

TENDER BILLS OF QUANTITIES

PROPOSED ICPAK OFFICES REFURBISHMENT WORKS
ON THE 9TH & 10TH FLOOR AT CPA CENTER BUILDING FOR THE
INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF KENYA - ICPAK



ARCHITECTS

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NAIROBI

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NAIROBI

TENDER RELEASE - 12TH JUNE 2026
TENDER RETURN -29TH JUNE 2026

JUNE 2026

PROPOSED ICPAK OFFICES REFURBISHMENT WORKS
ON THE 9TH & 10TH FLOOR OFFICES AT CPA CENTER BUILDING
FOR
INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF KENYA - ICPAK

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SECTION 01:

1a. Form of Tender

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1c. Form of Bond

**INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF KENYA
P.O BOX 59963 – 00200,
NAIROBI, KENYA**

A. NOTES TO ALL TENDERERS:

1. The Contractor is required to check the numbers of the page and should any be found to be missing or in duplicate or the figures or writing indistinct, he must inform the Quantity Surveyors at once and have the same rectified. Should the tenderer be in doubt the precise meaning of any item, word or figures. Or for any reason whatsoever observe any apparent omission of 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 tenders.
2. No liability whatsoever will be admitted nor claim allowed in respect of errors in the completed tender due to mistakes in this document which should have been rectified in the manner described above.
3. The tenderer shall not otherwise qualify the text of this specification. Any alteration or qualification made without authority will be ignored and the text of the specification as printed will be adhered to.
4. The tenderer shall be deemed to have made allowances in his unit prices generally to cover items of preliminaries or additions to prime cost Sums or other items. If those have not been priced against the respective items.
5. The tenderer's price shall include all government taxes including duties, VAT, etc. No claims whatsoever will be allowed in respect of duties, VAT etc if the tenderer does not price them as aforementioned.
6. In no case will expense incurred by the tenderer in preparation of this tenderer be reimbursed.
7. The copyright of this specification is vested in the Quantity Surveyor and no part thereof may be reproduced without their express permission, given in writing.
8. The Contractors shall be solely responsible for the accurate ordering of materials in accordance with the drawings and these specifications.
9. The specifications must be priced in Kenya Currency i.e. Shillings and Cents.
10. This is a fixed price Contract and no claims shall be entertained on whatever ground. The Contractor is advised to include all such costs as he projects may arise in his unit rates. Any variations in the exchange rate will also be no excuse for any variations in the contract sum.

Signed (As in form of Tender) _____

Date/Stamp _____

INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF KENYA
P.O BOX 59963 – 00200,
NAIROBI, KENYA

FORM OF TENDER

Dear Sirs,

**PROPOSED ICPAK OFFICES REFURBISHMENT WORKS ON THE 9TH & 10TH FLOOR
OFFICES AT CPA CENTER BUILDING FOR THE INSTITUTE OF CERTIFIED PUBLIC
ACCOUNTANTS OF KENYA - ICPAK**

I/We understand that the works, the subject of this tender include

BUILDERS WORKS

.....
I/We(Tenderer's Name) undertake in accordance with the particulars set out in the preliminaries and to the satisfaction of the Architect, to execute and complete the Contract works within ...weeks and as per the bills of quantities, specifications and drawings for the sum of **KSHS**.....

(KSHS.)

The undersigned agrees to be bound and submit to the said General Conditions of Contract, and priced Bills of Quantities which shall form basis for the valuation of interim certificates and any extra or omitted work which may from time to time be ordered by the Architect.

I/We confirm that this Tender is subject to adjustments by any variation ordered by the Architect.

I/We undertake to commence the works within 7 days from the date of official confirmation of acceptance of the tender.

I/We understand that you are not bound to accept the lowest or any tender and that no expenses incurred by us in the preparation of this tender will be allowed.

I/We agree that this tender shall remain valid for, and shall not be withdrawn within Ninety (90) days from the final date of submission of tenders and in the event of your acceptance to execute formal contract agreement with the client.

For and on behalf of

Official stamp:

Signed by.....

Date:

INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF KENYA
P.O BOX 59963 – 00200,
NAIROBI, KENYA

1b. FORM OF UNDERTAKING

**PROPOSED ICPAK OFFICES REFURBISHMENT WORKS ON THE 9 & 10TH FLOOR OFFICES
AT CPA CENTER BUILDING FOR THE INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS
OF KENYA - ICPAK**

We _____

Of _____

are willing to act as Surety and to be bound to the Client in the sum equal to Ten percent (10%) of the contract sum, for the due performance by

(Tenderer)

Of P.O. Box

of a Contract which he/ they contemplate(s) entering into with the Client for the for the erection and completion of the above works as described in this document and the accompanying relevant drawings for **Proposed Offices Refurbishment works at 9th and 10th floor of CPA Center for ICPAK**. According to the terms of the Form of Bond, a copy of which has been inspected by us without addition of any limitations.

We agree to enter into a Bond under the above-mentioned terms when and if called upon to do so.

Signature: _____

Official Rubber Stamp & Date: _____

Witness: _____

To be completed by proposed surety
And returned with Tender Documents

**INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF KENYA
P.O BOX 59963 – 00200,
NAIROBI, KENYA**

1c. FORM OF BOND

(To be used with agreement and Schedule of Conditions of Building Contract.)

KNOW ALL MEN BY THESE PRESENTS that we _____

Of _____

ARE BOUND to _____ (CLIENT)

Of _____

In the sum of KSHS _____

To be paid by us to the said _____ (CLIENT)

WHEREAS by an agreement in writing dated _____

between _____

(CONTRACTOR) of _____

contracted with the said _____ (CLIENT)

to (description of works) _____ in the said agreement

_____ (CONTRACTOR) is / their executors, administrators or assignees shall conform to the said agreement then the above written bond to be void otherwise to remain in full force. Provided always and it is hereby agreed and declared that the liability of us to the said

_____ (SURETY) under the above written bond shall not in any way be discharged or impaired by reason of or any breach or breaches (willful or otherwise) of the said agreement committed with or without the knowledge or consent to the said

_____ (CONTRACTOR) by or on behalf of, with the knowledge or consent of the said _____ (CLIENT)

In witness whereof we have hereunto set our hands this _____ day of _____ In the Year _____

Witness

Surety, Authorized by power of Attorney

CONDITIONS OF TENDERING

- 1 Tenders shall be submitted in a plain sealed envelope with the name of the project clearly marked on the outside and the following documents duly filled in or monied out and completed in ink:
 - a) Form of Tender
 - b) Form of Surety Undertaking
 - c) Form of bond
 - d) Particular Preliminaries
 - e) Conditions of tendering
 - f) Specifications
 - g) Bills of Quantities
 - h) Main Summary.

- 2
 - (i) Tenders must be delivered to the place and at the time stated on the invitation letter and immediately thereafter they shall be opened by the Consultants or their representatives being permitted to be present.

 - (ii) In the case of a tender note being delivered by hand, the tenderer must arrange for his tender and other documents to be posted in time to reach the said office not later than the stipulated time.

 - (iii) Any tender delivered after the above stipulates time for whatever reason(s) will not be considered.

 - (iv) In no case will any deposit or expenses incurred by a tenderer in the preparation of his tender be allowed.

- 3 Tenders shall remain valid for ONE HUNDRED AND EIGHTY (180) days from the final date of submission of tenders stipulated in paragraph 2 (i) above, and no tenderer may withdraw his tender within that period.

- 4 The Employer shall not be bound to accept the lowest or any tender.

- 5 The Employer shall notify the accepted approved tenderer (if any) of such acceptance by letter within THIRTY(30) days during which, by Paragraph 3 above, the tender is to remain valid and the said tenderer shall then within the time stated in the Form of Tender first execute the formal Contract Agreement and then on the same day his approved Surety shall sign the Bond. The Employer, however, reserves the right to extend the period for executing the formal Contract Agreement if satisfied that there are adequate reasons for so doing.

CONDITIONS OF TENDERING (CONTD.)

- 6 Every notice to be given to a tenderer may, if the Employer deems fit, be posted to the tenderer's address given in his tender and such posting shall be deemed good service of such notice.
- 7 The words "approved tenderer" shall mean that the tenderer shall be approved by the Employer and shall have complied with these Conditions in every respect.
- 8 The word "tenderer" in these conditions shall be deemed to include two or more persons. The word "his" may also mean "their" and the word "he" may also mean "they".
- 9
 - (i) If it is found on examination of a tender that there is any discrepancy between the total amount of the tender and the amount arrived at by valuing the items set out in the Bills of Quantities at the rates or prices set against them by the tenderer, then the figure shall be corrected arithmetically and the difference between the tender and the corrected total shall be applied as a percentage adjustment of addition or omission on all the rates so that the original tender amount remains unaltered. When calculating the percentage adjustment the total cost of net prime cost and provisional sums including contingencies shall be excluded.
 - (ii) The rates so adjusted become the contract rates and shall apply as provided for in variations.
 - (iii) If it is found on examination that any rates for the work appear to be unreasonable then the attention of the tenderer shall be drawn to any such items: if as a result of this the tenderer asks for any rates to be changed then the arithmetical effect of any change will be adjusted in accordance with sub-paragraph (i) above.
 - (iv) Any discount the tenderer may wish to give shall be treated as a discrepancy in accordance with sub-paragraph (i) above.
- 10 Non-compliance with the above Conditions in any respect shall render the tender liable to rejection.
- 11 If you do not wish to tender for this work, please return all the documents immediately to the office of the Quantity Surveyor with a letter, copied to the Architect. If you wish to tender, please acknowledge receipt of these documents by return post.
- 12 All works measured in these Bills of Quantities shall be subject to re-measurement at completion.

SPECIFICATIONS

SPECIFICATIONS

GENERALLY

Generally for the purpose of the proposed buildings the following British standard specifications are referred to or their equivalent Kenya Bureau of standard specifications.

Glossary of general building terms to conform to B.S. 3589.

Schedule of weights of Building materials to conform to B.S. 648

Glossary of formwork terms to conform to B.S. 4330

Schedule of weights of Building materials to conform to B.S. 648.

Glossary of formwork terms to conform to B.S. 4330.

Glossary of terms relating to timber preservation to conform to B.S. 426.

Glossary of terms relating to builder's hardware to conform to B.S. 3827, Pc

Glossary of terms relating to internal flooring, external rendering and floor screeding to conform to B.S. 4049.

Glossary of terms applicable to sanitation to conform to B.S. 4118.

Glossary of terms used in glass industry to conform to B.S. 3447.

Glossary of terms applicable to paint to conform to B.S. 2015.

Glossary of terms applicable to landscapes work shall conform to B.S. 3975.\

Methods of testing plasters top to conform to B.S. 2782.

Fire tests on building materials and structures to conform to B.S. 476 part 2, 3, 4, 5, 6, and 7.

EXCAVATIONS AND EARTHWORKS

STANDARDS APPLICABLE

The following British standard specifications are referred to herein after.

Methods of tests for stabilized soils B.S. 1924.

The following codes of practice are referred to:

Earth works to conform to C.P. 2003.

Foundations and substructure to conform to C.P 101

Protection of building against water from underground to conform to C.P. 102.

Excavations for foundations to conform to C.P. 204

INSPECTION AND SITE VISIT

The Contractor shall be deemed to have visited the site and have ascertained the nature of the soil and/or materials in which excavations are required.

SETTING OUT

Setting out for excavations for the column bases the strips foundations shall be approved by the Architect and Structural Engineers before work is commenced and all excavations, filling and hardcore shall be approved before being concreted or covered up. Any excavations made in excess of Architects instructions shall be filled with concrete class 1:4:8 at Contractor's expense.

Excavations for the bases shall be to the widths, depths and levels shown of the Architects and Engineer's drawings.

FILLING

Filling back where required shall be with selected hard dry materials from excavations.

Hardcore filling where required shall consist of hard broken blocks, broken stone, or other inert materials broken to gauge 100 mm downwards before being placed. It shall be laid in layers not exceeding 200 mm thick, well watered, rammed and compacted to the Engineer's approval.

RATES FOR FILLING

The rates for filling or disposal of any material shall include for any double handling. Disposal of all surplus excavated materials, etc., shall be as instructed and rates shall include for loading and removing from site to approved dumping sites.

RATES FOR CART AWAY

Rates for cart away shall include for loading and carting off the site to a tip to be provided by the Contractor. Contractor's attention is drawn to the local authority requirements pertaining to tips, spreading and levelling on site of surplus excavated material may be carried ONLY with the approval of the Architect.

BLINDING

The surfaces of hardcore arising from hardcore fill or from hardcore exposed after breaking up floor bed shall be levelled and properly graded as required and blinded with good quality laterite material, gravel or murrum which shall be watered before concreting.

INSECTICIDE TREATMENT

All the blinded surfaces of hardcore shall be treated with 'Dragnet FT' or other equal approved insecticide in accordance with the manufacturer's instructions.

POLYTHENE SHEETS D.P.M.

On all floor beds the Contractor shall provide and fix a damp proof polythene sheet damp proof membrane of the gauge specified in the measured works section of these Bills of quantities. The membrane shall be laid over blinding within plinth and with minimum laps of 300 mm.

PROTECT WORK

The Contractor shall protect all the works in this trade from any damage whatsoever.

GROUND WATER LEVEL

The Contractor shall make all necessary enquiries concerning ground water level on the site, and shall take all necessary precautions and allow for variations from normal level when working on any part of the site.

APPROVAL OF EXCAVATIONS

The Contractor shall inform the Architect when excavations are complete, and shall obtain Architect's approval before commencing any filling or concreting work.

CLASSIFICATION OF EXCAVATION

Excavations measured in these Bills of Quantities shall be as follows:

Rock or hard material. This shall comprise excavation in all materials which cannot be removed except by blasting or by use of metal wedges and sledge hammers or by mechanical compressed air equipment.

In normal or soft material, this shall include excavations in materials which can be removed without recourse to methods described for rock above.

In normal or soft material, this shall include excavations in materials which can be removed without recourse to methods described for rock above.

The Architect will determine the class and extent of each type of excavated material. When the Contractor considers that the excavated material is of class (a) above, he must inform the Architect in sufficient time for the Architect to determine the class and precise extent of such material.

CONCRETE WORK

GENERALLY

A competent Foreman who shall be fluent in spoken English shall be employed on the site whose first duty will be to supervise all stages of preparation and placing of the concrete. Credentials of the foreman shall be issued to the Architects before commencement of the works.

Before construction commences the Contractor shall supply to the Engineer for his approval, the proposed layouts of his concreting plant and on site workshops, details of formwork systems and the construction equipment e.g. cranes, chutes, scaffolding which he proposes using for the structural work.

The Contractor is to check all drawings carefully before any part of the work is carried out. Should there be any discrepancy in the information shown on the drawings the Contractor will be responsible for pointing this out to the Engineer before any of the work which is affected is carried out,. Only when the Engineer has corrected the discrepancy in writing may this work be carried out.

Bending schedules will be issued and these are to be checked by the Contractor. Should there be any discrepancy between the bending schedule and drawings, the drawing will take precedence, but the discrepancy must be pointed out to the Engineer before the work affected is carried out.

Under no circumstances is the Contractor to proceed with concreting without obtaining the final approval of the Engineer in writing with regard to reinforcement, formwork, plant, etc.

CODES OF PRACTICE

In situ concrete shall be in accordance with B.S. Code of practice BS 8110: Part 1, 1985 and in accordance with any amendments to this which may have been issued at the time of inviting tenders.

Precast concrete shall be in accordance with Section 5 of BS 8110: part 1, 1985 and in accordance with any amendments to this which have been issued at the time of inviting tenders.

MATERIALS

Samples of materials the Contractor proposes using throughout the job shall be tested and/or approved by the Engineer in writing before deliveries to the site are commenced.

CEMENT

Unless otherwise specified, cement shall be ordinary Portland Cement in Accordance with B.S. 12 part 1971.

