate: 765 l/s	No	1
10,6	(FAF-06) Air Flow Rate: 832 l/s	No	1
11	<u>WEATHER LOUVRE</u>		
	Natural anodised aluminium weather louvres, complete with galvanised wire mesh, mounting frame, connection screws, etc, as shown on the tender drawing.		
11,1	800mm x 500mm (668 l/s, 743 l/s, 765 l/s, 832 l/s) (WL-01)	No	4
12	<u>EXTRACT AIR DUCTWORK FOR DUCTED FANS (GROUND, FIRST & LOWER GROUND)</u>		
	Supply and install uninsulated round and rectangular sheetmetal ductwork including transformation pieces, bends, tees, spigots, etc, installed on roof, manufactured in accordance with SANS 1238:2005 and SANS 10173:2003, as amended, including all necessary supports, fixing, brackets, flexible connections, etc.		
12,1	Ø400mm Duct	m	12
12,2	Ø350mm Duct	m	10
12,3	Ø300mm Duct	m	35
12,4	Ø250mm Duct	m	22
12,5	Ø200mm Duct	m	25
12,6	Ø150mm Duct	m	45
12,7	Ø150mm Flexible Ducting	m	40
12,8	Ø500mm to Ø300mm Transformation Piece	No	6
12,9	Ø400mm to Ø300mm Transformation Piece	No	2
12,10	Ø400mm to Ø250mm Transformation Piece	No	2
12,11	Ø350mm to Ø300mm Transformation Piece	No	5
12,12	Ø300mm to Ø250mm Transformation Piece	No	15
12,13	Ø300mm to Ø200mm Transformation Piece	No	5
12,14	Ø250mm to Ø200mm Transformation Piece	No	18
12,15	Ø250mm to Ø150mm Transformation Piece	No	10
12,16	Ø200mm to Ø150mm Transformation Piece	No	4
12,17	Ø350mm Spigot/Takeoff	No	2
12,18	Ø300mm Spigot/Takeoff	No	2
12,19	Ø250mm Spigot/Takeoff	No	6
12,20	Ø200mm Spigot/Takeoff	No	25
12,21	Ø150mm Spigot/Takeoff	No	58
12,22	Ø500mm tee	No	4
12,23	Ø350mm tee	No	2
12,24	Ø400mm bend	No	2
12,25	Ø300mm bend	No	3
12,26	Ø250mm bend	No	3
12,27	Ø200mm bend	No	3
12,28	Ø150mm bend	No	2
13	<u>AIR TERMINALS</u>		
13,1	Ø150mm disc valve (DV-01) (volume flow rates indicated on Tender Drawings)	No	58
13,2	Ø200mm disc valve (DV-02) (volume flow rates indicated on Tender Drawings)	No	28

14	DUCTED EXTRACT AIR FANS (GROUND, FIRST & LOWER GROUND) Supply and install a ducted extract air fan, complete with flanges, attenuators, filters, weather louvres, mounting feet, accessories, and electrical and control wiring.			
14,1	(EAF-01) Air Flow Rate: 345 l/s	No	1	
14,2	(EAF-02) Air Flow Rate: 533 l/s	No	1	
14,3	(EAF-03) Air Flow Rate: 915 l/s	No	1	
14,4	(EAF-04) Air Flow Rate: 980 l/s	No	1	
14,5	(EAF-05) Air Flow Rate: 1080 l/s	No	1	
15	WEATHER LOUVRE Natural anodised aluminium weather louvres, complete with galvanised wire mesh, as shown on the tender drawing.			
15,1				
15,2	800mm x 500mm - 1080 l/s, 980 l/s, 915 l/s (WL-01)	No	3	
15,3	600mm x 400mm - 345 l/s, 533 l/s (WL-01)	No	2	
16	DOOR GRILLES 400mm x 400mm anodised aluminium door grille (DG-01), complete with telescopic back frame with fixed horizontal louvres.			
16,1		No	75	
16,2	400mm x 600mm anodised aluminium door grille (DG-02), complete with telescopic back frame with fixed horizontal louvres.	No	30	
17	AIRCONDITIONING DUCTWORK Supply and install insulated round and rectangular sheetmetal ductwork including transformation pieces, bends, tees, spigots, etc, installed on roof, manufactured in accordance with SANS 1238:2005 and SANS 10173:2003, as amended, including all necessary supports, fixing, brackets, flexible connections, etc.			
