

**PROPOSED BULAPESA COMMUNITY PROJECT IN
ISIOLO**

BILLS OF QUANTITIES

5/16/2022

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

THE FOLLOWING BILLS OF QUANTITIES REFERRED TO IN THIS CONTRACT

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INSTRUCTIONS TO TENDERERS

1. Checking

The Tenderer is required to check the numbers of the pages and should any be found to be missing or in duplicate or the figures or writing indistinct, he must inform the Quantity Surveyor immediately and have the same rectified. Should the Tenderer be in doubt about the precise meaning of any words or figures he must inform the Quantity Surveyor in order that the correct meaning may be decided upon before the date for the submission of the tender.

No liability whatsoever will be admitted nor claim allowed in respect of errors in the tender due to mistakes in the Bills of Quantities which should have been rectified in the manner spelt above.

2. Alteration or Qualification of tender documents

The Contractor shall not alter or otherwise qualify the text of these Bills of Quantities. Any alteration or qualification made without authority will be ignored and the text of the Bills of Quantities as printed will be adhered to.

Any alteration, qualification or addition made by the tenderer without authority may cause the tender to be disqualified.

3. Queries during tendering

Any doubt or perceived ambiguity as to the meaning or intention of the tender documents, or any other question arising shall be communicated in writing to the Quantity Surveyor before the tender is submitted. The Quantity Surveyor will upon receipt of any such query, set out the intent and meaning of any part. Written copies of the Quantity Surveyor's response including a description of the inquiry but without identifying its source, will be sent to all prospective tenderers who have been issued with the tender documents.

4. Amendment of tender documents

At any time prior to the deadline for submission of tenders, the Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective tenderer, modify the tender documents by the issuance of an Addendum.

INSTRUCTIONS TO TENDERERS -(CONTINUED)

4. Amendment of tender documents - (continued)

The Addendum will be sent in writing or by cable to all invited tenderers who have been issued with the tender documents and will be binding upon them. Prospective tenderers shall promptly acknowledge receipt thereof by letter or cable to the Employer.

In order to afford prospective tenderers reasonable time in which to take an addendum into account in preparing their tenders, the Employer may, at his own discretion, extend the deadline for the submission of tenders.

5. Completion and filling of BoQS and tender documents

The excel documents has been linked with formulas and the contractors are needed to fill rates section as per the specified items and it would updates automatically on the grand summary page.

The section where the rates would be entered has been also highlighted in the **light greyish** for easier identification and filling.

The contractor would also need to enter the name on the first sheet of the BoQs of the Elevated Water Tank, top right corner greyish cell, and the contractors name would be captured on other sheet.

The contractor should make sure it has filled all the rates section before submission as well as other section highlighted or requested.

Lumpsum pricing and willfully omitting to price an item shall render the tender liable to disqualification and any item(s) not priced shall not in any case be taken into consideration.

The tenders shall be witnessed as to validity. Tenders not so witnessed shall be declared invalid and therefore non-responsive.

6 Modification and withdrawal of tenders

A tenderer may modify or withdraw his tender after submission, provided that the modification or notice of withdrawal is received in writing prior to the prescribed deadline for submission of tenders

The tenderer's modification or notice of withdrawal shall be prepared, sealed, marked and delivered with the inner envelope additionally marked "**modification**" or "**withdrawal**" as appropriate.

No tender shall be modified or withdrawn after the deadline for submission of tenders. In the event of a tenderer withdrawing before the tenders are opened, his tender will be returned un-opened in an outer envelope bearing the name and address of the tenderer without any other markings.

INSTRUCTIONS TO TENDERERS -(CONTINUED)

7. Determination of Responsiveness

Prior to the detailed evaluation of tenders, the Employer will determine whether each tender is substantially responsive to the requirements of the tender documents.

For purposes of this instruction, a substantially responsive tender is one which conforms to all the terms and conditions and specifications of the tender documents without material deviation or reservation. A material deviation or reservation is one which affects in any substantial way, inconsistent with the tender documents, the Employer's rights or the tenderer's obligations under the Contract, and the rectification of which deviation or reservation would affect unfairly the competitive position of other tenderers presenting substantially responsive tenders.

If a tender is not substantially responsive to the requirements of the tender documents, it will be rejected by the Employer and may subsequently be made responsive by the tenderer having corrected or withdrawn the non-conforming deviation or reservation.

8. Drawings

Before presenting the tender, the tenderer shall examine the drawings which may be viewed at the offices of the Architect or Quantity Surveyor during normal working hours and shall satisfy himself regarding their detail as no claim by reason of ignorance in this connection will be allowed.

9. Correction of Errors

Tenders that are substantially responsive will be checked by the Employer for any arithmetic errors in computation and summation. Errors will be corrected by the Employer as follows:

- .01 where there is a discrepancy between amount in figures and in words the amount in words will prevail, and
- .02 where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit rate and the quantity, the unit rate as quoted will prevail, unless in the opinion of the Employer there is an obvious gross misplacement of the decimal point in the rate, in which case the total amount as quoted will prevail and the unit rate will be corrected.

Notwithstanding the adjustments as foresaid, the amounts stated in the Form of Tender shall be taken as absolute and therefore shall not be changed.

INSTRUCTIONS TO TENDERERS -(CONTINUED)

9. Correction of Errors - (continued)

In the event of a discrepancy between the tender and the corrected tender figure as stated in the main summary of the Bills of Quantities the following shall be adopted:

- .01 The tender amount as stated in the Form of Tender shall override the tender amount in the Main Summary after correction. Such discrepancy will be notified to the tenderer who will then have the opportunity of confirming or withdrawing his tender.
- .02 The difference between the tender amount and the corrected tender sum shall be expressed as a percentage of the corrected tender sum nett of prime cost and provisional sums as a "**Correction factor**".
- .03 The above "**Correction factor**" shall be applied as a reduction or an addition as the case may be to adjust the contractor's rates in the Bills of Quantities for the evaluation of Variations, Valuations for interim certificates and measurements for final account.
- .04 Any discount given by the tenderer shall be treated as a discrepancy in accordance with sub-paragraph .03 above.

10. Preliminaries Section

Whereas this section should be carefully priced, no front loading shall be allowed. Any amount, which in the opinion of the Employer has been front loaded shall be relocated in the measured section of the Bills of Quantities at the discretion of the Employer, otherwise the tender shall be liable to disqualification as irresponsible.