The Cement manufacturer's name shall be given to the Engineer before work commences and no other manufacturer's cement will be allowed on the site without approval of the Engineer. Cement should not be older than six (6) months from the date of manufacture.

No two types of cement may be used together in combination. All cement shall be delivered to the site in the original sealed bags of the manufacturer or in bulk containers approved by the Engineer. Re-bagged cement shall not be used for the works.

Cement shall be stored in a dry shed or container, the floor of which shall be raised above the ground and it shall at all times be protected from deterioration due to moisture or other causes. It shall as far as possible be used in the order in which it is delivered to the site and cement which upon inspection by the Engineer is considered by him to have deteriorated in any way shall be removed from the site with immediate effect.

WATER

Water for mixing and curing concrete shall be clean and fresh and shall only be obtained from the Municipal Council mains. Where doubts exist as to the suitability of the water it shall be tested at the Contractor's expense in accordance with B.S. 3148. 1959.

AGGREGATES

Aggregates shall conform with the requirements of B.S. 882 1965 and are to be approved in all respects by the Engineer before work commences.

All aggregates are to be obtained from one source for the whole of the works and are to be uniform in colour and hardness

The grading of aggregates shall be one within the limits set out in B.S 882 and as later specified and the grading, once approved, shall be adhered to through out the works and not varied without the approval of the Engineer.

Fine aggregates shall be clean, coarse siliceous sand of good sharp hard quality and shall be free from lumps of stone, earth, loam, dust, salt, organic matter or any other deleterious substances.

Coarse aggregates shall be good, hard, clean approved black-trap or similar stone, free from dust, decomposed stones, clay, earthy matter, foreign substances, fibre and thin elongated or laminated pieces.

If in the opinion of Engineer the aggregate meets with the above requirements but is dirty or adulterated in any manner it shall be screened and/or washed with clean water if he so directs at the Contractor's expense.

Fine aggregates shall be of grading zones 1 to 3. Sand of grading zone 4 may not be used unless the Contractor can show by trial mixes that by the use of this he can produce concrete which is of the required quality.

Coarse aggregates shall be of 18 mm. Maximum size down to 4.5 mm and shall be graded according to B.S. 882.

Aggregates shall be stored on concrete paved areas with dividing walls between each type. On no account shall aggregates be stock piled on the ground.

BATCHING

All materials for concrete shall be measured separately by weight in approved weight batching equipment. Such equipment shall be checked at weekly intervals at the Contractor's expense and shall be accurate to within 2%

ADDITIVES

No additives other than those specified shall be used in the concrete without the written approval of the Architects and/or Engineer.

CONCRETE MIXES

Preliminary design mix cubes shall be made using the proportions of material as ascertained from the grade analysis. Six cubes are to be made for each mix, three to be tested at 7 days and three to be tested at 28 days. The preliminary cube test results shall exceed the works cube strength specified in the table below by at least 33.3%.

No structural concrete shall be made until the Engineers have approved the preliminary works cube test results. Thereafter these approved proportions shall be adhered to throughout the works, and may only be varied on the instructions of the Architect.

The mixes for concrete in the various parts of the works are listed below. The 28 days strengths refer to tests made on 6 in or 4 in cubes made in accordance with B.S.1881.

Concrete mixes shall be designed in accordance with BS 8110 and proportions of cement, fine aggregates, coarse aggregate and water shall be chosen by the Contractor to achieve the specified minimum cube crushing strength together with the appropriate workability.

Grade/ Location	Minimum work Cube Strength at 28 days	Nominal size of Coarse aggregate	Maximum Cement per Cubic M.	Minimum Cement per Cubic M.,	Slump
Reinforced Concrete (Design Mix)	25.0N./ M2	20 mm	540 Kg./CM	240Kg/CM	25mm
Grade/ Location	Minimum work Cube Strength at 28 days	Nominal size of Coarse aggregate	Maximum Cement per Cubic M.	Minimum Cement per Cubic M.,	Slump
Reinforced Concrete (Nominal Mix) 1:2:4	21.0 N./ M2	20mm	-	-	25mm
Blinding and Mass concrete 1:3:6	21.0 N/M2	40mm	-	-	-

WORKABILITY

The concrete shall be just sufficiently workable for it to be placed and compacted without difficulty to produce the densest finished concrete consistent with the method of compaction specified.

The slump test is to be used as a guide for maintaining constant workability and the tolerance on the slumps specified shall not exceed (20mm).

MIXING

When the aggregate natural water content exceeds the specified dry condition the amount of water added to the mix shall be adjusted to maintain the correct consistency as determined by the slump test.

All mixing shall be done by power operated rotating drum mixers which shall be fitted with an accurate water gauge to be checked at weekly intervals Mixing shall continue until the concrete is of an even colour or consistency or for the period recommended by the manufacturer of the mixer or for 2 minutes, whichever is the longer. The entire mix shall be discharged before charging the mixer, The volume of the mixed materials shall not exceed the rated capacity of the mixer

At all times mixers must be maintained in a clean condition. Prior to the first mix being agitated in the mixer, a rich cement/sand mix shall be used to coat the inside of the drum, the surplus material being emptied away and not used in the works.

READY MIXED CONCRETE

Ready mixed concrete may only be used with the permission of the Engineer. The use of ready-mixed concrete shall not relieve the Contractor of any of his obligations and the appropriate clauses of this specifications shall apply to the Ready-Mixed concrete supplier. Concrete test tubes shall be taken on the site at the point and time of discharge in accordance with this specification irrespective of any cubes that the supplier may take at his own works.

FINISHES

The surface finish of the concrete on the various parts of the works will be as follows:

Normal finish- This finish is obtained from the use of properly designed moulds of closely jointed sawn boards. Small surface blemishes caused by entrapped air will be permitted but the surface shall be free of voids, honey combing or other large blemishes.

Fair Faced Finish - This finish is to be obtained by the use of properly designed moulds having a hard smooth surface. The concrete surface shall be smooth and even with sharp, true arises.

Only very minor surface blemishes should occur and there shall be no staining or discoloration.

EXPOSED AGGREGATE FINISHES

An exposed aggregate finish may be obtained by the use of approved cement which shall be applied to the face of the formwork. Once the formwork has been struck, and in accordance with the retarding agent's manufacturer's instructions, the surface shall be brushed and/or washed to remove the surface cement and expose the aggregate.

STRENGTH AND SOUNDNESS

The strength and soundness of the concrete will be generally determined by cube tests, Schmidt hammer tests or by any other method which the Architect considers to be appropriate and suitable. The opinion of the Architect regarding the soundness and acceptability of the finished concrete shall be final.

MAKING GOOD

No patching or making good shall be undertaken without the written permission of the Architect. It may only be done by a method to be approved by the Architect and if the Contractor wishes to make good any part of the work he will be required to submit to the Architect for his approval full details of the proposed methods of carrying out the making good.

COVER

The cover to reinforcement shall be as stated on the drawings subject to a tolerance of $-0 +5\text{mm}$

TOLERANCES

All concrete surfaces in the finished structure shall be within 5 mm of the theoretical position shown on the drawings.

TRANSPORTING AND PLACING CONCRETE

All machinery platforms, barrows, buckets and shovels used in the transporting and placing of concrete shall be cleaned before concreting commences and on cessation of works.

Concrete shall be discharged from the mixer into a clean level watertight platform or into a clean watertight container. It shall be transported in a manner which ensures that at the point of deposition it is of the correct quality and consistency. All platforms and containers shall be cleaned of the old concrete before fresh concrete is discharged onto them.

Concrete shall be compacted in its final position as soon as possible and before 30 minutes from the time when agitation ceases. When ready-mixed concrete is supplied in purpose agitators and in accordance with B.S. 1926: 1962 the total time taken between the introduction of cement to mix and compaction shall not exceed two hours.

No extra water shall be added to the mix after it has left the mixer. Concreting shall be carried out continuously up to all approved joints.

Should the concreting be stopped due to mechanical malfunctions, accidents, etc., the Architect shall be informed immediately so that necessary measures and precautions can be taken. The cost of any additional work caused by these stoppages shall be the responsibility of the Contractor.

Concrete shall not be dropped from a height which causes segregation, undesirable finish or defective structural quality. When flexible chutes are used they shall be kept free from coatings or hardened concrete.

Pumping of concrete will only be permitted with the written approval of the Engineer.

Notwithstanding any of the above any concrete which shows signs of initial setting before or during placing shall not be used and it shall be removed at the Contractor's expense.

Concrete in foundations and other underground work shall be protected from admixture with falling earth or rock during and after placing.

COMPACTION

Unless otherwise specified all concrete is to be vibrated. The vibration shall be carried out by experienced operators and with immersion type vibrators to the Engineer's approval. The concrete shall be carefully rammed and vibrated in layers so that a homogenous dense mass is obtained.

Vibration must not be allowed to disturb any recently placed concrete that has begun to set. Any water accumulating on the surface of newly placed concrete shall be removed by approved means, and no further concrete shall be placed thereon until water is removed.

Sufficient vibrators shall be provided to correspond with the rate of depositing of the concrete. The vibration shall be continuous throughout the placing of the concrete. Standby vibrators should be on site during all concrete placing.

The Contractor is responsible for maintaining the reinforcement in its correct position, according to the drawings before and during concreting. During concreting a competent steel fixer must be in attendance on the concretors to adjust and correct the positions of any reinforcement which may be displaced. Conduits must be similarly adjusted and cared for. The Contractor must allow for all expenses in connection with vibrating in his rates for concrete and no claim in respect of his not doing so will be allowed

CURING

Concrete shall be protected from adverse weather conditions after placing. Steps shall be taken to prevent excessive rates of evaporating of water from all surfaces due to high temperatures and/or drying winds.

Concrete shall be protected for at least 4 days unless the Engineer approves a lesser period.

During the curing period, horizontal surfaces shall be protected from excessive evaporating of water by:

- a) Formwork in close contact with the concrete, or
- b) Direct continuous application of water, preferably in the form of a mist so as not to damage the surface, or
- c) Covering with an absorbent material kept damp, or an impermeable sheet, close Enough to the surface to prevent excessive circulation of air, or
- d) Other approved means

JOINTS IN CONCRETE

Construction joints shall be permitted only at the position pre-determined on the drawings and as instructed on the site by the Engineer.

Under no circumstances shall concrete when being deposited, be allowed to 'tail off' but it shall be deposited against stopping-off boards to the Engineer's approval.

Before placing new concrete against concrete already hardened, the face of the old concrete shall be thoroughly hacked and cleaned, and scum and loose aggregate removed there from and immediately before placing the concrete the face shall be thoroughly wetted and a coating of 1:1 1/2 cement grout 25 mm thick applied thereto. The concrete shall be well rammed against the prepared face before grout sets.

The details and position of all movements joints and special requirements in relation to joints shall be as shown in the Architect's drawings, and no variation from these details shall be permitted.

CONCRETING IN HOT WEATHER

Suitable means shall be provided to ensure that the temperature of the concrete on placing does not exceeding 32 degrees Celsius (90 degrees Fahrenheit)

Concrete shall not be placed around reinforcement or against surfaces which are too hot to touch. All surfaces shall be thoroughly dampened immediately prior to placing the fresh concrete to prevent excessive absorption of water.

Concrete shall be maintained in a damp condition for a minimum of 4 days after placing.

PROTECTION

All concrete faces and edges, particularly those which are exposed without rendering or decoration in the final structure, shall be adequately protected from damage and discolouration at all times.

REINFORCEMENT

Steel reinforcement shall consist of:-

Mild steel bars complying with B.S.4449: 1969

Cold worked, square twisted, bars to B.S. 4461; 1969. High tensile bars shall have a minimum yield stress of 60,000 lb/sq. in (410 N/mm²)

Welded fabric reinforcement to B.S. 4483: 1969

Note: Square twisted bars shall be formed by a 'Torsion controlled' process.

If required by the Architect the Contractor shall provide test certificates from an approved testing authority for the reinforcement being used in the works.

BENDING

Bending of reinforcement shall be carried out at ambient temperatures. The bending dimensions shall apply with B.S. 4466: 1969 unless otherwise specified on the bending.

Temporary bending and subsequent straightening of reinforcement shall be avoided whenever possible. When permitted by the Architect this shall be carried out at ambient temperatures and the internal radius of such bends shall not be less than 4 diameters for mild steel and 6 diameters for cold worked bars.

WELDING

Where welding of plain mild steel bars is approved it shall be carried out in accordance with B.S. 1856: 1964. In the case of steel other than mild steel, details of the welding techniques to be used shall be submitted for approval, and such trials made as required to demonstrate the effect of the welding.

FIXING

All bars and fabric shall be fixed in the position shown on the drawings within the tolerances specified in B.S. 4466. In no case shall the cover specified on the drawings be reduced by more than 5 mm.

Displacement of reinforcement beyond the specified tolerances shall be prevented by supporting the bars sufficiently and securely fixing them together at intersections where necessary.

Spacers shall be used to maintain the cover to all steel and shall be of dense cement mortar unless otherwise other materials are approved by the Architect.

Unless otherwise indicated on the drawings steel fabric shall be lapped at least 300 mm at the ends and sides of square meshes.

Chairs, stools, etc. shall be used to maintain clearance between two or more layers of reinforcement. These in addition to all tying wire must be provided by the Contractor and deemed to be included in the rates for reinforcement.

The fixing of reinforcement shall be checked before and during concreting and particular attention shall be given to the position of top steel in cantilever sections. No steel shall be surrounded by concrete unless it is in its correct position and free from mud, oil paint, retardant, loose rust, or other foreign matter.

No laps shall be made in the reinforcement except where shown on the drawings or where approved by the Engineer.

POSITION OF ELECTRICAL CONDUITS

Unless otherwise instructed by the Engineer or his representative, all electrical conduits to be positioned within the reinforced concrete shall be fixed inside the steel cages and beams and columns and between the top and bottom steel layers in slabs and similar members. The proposed positions shall be shown accurately on a plan to be submitted to the Engineer or his representative, whose approval shall be obtained before any such conduits are placed.

CONCRETE COVER TO REINFORCEMENT

Unless otherwise directed the concrete cover to rod reinforcement over main bars in any face shall be:

Foundation against each face	75 mm
Foundation against blinding	59 mm
Columns	40 mm
Beams	25 mm
Slabs	15 mm

FORMWORK

All formwork shall be of sufficient thickness and with joints close enough to prevent undue leakage of liquid from the concrete and fixed in proper alignment, level and plumb and supported on sufficiently strong bearers, shores, braces, plates, etc., properly held together with bolts or other fastenings to prevent displacement, vibration or movement by weight of materials, men and plant on the same and so wedged and clamped to permit ease of removal of the formwork without jarring the concrete. All formwork shall be treated with an approved mould oil to facilitate efficient easing and removal.

Ribbed walls shall be formed with linings of fibre glass, or steel sheet or other approved materials on the ribbed face. Ribs formed by nailing or screwing timber fillets to main formwork shall not be used for the works.

'Fair face' surfaces shall be clean, smooth, even, true to form and free from all board marks, joint marks, honey combing, pitting, formwork ties, etc. and the Contractor is to provide smooth lining to the forms which will achieve the required finish.

Great care shall be taken to make and maintain all joints in the formwork as tight as possible, to prevent the leakage of grout during vibration with consequent honey combing.

The faces of formwork next to the concrete must be sufficiently true to leave the concrete even enough to take the plaster or finishings as afterwards described herein.

The greatest care must be taken to ensure that all sawdust shavings, chips and other debris are removed from the formwork before concrete is placed in position and necessary arrangements must be made by leaving out a board in the bottom of the formwork or otherwise as required.

The erection, easing and striking of the formwork must be done under the personal supervision of a competent foreman, and any damage occurring through faulty formwork or its incorrect removal shall be made good by the Contractor at his own expense.