17,1	500 x 450 rectangular duct	No	8	
17,2	400 x 400 rectangular duct	No	10	
17,3	350 x 350 rectangular duct	No	12	
17,4	Ø300mm bend	m	30	
17,5	300 x 200 rectangular duct	m	6	
17,6	300 x 200 rectangular bend	No	1	
17,7	350 x 250 rectangular bend	m	2,5	
17,8	300 x 250 rectangular bend	No	1	
17,9	400 x 300 rectangular bend	m	5	
17,10	500 x 350 rectangular duct	m	13	
17,11	500 x 450 rectangular duct	m	4	
17,12	Ø300mm round pipe	m	6	
17,13	Ø200mm round pipe	m	15	
17,14	600 x 400 rectangular duct	m	8	
17,15	650 x 600 rectangular duct	m	6	
17,16	750 x 700 rectangular duct	m	8	
17,17	900 x 750 rectangular duct	m	25	
17,18	900 x 750 rectangular 45 degree bend	No	4	
17,19	900 x 750 rectangular 90 degree bend	No	4	
17,20	900 x 750 tee	m	4	
17,21	Ø350mm round duct	m	18	
17,22	Ø350mm Flexible Ducting	m	15	
17,23	700 x 200 rectangular duct	m	18	
17,24	750 x 300 rectangular duct	m	15	
17,25	750 x 400 rectangular duct	m	25	
17,26	800 x 450 rectangular duct	m	22	
17,27	800 x 450 tee	m	1	
17,28	800 x 450 rectangular duct	m	22	
17,29	800 x 450 bend	No	6	
17,30	700 x 200 to 750 x 300 transformation	No	2	
17,31	750 x 300 to 750 x 400 transformation	No	2	

17,32	750 x 400 bend	No	1
17,33	800 x 450 to 800 x 750 transformation	No	2
17,34	800 x 750 bend	No	4
17,35	Ø400mm Flexible Ducting	m	48
17,36	500 x 250 rectangular duct	m	45
17,37	500 x 350 rectangular duct	m	5
17,38	500 x 250 to 550 x 400 duct transformarion	No	10
17,39	550 x 400 rectangular duct	m	45
17,40	550 x 550 rectangular duct	m	3
17,41	550 x 400 to 600 x 450 duct transformarion	No	10
17,42	600 x 450 rectangular duct	m	70
17,43	600 x 450 spigot to 750 x 600 rectangular duct	No	2
17,44	600 x 450 spigot to 1100 x 700 rectangular duct	No	2
17,45	600 x 450 spigot to 1300 x 800 rectangular duct	No	2
17,46	600 x 450 spigot to 1300 x 1000 rectangular duct	No	2
17,47	600 x 450 spigot to 1300 x 1150 rectangular duct	No	2
17,48	750 x 600 to 1100 x 700 rectangular duct	No	2
17,49	1100 x 700 to 1300 x 800 rectangular duct	No	2
17,50	1300 x 800 to 1300 x 1000 rectangular duct	No	2
17,51	1300 x 1000 to 1300 x 1150 rectangular duct	No	2
17,52	500 x 350 to 550 x 500 rectangular duct	No	2
17,53	550 x 500 to 600 x 600 rectangular duct	No	2
17,54	600 x 600 to 700 x 650 rectangular duct	No	2
17,55	700 x 650 to 750 x 750 rectangular duct	No	2
17,56	750 x 750 to 800 x 800 rectangular duct	No	2
17,57	800 x 800 spigot to 900 x 850 rectangular duct	No	2
17,58	550 x 500 spigot to 900 x 850 rectangular duct	No	2
17,59	1300 x 1150 rectangular duct	m	21
17,60	1300 x 1150 rectangular bend	No	5
17,61	550 x 500 rectangular duct	m	5
17,62	600 x 600 rectangular duct	m	6
17,63	700 x 650 rectangular duct	m	7
17,64	750 x 750 rectangular duct	m	8
17,65	800 x 800 rectangular duct	m	5
17,66	900 x 850 rectangular duct	m	25
17,67	900 x 850 to 1200 x 800 rectangular duct	No	1
17,68	1200 x 800 rectangular duct	m	15
17,69	1200 x 800 rectangular bend	No	4
18	<u>AIR TERMINALS</u>		
18,1	600 x 600 mm constant swirl high volume radial supply air diffuser as Krantz, or equal approved (SAD-01), spigot size: 200mm (volume flow rates indicated on Tender Drawings) as	No	11
18,2	600 x 600 mm constant swirl high volume radial supply air diffuser as Krantz, or equal approved (SAD-02), spigot size: 300mm (volume flow rates indicated on Tender Drawings)	No	6
18,3	600 x 600 mm constant swirl high volume radial supply air diffuser as Krantz, or equal approved (SAD-03), spigot size: 300mm (volume flow rates indicated on Tender Drawings)	No	12
18,4	600 x 600 mm constant swirl high volume radial supply air diffuser as Krantz, or equal approved (SAD-04), spigot size: 350mm (volume flow rates indicated on Tender Drawings)	No	18
18,5	600 x 600 mm constant swirl high volume radial supply air diffuser as Krantz, or equal approved (SAD-05), spigot size: 400mm (volume flow rates indicated on Tender Drawings)	No	30
19	<u>BALANCING DAMPERS</u>		

19,1	Manual Volume damper (VCD-01) : size Ø200mm	No	11		
19,2	Manual Volume damper (VCD-02) : size Ø300mm	No	18		
19,3	Manual Volume damper (VCD-03) : size Ø350mm	No	18		
19,4	Manual Volume damper (VCD-04) : size Ø400mm	No	30		
20	RETURN AIR GRILLES				
20,1	1200mm X 600mm (RAG-01) - " TROX" or Equal approved Return Air Grille	No	28		
21	PACKAGED / AIR HANDLING UNITS				
	The units shall be suitable for the attachment of existing horizontal supply and return air ductwork, and shall be complete with: air supply fan, direct expansion cooling coil, scroll compressor(s), built in air-cooled condenser, insulated copper refrigerant tubing and accessories, expansion valves, filter driers, high and low pressure switches, easily accessible air filters and filter arrangement, return air / fresh air mixing plenum, dampers, outdoor air mechanical parallel blade damper and air hood, condensate piping, control panel and built-in controls with alarms, control capability via third party DDC control system. The unit shall be the low noise type.				