11. Tender Validity

The tender shall remain valid for a period of ninety (90) days from the date of submission of tenders

12. Site Visit

The tenderers are highly advised to visit the site and acquaint themselves with the conditions on site before presenting their tenders. Where works are described as "to match existing, the Contractor must ensure that. No claim for want of knowledge arising from failure to ascertain the site conditions will be entertained or allowed under any circumstances.

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

GENERAL PRELIMINARIES

A PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES

The Preliminaries items are **NOT TO BE PRICED individually**, rather the contractor's rates in the construction works are deemed to be inclusive of preliminaries, general items and preambles.

Any item indicated in this part of the Bills of Quantities and is required to be done by the Contractor, shall be so executed without any rate against that particular item. The Contractor is advised to include appropriate cost in the work rates to include such additional costs.

The Contractor shall defend, indemnify and hold harmless the Employer and its agents employees, from and against claim, cost, expense, damage, loss, or liability (including attorneys' fees) due to costs associated in execution Preliminaries work items. However, the Contractor shall never be negligent on its part in execution of works of Preliminary nature.

B PROVISIONAL WORKS

In case of any omission of part of the contractual work, the contractor shall not be liable to claim any additional costs relating to loss of profit or any other cost

C ABBREVIATIONS

Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:

mm shall mean millimetre
M or m shall mean linear metre
sm shall mean square metre
M2 shall mean square metre
m² shall mean square metre
cm shall mean cubic metre
M3 shall mean cubic metre
m³ shall mean cubic metre
kg shall mean kilogram
N shall mean Newton
KN shall mean Kilonewton
in/" shall mean inches
lf shall mean linear foot
sf shall mean square foot
cf shall mean cubic foot
lb shall mean pound avoirdupois
No. shall mean number
Prs shall mean pairs
m/s. shall mean measured separately

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GENERAL PRELIMINARIES



LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (CONTD.)

METHOD OF MEASUREMENT (Cont'd)

B.S. shall mean the current British Standard Specification published by the British Standard Institution, 2 Park Street, and LONDON W.I., ENGLAND.

K.S. shall mean the current Kenya Standard Specification published by the Kenya Bureau of Standards, P. O. Box 54974, NAIROBI, Kenya.

'As Described' shall mean as described in these Bills of Quantities.

'As before described' shall mean in all respects as described in a previous item.

A METHOD OF MEASUREMENT

The Bills of Quantities have been prepared in accordance with the general principles of the Standard Method of Measurement of Building and Associated Civil Works for East Africa, Second Edition (Metric), published by the Architectural Association of Kenya, Chapter of Quantity Surveyors in June 2008. The quantities are measured net of the built dimension and no working space is allowed

The exceptions to the Standard Method of Measurement are as follows:

Clause B 19 (b) of the Standard Method of Measurement is deleted and the following clause substituted:

Attendance on nominated sub-contractors shall be given as an item in each case and shall be deemed to include allowing use of standing scaffolding, messrooms, sanitary accommodation and welfare facilities; providing space for office accommodation and for storage of plant and materials; providing light and water for their work; clearing away rubbish; unloading facilities for storage (as specified under "Storage of Material" in these Preliminaries) hoisting, providing water and power (as specified under "water and Electricity Supply for the Works" in these Preliminaries) and removing and replacing duct covers, pipe casings and the like necessary for the execution and testing of Sub-Contractor's work; providing templates, dimensions and supervision, for the proper carrying out of the Sub-Contractor's work and being responsible for the accuracy of the same.

B FORM OF CONTRACT

Special Contract conditions supplied together with these tender documents shall be the form of contract.

All the payment of other items that are not included in these General Preliminaries or elsewhere under Particular Preliminaries but included in the contract provisions, shall be part of the form of contract. The contractor can prepare its separately but its payments shall be deemed to have been included in the rates and shall not therefore form parts of the Contract Sum

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GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (CONTD.)

A PROGRAM OF THE WORKS

The Contractor shall provide, within two weeks of the date for possession of the site and in agreement with the Architect and Employer a Progress Chart for the whole of the Works including the Works of Nominated Sub-Contractors. One copy shall be forwarded to the Architect and another to the Employer and a further copy shall be retained on the site on which the Contractor shall record the progress. Should any circumstances arise affecting the programme or progress, the chart shall be modified as necessary and the Architect and Employer informed.

The contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the contractor's obligations

B MATERIALS AND WORKMANSHIP

All materials and workmanship used in the execution of the works shall be of the best quality and description unless otherwise described.

The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that they are on site when required for use in the works. The Bills of Quantities shall not be used for the purposes of ordering materials. Any additional cost incurred due to exchange rates for imported goods/materials will be deemed to be included in the rates except where the exchange rate differs with more than 10% from the Base date. The base date will be agreed between the Employer and the main contractor

C STORAGE OF MATERIALS

The Contractor shall provide at his own risk and cost where directed on the site weatherproof lockup sheds for the safe storage and custody of materials for the works and for the use of workmen engaged thereon and shall remove such sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the Architect. Nominated Sub-Contractor are to be liable for the cost of any storage accommodation provided especially for their use.

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GENERAL PRELIMINARIES



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PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (Cont'd)

A SAMPLES AND TESTING

The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the Architect for his approval or rejection until such samples are approved by the Architect and the Architect may reject any materials or workmanship not in his opinion up to the approved samples.

The Contractor shall arrange for the testing of such materials as directed by the Architect. The Contractor shall pay all charges in connection with the tests and such costs are deemed to be included in his tender. Notwithstanding the results of the tests the Architect may reject any materials that in his opinion are not in accordance with the specification.

The procedure for submitting samples of materials for testing and the method of marking for identification shall be as directed by the Architect.

The Contractor shall allow in his Tender for making and delivering samples for testing and paying all charges of the approved testing laboratory.

B PLANT, TOOLS AND VEHICLES

Allow for providing all scaffolding, plant, tools and vehicles required for the works except insofar as may be stated otherwise herein and except for such items specifically and only required for the use of the nominated Sub-Contractors as described herein. No timber used for scaffolding, formwork or temporary works of any kind shall be used afterwards in the permanent work.