No patching or making good of concrete is to be done before inspection of the stripped concrete surface by the Engineer. Only chases, holes and cast-in items as described and detailed on the Engineer's drawings will be allowed. Additional requirements by the Contractor or Sub-Contractors require the Engineer's approval before incorporating in the works.

Should any concrete fail to comply with this specification or in the opinion of the Architect is not up to the standards of this specification, the faulty concrete shall be broken down and replacing any concrete shall be the responsibility of the Contractor at his own cost.

STRIKING FORMWORK

Formwork shall be struck at such a time and in such a manner as to cause no damage to the concrete.

In any case formwork shall not be removed before the following minimum times have elapsed

Sides of beams, columns and edges of slabs	2 clear days
Soffits of beams and slabs	14 days
Vertical props	21 days

TESTING CONCRETE

The Contractor shall allow for making 4 No. 150 mm test cubes during each day on which concreting takes place for each mixer in operating and these shall be made and stored as described in B.S. 1881.

One cube is to be tested at 7 days and three at 28 days. Cubes are to be marked with the date of casting and a reference number and forwarded, carriage paid to an approved testing laboratory and a record kept of the position from which the concrete for each cube was placed or about to be placed.

Copies of Works cube testing results shall be forwarded to the Engineer and a copy retained on site.

If the strengths required above are not attained or maintained throughout the contract, the Contractor will be required to re-design the mix as to give a concrete which does comply with requirements of this specification. The Contractor may be required to remove and replace at his own cost any concrete which fails to attain the required strength as ascertained by Works Tests.

PRECAST CONCRETE

Precast concrete is to be made of concrete of the mixes described in suitable strong metal or timber moulds, true in form to shapes required, thoroughly tamped into the moulds and around reinforcement and vibrated.

Where precast concrete is described as 'Fair Faced' the moulds shall be of metal, or are to have metal or hardboard linings, or are to be other approved moulds which will produce a smooth, dense fair face to the finished concrete and free from all shutter marks holes, pitting, etc.

Moulds and formwork shall be constructed so that the dimensions of the finished concrete members be within the specified permissible tolerances given in Clause 407 of CP. 116: part 2:1969.

All precast work shall be carried out under cover and the period before removal from forms and period of shoring shall be determined and agreed by the Engineer and Contractor with due regard to type of unit, i.e. load bearing or non-load bearing, difficulties of casting, projections, holes and other points which require particular attention. The period before removal from forms shall, in any case, not be less than 3 days.

The Contractor is to prepare for each type of Precast unit a drawing indicating his proposed formwork construction, casting methods and de-moulding procedure for the Engineer's approval.

Method of lifting, position of lifting points and curing time before lifting are to be agreed with the Engineer before casting of any unit.

All loading tests on pre-cast concrete units shall conform to section 9.6 BS 8110: part 2: 1985.

Extreme care is to be taken when handling precast units and any units damaged during transportation and/or positioning shall be replaced at the Contractor's expense.

WALLING

CONCRETE BLOCKS

Concrete blocks walling 150 mm thick shall have minimum crushing strength of 10.5 Newtons per square millimetre.

All concrete blocks must be cured for a minimum period of four weeks before they are used and all testing of blocks is to be carried out by the Ministry of Works materials Testing laboratory.

WALL REINFORCEMENT

Where so specified, shall consist of Hoop Iron 25 mm wide, one strip per 75 mm of wall thickness, laid in alternate joints for the full length of walls, lapped and cramped at running joints and full width of wall at angles and intersections.

CHASING

In load bearing walling for electrical conduit, pipes, etc., is to be kept to a minimum. The size to be cut and position and runs of chases are to be approved by the Architect before any cutting is commenced. Horizontal runs will not be permitted. All walls less than 200 mm thick shall be reinforced.

CEMENT

The cement shall be as described under 'Concrete Works'.

SAND

The sand for mortars shall be as described in 'Concrete Work' except that it shall be fine

LIME

The lime shall be as described in 'plaster work'.

NATURAL STONE WALLING

Where masonry walls are specified, they shall be constructed of Natural Blue Stone and finished as described under the specification item description in the measured works section of these Bills of Quantities.

MORTARS

Cement mortar shall consist of one part of Portland Cement, three parts of sand by volume,

The cement /lime mortar shall consist of one part of Portland Cement, one part of lime and six parts of sand by volume.

The ingredients of mortar shall be measured in proper gauge boxes on boarded platform the ingredients being thoroughly mixed dry, and again whilst adding water. In the case of cement/lime mortar the sand and lime shall be mixed first and then the cement added. All mortar is to be thoroughly mixed to a uniform consistence with only sufficient water to obtain a plastic condition suitable for trowelling. No mortar that has commenced to set is to be used or re-mixed.

SETTING OUT

The Contractor shall provide proper setting out rods and set out with the same all work showing openings, heights, cills and lintels and shall build the various walls, and piers to the thicknesses, widths and heights shown upon the drawings. No part of the walling shall be carried up more than three feet higher at one time than any other part and in such cases the jointing shall be made in long steps so as to prevent cracks arising and all walls shall be leveled round at floors and wall heads.

BONDING

All blocks shall be properly bonded together and in such a manner that no vertical joints in any one course shall be within 115 mm of a similar joint in the course immediately above and below. Alternate courses of walling at all angles and intersections shall be carried through the full thickness of the adjoining walls.

All perpend, reveals, quoins and other angles and joints of the walls, etc. shall be built strictly true and square.

LAYING AND JOINTING

All bricks and blocks are to be well wetted before laying and tops of walls where left off shall be well wetted before commencing building. All joints are to be 9 mm thick and flushed up and grouted in solid as the works proceeds.

All the other faces shall be cleaned down on completion with a wire brush or as necessary and mortar droppings, smear marks, etc., removed and rates must include for this.

PUTLOG HOLES

All putlog holes shall be carefully, properly and completely filed up on completion of walling and before plastering is commenced.

FAIR FACE

Walling described as fair faced shall be built with selected blocks and pointed with neat recessed joints.

DAMP PROOF COURSE

Damp proof course shall be bituminous felt complying with B.S. 743 weighing not less than 3.80 Kg per metre, free from tears, holes, lapped and 150 mm at running joints and full width of wall at angles, and intersections and bedded in hot bitumen on a levelling screed of cement and sand (1:4) 10 mm thick neatly pointed where exposed.

PRICES TO INCLUDE

The prices for walling shall include for all straight cutting, bonding, plumbing angles, forming reveals, pinning up to underside of concrete soffits and cutting up to sides of columns and cutting and pinning ends of lintels and cills.

CARPENTRY

TIMBER

All timber shall be in accordance with the latest approved Grading Rules issued by the Government of Kenya (legal notice No. 358). Timber for carpentry shall be second (or select) grade.

GENERALLY

All timber shall be inspected as it arrives on the site by the Contractor, and any timber brought on the site and not complying with the Specification or not approved must be removed forthwith from the site and only approved timber shall be used in the works.

The Contractor shall upon signing the Contract, purchase sufficient supplies of specified hardwood to avoid possible shortages of a later date.

SPECIES OF TIMBER

The following timber shall be used:-

Standard Common names

Cypress, Podo, Cedar, Camphor, African Mahogany (Munyama), Meru Oak

TOLERANCES IN THICKNESS

Shall conform with the following extracts from the Government of Kenya Grading Rules (or the Metric equivalent)

1) Hardwood Grading: (First and Second Grades)

The following tolerances in thickness will be admitted:-

a) 1.5 mm oversize on pieces up to 25 mm in thickness

b) 1/8 in. oversize on pieces over 25 mm and up to 50 mm in thickness

c) 6 mm oversize on pieces over 50 mm in thickness

2) Softwood grading: Strength Grades (for carpentry)

First and Second Grades. Undersize not allowed

Oversize: all timber to be sawn oversize by 1.5 mm per 25 mm thickness and width. Not more than 3 mm in thickness and not more than 6 mm in width.

3) Softwood Grading: Appearance, grades (for Joinery) First and Second Grades

All as for Strength Grades above

All timber shall be free of live or dead borer beetle or other insect attack when brought upon the site. The Contractor shall be responsible up to the end of the maintenance period for executing at his own cost all work necessary to eradicate insect attack of timber which becomes evident including the replacement of timber attacked or suspected of being attacked, notwithstanding that the timber concerned may have already been inspected and passed as fit for use.

SEASONING OF TIMBER

All timber shall be seasoned to a moisture content of not more than 22% for carpentry.

PRESSURE IMPREGNATION TREATMENT

All carpentry timber, sawn joinery and timber grounds for fixing shall be treated with pressure impregnated 'Celcure' or 'Tanalith' solution with minimum net retention of 0.35 lbs. of dry salt per cubic foot. If so required 'charge sheets' issued after treatment with 'Celcure' or Tanalith' shall be submitted by the Contractor to the Architect for his retention. All cut ends and any other cut faces or timbers sawn after treatment shall be treated before fixing with 'Celcure' or 'Wolmol' solution brushed on. The Contractors prices for such timber hereinafter must allow for the above treatment.

INSPECTION AND TESTING

The Architect shall be given facilities for inspection of all works in progress whether in workshop or on site.

CLEARING UP

The Contractor is to clear out and destroy all cut ends, shaving and other wood waste from all parts of the building and the site generally, as the work progresses and at the conclusion of the work.

This is to prevent accidental borer infestation and to discourage termites and decay.

WORKMANSHIP

All Carpenter's work shall be accurately set out in strict accordance with the drawings and shall be framed together and securely fixed in the best responsible manner with properly made joints: all bands, nails and screws etc. shall be provided as necessary, directed, and approved, and the Contractor's prices shall allow for all the foregoing.

All workmanship shall be of the best quality

DIMENSIONS

Dimensions of timber for Carpentry left with sawn faces shall comply with the previous clause specifying tolerance in thickness. Dimensions for wrought members shall be as described in joinery.

JOINTING

All timber shall be as long as possible and practicable to eliminate joints. Where joints are unavoidable surfaces shall be in contact over the whole area of the joint before fastenings are applied.

No nails, screws or bolts are to be fixed in any split end. If splitting is likely, or is encountered in the course of the work, holes for nails are to be pre-bored at diameters not exceeding $4/5^{\text{th}}$ of the diameter of the nails. Clenched nails must be bent at right angles to the grain. Bull dog connectors shall also be used for connections where appropriate.

Lead holes are to be bored for all screws. When the use of bolts is specified the holes are to be bored from both sides of the timber and are to be of the diameter $D+ 1.6$, where D is the diameter of the bolt. Nuts must be brought up tight but care is to be taken to avoid crushing of the timber under the washers.

ROOF COVERING GENERALLY

Roof covering shall be specified in the measured works section of these Bills of Quantities

JOINERY

ALL TIMBER

All timber shall be FIRST (OR PRIME) Grade. Species of timber and tolerance shall be as defined under "Carpentry."

All joiner's work shall be accurately set out on boards to full size for the information and guidance of the artisans before commencing the respective works, with all joints, iron work and other works connected therewith fully delineated, Such setting out must be submitted to the Architect and approved before such respective works are commenced.

All joiner's work shall be cut out and framed together soon after the commencement of the building as is practicable, but not be wedged up or glued until the building is ready for fixing of the same. Any portions that warp, wind or develop/shakes or other defects within six months after completion of the Works shall be removed and new portions fixed in their place together with all other work which may be affected thereby, all at the Contractor's own expense.

All work shall be properly mortised, tenoned, housed, shouldered, dovetailed notched, pinned,

Joints in joinery must be as specified or detailed, and so designed and secured as to resist or compensate for any stresses to which they may be subjected. All nails, sprigs, etc., are to be punched and puttied. Loose joints are to be made where provision must be made for shrinkage and glued joints where sealed joints are required.

All exposed surfaces of joinery work shall be wrought and all arises 'cased off' by planing and sand papering to an approved finish suitable to the specified treatment.

INSECT DAMAGE

All timber shall be free from insect damage as defined under 'carpentry'

SEASONING OF TIMBER

All timber shall be seasoned to a moisture content of not more than 15%.

3 mm Reductions of specified sizes will be allowed to each wrought face except where described as finished sizes in which joinery shall hold up to the full dimensions.

The Contractor is to note that all joinery timber sizes are nominal unless otherwise state as finished sizes. These nominal sizes have been calculated in accordance with Standard Method of Measurement of Building Works for East Africa, 2nd edition Metric and no regard has been taken of metric sizes of timber at present being sold.

FIXING JOINERY

All beads, fillets and small members shall be fixed with round or oval brads or nails well punched in and stopped. All larger members shall be fixed with screws. Brass screws shall be used for fixing of all hardwoods, the heads, let in and palleted over with wood to match the grain.

BEDDING FRAMES, ETC.

The Contractor's rates must include for bedding frames, sills, etc., in mortar or dressing surfaces of walls etc. in lieu.

PLUGGING CONCRETE AND WALLS

Round wood plugs shall not be used, all work described shall be fixed with screws to plugs formed by drilling concrete walls, etc., with a proper tool of suitable size at 750 mm spacing and filling the holes completely with 'philplug' rawl plastic or rawl plugs in accordance with the manufacturer's instructions. Alternatively and where so agreed by the Architect hardwood dovetailed fixing slips, dipped in 'wolmanol' or 'Celcure B' solution and cut and pinned or bedded in cement mortar (1:3) may be used.

FIBREBOARD

Shall be 12 mm 'Celotex' or equal and approved

PLYWOOD

Shall comply with B.S. 1455 (First Quality 'interior type' unless otherwise specified)

BLOCKBOARD

Shall be laminated board faced both sides with 4 mm plywood. Exposed edges shall be lipped with 19 mm hardwood and rates shall include for lipping.

PROTECTION OF JOINERY

All fixed joinery which in the opinion of the architect is liable to become bruised or damaged in any way, shall be completely cased and protected by the Contractor until the completion of the works.

FLUSH DOORS

All flush doors shall be manufactured to the thicknesses specified and consists of 100 mm wide framing all round with horizontal core battens at not more than 75 mm centres pressure impregnated as described and bored with 12 mm diameter ventilation holes at 300 mm centres. Doors shall have two lock blocks and be faced both sides with 6 mm plywood as specified and have 25 mm mahogany twice rebated lipping all round and otherwise be equal to an approved sample. External flush doors shall be as described above but faced both sides with marine quality plywood.

PRICES TO INCLUDE

Prices of items hereafter shall include for the foregoing labours, etc., and in addition all prices for linear items are to include all internal and external angles, either mitred or tongued, all fair, fitted, stopped, notched or returned ends, all similar incidental labours and all short lengths.

BOTTOM EDGES

Bottom edges of doors shall be painted with one coat of approved prime before fixing.

IRONMONGERY

All locks and ironmongery shall be fixed with screws etc., to match. Before the wood work is painted, handles shall be removed carefully stored and re-fixed after completion of painting and locks oiled and left in perfect working order. All keys shall be labelled with the door reference numbers marked on labels before handing over to the Architect on completion.

METAL WORKS

ALL MATERIALS

Shall be of the best quality, free from defects. The materials in all stages of transportation, handling and piling shall be kept clean and injury from, breaking, bending and distortion prevented

NAILS, SCREWS AND BOLTS

Shall be of the best quality mild steel of lengths and weights approved by the Architect. Nails shall be to B.S. 1202 and bolts to B.S 916.

WORKMANSHIP

All work shall be carried out in the most workmanlike manner and strictly as directed by the Architect.

Welding shall be neatly cleaned off and units shall be prefabricated in the workshop whenever possible, the minimum of site welding being employed.

All screwed work shall have full internal and external threads and holes shall have been cleared off. Counter-sinking must be concentric.

RAINWATER GOODS

Prices shall include for building in, casting in or cutting mortises to form fastenings, all making good, joints, short lengths and all extra joints in the case of fittings.