21,1	Supply, install, test and commission a packaged air conditioning unit (PAC-01), with variable drive speed, or similar approved quality. Cooling Capacity: 50kW Nominal air flow rate: 6550 l/s Electrical power supply: Three phase	No	1		
21,2	Supply, install, test and commission a VRF air handling unit (AHU-01), with variable drive speed, or similar approved quality. Cooling Capacity: 138kW Nominal air flow rate: 18000 l/s Electrical power supply: Three phase	No	1		
22	SUPPORTS / CONSUMABLES				
22,1	Supply and install suprots/hangers for A/C Equipment ,condensate drain piping,refrigerant pipes and electrical cables including galvanized and PVC trunking for all external and internal refrigerant pipes complete with covers.	Sum	1		
23	PROVISIONAL ALLOWANCE FOR SMOKE VENTILATION				
23,1	Allow the provisional amount for complete smoke ventilation extraction installation, including fire rated fans @ 300 degrees rating, weather louvres, fusible link dampers, flanges, ducting, I/O connections, etc	Sum	1		
24	OTHER				
24,1	Any other items required for the successful completion of the work but not included in this bill of quantities. <i>Please specify:</i> (a) (b) (c)				

	TOTAL CARRIED FORWARD TO SUMMARY	
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ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PLUMBING INSTALLATION				
	COLD & HOT WATER INSTALLATION				
	All rates supplied in this bill of quantities will be deemed to include scaffolding to any height and fixing of cold and hot water pipes up to and including roof height. All pipes suspended from concrete slabs, roof, ceiling, etc, shall be deemed to include in the rates all necessary hanger brackets, threaded rod (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab. All cold and hot water pipes are to be chased into walls except where pipes are to be surface-mounted on wall face or run in ceiling voids or inside ducts, and fixed with standard type pipe saddlers and brackets at 1000mm maximum.				
1	PIPING - PEXAL Supply and installation of PEXAL PEX-white pipes for cold water and hot supply pipes completely hung in ceilings or chased in walls, including hanging rods and pipe fittings, valves and clamps.				
1,1	40mm diameter pipe	m	60		
1,2	32mm diameter pipe	m	110		
1,3	26mm diameter pipe	m	50		
1,4	20mm diameter pipe	m	250		
1,5	16mm diameter pipe	m	60		
2	PIPE FITTINGS - PEXAL Extra over pipework for fittings, as shown on the Tender drawings:				
2,1	Ø32mm Equal T-piece	No	36		
2,2	Ø26mm Equal T-piece	No	16		
2,3	Ø20mm Equal T-piece	No	80		
2,4	Ø16mm Equal T-piece	No	5		
2,5	Ø40mm Elbow: 90°	No	15		
2,6	Ø32mm Elbow: 90°	No	34		
2,7	Ø26mm Elbow: 90°	No	20		
2,8	Ø20mm Elbow: 90°	No	76		
2,9	Ø16mm Elbow: 90°	No	125		
2,10	Reducer: Ø20mm x Ø16mm	No	110		
2,11	Reducer: Ø26mm x Ø20mm	No	35		
2,12	Reducer: Ø32mm x Ø20mm	No	15		
2,13	Reducer: Ø26mm x Ø15mm	No	20		
2,14	Reducer: Ø40mm x Ø26mm	No	18		
2,15	Reducer: Ø40mm x Ø32mm	No	30		
3	VALVES				
3,1	Ø40mm Isolation Ball Valve with lever on cold and hot water main pipes	No	2		
3,2	Ø32mm Isolation Ball Valve with lever on cold and hot water main pipes	No	15		
3,3	Ø26mm Isolation Ball Valve with lever on cold and hot water main pipes	No	20		
3,4	Ø20mm Isolation Ball Valve with lever on cold and hot water main pipes	No	35		
3,5	Flexible connector to sanitay fittings	No	148		
3,6	Ø16mm wall plate valve on cold and hot water pipe to sanitary appliance, eg sink, whb, bath, shower or wc.	No	148		
3,7	Ø32mm Male Union Adaptor for Isolation Valves	No	30		
3,8	Ø26mm Male Union Adaptor for Isolation Valves	No	40		
3,9	Ø20mm Male Union Adaptor for Isolation Valves	No	70		
4	HEAT PUMP & HOT WATER CYLINDER				
4.1	Supply and install an air to heat Heat Pump (HP-01), or similar and equal approved, including all necessary insulated and cladded pipework, valves and fittings between the heat pump and hot water storage cylinder located on the roof slab as indicated on the Tender drawings. Heating Capacity: 3.6 kW	No.	3		