C GOVERNMENT ACTS REGARDING WORKPEOPLE, ETC.

Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act of 1950, and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulations relating to Insurance, Pensions and Holidays for workpeople or the safety, health or welfare of work people.

The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc. It is most important that the Contractor before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of knowledge in this connection will be entertained.

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GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (Cont'd)

A SECURITY GENERALLY

The Contractor shall be entirely responsible for the security of the works and shall provide all necessary watching, lighting and other precautions necessary to ensure security against theft, loss or damage and the protection of the public.

The Contractor shall also be entirely responsible for the security of the stores, materials, plants personnel, etc., both his own and the Sub-Contractors' and shall take all measures and precautions as necessary.

The Contractor shall leave works secure at completion with all accesses locked, account for all keys and hand over to the Architect with an itemized schedule, retaining a duplicate schedule signed by the Architect as receipt.

B SIGN FOR MATERIALS SUPPLIED

The Contractor will be required to sign a receipt for all articles and materials supplied by the Employer at the time of taking delivery thereof, as having received them in good order and condition, and will thereafter be responsible for any loss or damage and for replacement of any such loss or damage with articles and/or materials which will be supplied by the Employer at current market prices including all duties and taxes, all at the contractor's own cost and expense, to the satisfaction of the Employer.

C PUBLIC AND PRIVATE ROADS

Maintain as required throughout the execution of the works and make good any damage to public or private roads arising from or consequent upon the execution of the works to the satisfaction of the local or other competent authority and the Architect.

D EXISTING PROPERTY

The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services, and he shall be held responsible for and shall make good all such damage arising from the execution of this Contract at his own expense to the satisfaction of the Architect.

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GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (Cont'd)

A VISIT SITE AND EXAMINE DRAWINGS

The Contractor is recommended to examine the drawings and visit the site, the location of which is described herein before. He shall be deemed to have acquainted himself therewith as to its nature, position, means of access or any other matter which may affect this tender. No claim arising from his failure to comply with this recommendation will be considered.

B ACCESS TO SITE AND TEMPORARY ROADS

Means of access to the site shall be agreed with the Employer prior to commencement of the work the Contractor must allow for building any necessary temporary access roads for the transport of the materials, plant and workmen as may be required for the complete execution of the works including the provision of temporary culverts, crossing, bridges, or any other means of gaining access to the site

Upon completion of the works, the Contractor shall remove such temporary access roads, temporary culverts, bridges, etc., and make good and reinstate all works and surfaces disturbed to the satisfaction of the Architect.

The contractor is advised that the site is located in a remote area of the Marsabit County and shall therefore be responsible for delivery of construction materials to the site. This shall be deemed to be included in the contractor's rates.

Should there be adverse weather condition, the contractor shall continue working normally and any difficulty/additional costs resulting from effect of adverse weather shall be deemed to be included in the contractor's rates.

C AREA TO BE OCCUPIED BY THE CONTRACTOR

The area of the site which may be occupied by the Contractor for use of storage and for the purpose of erecting workshops, etc., shall be defined on the site by the Architect.

D WATER AND ELECTRICITY SUPPLY FOR THE WORKS

The Contractor shall provide at his own risk and cost all necessary water, electricity light and power required for use in the works.

He must also provide temporary storage tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the Architect. The Contractor shall pay all charges in connection therewith.

Nominated Sub-Contractors are to be made liable for the cost of any water or electric current used for any installation whatsoever provided especially for their own use.

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PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (Cont'd)

A SUPERVISION AND WORKING HOURS

The works shall be executed under the direction and to the entire satisfaction in all respects of the Architect who shall at all times during normal working hours have access to the works and to the yards and workshops of the Contractor and Sub-Contractor or other places where work is being prepared for the Contract.

The working hours shall be those generally worked by good employers in the Building and Civil Engineering Trades in Kenya. No work shall be carried out at night or on gazetted holidays unless the Architect shall so direct. No work shall be covered up nor shall any concreting be carried out in the absence of the Clerk of Works without the prior approval of the Architect in writing.

B SANITATION OF THE WORKS

The sanitation of the works shall be arranged and maintained by the Contractor to the satisfaction of the Government and/or Local Authorities, Labour Department, and the Architect.

C PROVISIONAL SUMS

The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A, Item A7 (i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.

D PRIME COST (P.C.) SUMS

The term "Prime Cost Sum" or "P.C Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A Item A7 (ii) of the Standard Method of Measurement.

Persons or firms nominated by the Architect to execute work or to provide and fix materials or goods as stated in clause 31 and 32 of the Conditions of Contract are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.

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GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (Cont'd)

A ADJUSTMENT OF P.C. SUMS

In the final account all P.C. Sums shall be deducted and the amount properly expended upon the Architect's order in respect of each of them added to the Contract sum.

The Contractor shall produce to the Architect such quotations, invoices or bills, properly receipted as may be necessary to show the actual details of the sums paid by the Contractor. Items of profit upon P.C. Sums shall be adjusted in the final account pro-rata to the amount paid.

Items of "attendance" and "special attendance" following P.C. Sums shall be adjusted pro-rata to the physical extent of the work executed (not pro-rata to the amount paid) and this shall apply even though the Contractor's priced Bill shows a percentage in the rate column in respect of them.

Should the Contractor be permitted to tender and his tender be accepted for any work for which a P. C. Sum is included in these Bills of Quantities profit and attendance will be allowed at the same rate as it would be if the work were executed by a nominated Sub-Contractor.

B ADJUSTMENT OF PROVISIONAL SUMS

In the final account all Provisional Sums shall be deducted and value of the work properly executed in respect of them upon the Architect's order added to the Contract Sum.

Such work shall be valued as described for Variations in Clause No. 30 of the Conditions of Contract, but should any part of the work be executed by a Nominated Sub-Contractor or any articles for the work to be supplied by a Nominated Supplier, the value of such work or articles shall be treated as a P.C. Sum and profit and attendance comparable to that contained in the priced Bills of Quantities for a similar items added.

C NOMINATED SUB-CONTRACTOR

When any work is ordered by the Architect to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts as described in Clause No. 31 of the Conditions of Contract and shall thereafter be responsible for such sub-contractors in every respect.

Unless otherwise described the contractor is to provide for such sub-contracts any or all of the facilities described in these Preliminaries.