FIXING METAL WINDOWS AND DOORS

The Contractor's prices for fixing metal windows, doors, etc., shall include for assembling and fixing, cutting mortises for lugs in concrete or walling and running with cement mortar (1:4) bedding frames in similar mortar and pointing in mastic, bedding cills, transoms and mullions in mastic, making good plaster around frames both sides and fixing, oiling and adjusting all fittings

MILD STEEL

Steel for burglar bars and reinforcement shall comply with B.S. 15. No work shall be fabricated until site dimensions have been checked and no additional claim will be accepted should final dimensions differ from those on the drawings.

All welds shall be ground smooth and the Contractor shall ensure that the metal work is prepared for painting as described in painting and decorating.

The Contractor is to ensure that all work is erected plumb and true and be so maintained until properly secured by permanent fixing.

STRUCTURAL HOLLOW SECTIONS

All hollow sections are to be connected by electric arc welding

For butt welds the fusion surfaces of each member must be properly aligned and prepared.

ELECTRONIC WELDING

All welding is to be in accordance with the requirements of B.S. 1856 and 938 and the electrode shall comply with B.S. 639.

Fusion faces shall be free from irregularities which could interfere with the welding materials. Those faces shall also be free from any deleterious matter such as rust, grease and paint.

All welds shall be prepared by planning or machine frame cutting.

During welding all parts will be maintained in their correct position.

Welds shall be carried out with each run closely following the one prior with sufficient time between to allow for removal of slag.

Each run of weld is to be inspected and the sub-Contractor shall ensure that unsatisfactory welds are cut out or remade to the required standard.

The minimum size of fillet weld shall be 6 mm.

All completed welds shall have regular and smooth surfaces. the weld material shall be solid with complete fusion throughout the weld material and to the metal.

Any defects shall be cut or made good to approval.

External faces of butt welds are to be ground smooth.

PAINTING

All steel is to be wire brushed and sanded, and any loose scale, dirt or grease shall be removed before any painting is commenced. One coat of red oxide primer type A to BS 2523 shall be applied at the shop. Any damage to the priming paint shall be made good to the Architect's satisfaction.

PLASTER WORK AND OTHER FINISHES

CEMENT

The cement shall be as previously described in 'Concrete Work'.

SAND

The sand shall be as described for fine aggregate but that for plastering shall be light in colour and well graded to a suitable fineness in accordance with the nature of the work in order to obtain the finish directed.

LIME

The lime for plastering shall comply with B.S. 890 Class 'A' for non-hydraulic lime and shall be as rich as obtainable and to approval. It must be freshly burnt and shall be slaked at least one month before being used by drenching with water, well broken up and mixed and the wet mixture shall be passed through a sieve of sixty four meshes to the square inch. Lime putty shall consist of freshly slaked lime as above described, saturated with water until semi-fluid and passed through a fine sieve: it shall then be allowed to stand until superfluous water has evaporated and it has become

consistency of thick paste, in no case for a shorter period than one month before use, during which it must be kept damp and clean and no portion of it allowed to become dry.

Alternatively, hydrated lime with 70% average calcium oxide content may be used and it must be protected from dampness until required for use. It shall be soaked to a putty at least 24 hours before use.

COMPOSITION OF PLASTERS, ETC.

A mix referred to as 1:4 shall mean 41 kg of cement and 0.45 cm. of sand. All other mixes shall be construed in a like manner.

HACKING ETC.

The prices for all paving and plastering, etc. shall include for hacking concrete surfaces and for raking out joints of walls 13 mm deep and for cross scoring undercoats to form a proper key.

Plastering on walls generally shall be taken to include flush faces of lintels, beams, etc. in same.

All surfaces to be paved or plastered must be brushed clean and well wetted before each coat is applied. All cement pavings and plaster shall be kept continually damp in the intervals between application of coat and for seven days after the application of the final coat.

DUBBING OUT

Where required shall be composed of one part of cement to six parts of sand.

Partially or wholly set materials will not be allowed to be used or re-mixed. The plaster, etc., mixes must be used within two hours of being combined with water.

SAMPLES

The Contractor shall prepare sample square yards or the screeds, pavings and plastering as directed until the quality, texture and finish required is obtained and approved by the Architect, after which all work executed shall conform with the respective approved samples.

FINISH GENERALLY

All screeds and paving shall be finished plump, square, smooth, hard and even and junctions between surfaces shall be perfectly true, straight and square.

All work shall be approved and any not complying with the above shall be hacked away and replaced at the Contractor's expense.

ARISES AND ANGLES

All arises and angles shall be clean and sharp or slightly rounded or thumb coved as directed including neatly forming mitres.

MAKING GOOD

All making good shall be cut out to a rectangular shape, the edges undercut to form dovetail key and finished flush with the face of the surrounding paving or plaster. cut out and make good all cracks, blister and other defects and leave the whole of the work perfect on completion.

PRICES TO INCLUDE

In addition to the foregoing, prices of superficial items are to include for work in narrow widths, all linear labours, angles and arises, all fair edges, for making good up to or stopping to a line at the required level at top of skirting or dado rails where directed and for making good up to windows doors frames and similar.

The prices for all linear items unless otherwise measured are to include for all short lengths, angles and arises, mitres and ends of every description.

FLOOR SCREEDS

Shall be composed of cement and sand and shall not be laid in an area exceeding one hundred and twenty square feet during any period of 24 hours. As bays are formed, batten strips must be used to retain the exposed edge of the screed.

Lime plastering shall consist of first coat in cement lime and sand (1:2:9) and finish coat of lime putty skin with 10% cement added. The two coats shall have a total finished coat of not less than 12 mm thick.

The first coat shall be trowelled to a perfectly true and even surface and finished with a wood float, the surface being sprinkled with water from a brush during the process and before it has set, thoroughly scratched to form key. The finishing coat shall not be less than 1 mm thick thoroughly worked with trowel and sprinkled with water as before and be brought to a uniform smooth hard surface.

Lightweight roof screeds shall consist of cement, sand and pumice (1:3:7) and finished with a 13 mm layer of cement and sand (1:4). Screeds shall not be laid in areas exceeding one hundred and twenty square feet during any period of 24 hours. As bays are formed batten strips must be used to retain the exposed edge of the screed. Screeds shall be finished to falls and crossfalls to receive other finishes as specified.

P.V.C. FLOOR TILING

P.V.C. floor tiling shall be asbestos based vinyl floor tiles complying with B.S. 3260.

WHITE GLAZED WALL TILES

Shall be imported quality and of approved size and thickness, with associated fittings all to B.S. 1281. Tiles shall be well soaked in water, laid with straight horizontal and vertical joints and bedded in cement screed (1:4) and pointed in white cement and cleaned down on completion all to Architect's approval.

Rates for linear items shall include for all special fittings and cutting at angles and intersections.

GRANOLITHIC PAVINGS

The granolithic shall consist of one part cement (by volume) to two and a half parts (by volume) of local granite chips graded from 6 mm down to 3 mm with not more than 15% to pass a No. 50 B.S. sieve.

Granolithic shall be spread and well compacted and given only sufficient trowelling to produce a perfectly level surface immediately after laying. When the granolithic has stiffened sufficiently so that a hard surface can be obtained, then the surface shall be polished with a steel float to a perfectly even and smooth surface. On no account will dusting with neat cement to the surface be permitted.

POLISHED TERRAZZO

Shall be laid by an approved Sub-Contractor and shall consist of a screed or backing coat and a finishing coat of 'Snowcrete' and the marble chips (1:2) mixed with "cementone No 1" colouring compound in accordance with Manufacturer's instructions. Overall thickness is to be as later specified.

The finishing coat shall be a minimum of 12 mm thick for pavings and 9 mm thick for wall finishes, trowelled to a smooth and even finish and well rubbed and polished with carborandum.

TYROLEAN RENDERING

Tyrolean rendering shall consist of a backing coat approximately 12 mm thick of one part cement with 10% of lime by volume added to the cement and four parts of sand and a finishing coat of an approved shade of cement and sand of a suitable mix applied with a cement spraying machine to the Architect's approval. All adjoining surfaces shall be masked whilst spraying.

GLAZING

GLASS

All glass shall be of British manufacture complying with B.S. 952, free from flaws, bubbles, specks and other imperfections. All glass shall be delivered in proper containers with maker's name, guarantee, type of glass and thickness or weight of glass attached to the outside of the containers.

Glass panes shall be cut to sizes to fit the openings with not more than 1.5 mm play all round and where puttied shall be sprigged to wood or clipped to metal frames.

Clear sheet glass shall be ordinary glazing (O.Q.) quality. Polishes plate glass shall be G.G. quality.

Obscured glass shall be rough cast plain rolled glass 6 mm thick.

Wired glass shall be polished Georgian wired glass 6 mm thick.

BEADS AND WASHLEATHER

The glass to doors and screens and other places where vibration may occur shall be bedded in wash leather with beads and fixed with brass cups and screws.

The timber rebates shall be cleaned, primed and painted with one coat of oil paint.

PUTTY

For glazing in wood frames shall be composed to pure linseed oil and powdered whitting free from grit in accordance with B.S. 544 type 1 putty.

Putty for glazing in metal frames shall be quick hard setting tropical putty specifically manufactured for use with steel windows.

Rebates of metal frames receiving glass shall be prepared and treated with primer for putty prior to glazing and putty shall be primed ten days after glazing.

BEDDING STRIPS

Shall be of plastic or wash leather approved by the Architect and shall be cut to fit exactly the line of frame and beads

ON COMPLETION

Remove all broken scratched or cracked panes and replace with new to the satisfaction of the Architect; clean inside and out with an approved cleaner. On no account shall windows be cleaned by scraping with glass.

PAINTING AND DECORATING

APPROVED SPECIALIST

All work under this trade must be executed by an approved specialist, unless the Architect agrees otherwise.

GENERALLY

The Contractor shall arrange his programme for work such that all other trades within the area where painting is being done are completed before painting begins. Before painting the Contractor must prepare the surfaces to the satisfaction of the Architect and in accordance with the paint manufacturer's instructions.

All plaster, metal, wood or other surface which are to receive paint, stain, polish, distemper or paintwork of any description are to be carefully inspected by the painting Sub-Contractor and the main Contractor before paintwork commences. The Sub-Contractor should ensure that all such surfaces are finished (by the main Contractor) satisfactorily before commencing any paintwork as he (the Sub-Contractor) will be held responsible for any defective paintwork arising from the background being of unsatisfactory finish prior to the paint being applied on it.

PAINTING GENERALLY

All materials are to be of the best quality and shall be of an approved proprietary brand selected from the latest Schedule of approved paints issued by the Ministry of Works.

All materials to be applied externally shall be of exterior quality and/or recommended by the Manufacturers for external use.

All materials shall be delivered on site intact in the original sealed drums or tins and shall be mixed and applied strictly in accordance with manufacturer's instructions and to the approval of the Architect.

Unless specifically instructed or approved by the Architect no paints distemper, etc., are to be thinned or otherwise adulterated, but are to be used as supplied by the Manufacturers and direct from the tins,

If required by the Architect the Contractor is to provide at his own expense samples of paints, etc., with containers and cases to be forwarded carriage paid by the Contractor for analysis to a laboratory.

The priming, undercoats and finishing coats shall each be of differing tints and the priming and undercoats shall be the correct brands and tints to suit the respective coats, in accordance with the Manufacture's instructions. All finishing coats shall be of colours and tints selected by the architect. Each coat must be approved by the Architect before the next coat is applied.

Each coat shall be properly dry and in the case of oil or enamel paints shall be well rubbed down with fine glass paper before the next coat is applied. The paintwork shall be finished smooth and free from brush marks.

Colour cards of all paints, etc., shall be submitted to and samples prepared for approval of the Architect before laying on and such samples, when approved, shall become the standard for work.

Oil paints, emulsion paints, and distempers shall be applied by means of a brush or spray gun or rollers of an approved type, where so agreed by the Architect. No painting is to be done in wet weather or on surfaces which are not thoroughly dry.

Prices of paint, distemper, etc. shall include for preparation of surfaces, rubbing down between each coat, stopping, knotting, etc., and all other work in connection and as described and as necessary to obtain a first class and proper finish to approval.

Emulsion paint on ceiling and all undercoats of emulsion paint and completed oil painting on walls shall be completed before floorings are laid. Final coats of emulsion paints on walls shall be applied after such flooring has been laid complete.

SAMPLES

The Contractor shall furnish at the earliest possible opportunity before work commences and at his own cost, samples of painting for the Architect's approval and any further samples in the case of rejection until such samples are approved by the Architect and such samples when approved shall be the minimum standard for the work to which they apply.

The Architect may reject any materials or workmanship not in his opinion up to the approved samples and these must be removed from the site without delay.

PREPARATION AND PRIMING OF PLASTER, ETC., SURFAC

Plaster surfaces shall be perfectly smooth, free from defects and ready for decoration. All such surfaces shall be allowed to dry for a minimum period of six weeks, stopped with approved plaster stopping compound and rubbed down flush, as necessary, and then be thoroughly brushed down and left free from all efflorescence, dirt and dust immediately prior to decorating.

Plaster surfaces which are to be finished with emulsion, oil or enamel paint, shall be primed with Leyland primoplas P.20 or other equal and approved and applied in accordance with the Manufacturer's instructions.

PREPARATION AND PRIMING OF FIBREBOARD

Fibreboard or similar surfaces shall be lightly brushed down to remove all dirt, dust and loose particles and have all nail holes or other defects stopped with an approved plaster stopping compound rubbed down flush and left with a texture to match surrounding materials and shall receive one coat primer at last.

PREPARATION AND PRIMING OF METAL WORK

All surfaces shall be thoroughly brushed down with wire brushes, sanded and scraped where necessary to remove all scale rust, etc., immediately prior to decoration and given one coat of red oxide primer, where severe rust exists and if approved by the Architect a proprietary de-rusting solution may be used in accordance with the Manufacturer's instructions.

Galvanised surfaces shall be treated before painting with a solution of calcium plumbate, applied in strict accordance with the Manufacturer's printed instructions (agent,; M/S Dodwell & Co., Nairobi) or with an approved calcium plumbate primer.

PREPARATION AND PRIMING WOODWORK

All woodwork shall be rubbed down, all knots covered with a thick coat of good shellac or aluminium knotting; primed with one coat of approved ready mixed proprietary wood primer and all cracks, nails holes, defects and uneven surfaces, etc., stopped and faced up with hard stopping rubbed down flush. Plywood shall be brushed filled over the entire surface

Woodwork to receive finishes other than paint shall have all stains removed and shall be well rubbed down and have all defects leveled with hard stopping of a colour to match the adjoining surface.

WOOD PRESERVATIVE

All woodwork in contact with walling or plaster shall be treated after cutting and preparation but before assembly or fixing with one coat of approved wood preservative.

WAX POLISH

Wax polish shall be furniture polish of an approved brand, and wood surfaces shall be clean, smooth, free from oil or grease or any other blemishes. A minimum of two coats shall be applied to approval.

EMULSION PAINT

Emulsion paint shall be of approved brand. After preparation as specified above a minimum of three coats shall be applied using a thinning medium of water only if and as recommended by the Manufacturer.

An approved plaster primer tinted to match may be used for the first coat.

ENAMEL PAINT ON METAL WORK AND WOODWORK

Enamel paint shall be of approved brand. Apply one undercoat and two finishing coats, after preparation and priming as specified above.

IRONMONGERY

Where instructed, all ironmongery on existing components to be painted shall be removed from joinery, steel windows and louvres before painting is commenced, and shall be cleaned and oiled and adjusted if necessary and re-fixed after completion of painting.

PAINTING ITEMS

Painting items as billed hereafter shall include for preparing and priming surfaces as described above.

COVER UP

Cover up all floors, fittings, etc., with dust sheets when executing all painting and decorating works.

CLEANING AND TOUCH UP

Paint splashes, spots and stains shall be removed from floors, woodwork, etc., any damaged surfaces touched up and the whole of the work left clean and excellent upon completion.