4.2	Supply and install an air to heat Heat Pump (HP-02), or similar and equal approved, including all necessary insulated and cladded pipework, valves and fittings between the heat pump and hot water storage cylinder located on the roof slab as indicated on the Tender drawings. Heating Capacity: 7.2 kW	No.	2		
4.3	Supply and install a hot water cylinder (HWS), complete with accessories, interconnecting piping and electrical connections.	No.	2		
5	ELECTRIC WATER GEYSER				
5.1	Supply, install, test and commission a 50 litre hot water storage tank (EWG-01), including lagging, complete with adaptors and safety relief valve, and drain piping and fittings, supports and all necessary accessories.	No.	1		
5.2	Supply, install, test and commission a 150 litre hot water storage tank (EWG-01), including lagging, complete with adaptors and safety relief valve, and drain piping and fittings, supports and all necessary accessories.	No.	3		
6	UNDERBASIN SINK				
6.1	Supply, and install a 10 litre undersink water storage heater (UB), complete with adaptors and pressure reducing & safety relief valve.	No.	2		
7	<u>Electrical and Control Wiring</u>				
7.1	Electrical and control wiring connections between the isolators (provided by the electrical sub-contractor) and heat pumps is to be carried out by the mechanical sub-contractor's competent, certified electrician.	Sum	1		
8	PROVISIONAL ALLOWANCE				
8.1	Allow the amount for complete for hot,cold water and drainage equipment and material for adjustment of Mechanical engineering Wet services based on site condition and any additional or change in scope of works to be used at the discretion of the principal agent and deducted in whole or in part if not required.	Sum	1		
9	OTHER				
9.1	Any other items required for the successful completion of the work but not included in this bill of quantities. <i>Please specify:</i>				
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SANITARY DRAINAGE INSTALLATION				
	For preambles see "Model Preambles for Trades (2008 Edition)" and applicable Supplementary Preambles as specified in the Trades. The said Model and Supplementary Preambles apply to all work described in this document. Tenderers are therefor referred to these documents for the full meaning and intention of all descriptions and no claims of any kind whatsoever will be entertained in this regard. These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Technical Specifications for the full meaning of descriptions of work to be done and materials and equipment to be used in this service. All materials, equipment, fixings, brackets, etc. are to be supplied by the Contractor unless otherwise stated.				
1	PVC Piping				
	Polyvinyl Chloride (PVC) pipe for above ground use, as 'Marley Pipe Systems', including couplers in the running length, installed in accordance with SANS 10400 and SANS 10252-2:2004				
1.1	Ø50mm uPVC pipe above ground	m	85		
1.2	Ø110mm uPVC pipe above ground	m	65		
2	FITTINGS				
	<u>Extra over PVC pipework fittings, as shown on the drawings:</u>				
2.1	Ø50mm fitting; 135° Access Heel Bend (45° Bend)	No	85		
2.2	Ø50mm fitting; 87.5° Access Heel bend (90° Bend)	No	42		
2.3	Ø110mm fitting; 135° Access Heel Bend (45° Bend)	No	35		
2.4	Ø110mm fitting; 87.5° Access Heel bend (90° Bend)	No	25		
2.5	Ø50mm x Ø50mm x Ø50mm fitting; 87.5° Single Access Heel Junction (Tee)	No	18		
2.6	Ø50mm x Ø50mm x Ø50mm fitting; 135° Single Access Heel Junction (Wye)	No	10		
2.7	Ø110mm x Ø50mm fitting; 87.5° Single Access Heel Reducing Junction (Reducer)	No	8		
2.8	Ø110mm x Ø100mm x Ø110mm fitting; 87.5° Single Access Heel Junction	No	24		
2.9	Ø110mm x Ø100mm fitting; 135° Single Access Heel Junction (Wye)	No	35		
2.10	Ø110mm x Ø50mm fitting; Eccentric Reducer	No	5		
2.11	Ø110mm x Ø50mm fitting; 87.5° Double Access Heel Reducing Junction	No	5		
2.12	Ø50mm vent 2-way valve	No	4		
2.13	Ø100mm vent 2-way valve	No	7		
3	PAN COLLECTORS				
3.1	Ø110mm Straight pan collars/connector with rubber ring	No	41		
4	WASTE TRAPS				
4.1	Dutton Chrome Plated Bottle Trap, complete with coupling clamps and adapter.	No	49		
5	GULLEY TRAPS				
5.1	Ø110mm gulley trap, complete with P-trap, gulley head and grate, as shown on the drawings	No	5		
6	RODDING EYES				
6.1	Ø110mm PVC rodding eye	No	2		
7	FLOOR DRAINS				