The Contractor should price for these with the nominated sub-contractor's work concerned in the P.C. Sums under the description "Add for Attendance".

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GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (Cont'd)

A ATTENDANCE UPON NOMINATED SUB-CONTRACTORS

The term “attendance” following P.C. Sums for Nominated Sub-Contractors’ work in these Bills of Quantities shall be deemed to include both attendance and items of special attendance.

B DIRECT CONTRACTS

Notwithstanding the foregoing conditions, the Employer reserves the right to place a “Direct Contract” for any goods or services required in the works which are measured or covered by a P.C. or Provisional Sum in the Bills of Quantities and to pay for the same direct. In any such instance, profit relative to the P.C. Sums in the priced Bills of Quantities will be adjusted as described for P.C. Sums.

C ATTENDANCE UPON OTHER TRADESMEN, ETC.

The Contractor shall allow for the attendance of trade upon trade and shall afford any tradesmen or other person employed for the execution of any other work not included in this contract every facility for carrying out their work and also for the use of his ordinary scaffolding. The Contractor, however, shall not be required to erect any special scaffolding for them.

The Contractor shall perform such cutting away for and making good after the work of such tradesmen or persons as may be ordered by the Architect and the work will be measured and paid for the extent executed at rates provided in these Bills.

D INSURANCE

The Contractor shall insure the works and provide a copy of the insurance policy to the Engineer/Architect for his comments and recommendations before handing the rectified policy copy to the Employer

No payment on account of the work executed will be made to the Contractor until he has satisfied the Architect and Employer either by production of an Insurance Policy or an Insurance Certificate that the provisions of the foregoing Insurance Clauses have been complied with in all respects and to their satisfaction.

Thereafter the Architect shall from time to time ascertain that Premiums are duly paid up by the Contractor who shall, if called upon to do so produce receipted premium renewals for the Architect’s inspection.

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PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (Cont'd)

A PROVISIONAL WORK

All work described as “Provisional” in these Bills of Quantities is subject to re-measurement in order to ascertain the actual Quantity executed for which payment will be made.

All “Provisional” and other work liable to adjustment under this contract shall be left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the Quantity Surveyor. Immediately the work is ready for measuring, the contractor shall give notice to the Quantity Surveyor.

If the Contractor makes default in these respects he shall uncover at his expense the work to enable all measurements to be taken and afterwards reinstate at his own expense.

B ALTERATIONS TO BILLS, PRICING, ETC.

Any unauthorised alteration or qualification made to the text of the Bills of Quantities may cause the Tender to be disqualified and will in any case be ignored.

The Contractor shall be deemed to have made allowance in his prices generally to cover any items against which no price has been inserted in the priced Bills of Quantities. All items of measured work shall be priced in detail and Tenders containing Lump Sums to cover trades or groups of work must be broken down to show the price of each item before they are accepted. Lump Sums to cover any items of Preliminaries shall likewise be broken down if so required.

C BLASTING OPERATIONS

Blasting will only be allowed with the express permission of the Architect in writing.

All blasting operations shall be carried out at the Contractor’s sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Architect governing the use and storage of explosives.

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GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (Cont'd)

A MATERIALS ARISING FROM EXCAVATIONS

Materials of any kind obtained from the excavations shall be the property of the Employer. Unless the Architect directs otherwise, such materials shall be dealt with as provided in the contract.

Such materials shall only be used in the works, in substitution of materials which the Contractor would otherwise have had to supply with the written permission of the Architect. Should such permission be given the Contractor shall make due allowance for the value of the materials so used at a price to be agreed.

B PROTECTION OF THE WORKS

Provide protection of the whole of the works contained in the Bills of Quantities, including casing up, covering or such other means as may be necessary to avoid damage to the satisfaction of the Architect and remove such protection when no longer required and make good any damage which may nevertheless have been done at completion free of cost to the Employer.

C REMOVAL OF RUBBISH, ETC.

Remove all rubbish and debris from the buildings and site as it accumulates and at completion of the works and remove all plant, scaffolding and unused materials at completion.

D WORKS TO BE DELIVERED UP CLEAN

Clean and flush all gutters, rainwater and waste pipes, manholes and drains, wash (except where such treatment might cause damage) and clean all floors, sanitary fittings, glass inside and outside and any other parts of the works which may require it; remove all marks, blemishes, stains and defects from joinery fittings and decorated surfaces generally, polish door furniture and bright parts of metal work and leave the whole of the buildings watertight, clean, perfect and fit for occupation to the approval of the Architect.

E TRADE PREAMBLES

For the full description of material and workmanship method of the work and notes for pricing the Contractor is referred to the specification and preambles which follow in this document, and which shall be followed in all respects unless they conflict with the Preliminaries, or other items in these Bills of Quantities in which case the contents of the Bills of Quantities shall apply.

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GENERAL PRELIMINARIES

GENERAL PRELIMINARIES (Cont'd)

A TRAINING LEVY

The Contractor's attention is drawn to the Legal Notice No. 237 of October, 1971 (and subsequent amendments) which requires payment of a Training Levy on all contracts of more than Kenya Shillings Fifty Thousand (Kshs.50,000/=) in value and his tender must include for all cost arising or resulting therefrom.

B VALUE ADDED TAX

The Contractor's attention is drawn to Value Added Tax Act, Particularly the Contractors' VAT effective September, 1993 and Any other amendments thereafter and his tender is deemed to include for all costs arising or resulting therefrom.

The rates included in the Bills of Quantities will be deemed to include VAT, if the contractor fails to captured it in the grand summary and the Contractor will be required to remit the same to Kenya Revenue Authority

C WITHHOLDING TAX

The Contractor's attention is drawn to the Withholding Tax which will be paid by the Employer and deducted from the contractor's amount. The current value of Withholding Tax is 3% but if the regulation is changed, it will be communicated to the Contractor. The contractor's rates are deemed to include Withholding Tax and no claim shall arise therefrom from the payment of Withholding Tax

D DISPOSAL OF WATER

Allow for keeping excavations free of all water, including spring and running water by pumping or any other means necessary

E MAINTAINING SIDES OF EXCAVATIONS

Allow for maintaining the sides of excavations by planking and strutting or other means required. Additional works caused by the collapse of excavations through inadequate planking and strutting will be at the Contractor's expense.