ROADS AND ACCESSES

EXCAVATIONS AND COMPACTION

After excavating, filling and trimming sides, the formation level shall be compacted to the Engineer's approval using an approved 10 Ton roller for the road surfaces and a 5 Ton roller for the footpaths in order to achieve a minimum of 98% compaction at optimum moisture content.

Selected and approved excavated material used for filling shall be laid and compacted in layers not exceeding 200 mm deep

MURRAM

Murram shall be naturally occurring lateritic gravels, either in loose form or cemented, provided the cemented materials can be broken up during excavation or compaction to pass a 37.7 mm sieve.

Murram base shall be spread in a layer of uniform thickness across the whole width of the road, including such additional width as may be shown on the drawings. The surface shall be well watered and rolled to achieve a compaction of 98% at optimum moisture content. Where the total base course thickness exceeds 150 mm. this shall be spread, and compacted in separate layers not exceeding 150 mm. thickness each hard particles exceeding 75 mm maximum dimension shall be removed.

DOUBLE SEAL BITUMINOUS ROAD SURFACING

PRIMING

Straight run bitumen of penetration grade 80/100 or cut back bitumen of grade MC shall be applied at the rate of 0.80 to 1.10 litres per square metre over the full width

of the sub-base, adjusting the rate of spray as directed by the Engineer.

The spray shall be allowed to dry and kept free from traffic for at least 48 hours after which any free pools of primer shall be brushed out or blinded with stone dust.

DOUBLE SEAL SURFACING

FIRST SEAL COAT

48 hours after application of primer, bitumen as described shall be applied at the rate of 1.10 to 1.70 litre per square metre over the full width of the base and this shall be covered immediately with 20 mm single size chips at the rate of one cubic metre per 20 square metres. This shall be rolled immediately with at least two passes of a 10 Ton roller.

SECOND SEAL COAT

Not more than 24 hours after application of the first coat, bitumen as described before shall be applied at the rate of 0.90 to 1.20 litres per square metre over the full width of the first coat.

This shall immediately be covered with 12 mm single size chips at the rate of one cubic metre per 75 square metres and then rolled immediately with at least two passes as specified for the first seal coat. If more additional passes are required this shall be to the discretion of the Engineer.

Traffic shall not be allowed on to the finished surface for a period of at least 24 hours. After weeks of traffic use or such other period as the Engineer shall direct, loose chips shall be brushed off and removed from site.

EXTERNAL DRAINAGE

GENERAL

B.S. CODE OF PRACTICE

Except where inconsistent with this specification all stormwater and foul drainage shall use materials which comply with the relevant current British Standard and all workmanship, methods, testing and procedures shall be in accordance with the British Standard Code of Practice C.P. 301.

STORMWATER DRAINAGE

OPEN LINE DRAINS

Open line drains shall be in the precast concrete invert blocks and slabs jointed in 1:4

cement sand mortar and flush pointed as shown on the drawings. They shall be laid on line and level as shown to an even gradient between culverts or junctions. Unlined shoulder shall be neatly sloped off at a gradient steeper than 1 or 1 1/2 The distance measured up the slope of the shoulder shall not exceed 2' without being broken by a horizontal ledge 450 mm wide.

BEDDING AND BACKING OF DRAIN LINING

Bedding and backing shall normally be on 50 mm thickness of sieved granular soil approved by the Architect. Should the Architect consider it to be desirable in case of the soil being highly expansive clay, or because of the proximity of a tree or for other valid reasons, he will order the bedding and/or backing to be replaced by 100 mm thick bed of concrete 1:4:8 for such length of drain as he deems fit. The Contractor shall bring cases of suspected weak drain foundations to the notice of the Architect because if, during the maintenance, a drain should fail, the damage shall be made good and concrete bedding and/or backing replaced, all at the Contractor's expense unless warning was given at the time of construction of a likelihood of failure.

CULVERT PIPES.

Culvert pipes shall be of un-reinforced precast concrete and ogee jointed in accordance with BS. 556 - 'Cement Concrete Cylindrical Pipes and Tubes'

PRECAST CHANNELS, INVERT BLOCKS, SLABS AND COVERS

All precast items for incorporation in open or covered drains shall be as detailed on the drawings and shall be of concrete grade 'C'

CULVERTS

All culvert pipes shall be laid to falls given on the drawings unless otherwise detailed. Culvert headwalls shall be founded on 150 mm Deep grade 'D' concrete and constructed in 225 mm solid concrete blocks in accordance with the drawings.

All mortar joints in headwalls shall be in cement sand (1:4) mortar and flush pointed.

Mortar caps to all walls shall be of similar mortar. All haunching, coving and benching in junctions between culverts and invert blocks drains shall be in concrete Grade 'C' as specified wood floated to a fair face. All excess excavations to trench for culvert pipes between walls shall be backfilled in concrete Grade 'E' and the Contractor shall include for this contingency in the bills of quantities as no claims for extra on this account will be accepted by the Engineer.

DRAINAGE

EXCAVATION OF TRENCHES

Excavating trenches is measured in terms of length only regardless of the width of the trench. The Rates in the Bills of Quantities shall include for all strutting and timbering and it shall be the responsibility of the Contractor to ensure that the safety of his employees is assured by the adequate strutting and timbering of all excavations. Excavations shall be made to such depths and at least 12" wider than the pipe and as may be required by the Engineer to obtain proper falls and firm foundations. No permanent construction shall be commenced on any trench until the excavation has been examined and approved by the Engineer. Prices for excavations must include for trimming bottoms to the necessary falls and for any extra excavation required for planking and strutting and working space.

KEEP EXCAVATIONS DRY

The Contractor shall keep the whole of the trenches or other excavations free from water, and he shall execute such works and install such pumps as may be required to keep the excavation dry at all times. No subsoil water shall be discharged into the sewers without the written permission of the Engineer.

REFILLING OF PIPE TRENCHES

All surplus excavated materials shall be disposed of. After the pipes are laid and tested they shall be surrounded with selected materials, carefully packed into place. The remainder of the trench shall be filled with suitable material thoroughly rammed in 150 mm layers to the satisfaction of the Engineer. Where excavated materials are not sufficient, material shall be brought from other sections of excavations or from approved borrow pits.

BEDDING, HAUNCHING AND SURROUNDING DRAIN PIPES

1. Normally all pipework including precast concrete pipework shall be bedded on prepared earth bed in accordance with the details on the drawings.
2. All pipework shall be surrounded with a minimum thickness of 150 mm concrete throughout where shown on the drawings. Where pipes are specified to be haunched, the concrete shall be carried up from the outside edge of the bed to meet the pipe barrel tangentially.

The Contractor is to allow in his rates for bed and surrounds, for forming recesses and filling with concrete, for mortar layers, etc., and for any necessary formwork.

PRECAST CONCRETE PIPES

Shall be to B.S 2760 and of approved manufacture. Joints shall be made with straight couplings as indicated in the B.S. and the laying, cutting and jointing shall be carried strictly in accordance with the Manufacturer's printed instructions.

TESTING DRAINS

Each section of pipe between manholes or inspection chambers shall be tested under a minimum residual static head of the head of the section of 1.50 metres of water to the satisfaction of the Engineer.

MANHOLES

The construction of regular manholes shall be in accordance with the drawing, in 225 mm dressed coursed stonework or solid concrete blockwork set in cement and sand (1:4) rendering internal faces only. Step irons shall be set in as well as being constructed to avoid breaking holes in completed walls. Channels and benching shall be of Grade 'C' concrete floated to fair face, trench pipes shall not enter the manhole lower than at the same crown level as the outlet pipe.

GULLEY TRAPS

Gulley traps shall be generally as shown on the drawings and shall be of the best manufacturer and approved by the Engineer.

STEP IRONS

Step irons shall be from galvanised mild steel, 18 mm diameter bars, and shall be as per the dimensions shown on the drawings.

INSPECTION COVERS AND FRAMES

Except where otherwise indicated, covers and frames for inspection chambers and manholes shall be to B.S. 497 of 1967, table 6.

PRELIMINARIES



Item	Description	KES.
A	<p>THE PROJECT TEAM</p> <p>The "Employer": Institute of Certified Public Accountants of Kenya (ICPAK) P. O. BOX 59963 – 00200, NAIROBI.</p> <p>The "Architect" Grasp Design Ltd P. O. Box 73484 - 00200 NAIROBI</p> <p>The "Services Engineer" Kol Engineers Ltd P. O. Box 35291 - 00200 NAIROBI</p> <p>The "Quantity Surveyor" Getso Consultants Limited P. O. Box 52979 - 00200 NAIROBI</p> <p>The "Contractor": The person or persons, partnership, firm or company whose tender (offer) for the work is accepted and who consequently enters into a written contract with the Employer to carry out the works.</p>	
	TOTAL CARRIED TO COLLECTION	

Item	Description	KES.
A	<p>DESCRIPTION OF SITE</p> <p>The site for the works is at 9th and 10th Floor ICPAK Towers, Thika Road, Nairobi County. During the contract the contractor will be expected to take all necessary measures as directed by the architect to minimize any inconvenience to users of adjacent properties and their customers that may arise from the carrying out of the contract. The tenderer is advised to visit the site before pricing the bills of quantities. Prior arrangements for the site visit shall be made by the client</p>	
B	<p>ACCESS TO SITE</p> <p>Access to site is through the designated entrances by the Employer. No other entrance will be used by the Contractor unless expressly permitted by the Employer at his own discretion. The Contractor must allow for keeping clean at all times the existing access to the site.</p> <p>Access to site is through the designated entrances by the Employer. No other entrance will be used by the Contractor unless expressly permitted by the Employer at his own discretion. The Contractor must allow for keeping clean at all times the existing access to the site.</p>	
C	<p>DRAWINGS</p> <p>The Contractor will be deemed to have examined the drawings before tendering and to have satisfied himself regarding their details and regarding the nature and extent of the works and the method of construction involved. No claims arising out of misapprehension in these respects will be allowed.</p>	
D	<p>DESCRIPTION OF WORK AND SCOPE OF CONTRACT.</p> <p>The scope of the works in this contract involve the ICPAK Office Refurbishment works. The works shall comprise the following</p> <ul style="list-style-type: none"> • Builders work • Electrical and Mechanical Installations • Furniture Installations <p>The standards of workmanship and materials used are expected to be of the highest levels achievable to be commensurate with the best standards in the building industry in Kenya.</p> <p>The Employer shall have the right under this contract to hire others to carry out work falling under the contract if the contractor fails to achieve the required standards of materials and workmanship.</p>	
	TOTAL CARRIED TO COLLECTION	

Item	Description	KES.
A	<p>FORM OF CONTRACT</p> <p>The parties shall enter into a contract which shall be the current Form of Agreement and Conditions of Contract for Building Work (April 1999 Edition), published by the Joint Building Council with the sanction of the Architectural Association of Kenya and the Kenya Association of Building and Civil Engineering Contractors, excepting in so far as deleted therein or varied hereinafter.</p> <p>Contractors are expected to be familiar with the said form of contract. They shall, if necessary, seek clarifications from the Quantity Surveyor at Getso Consultants Limited through e-mail to: info@getso.co.ke. on any deletions, additions, or modifications made to the Standard Form as contained herein before they submit their tenders. No claims arising out of any deletion, addition or modification of any Clause will be allowed.</p>	
B	<p>CLAUSES OF THE STANDARD FORM OF CONTRACT</p> <p>The Contractor's attention is drawn to the clauses of the Conditions of Contract and deletions, additions and modifications thereto which shall be read as incorporated herein and he shall allow any sums which he considers necessary for the observance of such conditions.</p>	
a	<p>Clause 1 Definitions</p>	
b	<p>Clause 2 Articles of Agreement</p>	
a	<p>Clause 3 General Obligations of the Employer</p>	
b	<p>Clause 4 General Obligations of the Contractor</p>	
c	<p>Clause 5. General Obligations of the Architect</p>	
d	<p>Clause 6 General Obligations of the Quantity Surveyor</p>	
e	<p>Clause 7 Contract Documents</p>	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
a	Clause 8 Contract Bills and Contract Price	
b	Clause 9 Contractor's Site Agent and other Staff	
c	Clause 10 Clerk of Works	
d	Clause 11 Liability Against Injury to Persons and Property	
e	Clause 12 Insurance Against Injury to Persons and Property	
f	Clause 13.0 Insurance of the Works (Contractor's Liability) <i>The contractor shall insure for the works in this contract.</i>	
g	Clause 14.0 Insurance of the Works (Employer's Liability)	
h	Clause 15.0 Insurance of the Works (Works of Alteration etc.)	
i	Clause 16.0 Performance Bond <i>Sub-clause 16.2 shall not apply in this contract.</i>	
j	Clause 17.0 Compliance with Regulations, Notices, etc.	
k	Clause 18.0 Programme of Works	
l	Clause 19.0 Access to the Works	
m	Clause 20.0 Possession of Site and Commencement of Works	
n	Clause 21.00 Levelling and Setting Out	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
a	Clause 22.0 Architect's Instructions	
b	Clause 23.0 Specifications of Goods, Materials and Workmanship	
c	Clause 24.0 Samples and Tests	
d	Clause 25.0 Royalties and Patent Rights	
e	Clause 26.0 Assignment	
f	Clause 27.0 Subletting	
g	Clause 28.0 Suspension of the Works by the Architect	
h	Clause 29.0 Suspension of the Works by the Contractor	
i	Clause 30.0 Variations <i>Sub-clause 30.9 shall not apply in this contract where the Contractor fails to meet the standards of materials and workmanship and the work affected is removed from the contract for the purpose of maintaining standards in the project. The Contractor will pay to the Employer any extra costs properly incurred in executing the relevant works.</i>	
j	Clause 31.0 Nominated Sub-Contractors	
k	Clause 32.0 Nominated Suppliers <i>This clause shall not apply in this contract</i>	
l	Clause 33.0 Work by other Persons Engaged by the Employer	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
a	Clause 34.0 Payments <i>No interest earning account will be opened for the Amount Retained.</i>	
b	Clause 35.0 Fluctuations <i>The Contract for the works is a "FIXED PRICE CONTRACT"</i>	
c	Clause 36.0 Extension of Time	
d	Clause 37.0 Loss and Expense Caused by Disturbance of Regular Progress of the Works	
e	Clause 38.0 Termination of the Contract by the Employer	
f	Clause 39.0 Termination of the Contract by the Contractor	
g	Clause 40.0 Termination of the Contract by Either Party	
h	Clause 41.0 Practical Completion and Defects Liability	
i	Clause 42.0 Sectional Completion	
j	Clause 43.0 Damages for Delay in Completion	
k	Clause 44.0 Antiquities and other Objects of Value	
l	Clause 45.0 Settlement of Disputes	
A	<u>APPENDIX TO THE CONDITIONS OF CONTRACT</u>	
a	Clause 13.0 Percentage to cover professional fees for insurance purposes only 10%	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
a	Clause 16.1 Name of Contractor's surety As in the Form of Surety Undertaking	
b	Clause 16.1 Amount of surety 10% of Contract Amount. Surety to be approved by the Client	
c	Clause 16.2 Name of Employer's surety Not Applicable	
d	Clause 16.2 Amount of surety Not Applicable	
e	Clause 18.1 Period of submission of programme within 2 weeks of signing the contract	
f	Clause 20.1 Period for possession of site within 1 week of Contract award	
g	Clause 20.2 Contract period as stated in the form of tender or subsequently agreed	
h	Clause 20.2 Date for commencement of Works same as date of site possession	
i	Clause 20.2 Date for practical completion as stated in the Form of Contract	
j	Clauses 31.14, 32.4.5, 34.6 Name of the bank for purposes of interest calculation Central Bank of Bank	
k	Clauses 34.1 Interval for application of payment certificate 1 (one) month	
m	Clauses 34.4 Minimum amount of payment certificate: N/A	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
a	Clauses 34.12 Percentage of certified value retained 10%	
b	Clauses 34.12 Limit of retention fund 5%	
c	Clauses 34.15 Periods for release of interest on retention money to Contractor Not Applicable.	
d	Clauses 34.17 Period of final measurement and valuation Six (6) months after the Date of Practical Completion.	
e	Clauses 41.6 Defects liability period 6 (Six) months	
f	Clauses 43.1 Damages for delay in completion at the rate of Kshs. 200,000/= per week or part thereof.	
A	SUFFICIENCY OF TENDER The contractor shall be deemed to have satisfied himself before tendering to the correctness and sufficiency of his Tender for the works and of rates and prices stated in the priced Bills of quantities, which rates and prices shall cover all his obligations under the contract and all matters and means necessary for the proper completion and maintenance of the Works. The rates and prices shall not be changed whatsoever after tender opening.	
B	DEFINITIONS AND ABBREVIATIONS Abbreviations used in these Bills of Quantities shall be interpreted as follows:-	
a	"Approved": Shall mean approved by the Architect.	
b	"As directed": Shall mean as directed by the Architect.	
c	"B.S.": Shall mean the Current British Standard specifications published by the British Standards institution, 2 Park Street, London W. I, England.	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
a	"Kg.": Shall mean Kilograms	
b	"No.": Shall mean Number	
c	"MM": Shall mean Millimetres	
d	"Lm.": Shall mean Linear Metres	
e	"Sm.": Shall mean Square Metres	
f	"Cm.": Shall mean Cubic Metres	
g	"M.S.": Shall mean Measured separately	
h	Words denoting the "Male" shall be deemed to represent the "Female" and vice versa.	
I	"Ditto": Shall mean the whole of the preceding description except as qualified in the section in which it occurs. Where it occurs in brackets it shall mean the whole of the preceding description which is contained in the appropriate brackets.	
A	SAMPLES The Contractor shall furnish at the earliest possible opportunity before the relevant section of the work commences and at his cost, any samples of materials or workmanship that may be called for by the Architect for his approval and any further samples in the case of rejection until they are approved. Such samples, when approved, shall be the minimum standard for the work to which they apply.	
B	EXISTING SERVICES Prior to commencement of any work the contractor shall ascertain from the relevant authorities and from a keen observation of the building, the exact positions, depths and levels of all existing electric cables, water pipes and other services in the building and shall make whatever provisions may be necessary and those that may be required by the authorities concerned for the support and protection of such services. Any damage or disturbance caused to any service/installation shall be reported immediately to the Architect, the Employer and the relevant authority and shall be made good to their satisfaction at the Contractor's expense.	
	TOTAL CARRIED TO COLLECTION	