7.1	110mm diameter Floor Drain, including associated pipework and fittings	No	0		
8	PIPING - BELOW GROUND				
	Polyvinyl Chloride (PVC) pipe laid below ground, and not exceeding 1m deep, as 'Marley Pipe Systems' or equal approved, including couplers in the running length, installed in accordance with SANS 10400 and SANS 10252-2:2004				
8.1	Ø50mm uPVC pipe laid below ground, not exceeding 1m deep	No	55		
8.1	Ø110mm uPVC pipe laid below ground, not exceeding 1m deep	No	65		

9	FITTINGS <u>Extra over PVC pipework fittings below ground, as described above, and as shown on the drawings:</u>				
9.1	Ø110mm fitting; 135° Access Heel Bend (45° Bend)	No	30		
9.2	Ø110mm fitting; 87.5° Access Heel bend (90° Bend)	No	15		
9.3	Ø110mm x Ø100mm fitting; 135° Single Access Heel Junction (Wye)	No	35		
10	PROVISIONAL ALLOWANCE Allow the amount for complete for hot,cold water and drainage equipment and material for adjustment of Mechanical engineering Wet services based on site condition and any additional or change in scope of works to be used at the discretion of the principal agent and deducted in whole or in part if not required.				
10.1		Sum	1		
11	OTHER Any other items required for the successful completion of the work but not included in this bill of quantities. Please specify:				
11.1	(a)				
	(b)				
	(c)				
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<p>FIRE PROTECTION INSTALLTION</p> <p>These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Technical Specifications for the full meaning of descriptions of work to be done and materials and equipment to be used in this service. All pipes suspended from concrete slabs, roof, ceiling, etc. shall be deemed to include in the rates, all necessary hanger brackets, threaded rod (irrespective of the suspension length or height), nuts, washers, anchors and drilling of holes in the concrete slab. All materials, equipment, fixings, brackets, etc. are to be supplied by the Contractor unless otherwise stated.</p> <p>These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. All materials, equipment, fixings, brackets, etc. are to be supplied by the Contractor unless otherwise stated.</p>				
1	FIRE PROTECTION PIPING				
	Medium class galvanised mild steel (GMS) screwed and socketed pipes to SANS 62, in the running length, and all necessary supports, fixing, brackets, saddlers, holderbats, etc, and painted red in accordance with SANS 10140-3:2003: in the running length, and all necessary supports, fixing, brackets, saddlers, holderbats, etc, and painted red in accordance with SANS 10140-3:2003:				
1.1	Ø25mm pipe	m	120		
1.2	Ø32mm pipe	m	85		
1.3	Ø50mm pipe	m	65		
2	FITTINGS				
	Extra over GMS pipework fittings, as shown on the Tender drawings:				
2.1	Ø25mm fitting; elbow	No	45		
2.2	Ø32mm fitting; bend	No	20		
2.3	Ø32mm fitting; elbow	No	25		
2.4	Ø50mm fitting; elbow	No	15		
2.5	Ø25mm x Ø25mm x Ø25mm fitting; Equal T-Piece	No	20		
2.6	Ø32mm x Ø32mm x Ø32mm fitting; Equal T-Piece	No	25		
2.7	Ø50mm x Ø50mm x Ø50mm fitting; Equal T-Piece	No	35		
2.8	Ø32mm x Ø25mm fitting; concentric reducer	No	15		
2.9	Ø50mm x Ø25mm fitting; concentric reducer	No	35		
3	ISOLATING VALVES				
3.1	Ø25mm isolation valve	No	20		
3.2	Ø32mm isolation valve	No	15		
3.3	Ø50mm isolation valve	No	15		
4	FIRE HOSE REELS				
4.1	Supply, install and test 30m SABS approved fire hose reel mounted on wall bracket bolted to wall complete with chromium plated shut-off valve, and diameter 7mm aluminium nozzle.	No	11		
5	FIRE EXTINGUISHERS				
5.1	4.5kg Dry Chemical Powder (DCP) type fire extinguisher with bracket fixed to and including 25 x 100 x 600mm polished hard wood backboard with chamfered edges plugged to brick wall.	No	28		
6	FIRE EQUIPMENT ESCAPE ROUTE SIGNAGE				
6.1	Photoluminescent signage and warning notices in accordance with SANS 1186-1: 2008, and incorporating pictographs, securely fixed to wall, door, ceiling or soffit as shown on fire protection drawings, with aluminium frame.	No	200		
7	OTHER				
7.1	Any other items required for the successful completion of the work but not included in this bill				
	(a)				
	(b)				
	(c)				