F WHITE ANTS

Allow for destroying of any white ants' nests found in the vicinity of the buildings, destroy Queen Ants, depositing cyanide lumps in holes and tunnels and filling with approved filling and sealing as appropriate.

G APPENDICES

The Appendices to these Bills of Quantities shall be regarded for Contract purposes as part of the Bills and shall be read and construed with appropriate sections of the Bills as if contained therein.

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

PARTICULAR PRELIMINARIES

A	<p><u>SCOPE OF THE CONTRACT</u></p> <p>The works to be carried out under this contract include construction of an elevated steel section water tank 32,000L on a 12M high tower including all associate features and plumbing works</p> <p>Pipeline connection / extension from tank to Mabatini</p>
B	<p><u>GENERAL DESCRIPTION OF WORKS</u></p> <p>The works shall comprise several structures/facilities including but not limited to the following:</p> <p>- Elevated Water Tank</p> <p>Pipeline extension to Mabatini</p>

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

PARTICULAR PRELIMINARIES

	<p><u>PARTICULAR PRELIMINARIES (Cont'd)</u></p>
	<p><u>GENERAL DESCRIPTION OF WORKS - CONTINUED</u></p>
A	<p><u>DEMOLITIONS AND ALTERATIONS GENERALLY</u></p> <p>The items of pulling down and alterations are to include for both labour and materials and for any shoring, needling, strutting and temporary works in connection therewith.</p>
B	<p><u>LOCATION OF SITE</u></p> <p>The site of the proposed works will be in Proposed Construction of elevated steel section water 32,000L tank on a 12M tower, Bula pesa ward, Isiolo town. The Contractor is advised to liaise with the Employer to be provided with complete details of the site and take as much details as possible since no extra cost shall be allowed for delivery/transport of materials to remote areas.</p>
C	<p><u>ENGINEER/ARCHITECT</u></p> <p>The term 'The Engineer' or 'The Architect' shall be used simultaneously and whenever referred to in the Bills of Quantities shall be deemed to have similar meaning.</p>
D	<p><u>CONSULTANT</u></p> <p>The term "The Consultant" shall be deemed to mean any external person engaged by the Employer to oversee the construction other than the Clerk of Works and the Engineer/Architect described above</p>

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

PARTICULAR PRELIMINARIES

<p>A</p>	<p><u>PARTICULAR PRELIMINARIES (Cont'd)</u></p>
<p>A</p>	<p><u>LABOUR CAMPS</u></p> <p>The contractor will not be allowed to erect labour camps on site and shall take full responsibility for transporting labourers daily to and from the site as required, and the cost of this shall be included in his tender.</p>
<p>B</p>	<p><u>SIGNBOARD</u></p> <p>The contractor will construct a signboard that will include the names of the County Government, project name, contract number and NEMA Licence number, financier and the contractor as shown on the signboard drawing attached to this BoQ. In addition, he will be required to maintain the signboard during the construction period</p> <p>The signboard shall be constructed with 3 No. 75 x 75 x 3mm vertical SHS members supported with 3 No. 75 x 75 x 3mm SHS braces. All the steel members shall be put in concrete base of 600 x 400 x 600mm and shall include all the necessary lugs and the concrete shall be mass concrete class 25 (20mm aggregates).</p> <p>The signboard will also have 25mm thick smooth planed timber fixed to the SHS with 50 x 50mm timber and all necessary screws and bolts. The contractor shall paint the timber background and the backside before placing the names and the numbers described above. The names shall be printed on a waterproof paper in a font type and size as directed by the Architect/Engineer and shall be affixed to the timber members with strong adhesive thus will be required to remain in contact for the whole period of the contract</p> <p>The full specifications of the signboard are as contained in the site construction board drawing. The contractor's price for the signboard shall include all items required as per the said drawing whether described here or not</p> <p>Whenever the local authorities demand payment arising from the erection of the signboard, the contractor shall pay as required and will not be covered under any other item in the Bills of Quantities</p>

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISILO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
<u>SUBSTRUCTURES WORKS</u>					
<u>Digging and leveling work - All provisional</u>					
A	Clear the site off all vegetative growth with and including top 300mm deep vegetative soil, level ground and compact to approval	m ²	16.00		
B	Excavate earth for column bases foundation irrespective of depth and compress the bottom surface (8MPa) according to the technical regulations for this activity. Load, transport and spread on site as directed by the Engineer In price are includes also compressing. (Remark: All expenses for testing of compressing need to included in price)	m ³	20.48		
C	Extra over excavation for excavation in rock (All classes)	m ³	2.05		
D	Return fill and ram selected soil materials. Where the selected materials are not suitable, the contractor will use imported and approved imported materials	m ³	15.15		
E	Selected imported murrum well watered and compacted in layers not exceeding 150mm thick to Engineer's approval	m ³	5.00		
F	Allow for keeping all excavations free from spring, subterranean or flood water	Item	1.00		
G	Allow for all necessary planking and strutting sides of all types of excavation	Item	1.00		
Carried to collection					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISILOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
	<u>SUBSTRUCTURES WORKS - CONTINUED</u>				
	<u>Hardcore backfill</u>				
A	Supply, transport, deliver and handpack gravel 300mm thick below foundation slab, this includes watering and compressing gravel according to standards for this activity	m ²	12.25		
B	50mm thick quarry dust blinding to hardcore (measured separately)	m ²	12.25		
	<u>Damp proof Membrane</u>				
C	Two layers 1000 gauge polythene sheeting with minimum 300mm side and end laps	m ²	12.00		
	<u>Supply, deliver and pour in place lean concrete class 1:3:6 (40mm aggregate)</u>				
D	50mm thick blinding to steel foundation base	m ²	10.24		
	<u>Supply and pour in place vibrated reinforced concrete class 25 (20mm aggregate) in:-</u>				
E	Column bases	m ³	5.00		
F	Column in foundation	m ³	2.00		
G	Grade Beam, 300x200mm	m ³	1.00		
I	150mm thick ground floor slab	m ²	12.00		
	<u>Supply and construct formwork to the sides of the concrete surfaces. The formwork shall comprise acceptable timber or steel shutters with and including mould oil, putting in place and striking off. Where the surface of concrete is disturbed by the striking off, it shall be repaired at the Contractor's cost</u>				
J	Formwork to sides of foundation base	m ²	12.80		
K	Formwork to sides of columns in foundation	m ²	16.00		
L	Edge formwork to sides of ground floor slab	m	2.80		
M	Edge formwork to sides of grade Beam	m	6.96		
	Carried to collection				