Item	Description	KES.
A	<p>In addition to the above requirement, the Contractor is required to program any disconnection and reconnection of services in search a manner that it shall not in any way affect the continuity of the operations of the buildings.</p> <p>MATERIALS, TOOLS, PLANT AND SCAFFOLDING</p> <p>The Contractor shall be responsible for the provision of all materials, scaffolding, tools, plant, transport and workmen required for the works except insofar as may be stated otherwise herein.</p> <p>All materials and workmanship used in the execution of the works shall be of the best quality and description. Any materials condemned by the Architect shall immediately be removed from the site at the Contractor's cost.</p> <p>All plant, tools and scaffolding shall comply with all regulations whether general or local which are in force throughout the period of the contract and shall be altered or adapted during the contract as may be necessary to comply with any amendments in or additions to such regulations.</p>	
B	<p>LOCAL REGULATIONS AND BY-LAWS</p> <p>The contractor is to comply with all regulations and by-laws of the Nairobi City County including serving of notices and paying of fees where applicable.</p>	
C	<p>SUPERVISION</p> <p>The works shall be executed under the direction and to the entire satisfaction of the Architect who shall, at all times, have access to the works.</p>	
D	<p>TRANSPORT TO AND FROM THE SITE</p> <p>The Contractor shall allow in his rates and prices for the transport of materials, workmen etc., to and from the site for the proposed works, at such hours and by such routes and means as are permitted by the authorities.</p>	
E	<p>FAIR WAGES</p> <p>The Contractor shall pay rates and wages and observe hours and conditions of labour not less favourable than the minimum rates of remuneration and minimum conditions of employment applicable within the jurisdiction of the Local Authority as stipulated by the Minister for Labour.</p> <p>The Contractor shall comply with the Regulation of Wages and Conditions of Employment Act, Building and Construction Industry Wages Council.</p>	
	TOTAL CARRIED TO COLLECTION	



Item	Description	KES.
	<p>Should a claim be made to the Employer alleging the Contractor's default in payment of Fair Wages of any Workman employed on the Contract and if proof thereof satisfactory to the Employer is furnished by the Labour Department, the Employer may, failing payment by the Contractor, pay the claim out of any money due or which may become due to the Contractor under the Contract.</p>	
	<p>The Contractor shall furnish to the Architect if called upon to do so such particulars of the rates of wages, hours and conditions of labour referred to above.</p>	
A	<p>SECURITY OF THE WORKS</p>	
	<p>The Contractor shall be entirely responsible for the security of the works, materials, plant, and personnel.</p>	
B	<p>PUBLIC AND PRIVATE ROADS, PAVEMENTS ETC.</p>	
	<p>The Contractor shall make good at his own expense any damage he may cause to public and / or private roads and pavements in the course of executing this contract.</p>	
C	<p>POLICE REGULATIONS</p>	
	<p>The Contractor shall comply with all instructions and regulations of the police Authorities and shall pay any fines and costs arising from non-compliance of the same which may arise in the course of executing this contract.</p>	
D	<p>SPACE TO BE OCCUPIED BY THE CONTRACTOR</p>	
	<p>The Contractor shall not occupy any space in the building other than the one he will be directly working on. The Contractor may use the open area within the Client's premises for his storage requirements. The architect will give directions to the contractor on which part of the open space he is allowed to use. The Contractor shall construct proper storage facilities for his materials and the salvage materials and remove them and make good at the end of the contract. The security of the works and the materials stored on site will be the responsibility of the contractor.</p>	
E	<p>PROGRESS SCHEDULE</p>	
	<p>Immediately after signing the contract, the Contractor is to prepare a Time and Progress Chart showing the time and order in which he proposes to carry out the works within the total construction time stated in the contract. The chart shall show in detail the order in which each section, element or activity of the works is to be carried</p>	
TOTAL CARRIED TO COLLECTION		



Item	Description	KES.
A	<p>At the end of each week the Contractor shall mark on the chart in a different colour the actual time taken to complete the respective stages and sections of the work. The Contractor shall also show upon the chart or on a different sheet to be made available to the Architect and the Employer the anticipated weekly labour strength required (divided into labourers and craftsmen) and shall similarly mark up the actual numbers employed.</p> <p>The Contractor shall obtain the Architect's approval of the chart and then shall supply copies to the Architect, the Quantity Surveyor, the Engineer and the Employer, and he shall pin one copy upon the site where directed. He shall thereafter adhere strictly to the approved schedule. In the event of the work falling behind the approved programme for any reason whatsoever, the Contractor shall, within a week of the deviation becoming apparent, prepare a revised schedule showing how lost time would be made up within the overall Contract Period.</p> <p>Upon commencement of the works, the contractor shall be required, in addition to other requirements on the recording of progress contained herein, to compile and submit to the Architect and the Employer Site Weekly reports upon which shall be recorded daily activities on site including the labour and machinery (if any) on site, deliveries of materials on site and the extent of work achieved at the close of the working day.</p> <p>The Contractor is required to execute the work with speed and dispatch to take as short a time on the project as possible. The Contractor may arrange overtime working with the Employer to achieve this. Any overtime payments should be allowed for in the rates and prices. No extra payment beyond the Contract Sum shall be allowed in connection thereto.</p> <p>OVERTIME</p> <p>Unless overtime is directed by the Employer or the Architect on his behalf for reasons other than the Contractor's own interest to complete the work within the contract period, the contractor will be responsible for any extra cost arising therefrom.</p> <p>No extra cost will be allowed for accelerated completion period.</p>	
	TOTAL CARRIED TO COLLECTION	



Item	Description	KES.
	<p>If overtime is worked in accordance with an explicit written instruction issued by the Architect, the Contractor shall be reimbursed in respect of such overtime to the extent only of the additional NET cost of productive time payable over and above the basic hourly rates as laid down by the Regulation of Wages and Conditions of Employment Act, Building and Construction Industry Wages Council, and excluding any bonuses, profits and overheads.</p>	
A	<p>WATER FOR THE WORKS</p>	
	<p>The Employer shall provide all water required for the works at his own cost.</p>	
B	<p>LIGHTING AND POWER</p>	
	<p>The Employer shall provide all temporary power as may be necessary from his own sources and at his own cost for the purpose of the works. He shall also pay all fees and costs and shall obtain all permits in connection therewith.</p>	
C	<p>SANITATION OF THE WORKS</p>	
	<p>The Contractor shall make his own arrangements for cleaning of sanitary conveniences for his workmen provided by the Employer. Any arrangements so made shall be in conformity with the Public Health requirements for such facilities. He shall be solely liable for any infringement of the requirements.</p>	
D	<p>PRIME COST SUMS</p>	
	<p>i) The words "Prime cost" (or the initials "PC") wherever appearing in the Contract documents shall mean the net cost exclusive of any trade, cash or other discounts whatsoever but inclusive of the cost of packing, carriage and delivery. Such cost shall be the sums due to the Sub-Contractor or Supplier after adjustment where applicable in respect of the measurements or rates.</p>	
	<p>ii) Any increases or decreases in these Prime Cost Sums resulting from the adjustments which are properly paid by the Contractor shall be added to or deducted from the Contract sum in the final account. In substantiation, the Contractor shall be required to produce to the Quantity Surveyor all quotations, invoices and corroborated accounts as shall be necessary to show details of the sums actually paid.</p>	
	<p>iii) Any sum added by the Contractor to the Contract Sum in respect of profit upon any Prime Cost Sum shall be adjusted proportionately to the net amount properly expended and included in the final settlement of accounts.</p>	
	<p>TOTAL CARRIED TO COLLECTION</p>	



Item	Description	KES.
A	<p>NOMINATED SUB-CONTRACTORS</p> <p>The Contractor shall provide the following services for Nominated Sub-contractors:-</p> <p>(i) General Attendance: The following services are described as “allow” for general attendance</p> <p>(a) Use, for the purpose of the Contract Works, of any scaffolding belonging to or provided by the Contractor while it remains erected upon the site, provided that no warranty or other liability on the part of the Contractor or of his Sub-Contractors shall be implied in regard to the fitness, condition or suitability of the said scaffolding.</p> <p>(b) Provision of water, lighting, watching and attendance for the purpose of the sub-contract Works;</p> <p>(c) use of sanitary accommodation and welfare facilities that are provided for the Contractor’s workers;</p> <p>(d) Provision of space or spaces for storage of plant and materials;</p> <p>(e) Clearing away rubbish produced by the Sub-Contractors.</p> <p>(ii) Special Attendance: The following services are stated under a separate item and where described shall have the meaning described hereunder.</p> <p>(a) Taking delivery: shall mean provision of unskilled labour necessary to attend upon the Sub-Contractor’s workmen for the purpose of unloading plant and materials when received upon the site and placing in position within the Sub-Contractor’s storage space or store;</p> <p>(b) Hoisting: shall mean the provision of unskilled labour and the use of any Contractor’s standing plant for the purpose of raising the Sub-Contractor’s plant, materials or components to the various levels but not placing in its final position;</p> <p>(c) Providing power: shall mean the provision of power during the course of the works and during the period of Commissioning and Testing</p>	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
A	<p>PROTECTING AND CLEANING THE WORK</p> <p>The Contractor shall cover up and protect all finished work liable to damage including provision of temporary roofs, gutters, drains, etc., as necessary until the completion of the works.</p> <p>In the event of any damage occurring to the works, materials, sewers, drains, gullies, paths or other works on the site in temporary possession of the contractor for the purpose of this Contract, either from the weather, want of proper protection, defects or insufficiency of the works or any other cause whatsoever during the progress of the works, the Contractor alone shall be responsible and shall, without extra charge, make good all damage and pay all costs which may be levied.</p>	
B	<p>PREVENTION OF NUISANCE</p> <p>The Contractor shall take all possible precautions to prevent any nuisance, inconvenience or injury to the occupiers/users of the building generally; users of the adjacent and neighbouring properties, and to the public</p> <p>All work operations which may produce undue levels of noise, dust, vibration, welding flashes or any other discomfort to the occupiers of the neighbouring buildings or the general public must be undertaken at suitable times which shall be determined in close liaison with the Architect and the Employer.</p>	
C	<p>PREVENTION OF NOISE</p> <p>In addition to the above provision on nuisance, the Contractor shall keep the general noise emanating from the site operations at all times to a level that does not cause discomfort to the average person. He shall take all necessary measures to muffle the noise from his tools, equipment and workmen to the reasonable satisfaction of the Architect and the Employer.</p>	
D	<p>REMOVAL OF PLANT, RUBBISH, ETC.</p> <p>The Contractor shall, upon completion of the Works, remove and clear away all plant, rubbish, cans and unused materials, and shall leave the building and generally the whole of the site of the works in a clean and tidy state to the satisfaction of the Architect and the Employer. During site operations, he shall also remove from the site all rubbish and dirt as it is produced to maintain the tidiness of the premises and its immediate environs.</p>	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
A	<p>VALUE ADDED TAX</p> <p>The Contractor's attention is drawn to the V.A.T. Public Notice No. 6 of 5th August 1993 regarding the Finance Bill (1993) (and any subsequent amendments to-date) which requires the Contractor to pay Value Added Tax (V.A.T.) to the Government of Kenya for all Contracts entered into after 1st September 1993. P.C. and Provisional Sums shall be deemed to be inclusive of V.A.T. All tender rates shall be inclusive of VAT.</p>	
B	<p>TRAINING LEVY</p> <p>The Contractor's attention is drawn to Legal Notice No. 237 of October 1971, which requires payment by the Contractor of a Training levy on all contracts of more than Shs. 50,000.00 in value and he should allow in this section of these Bills of Quantities for all costs arising or resulting therefrom.</p>	
C	<p>LABOUR AND PLANT RETURNS</p> <p>The Contractor shall deliver to the Architect detailed weekly returns showing the supervisory staff and the numbers of the several classes of labour and plant employed on the Works.</p>	
D	<p>VISITORS BOOK AND SITE DIARY</p> <p>The Contractor shall keep on the site a visitors book for recording the names of all persons who visit the site for the purpose of the project. He shall also maintain on site a diary in which he shall record site activities on a daily basis and particularly any occurrence which bears on the progress of the works in any way.</p>	
E	<p>SAFETY, HEALTH AND WELFARE OF WORKPEOPLE</p> <p>The Contractor shall allow for providing for the safety, health and welfare of workpeople and for complying with any relevant Ordinances, Regulations and Union Agreements.</p>	
F	<p>WARRANTY AND PERFORMANCE STANDARDS</p> <p>The Contractor shall furnish the Employer with a general written warranty covering qualities of workmanship, materials and equipment, and be compelled thereby for a five year period after practical completion of the Contract, except for latent defects which shall be warranted for ten years. The Contractor must make good, at his own expense, such repairs and replacements as may be required as a consequence of negligent workmanship or defective material. The Contractor must also procure such warranties and guarantees as described in the specification section of these Bills of Quantities and relevant Codes of Practice. The Contractor must also comply with all tests of materials as required and/or as directed by the Architect.</p>	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
A	<p>NATIONAL INSURANCE AND PENSIONS</p> <p>The Contractor shall allow for making any National Social Security Fund payments due in respect of workpeople.</p>	
B	<p>PROTECTION OF WORKS AND PERSONS</p> <p>The Contractor shall allow for the protection of his own and his Sub-Contractor's work liable to damage, including provision of temporary roofs, gutters, drains, etc., if necessary and shall case-up, cover or in other suitable ways protect all finished work liable to injury, to the satisfaction of the Architect until completion of the Contract. From the beginning to the completion of the works, the same shall be under the entire care and control of the Contractor, who shall take all possible precautions to prevent any nuisance, inconvenience or injury to the holders or occupiers of surrounding properties and to the public generally, and shall at all times keep all paths and roads affected by the works in a safe and clear state, and shall use proper precautions to ensure the safety of all wheeled traffic and pedestrians.</p> <p>The Contractor shall allow for providing all watching, lighting, barriers, covering open trenches and protection of the works, including Sub-Contract works as may be necessary for the safety of the works and for the protection of the public and his own and Sub-Contractor's employees. In the event of any damage or loss occurring to the works or to materials or to any sewers, gullies, drains, paths, or other works on the site in temporary possession of the Contractor for the purpose of this Contract either from the weather, want of proper protection, defects, theft, insufficiency of the works or any other cause whatsoever during the progress of the works, or for any accident or damage to property or persons by reason of the said works, the Contractor alone shall be responsible and shall without extra charge, make good all damage and pay all costs incurred.</p>	
C	<p>HOLIDAYS AND TRANSPORT FOR WORK PEOPLE</p> <p>The contractor shall allow for providing holidays and transport for workpeople and for complying with any relevant Ordinances, Regulations or Union Agreement.</p>	
D	<p>SITE OFFICES</p> <p>The Contractor must allow for erecting and maintaining on the site in such positions as may be directed, adequate site offices for the use of his own site staff and removing the same at completion and making good all surfaces disturbed. The site office shall be of sufficient size and shall have sufficient furniture to permit the Architect to hold site meetings in it.</p>	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
	<p>The Contractor shall also allow for providing the services of a sweeper, for keeping both office and closet in a clean and sanitary condition from the commencement to the completion of the works; and for dismantling at completion and making good all disturbed surfaces.</p>	
A	<p>TELEPHONE</p> <p>The Contractor shall arrange for a working telephone facility to be permanently on site. The Contractor shall pay all charges for hire or purchase of equipment, licences connecting, rental and calls made.</p>	
B	<p>SHEDS FOR STORAGE OF MATERIALS</p> <p>The Client has already erected a storage shed on site. However, the Contractor shall provide, erect and maintain on the site, in such positions as may be directed, ample temporary watertight, lock-up sheds for the proper storage and protection of cement and other materials liable to damage, and shall remove same at completion and make good all surfaces disturbed. He shall also provide space for storage accommodation which Sub-Contractors may wish to erect for themselves.</p>	
C	<p>NO WORKMEN TO BE HOUSED ON SITE</p> <p>No labour with the exception of a watchman may be housed on the site. The cost of transporting labour to and from the site or elsewhere will be deemed to included in the tender.</p>	
D	<p>WORK TO BE OPENED UP AT THE REQUEST OF THE ARCHITECT</p> <p>The Contractor shall, at the request of the Architect open for inspection any work covered up, and, should the Contractor refuse or neglect to comply with such request, the Architect may employ workmen other than those employed by the Contractor to open up the same. If the said work has been covered up in contravention of the Architect's instructions, or if, on being opened up, it be found not in accordance with the drawings or Bills of Quantities or the instruction of the Architect, the expenses of opening and covering it up again whether done by the Contractor or by the Architect shall be borne by and be recoverable from the Contractor or may be deducted from any monies due to the Contractor.</p>	
TOTAL CARRIED TO COLLECTION		