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	AMOUNT
	<p>2024/04/29</p> <p><u>MECHANICAL INSTALLATIONS - BUILDING K</u></p> <p><u>SUMMARY</u></p> <p>PRELIMINARY & GENERAL</p> <p>HVAC INSTALLATION</p> <p>PLUMBING INSTALLATION</p> <p>SANITARY DRAINAGE INSTALLATION</p> <p>FIRE PROTECTION INSTALLATION</p> <p>LIFT INSTALLATION</p>	
	<p>TOTAL MECHANICAL INSTALLATIONS CARRIED TO MAIN SUMMARY (Excluding 15% VAT)</p>	

G-FLEET: BUILDING L
MECHANICAL INSTALLATIONS
BILLS OF QUANTITIES
INDEX

2024/04/29

<u>ITEM</u>	<u>DESCRIPTION</u>
1	PRELIMINARY & GENERAL
2	HVAC INSTALLATION
3	PLUMBING INSTALLATION
4	SANITARY DRAINAGE INSTALLATION
5	FIRE PROTECTION INSTALLATION
6	SUMMARY

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PRELIMINARY & GENERAL				
	The Tenderer shall allow for whatever cost he may consider necessary for Preliminary and General to carry out the Mechanical Installations as detailed in the Conditions of Contract, the Specifications, the Bills of Quantities, and as indicated on the Tender Drawings.				
1	NOMINATED/SELECTED SUBCONTRACT AGREEMENT				
1.1	Compliance with Nominated/Selected Subcontract Agreement, JBCC	Sum	1		
2	PRELIMINARIES				
2.1	Compliance with Specific Preliminaries of Main Contract	Sum	1		
3	SITE ESTABLISHMENT				
3.1	Allow for all associated services and for storage plant, materials and equipment including protection thereof.	Sum	1		
4	TRANSPORT, RIGGING & LIFTING				
4.1	Provide and arrange transport of all material and equipment to site as well as workmen and staff.	Sum	1		
5	COMMISSIONING AND TESTING				
5.1	Commissioning and Testing. Supply all test equipment and labour for testing, commissioning and adjustments of all portions of the installation, as well as attendance for any inspection and test that the Representative/Agent may call for.	Sum	1		
6	GUARANTEE & MAINTENANCE				
6.1	Comprehensive free maintenance for a period of 12 months (after handover) against defects in equipment and material but wear, tear excluded, including monthly inspection and to be called as and when there are related problems during this period.	Sum	1		
7	TRAINING				
7.1	Training of Operators and Maintenance Staff.	Sum	1		
8	AS BUILT DRAWINGS				
8.1	Submission of 3off 'As Built' drawings indicating the final positioning and layout the mechanical equipment, as installed on site by the Contractor.	Sum	1		
9	OPERATING & MAINTENANCE MANUALS				
9.1	Compilation and submission of 3 No. Operating & Maintenance (O&M) manuals for the mechanical installations, strictly in accordance with the format in the specification.	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<u>AIRCONDITIONING - DX SPLIT SYSTEM</u>					
<p>These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Tender Drawings, which contain the full descriptions of the work to be done, material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Tender Drawings for the full meaning and full descriptions of the work to be done. All materials, equipment, fixings, etc, are to be supplied by the Contractor unless otherwise stated and are deemed to be included in the rates.</p> <p>All rates supplied in this Bill of Quantities will be deemed to include scaffolding to any height and fixing of air conditioning and mechanical ventilation ductwork, piping and wiring, up to and including roof height. All ducts and pipes suspended from concrete slabs, roof, ceiling, etc. shall be deemed to include in the rates all necessary hanger brackets, threaded rod (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab.</p>					
1	<u>CEILING CASSETTE INSTALLATION</u>	Supply and install an indoor inverter type DX 4-way blow cassette type air conditioning unit, complete with air filter, refrigerant piping, cassette panels, wired controller, condensate drain pump, and connections. Refrigerant gas R410A.			
1,1	5.6 kW DX Ceiling Cassette Unit (CAS-01)	No	1		
2	<u>MIDWALL UNIT INSTALLATION</u>	Supply and install an indoor inverter type DX 4-way blow midwall heat pump type air conditioning unit, complete with air filter, refrigerant piping, cassette panels, wired controller, condensate drain pump, and connections. Refrigerant gas R410A.			