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
<u>SUBSTRUCTURES WORKS - CONTINUED</u>					
	Supply, transport, deliver, cutting, bending and installing of steel rods.				
	Hot rolled deformed reinforcement bars with and including bends, hooks, tying wire, distance blocks, and spacers				
A	Assorted reinforcement bars 8 - 16mm diameter	Kgs	400.00		
	<u>Mesh Fabric reinforcement</u>				
B	Fabric mesh reinforcement BRC type A142 weighing 2.22Kg/M2 with minimum 300mm side and end laps	m ²	9.00		
Carried to collection					
<u>COLLECTION</u>					
	Brought forward from page 1				
	Brought forward from page 2				
	Brought down from above				
TOTAL FOR SUBSTRUCTURES CARRIED TO SUMMARY PAGE					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
<u>CONCRETE WORKS</u>					
A	<p><u>Supply and put in place vibrated reinforced concrete class 25 (20mm aggregate) in:-</u></p> <p>Reinforced mass concrete with steps for the ladder base to the approval of the engineer</p>	m ³	0.25		
B	<p><u>Supply and construct formwork to the sides of the strip foundation. The formwork shall comprise acceptable timber or steel shutters with and including mould oil, putting in place and striking off. Where the surface of concrete is disturbed by the striking off, it shall be repaired at the Contractor's cost</u></p> <p>Formwork to vertical sides of columns and ladder base</p>	m ²	2.80		
C	<p><u>Supply, transport, cutting, bending and installing of steel reinforcing rods</u></p> <p><u>Hot rolled deformed reinforcement bars with and including bends, hooks, tying wire, distance blocks, and spacers</u></p> <p>Assorted reinforcement bars 8 - 16mm diameter</p>	Kgs	23.04		
TOTAL FOR CONCRETE WORKS CARRIED TO SUMMARY PAGE					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISILOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
	<p>STEEL WORKS</p> <p>The pricing of steel works shall be deemed to be inclusive of all connection members like gusset plates, drilling of steel members, welded joints, riveted joints, bolts and any other connection detail</p> <p>The contractor is caution while working at height. Necessary scaffolding to be provided and the contractor to ensure the safety of the workers, supervisors, environment and the materials. The contractor shall provide safety harnesses to workers who will be working at height</p> <p>Where welding will be done on site, the contractor will provide approved welding machines with fire extinguishers. Safety clothing shall be worn at all times while welding. No hot works will be allowed inside a building without necessary permits by the Engineer</p> <p>Supply, transport and install Framed structural steelwork to B.S 4360 Grade 43C, with and including shop fabricated connections and site welded, bolted or riveted intersections. The vertical member structural steelwork shall have a height of approximately 4m from ground surface. Crainage, any other false works and application of two coats of aluminium paint are deemed to be included in the rate</p>				
A	<p>100 x 100 x 3 mm Columns vertical members installed directed/instructed by the Engineer with and including any necessary temporary support mechanism, fixing lugs, any fitted plates at top and bottom. Each of the four vertical connected member is approximately 12m and contractor are advised to includes the connection of columns to columns in his rates</p> <p style="text-align: center;">Horizontal Main Bracing</p>	Kgs	438.72		
B	<p>40 x 40 x 3mm RSA, horizontal members with and including metal connection pieces and any other connection bolts</p> <p style="text-align: center;">subsidiary Horizontal Bracing</p>	Kgs	167.04		
C	<p>30 x 30 x 3mm RSA, horizontal members with and including metal connection pieces and any other connection bolts</p> <p style="text-align: center;">Diagonal Bracing</p>	Kgs	44.29		

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
D	40 x 40 x 3mm RSA, diagonal members with and including metal connection pieces and any other connection bolts Diagonal top Vertical Bracing	Kgs	472.46		
E	45 x 45 x 3mm SHS, diagonal members with and including metal connection pieces and any other connection bolts Protection Works	Kgs	69.60		
F	20 x 2.65mm black round pipes as horizontal and vertical members as the protection works welded to the tank platform	Kgs	243.32		
Carried to collection					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
<u>STEEL WORKS - CONTINUED</u>					
Ladder					
A	20 x 2.65mm black round pipes members to the ladder as vertical members	Kgs	94.80		
B	16 x 3mm flat bar members as horizontal	Kgs	44.25		
Main and Secondary Beams					
C	203 x 133 x 25 kg/m I-beam as main beam to support horizontal member with holes, bolts and nuts as a connection to suit	Kgs	300.00		
D	IPE160 x 82 x 15.8 Kg/m as secondary beam to support the steel pressed tanks with holes, bolts and nuts as a connection to suit	Kgs	474.00		
CONNECTIONS					
Base Plates and its ancillaries					
E	20mm thick x 300 x 300mm steel plate welded to steel UC (measured separately) with and including drilling 4 No. holes of 19mm for bolts as baseplates	No.	4.00		
F	20mm grade 4.6 bolts, 700mm U-Bolt , and Nuts for the base Plates	No.	16.00		
Columns - Main Beam Connection Plates					
G	20mm thick x 400 x 400mm Double steel plate welded to steel SHS (measured separately) with and including drilling 4 No. holes for bolts Double	No.	8.00		
H	16mm grade 4.6 bolts, and Nuts for the top Plates	No.	16.00		
Gussets Plates at the beam-Columns levels connections					
I	6mm thick x 210 x 232mm steel plate welded to the sides of UC (measured separately) with and including drilling 4 No. holes of 18mm for bolts as baseplates	No.	8.00		