Item	Description	KES.
A	<p>If the work has not been covered up in contravention of such instructions and be found in accordance with the said drawings and Bills of Quantities, then the expenses aforesaid shall be borne by the Employer, and be added to the Contract Sum; provided always that, in the case of foundations or of any other urgent work so opened up and requiring immediate attention, the Architect shall within a reasonable time after the work has been opened, make or cause to be made the inspection thereof, and at the expiration of such time, if such inspection shall not have been made the Contractor may cover up the same and shall not be required to open it up again for inspection except at the expense of the Employer.</p> <p>SCAFFOLDING</p> <p>The Contractor shall allow for providing, erecting and dismantling all general scaffolding required for the works. The Contractor must allow here or in his rates for providing all special scaffolding required by his Sub-Contractors, other than Nominated Sub-Contractors carrying out works for which P.C. Sums are included in these Bills. Where the Contractor is required to provide special scaffolding for these latter Sub-Contractors, an item is included for pricing under the relevant P.C. Sum.</p>	
B	<p>SIGNBOARD</p> <p>The Contractor must allow for providing, erecting and maintaining a site signboard, the size, type of construction and lettering of which shall be to the Architect's design. The names of the Consultants are to be in lettering 50mm high. The board is to be fixed in an elevated position on the site where indicated by the Architect. On completion of the works, the notice board shall be removed and making good shall be carried out as necessary.</p>	
TOTAL CARRIED TO COLLECTION		



Item	Description	KES.
A	<p>WORKS TO BE DELIVERED UP CLEAN</p> <p>On completion of the Contract, the site and the works shall be cleared of all plant, scaffolding, rubbish and unused materials and shall be delivered up clean and in perfect condition in every respect to the satisfaction of the Architect. Particular attention is to be paid to leaving all windows and floors clean and removing all paint and cement stains.</p>	
B	<p>APPROVED SUBCONTRACTORS</p> <p>Where in these Bills of Quantities work is described to be executed by an approved Sub-Contractor, the firms appointed will be treated as Sub-Contractors employed by the Contractor and not as Nominated Sub-Contractors. The unit prices for such work must, therefore, include not only the Sub-Contractors' charges, but also the Contractor's overheads, profits and attendance. Such firms shall be classified on the Ministry of Works lists as suitable to undertake class "D" works and above.</p>	
C	<p>APPROVAL FOR EMPLOYMENT OF SUB-CONTRACTORS</p> <p>The Contractor will be required to obtain the approval of the Architect/Engineer in writing before employing any of his own (i.e. not nominated) Sub-Contractors for any portion of the work.</p>	
C	<p>EXISTING PROPERTY</p> <p>The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services and he will be held responsible for all damage arising from the execution of this Contract to the aforementioned, and he shall make good all such damage where directed at his own expense to the satisfaction of the Architect.</p>	
D	<p>TESTING</p> <p>Allow for all expenses in connection with the testing of materials as specified hereunder including the supply and preparation of materials to be tested, the cost of materials and their packing and conveyance to the nearest approved testing laboratory, laboratory charges, etc.</p>	
TOTAL CARRIED TO COLLECTION		

Item	Description	KES.
A	<p>WORK RE-MEASUREMENT</p> <p>All work in this contract shall be re-measured on completion and a final account of the contract prepared by the Quantity Surveyor. The contractor will be given the opportunity to be present for all re-measurements. The final contract sum will be based on the final re-measurements. The Contractor is therefore cautioned against using the bills of quantities for ordering of materials as the quantities may change in the course of the contract. Neither should the contractor use the Quantities in the Bills of Quantities for executing work on site. The use of the bills of quantities by the contractor for the above purposes shall be at the contractors own risk and no claims arising from any losses arising therefrom shall be accepted.</p>	
B	<p>DIRECT CONTRACTS</p> <p>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 covered by a P.C. Sum in the Bills of quantities and to pay for the same direct, In any such instances, profit relative to the P.C. Sums shall be allowed.</p>	
C	<p>ADJUSTMENT OF PROVISIONAL SUMS</p> <p>In the final account all provisional sums shall be deducted and the 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 the conditions of contract, but should any part of the work be executed by a nominated subcontractor, the value of such work or articles for the work to be supplied by a nominated sub-contractor, shall be treated as P.C sum and profit and attendance comparable to that contained in the priced bills of quantities for similar items added.</p>	
D	<p>CONTRACT COMPLETION PERIOD</p> <p>The contract completion period in accordance with the conditions of contract must be strictly adhered to. The "Architect" shall strictly monitor the Contractor's progress in relation to the progress chart and should it be found necessary, the "Architect" shall inform the Contractor in writing that his actual performance on site is not satisfactory.</p> <p>In all such cases, the Contractor shall accelerate his rate of performance, production and progress by all means such as additional labour, plant e.t.c., and working overtime all at his cost</p>	
	TOTAL CARRIED TO COLLECTION	



Item	Description	KES.
A	<p>PAYMENTS TO DOMESTIC SUBCONTRACTORS</p> <p>The Main Contractor shall be fully responsible for paying his Domestic Sub-Contractors but the employer reserves the right in very exceptional circumstances to make such payments direct in the interest of the project, where completion thereof might be jeopardised by any dispute between any of the Sub-Contractors involved.</p>	
B	<p>COPYRIGHT</p> <p>The Copyright of these documents is vested in the Quantity Surveyor for the project. This document shall not be reproduced in whole or in part without their written permission. It shall also not be used for any purpose other than for the works as measured and described in these Bills of Quantities for this contract.</p>	
TOTAL CARRIED TO COLLECTION		



Item	Description	KES.
	SECTION NO. 1 - PRELIMINARIES SUMMARY From page No. P/1 P/2 P/3 P/4 P/5 P/6 P/7 P/8 P/9 P/10 P/11 P/12 P/13 P/14 P/15 P/16 P/17 P/18 P/19 P/20 P/21 P/22	
	TOTAL FOR PRELIMINARIES CARRIED TO MAIN SUMMARY	

BILL NO.2
BUILDERS WORKS

Item	Description	Qty	Unit	Rate	Amount (Kshs.)
<u>ELEMENT NO 4: WINDOWS</u>					
<u>Window Blinds</u>					
<u>Supply and fix Roller blinds as "CARNIVAL from Louverite" or equal approved complete with and including approved blinds track system (Measured nett - bidder to allow for overhangs in the rate)</u>					
A	Tansluscent Roller blinds or equal and approved; To external windows	70	Sm		
<u>Provisional sums</u>					
B	Allow a provisional sum of Kenya Shillings One Hundred Thousand for making good existing windows		Item		
TOTAL FOR WINDOWS CARRIED TO SUMMARY					

Item	Description	Qty	Unit	Rate	Amount (Kshs.)
	<u>ELEMENT NO 5: FINISHES</u>				
	<u>WALL FINISHES</u>				
	<u>Prepare surfaces and apply undercoat and two finishing coats silk vinyl matt finish emulsion as "Crown paints" or any other similar selected and approved by Architect</u>				
A	Walls and concrete: internally	246	Sm		
	<u>CEILING FINISHES</u>				
	<u>Acoustic Ceiling</u>				
	<u>"Armstrong" Mineral fibre suspended acoustic accessible tile system ceilings; 600 x 600 x 15 mm thick fissured mineral fibre tiles: 20 x 7mm x 25 gauge epoxy acrylic protected tee clips at 600 mm centres located by pipped tabs into 38 x 26 mm x gauge 23 epoxy acrylic protected snap tee runners at 1200 mm centres in 3 metre lengths inclusion removal of damaged tiles</u>				
B	Ceiling	32	Sm		
	<u>Provisional Sums</u>				
C	Allow a provisional sum of Kshs. 100,000/ for additional finishes and making good existing finished surfaces		Item		
TOTAL FOR FINISHES CARRIED TO SUMMARY					

PROPOSED FITOUT FOR ICPAK OFFICES AT ICPAK TOWERS, NAIROBI
 BILL NO.1: 9TH FLOOR



Item	Description	Qty	Unit	Rate	Amount (Kshs.)
	<u>SUMMARY</u>				
3	WINDOWS			1/1	
5	FINISHES			1/2	
TOTAL FOR 9TH FLOOR BUILDERS WORKS CARRIED TO MAIN SUMMARY					

Item	Description	Qty	Unit	Rate	Amount (Kshs.)
	<u>ELEMENT NO 4: WINDOWS</u>				
	<u>Window Blinds</u>				
	<u>Supply and fix Roller blinds as "CARNIVAL from Louverite" or equal approved complete with and including approved blinds track system (Measured nett - bidder to allow for overhangs in the rate)</u>				
A	Tansluscent Roller blinds or equal and approved; To external windows	156	Sm		
	<u>Provisional sums</u>				
B	Allow a provisional sum of Kenya Shillings One Hundred Thousand for making good existing windows		Item		
TOTAL FOR WINDOWS CARRIED TO SUMMARY					

Item	Description	Qty	Unit	Rate	Amount (Kshs.)
	<p><u>ELEMENT NO 5: FINISHES</u></p> <p><u>Prepare surfaces and apply undercoat and two finishing coats silk vinyl matt finish emulsion as "Crown paints" or any other similar selected and approved by Architect</u></p>				
A	<p>Walls and concrete: internally</p> <p><u>Acoustic Ceiling</u></p> <p><u>"Armstrong" Mineral fibre suspended acoustic accessible tile system ceilings; 600 x 600 x 15 mm thick fissured mineral fibre tiles: 20 x 7mm x 25 gauge epoxy acrylic protected tee clips at 600 mm centres located by pipped tabs into 38 x 26 mm x gauge 23 epoxy acrylic protected snap tee runners at 1200 mm centres in 3 metre lengths</u></p>	539	Sm		
B	<p>Ceiling</p> <p><u>Provisional Sums</u></p>	61	Sm		
C	<p>Allow a provisional sum of Kshs. 100,000/ for additional finishes and making good existing finished surfaces</p>		Item		
TOTAL FOR FINISHES CARRIED TO SUMMARY					



<i>Item</i>	<i>Description</i>	<i>Qty</i>	<i>Unit</i>	<i>Rate</i>	<i>Amount (Kshs.)</i>
	<u>SUMMARY</u>				
3	WINDOWS			2/1	
5	FINISHES			2/2	
TOTAL FOR 10TH FLOOR BUILDERS WORKS CARRIED TO MAIN SUMMARY					

BILL NO.3
ELECTRICAL INSTALLATIONS

ICPAK
 PROPOSED 9TH AND 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR ELECTRICAL INSTALLATIONS

BILL NO. 1 – POWER SUPPLY AND DISTRIBUTION

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
				KShs.	Cts.	KShs.	Cts.
	Supply, install, test, commission and set to work the following:-						
1.01	<u>MCBs (10kA) and Accessories for above Distribution Boards and Consumer Units</u>						
	a) 1P Type C curve 10A MCBs in the above boards	6	No.				
	b) 1P Type C curve 20A MCBs in the above boards	14	No.				
	c) Blanking plates for un-used spare ways.	2	No.				
	d) Labelling of all circuits for the boards above.		Lot				
1.02	<u>Cable Trays, Conduits, Draw Boxes and Trunking</u>						
	a) 150 x 50mm super heavy gauge galvanised steel perforated cable trays for support of cables, complete with supporting frame, brackets, elbows, T and Cross junctions and all other accessories for successful mounting. (provisional)	10	m.				
	b) 200 x 50mm 3-compartment rectangular, galvanised steel and powder-coated trunking complete with cover, dividing fillets between services, fixing screws and knock-out plates for power and data/voice cables, 200 x 50mm, external and internal corner-bends and end covers and inclusive of equipotential bonding.	80	m.				
	c) Angled cable retainer for above trunking.	5	No.				
	d) Twin Gang mounting plate on the above trunking in same finish, material and color	223	No.				
	e) Single Gang mounting plate on the above trunking in same finish, material and color	109	No.				
	g) Dia. 20mm HG PVC conduits complete with saddles and fasteners (Provisional) .	50	m.				
	h) Dia. 32mm HG PVC conduits complete with saddles and fasteners (Provisional) .	40	m.				
	i) Dia. 38mm HG PVC conduits complete with saddles and fasteners (Provisional) .	40	m.				
	J) Dia. 50mm HG PVC conduits complete with saddles and fasteners (Provisional) .	40	m.				
	k) Dia. 32mm flexible PVC conduits complete with saddles and fasteners (Provisional) .	40	m.				
1.03	<u>Other Associated Works</u>						
	a) Carry out very concise and comprehensive load balancing to achieve a maximum imbalance not greater than $\pm 10\%$ between any two phases, measured at the respective electrical boards.		Item				
Total for Bill No. 1: Main Power Supply and Distribution, C/F to Electrical Summary Page							