2,1	2.5 kW DX Ceiling Cassette Unit (MW-01)	No	2		
3	<u>ELECTRICAL & CONTROL WIRING</u>	Electrical connection between the indoor air conditioning unit and the outdoor condensing unit, and all interconnecting control wiring. Note: Electrical isolator to be supplied and installed by the Electrical Contractor, and all final electrical connections to the air conditioning unit be carried out by the HVAC Contractor's competent, certified electrician.			
3,1		Sum	1		
4	<u>REFRIGERANT PIPING</u>	Supply and install refrigerant piping and connect to air conditioning units as shown on the Tender drawings.			
4,1		Sum	1		
5	<u>CONDENSATE PIPING</u>	Supply and install 25mm PVC condensate drain pipes and fittings, complete with "P" trap, connect to air conditioning unit and run at fall to the nearest drain point.			
5,1		m	20		
<u>VENTILATION INSTALLATION</u>					
6	<u>WALL EXTRACT AIR FANS</u>	Supply, install, test and commission wall-mounted type air extract fan (WEF-01), with weather resistant housing and integral shutter, including threaded rods and sleeve. Fan to be controlled by light switch.			
6,1	(WEF-01) Air Flow Rate: 30 l/s	No	3		
7	<u>DOOR GRILLES</u>	400mm x 400mm anodised aluminium door grille (DG-01), complete with telescopic back frame with fixed horizontal louvres.			
7,1		No	5		
8	<u>SUPPORTS / CONSUMABLES</u>	Supply and install supports/hangers for A/C Equipment, condensate drain piping, refrigerant pipes and electrical cables including galvanized and PVC trunking for all external and internal refrigerant pipes complete with covers.			
8,1		Sum	1		
9	<u>OTHER</u>	Any other items required for the successful completion of the work but not included in this bill of quantities. <i>Please specify:</i>			
9,1					
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PLUMBING INSTALLATION				
	COLD & HOT WATER INSTALLATION				
	All rates supplied in this bill of quantities will be deemed to include scaffolding to any height and fixing of cold and hot water pipes up to and including roof height. All pipes suspended from concrete slabs, roof, ceiling, etc, shall be deemed to include in the rates all necessary hanger brackets, threaded rod (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab. All cold and hot water pipes are to be chased into walls except where pipes are to be surface-mounted on wall face or run in ceiling voids or inside ducts, and fixed with standard type pipe saddlers and brackets at 1000mm maximum.				
1	PIPING - PEXAL Supply and installation of PEXAL PEX-white pipes for cold water and hot supply pipes completely hung in ceilings or chased in walls, including hanging rods and pipe fittings, valves and clamps.				
1,3	20mm diameter pipe	m	15		
1,4	16mm diameter pipe	m	35		
2	PIPE FITTINGS - PEXAL <u>Extra over pipework for fittings, as shown on the Tender drawings:</u>				
2,2	Ø20mm Equal T-piece	No	10		
2,3	Ø16mm Equal T-piece	No	15		
2,6	Ø20mm Elbow: 90°	No	8		
2,7	Ø16mm Elbow: 90°	No	25		
2,8	Reducer: Ø20mm x Ø16mm	No	15		
3	VALVES				
3,3	Ø20mm Isolation Ball Valve with lever on cold and hot water main pipes	No	6		
3,4	Flexible connector to sanitary fittings	No	15		
3,5	Ø16mm wall plate valve on cold and hot water pipe to sanitary appliance, eg sink, whb, bath, shower or wc.	No	15		
3,7	Ø20mm Male Union Adaptor for Isolation Valves	No	12		
5	HYDROBOIL				
5,1	Supply, and install a 7.5 litre hydroboil (HB), complete with adaptors and pressure reducing & safety relief valve and connecting pipes	No.	1		
6	<u>Electrical and Control Wiring</u>				
6,1	Electrical and control wiring connections between the isolators (provided by the electrical sub-contractor) and heat pumps is to be carried out by the mechanical sub-contractor's competent, certified electrician.	Sum	1		
10	PROVISIONAL ALLOWANCE				
10,1	Allow the amount for connecting into existing services and decommissioning of existing plumbing services	Sum	1		
11	OTHER				
11.1	Any other items required for the successful completion of the work but not included in this bill of quantities. Please specify: (a) (b) (c)				
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SANITARY DRAINAGE INSTALLATION				
	For preambles see "Model Preambles for Trades (2008 Edition)" and applicable Supplementary Preambles as specified in the Trades. The said Model and Supplementary Preambles apply to all work described in this document. Tenderers are therefor referred to these documents for the full meaning and intention of all descriptions and no claims of any kind whatsoever will be entertained in this regard. These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Technical Specifications for the full meaning of descriptions of work to be done and materials and equipment to be used in this service. All materials, equipment, fixings, brackets, etc. are to be supplied by the Contractor unless otherwise stated.				