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
J	16mm grade 4.6 , Bolts and Nuts for the base Plates Gussets Plates at the Columns - Diagonal & Horizontals levels connections	No.	32.00		
K	6mm thick x 415 x 214mm steel plate welded to steel SHS (measured separately) with and including drilling 6 No. holes for bolts as shown in the detailed drawings	No.	52.00		
L	16mm grade 4.6 , Bolts and Nuts for the base Plates Gussets Plates at the Steel Columns base - Diagonal levels connections	No.	208.00		
M	6mm thick x 230 x 219mm steel plate welded to steel SHS (measured separately) with and including drilling 4 No. holes for bolts as shown in the detailed drawings	No.	32.00		
N	16mm grade 4.6 ,Bolts and Nuts for the base Plates Stiffeners at the steel Columns base	No.	64.00		
O	6mm thick x 200 x 75mm stiffeners plate welded to steel SHS Columns (measured separately) as shown in the detailed drawings Bolts and Nuts for criss-crossing bracing at the middle	No.	8.00		
P	16mm grade 4.6 ,Bolts and Nuts for the base Plates Welded Expanded Meshwire	No.	16.00		
Q	1/2" x 1.5mm x 3mm welded expanded meshwire as a walkway at the protection ladder and resting place along the ladder	m ²	11.08		
TOTAL FOR STEELWORKS CARRIED TO SUMMARY PAGE					

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PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
<u>FITTINGS, FINISHES & SUPPLY</u>					
	The contractor shall apply undercoat, one coat of gray oxide primer and galvanized it with silver alluminiumpaint. The engineer shall select the colour shade and code of the paint				
A	apply one coat of Zinc Phosphate primer and two silver alluminium paint to the frame structure	Sum	1.00		
<u>STEEL PRESSED TANKS</u>					
B	Supply and assembly on a steel tower of approximately, 32M3 (preferably 4000mm length x 4000mm width x 2000mm high) galvanized steel tank comprizing of 4mm thick mild steel pressed panels, internal bracing, brackets, calibrated level indicator, 1.5mm galvanized roof cover, fasteners, standard 100NB threaded nozzles, sealants, lockable manholeset c/w the connection pipework (inlet, outlet, overflow and washout)	Sum	1.00		
<u>FITTINGS TO GI, HDPE LINE FROM SOURCE - UNDERGROUND TANK - ELEVATED WATER TANK</u>					
	Supply, deliver and install Galvanized (GI) pipes to specification with all couplings, connectors, unions, nipples, sockets, endcaps, bridges, expansion loops, jointing materials etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, collars, holderbats plugged and screwed, and pipe sleeves through road works.				
	Supply, deliver and install Galvanized (GI) pipes to specification with all couplings, connectors, unions, nipples, sockets, endcaps, bridges, expansion loops, jointing materials etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, collars, holderbats plugged and screwed, and pipe sleeves through road works.				
C	63mm GI overflow Pipes interconnected into Pressed steel tank	m	18.00		

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
D	63mm GI Drain Pipes interconnected into Pressed steel tank	m	15.00		
E	Provisional inlet 63mm GI Pipes interconnected into the pressed steel tanks to be connected in tandem with borehole rising main	m	24.00		
F	160mm GI Outlet Pipes interconnected from the Pressed steel tank	m	18.00		
	<u>Valves</u>				
G	Manhole Control Chamber 1.2 x 1.2 x 1.0 m with a manhole cover with 50mm diameter brass high pressure screw-down fullway non-rising stem, solid wedge disc sluice valve as "Pegler" and to be complete with matching diameter GMS union and adaptors.	No	1.00		
H	Allow for connection of the borehole to the steel tank inlet	No	1.00		
TOTAL FOR CONCRETE WORKS CARRIED TO SUMMARY PAGE					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM IMPLEMENTED BY LMS

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

32M³, on a 12m high Tower, ELEVATED WATER TANK TOWER



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
1	SUBSTRUCTURES			From Page 3	
2	CONCRETE WORKS			From Page 4	
3	STRUCTURAL STEEL			From Page 6	
4	FINISHES & SUPPLY OF 32m3 PRESSED STEEL TANKS			From Page 8	
TOTAL CARRIED TO GRAND TENDER SUMMARY PAGE					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

SOURCE - MABATINI AREAS/VILLAGE



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
11aD	<u>DEMOLITION & SITE CLEARANCE</u>				
11aD1	GENERAL CLEARANCE				
11aD162	Dense bush and thicket Locally disposed. (Provisional)	M ²	240.0		
11aD2	REMOVAL OF TREES AND STUMPS				
11aD212	Trees of girth: 500 mm - 1 m., locally disposed. (Provisional) volume:100 - 250 m ³ . (Provisional)	nr	10		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					
	WAYLEAVES, DISPOSAL LOCAL,				
11aD521	Nominal bore: 100 - 300 mm., Pipeline only	m	1,200		
11aD6	REMOVAL OF ANT AND TERMITE HILLS AND NESTS				
11aD622	Along pipeline routes, excess material locally disposed. (Provisional)	m3	2		
11aE6	EXCAVATION				
11aE313	Excavation of 0.6 m deep by .4m wide for pipe laying locally disposed. (Provisional)	m	1,200		
11aF6	BACKFILLING				
11aF641	Backfill with required MDD the excavated soil on the trench locally disposed. (Provisional)	m	1,200		

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

SOURCE - MABATINI AREAS/VILLAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
	<u>PIPE & FITTINGS - SUPPLY AND INSTALL</u>				
I7	Supply, deliver, join(fusion) and install HDPE coil PN 10 pipes to specification with all couplings, connectors, unions, nipples, sockets, endcaps, bridges, expansion loops, jointing materials etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, collars, holderbats plugged and screwed, and pipe sleeves through road works.				
11aI712.4j	32 mm diameter to Village B and off to School	m	200		
11aI712.4j	50 mm diameter	m	400		
11aI712.4j	63 mm diameter	m	400		
I7	Supply, deliver, join(fusion) and install GI 10 pipes to specification with all couplings, connectors, unions, nipples, sockets, endcaps, bridges, expansion loops, jointing materials etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, collars, holderbats plugged and screwed, and pipe sleeves through road works.				
11aI712.4j	32 mm diameter to Village B and off to School	m	20		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					
J6	Fittings to HDPE pipes				
	HDPE Bends Socket and Spigot				
	<u>22.5o Long radius bends</u>				
11aJ611.4j	75 mm diameter	nr			
	<u>90o Long radius bends</u>				
11aJ611.4j	50 mm diameter	nr	1		
I4	Fittings in Steel to HDPE pipes or HDPE to HDPE				
	Welded Steel pipes to SSRN 216 externally & Internally fusion bonded Epoxy to SSRN 241				
11aJ611.4j	90/90mm diameter	nr			
	<u>Tees branch down 1 diameter.</u>				
11aI432.4l	50/32 mm diameter	nr			
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