1	PVC Piping Polyvinyl Chloride (PVC) pipe for above ground use, as 'Marley Pipe Systems', including couplers in the running length, installed in accordance with SANS 10400 and SANS 10252-2:2004				
1.1	Ø50mm uPVC pipe above ground	m	10		
1.2	Ø110mm uPVC pipe above ground	m	10		
2	FITTINGS <u>Extra over PVC pipework fittings, as shown on the drawings:</u>				
2.1	Ø50mm fitting; 135° Access Heel Bend (45° Bend)	No	6		
2.2	Ø50mm fitting; 87.5° Access Heel bend (90° Bend)	No	10		
2.3	Ø110mm fitting; 135° Access Heel Bend (45° Bend)	No	5		
2.4	Ø50mm x Ø50mm x Ø50mm fitting; 87.5° Single Access Heel Junction (Tee)	No	2		
2.5	Ø50mm x Ø50mm x Ø50mm fitting; 135° Single Access Heel Junction (Wye)	No	2		
2.6	Ø110mm x Ø100mm x Ø110mm fitting; 87.5° Single Access Heel Junction	No	5		
2.7	Ø110mm x Ø100mm fitting; 135° Single Access Heel Junction (Wye)	No	8		
2.8	Ø100mm vent 2-way valve	No	5		
3	PAN COLLECTORS				
3.1	Ø110mm Straight pan collars/connector with rubber ring	No	5		
4	WASTE TRAPS				
4.1	Dutton Chrome Plated Bottle Trap, complete with coupling clamps and adapter.	No	6		
5	GULLEY TRAPS				
5.1	Ø110mm gulley trap, complete with P-trap, gulley head and grate, as shown on the drawings	No	3		
6	RODDING EYES				
6.1	Ø110mm PVC rodding eye	No	2		
7	FLOOR DRAINS				
7.1	110mm diameter Floor Drain, including associated pipework and fittings	No	0		
8	PIPING - BELOW GROUND Polyvinyl Chloride (PVC) pipe laid below ground, and not exceeding 1m deep, as 'Marley Pipe Systems' or equal approved, including couplers in the running length, installed in accordance with SANS 10400 and SANS 10252-2:2004				
8.1	Ø110mm uPVC pipe laid below ground, not exceeding 1m deep	No	8		
9	FITTINGS <u>Extra over PVC pipework fittings below ground, as described above, and as shown on the drawings:</u>				
9.1	Ø110mm fitting; 135° Access Heel Bend (45° Bend)	No	12		
9.2	Ø110mm fitting; 87.5° Access Heel bend (90° Bend)	No	2		
9.3	Ø110mm x Ø100mm fitting; 135° Single Access Heel Junction (Wye)	No	8		
10	PROVISIONAL ALLOWANCE				
10.1	Allow the amount for connecting into existing services and decommissioning of existing drainage services	Sum	1		
11	OTHER				
11.1	Any other items required for the successful completion of the work but not included in this bill of quantities. Please specify: (a) (b) (c)				
	TOTAL CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<p>FIRE PROTECTION INSTALLTION</p> <p>These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Technical Specifications for the full meaning of descriptions of work to be done and materials and equipment to be used in this service. All pipes suspended from concrete slabs, roof, ceiling, etc. shall be deemed to include in the rates, all necessary hanger brackets, threaded rod (irrespective of the suspension length or height), nuts, washers, anchors and drilling of holes in the concrete slab. All materials, equipment, fixings, brackets, etc. are to be supplied by the Contractor unless otherwise stated.</p> <p>These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. All materials, equipment, fixings, brackets, etc. are to be supplied by the Contractor unless otherwise stated.</p>				
1	<p>FIRE EXTINGUISHERS</p> <p>4.5kg Dry Chemical Powder (DCP) type fire extinguisher with bracket fixed to and including 25 x 100 x 600mm polished hard wood backboard with chamfered edges plugged to brick wall.</p>	No	2		
2,1	<p>FIRE EQUIPMENT ESCAPE ROUTE SIGNAGE</p> <p>Photoluminescent signage and warning notices in accordance with SANS 1186-1: 2008, and incorporating pictographs, securely fixed to wall, door, ceiling or soffit as shown on fire protection drawings, with aluminium frame.</p>	No	10		
3,1	<p>OTHER</p> <p>Any other items required for the successful completion of the work but not included in this bill of quantities. <i>Please specify:</i></p> <p>(a)</p> <p>(b)</p> <p>(c)</p>				
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	AMOUNT
	<p>2024/04/29</p> <p><u>MECHANICAL INSTALLATIONS - BUILDING L</u></p> <p><u>SUMMARY</u></p> <p>PRELIMINARY & GENERAL</p> <p>HVAC INSTALLATION</p> <p>PLUMBING INSTALLATION</p> <p>SANITARY DRAINAGE INSTALLATION</p> <p>FIRE PROTECTION INSTALLATION</p>	
	<p>TOTAL MECHANICAL INSTALLATIONS CARRIED TO MAIN SUMMARY (Excluding 15% VAT)</p>	