SOURCE - MABATINI AREAS/VILLAGE



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
	HDPE Reducer, Joined by fusion, suit to HDPE pipes <u>Concentric, down as stated</u>				
11aI631.4I	50/32 mm diameter	nr	1		
11aI631.4I	63/50 mm diameter	nr	1		
	Adaptors, detachable collars couplings & saddles				
	<u>Flexible, wide range/stepped couplings</u> <u>NP 10 to suit to GI/PVC and steel Pipes</u>				
11aJ341.4j	63 mm diameter,	nr	4		
	<u>Universal Flanged adaptor, flexible, NP 10 to suit GI/PVC and steel pipes</u>				
11aI485.4g	63 mm diameter,	nr	1		
	<u>Quick adaptor, flexible, NP 10 to suit HDPE pipes,</u>				
11aI485.4g	63 mm diameter,	nr	1		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					
I9	Valves, Penstocks, Hydrants, Meters				
	<u>Sluice valves to SSRN 226, with hand operated wheel</u>				
	<u>Air Valves,</u>				
11aI954.4d	Ari Nylon Air & Vacuum Valve 1" PN 10	nr	1		
	<u>Supply of Consumer Meters</u>				
11aI954.4d	Supply and Delivery of Consumer Meters c/w meter boxes sizes 20mm, Installation of complete and fully, assembled meter boxes sizes 1/2", with a 600x600mm Masonry metre chamber	nr	1		
	<u>Float Valves</u>				
D	20mm (3/4") diameter high pressure cast brass float valve MOH Pattern with 1 1/4" shank, with 4 1/2" diameter high pressure polypropylene plastic float.	No	1.00		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

SOURCE - MABATINI AREAS/VILLAGE



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
J2	TESTING				
11aJ232	Test the pipeline	sum	1		
J3	STERILISATION AND FLUSHING				
11aJ32	Sterilize the Pipe n.b.: 100 - 200 mm.	sum	1		
11aK	<u>PIPEWORK</u>				
	<u>MANHOLE & PIPEWORK ANCILLARIES</u>				
11aK1	MANHOLES AND OTHER CHAMBERS IN ACCORDANCE WITH STANDARD DRAWINGS				
11aK153.11	Masonry Gate, air valve and meter chamber pipe nom. bore not exc. 100 mm ,depth not exc. .1.0 m.	nr	3		
11aK2	CONCRETE MANHOLE COVERS				
11aK252	Precast Concrete: Area : 0.5 - 1m2	nr	3		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					
11aK7	REINSTATEMENT				
11aK741	Breaking up, temporary and permanent reinstatement of dirt roads, pipe nom. bore not exc. 250 mm. <i>(Provisional)</i>	m	20		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

SOURCE - MABATINI AREAS/VILLAGE



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
11aK8	OTHER PIPEWORK ANCILLARIES				
11aK822.2	Marker Posts for Air Valves in accordance with standard drawings.	nr	1		
11aK825.2	Marker Posts for Pipelines in accordance with standard drawings.	nr	1		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					
L	<u>PIPEWORK-SUPPORTS & PROTECTION</u>				
L1	<u>ANCILLARIES TO LAYING & EXCAVATION</u>				
L1	EXTRAS TO EXCAVATION AND BACKFILLING				
11aL111	In pipe trenches excavation of rock class I material. <i>(Provisional)</i> with class S2 material. <i>(Provisional)</i>	m ³	18		
11aL121	In manholes and chambers excavation of rock class I material. <i>(Provisional)</i>	m ³	5		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					
L5	EMBEDMENT/SURROUNDING BACKFILLING				
	<u>Bedding Material</u>				
L7	PREPARE INSITU OR SUPPLY AND INSTALL CONCRETE STOOLS AND THRUST BLOCKS CONCRETE CLASS 20				
	To horizontal bends				
11aL711.2	Volume: not exc. 0.1 m ³ , nom. bore: 100 - 200 mm.	nr	10		
	To vertical bends at crest				
11aL721.2	Volume: not exc. 0.1 m ³ , nom. bore: 100 - 200 mm.	nr	1		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

SOURCE - MABATINI AREAS/VILLAGE



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
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LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

SOURCE - MABATINI AREAS/VILLAGE



ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
11aL751.1	<p>To Junctions</p> <p>Volume: not exc. 0.1 m³, nom. bore: not exc. 100 mm.</p>	nr	7		
11aL762.2	<p>To tapers</p> <p>Volume: 0.1 - 0.2 m³, nom. bore: 100 - 200 mm.</p>	nr	6		
11aL771.1a	<p>Mass concrete grade C20 20 mm aggregates:</p> <p><u>Valve stools</u></p> <p>Volume not exceeding 0.1m3, for valve n.b. not exc. 100 mm.</p>	nr	10		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					
X	<u>MISCELLANEOUS</u>				
X9	<u>OTHER</u>				
11aX9.1	<p>Metallic tape/strip for pipeline location Pigmented low density polyethylene and Aluminium foil in a bright colour continously labelled "DANGER PLASTIC PIPE" in English</p>	m	1,200		
TOTAL CARRIED FORWARD TO BILL COLLECTION SHEET					
			1		-----
			2		-----
			3		-----
			4		-----

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

SOURCE - MABATINI AREAS/VILLAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL (KSHS)
			5		-----
			11		-----
			12		-----
			13		-----
			14		-----
			15		-----
			17		-----
TOTAL CARRIED TO GRAND SUMMARY					

LIVESTOCK MARKET SYSTEMS (LMS) A USAID FUNDED PROGRAM

PROPOSED BULAPESA COMMUNITY PROJECT IN ISIOLO

GRAND SUMMARY

ITEM	DESCRIPTION	TOTAL AMOUNT
1.00	ELEVATED WATER TANK	
2.00	WATER PIPELINE FROM THE SOURCE TO MABATINI VILLAGE DISTRIBUTION OUTLETS	
SUB TOTALS EXCLUSIVE		
VAT @ 16%		
TOTAL CARRIED TO FORM OF TENDER INCLUSIVE OF VAT @ 16%		
CONTRACT COMPLETION TIME :WEEKS Contractor's Name Signature: Address: Date:..... Witness's Name:.....		