BILL No. 2 POWER AND LIGHTING INSTALLATIONS

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
				KShs.	Cts.	KShs.	Cts.
	Supply, install, test, commission and set to work the following. All lighting fittings to be complete with lamp, control gear etc as applicable.						
2.1	Lighting						
2.1.1	Conduits and Cabling						
	<i>Internal</i>						
a)	Outlets for lighting points comprising wiring in 3 x 1.5mm ² PVC-SC-CU cables, 25mm HG PVC conduits, junction boxes, PVC boxes and all other required accessories	82	No.				
2.1.2	Light Switches						
a)	10A white moulded switch plates as MK Schneider or approved equivalent.						
i)	1-gang 1-way	2	No.				
ii)	3-gang 2-way	1	No.				
iii)	Occupancy Sensor for Lighting Control	5	No.				
b)	6A white moulded architrave switch plates as MK Schneider or approved equivalent.						
i)	1-gang 2-way	7	No.				
i)	2-gang 2-way	4	No.				
2.1.3	Light Fittings						
a)	11W 120mm, 1100 lumens, 4000K LED recessed light fitting with Polystyrene cover, aluminium die cast housing, internal push in connector and inclusive of driver, power supply unit with control interface, IP 44 as Philips coreline slimdownlight or Ledvance or approved equivalent.	29	No.				
b)	IP44 28W HF Emergency Polo Bulkhead with Opal Diffuser and White Base	2	No.				
e)	LED Suspended Luminaire 120 x 1200 mm, 34W, LED30S/NW, high-efficiency suspended linear fitting designed for offices. Integrated 34W LED module neutral white (~4000K) delivering uniform illumination through diffused cover with wide beam distribution, glare control. Powder-coated aluminum housing slim profile, complete with adjustable suspension kit for ceiling mounting. Built-in electronic driver, CE certified, compliant with electrical and photometric standards, reliable performance, long service life.	30	No.				
f)	5W/m LED strip light (Standard commercial grade) housed in a straight extruded aluminum surface profile (approx. 16x16mm) with a frosted polycarbonate diffuser. Linear profiles to be joined into a continuous rectangular shape using compatible, factory-made 90-degree corner connectors (e.g., AP-1616CORNER or approved equivalent) to ensure seamless, light-leak-free joints. Complete with standard non-dimmable drivers, power supply unit, and suspended above workstations via adjustable steel wire pendants and matching ceiling roses.	140	m				
g)	2W maintained Exit Emergency Light as philips, or approved equivalent. Minimum 3-hour autonomy.	3	No.				
h)	The Minimalist 3-Light Nordic Pendant – Matte Black – Aluminium & Wood	2	No.				
Total C/F to Next Page							

ICPAK
 PROPOSED 9TH AND 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR ELECTRICAL INSTALLATIONS

BILL No. 2 FLOOR POWER AND LIGHTING INSTALLATIONS

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
				KShs. Cts.		KShs.	Cts.
	Total B/F from Previous Page						
	2.2 Power						
	2.2.1 Power Outlets Fittings						
	a) Twin 13A switched standard white socket outlets (raw power) with safety shutters on both live and neutral and with neon light as MK or Schneider or approved equivalent.	114	No				
	b) Twin 13A switched standard red socket outlets (clean power) with safety shutters on both live and neutral and with neon light as MK or Schneider or approved equivalent.	109	No				
	c) Sleek Design, Vertebrae cable manager for modern office furniture	3	No				
	d) 32A DP Switch with Neon Indicator	1	No				
	2.2.2 Conduits and cabling for Power Outlets						
	a) Outlet points for raw power sockets complete with radial wiring in 3 x 2.5mm ² PVC-SC-CU cables inside 25mm concealed HG PVC conduits, PVC box and all other required accessories.	114	No				
	b) Outlet points for clean power sockets complete with radial wiring in 3 x 2.5mm ² PVC-SC-CU cables inside 25mm concealed HG PVC conduits, PVC box and all other required accessories.	109	No				
	c) Outlet point for toilet extract fans, indoor air conditioning fans, air curtains, kitchen hood, undersink water heater and Handriers complete with 25mm dia. concealed HG PVC conduits, PVC box and wiring in 3 x 4.0 mm ² SC-PVC-CU cables and all accessories.	2	No				
Total for Bill No. 2 – Floor Power and Lighting C/F to Summary Page							

ICPAK
 PROPOSED 9TH AND 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR ELECTRICAL INSTALLATIONS

BILL No. 3 OUTLETS/CONDUIT PROVISIONS FOR ASSOCIATED SERVICES

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
				KShs.	Cts.	KShs.	Cts.
	Supply, install, test, commission and set to work the following:						
3.1	Outlet for data point, fire alarm point comprising concealed 25mm HG PVC conduit, square PVC box, draw wire and and blanking plates.	15	No				
Total for Bill No. 3: Outlets/Conduit Provisions for Associated Services C/F to Summary Page							

ICPAK
 PROPOSED 9TH AND 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR ELECTRICAL INSTALLATIONS

SUMMARY PAGE

ITEM	DESCRIPTION	AMOUNT	
		KShs.	Cts.
S.01	Bill No. 1: Power Supply and Distribution B/F from Page A/2		
S.02	Bill No. 2: Floor Power and Lighting Installations B/F from Page A/4		
S.03	Bill No. 3: Outlet/Conduit Provisions for Associated Services B/F from Page A/5		
	Total Amount Carried Forward to Main Summary Page for Electrical Installations		

ICPAK
 PROPOSED 9TH AND 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR ELECTRICAL INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
1.01	Carry out comprehensive testing and commissioning of the entire electrical and fire alarm system, after installations as per latest IET Wiring Regulation. Record and print all the power system parameters and submit 3 copies of the print-outs. On successful commissioning of the system, in terms of the specified requirements, a Taking Over Certificate shall be completed. This is the written notification to the Service Provider/installer that the client has taken over the system in terms of the Agreement. Final Payment cannot be effected without this certificate		Item		
1.02	Acquire and submit a Bank Guarantee for 10% of the sub-contract sum, as a Performance Guarantee.		Item		
1.03	Acquire and submit Insurance for the sub-contract work.		Item		
1.04	Allow for presentation of all the required samples as per specifications, Bills of Quantities and Drawings.		Item		
1.05	Prepare and submit Working Drawings as follows:- i) Draft soft copy in Autocad®. ii) Amended soft copy in Autocad®. iii) Final soft copies in Autocad® to Architect, Client and Engineer vi) Final hard copies of working drawings in Ao to Engineer, Architect, Client and Main Contractor.		Item		
1.06	As item no. 1.05, but for Record (As-Installed) Drawings.		Item		
1.07	Prepare and submit Operation and Maintenance Manuals for all items installed. This includes a list of all equipment with associated serial numbers, and name of manufacturer.		Item		
1.08	All other items of general preliminary to cover, but not limited to:- i) Attendance to all other sub-contractors, such as for Structured cabling Installations etc. ii) Hiring and keeping a Supervisor/Foreman on site iii) Constant supervision of the works. iv) Provision of all the required spares. v) Testing and Inspection of materials/works. vi) Provision of labour camps. vii) Storage of materials. viii) Initial maintenance (During Defects Liability) ix) Providing water/electricity for the works. x) Protection of the works/materials xi) Clearing away on completion. xii) Preparing Final Account. xiii) Providing all Test Certificates, etc.		Item		
Total Amount Carried Forward to Main Summary Page for Electrical Installations					

ICPAK
 PROPOSED 9TH AND 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR ELECTRICAL INSTALLATIONS

MAIN SUMMARY PAGE

ITEM NO.	DESCRIPTION	AMOUNT (KShs Cts)
S1	Total For Electrical Installations B/F	
S3	Total For Preliminaries and General Items B/F	
S4	Sub-Total	
S5	Allow 12% of Item S3 above as contingency	
	Total Amount Carried Forward to Form of Tender	

Total Amount in words

.....

Tenderer's Name and Stamp

Signature.....

Date

PIN No.

VAT No.....

Witness

Address

Signature

Date

**BILL NO.4
STRUCTURED CABLING
INSTALLATIONS**

ICPAK
 PROPOSED 9TH AND 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR STRUCTURED CABLING AND ACCESS CONTROL INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
	Supply, install, test, commission and set to work (To the full satisfaction of all parties to the contract) the following: -				
1.01 a)	Wireless access point as UniFi U7 Pro mode or approved equivalent .	2	No.		
b)	24-port Switch as Cisco CBS 350-24P-4G, 10/100/1000 Mb/s Gigabit Ethernet (RJ45) PoE+ PoE with cabinet Jumper Power Cord 250 VAC 13A, rack mounting kits, power supply and required software.	3	No.		
1.02	<u>Patch Panels</u>				
a)	24 Port patch panel as gigaset or approved equivalent, type RJ45 Cat. 6A.	3	No.		
1.03	<u>IPPBX Phones including licenses</u>				
a)	Cisco 7841 IP VoIP Phones	25	No.		
b)	CP-8851-3PCC-K9 phones	10	No.		
1.04	<u>Data Outlets</u>				
a)	Single Data/Telephone cable outlets, type RJ45 as gigaset or approved equivalent, cat 6A complete with face plates.	110	No.		
1.05	<u>Horizontal Cabling</u>				
a)	UTP Cat 6A structured cables as gigaset or approved equivalent in 305M box	12	Rolls		
b)	UTP Cat. 6A patch cord, 3metres as gigaset or approved equivalent	110	No.		
c)	UTP Cat. 6A patch cord, 1 metre as gigaset or approved equivalent	110	No.		
1.06	<u>Cable Terminations and Management</u>				
a)	Data cable termination, both ends (patch panel and data outlet/equipment).	220	No.		
c)	Allow for fixing permanent printed self laminated labels on all the equipments and outlets		Item		
d)	Allow for fixing permanent printed self laminated wrap cable markers on on all the cables at the ends as well as at every 5 metre interval within trunking and cable trays.		Item		
1.07	<u>Other Associated Works</u>				
a)	Any other items necessary to complete the data cabling satisfactorily. Please list the items. _____ _____ _____				
Total Amount Carried forward to Main Summary Page					

ICPAK
 PROPOSED 9TH AND 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR STRUCTURED CABLING AND ACCESS CONTROL INSTALLATIONS

PRELIMINARIES AND GENERAL ITEMS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
1.01	Carry out comprehensive testing and commissioning of the structured cabling system to ANSI/TIA Standards, after installations. Record and print all the structured cabling system parameters and Submit 3 copies of the printouts. On successful commissioning of the system, in terms of the specified requirements, a Taking Over Certificate shall be completed. This is the written notification to the Service Provider/installer that the client has taken over the system in terms of the Agreement. Final Payment cannot be effected without this certificate		Item		
1.02	Allow for acquiring all required licenses and subscriptions from relevant authorities. This includes payment of all required fees.		Item		
1.03	Acquire and submit a Bank Guarantee for 10% of the sub-contract sum, as a Performance Guarantee.		Item		
1.04	Acquire and submit Insurance for the sub-contract work.		Item		
1.05	Allow for presentation of all the required samples as per specifications, Bills of Quantities and Drawings.		Item		
1.06	Prepare and submit Working Drawings as follows:- i) Draft soft copy in Autocad®. ii) Amended soft copy in Autocad®. iii) Final soft copies in Autocad® to Architect, Client and Engineer iv) Final hard copies of working drawings in Ao to Engineer, Architect, Client, Main Contractor.		Item		
1.07	As item no. 1.06, but for Record (As-Installed) Drawings.		Item		
1.08	Prepare and submit Operation and Maintenance Manuals for all items installed. This includes a list of all equipment with associated serial numbers, and name of manufacturer.		Item		
1.09	All other items of general preliminary to cover, but not limited to:- i) Attendance to all other sub-contractors, such as for fire alarm and detection, Security Installations, Client appointed contractors etc. ii) Hiring and keeping a Supervisor/Foreman on site iii) Constant supervision of the works. iv) Provision of all the required spares. v) Testing and Inspection of materials/works. vi) Provision of labour camps. vii) Storage of materials. viii) Initial maintenance (During Defects Liability) ix) Providing water/electricity for the works. x) Protection of the works/materials xi) Clearing away on completion. xii) Preparing Final Account. xiii) Providing all Test Certificates, etc.		Item		
Total (inclusive of VAT) C/F to Main Summary Page					

ICPAK
 PROPOSED 9TH AND 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR STRUCTURED CABLING AND ACCESS CONTROL INSTALLATIONS

MAIN SUMMARY PAGE

ITEM NO.	DESCRIPTION	AMOUNT (KShs Cts)
S1	<u>PART A</u> Total For Structured Cabling Installations B/F	
S2	<u>PART B</u> Total For General Items B/F from Page B/1	
S3	Sub-Total	
S4	Allow 15% of Item S3 above as contingency	
Total Amount (Inclusive of VAT) Carried to Form of Tender		

Total Amount in words

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Tenderer's Name and Stamp

Signature.....

Date

PIN No.

VAT No.....

Witness

Address

Signature

Date

BILL NO.5
FIRE FIGHTING INSTALLATIONS

ICPAK
 PROPOSED 9TH & 10TH FLOOR OFFICES
 BILLS OF QUANTITIES FOR FIREFIGHTING INSTALLATIONS

BILL NO.1: PORTABLE EXTINGUISHERS

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	
					KSh.	Cts.
1.01	Portable Extinguishers 4.5 Kg carbon dioxide gas fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	4	No.			
1.02	9 Kg dry chemical powder fire extinguishers complete with pressure gauge, initial charge and mounting brackets.	3	No.			
1.03	Server Room Fire Suppression Ceiling mounted Automatic Clean Agent (HFC-227ea) fire extinguisher of capacity 6KG and fitted with 68°C red bulb automatic sprinkler to the approval of the engineer.	2	No.			
1.04	Storage Fire Suppression Ceiling mounted Automatic Dry Powder fire extinguisher of capacity 9KG and fitted with 68°C red bulb automatic sprinkler to the approval of the engineer.	6	No.			
Total C/F to Main Works Summary Page						

BILL NO.6
UPS INSTALLATIONS

ICPAK
 PROPOSED OFFICES ON 9TH AND 10TH FLOOR
 BILLS OF QUANTITIES FOR UPS INSTALLATIONS

BILL NO. 1 – SUPPLY / INSTALLATION OF UPS EQUIPMENT

Item No.	Description	Qty	Unit	Rate	Amount KShs. Cts.
	Supply, install, test, commission and set to work (to the full satisfaction of the Client, including initial training) the following:				
1.01	6kVA, 50hZ, 230V, Rack-mount, True On-Line Smart UPS as Vertiv or approved equivalent, with both internal automatic and manual by-pass, external 5000:1 voltage surge/spike protection, and all the other details as per technical specifications, including the options.	3	No.		
1.02	Liaison with Electrical sub-contractor to ensure proper cabling, phase-sequencing, and terminations are done.		Item		
1.04a)	3C 6mm ² PVC/PVC copper cable	15	m.		
1.04b)	Cable glands for the above cable	6	No.		
1.04c)	Cable lugs for the above cable, complete with hydraulic crimping	18	No.		
1.05	Allow for the following comprehensive performance testing of the UPS units to the entire satisfaction of the client and all parties to the contract:- i. Full load testing of the UPS units with 100% resistive loads. ii. Perform CONTINUOUS 100% loading of the UPS units while on resistive loads. iii. Perform on/off switching of the unit to demonstrate the unit takes the load without time elapse. iv. Provide cabling, connections, all accessories, instruments, tools and all the required items for above testing on the 'dry' resistive load		Items		
Total (Inclusive of VAT) C/F to Summary Page for UPS Installations					

ICPAK
 PROPOSED OFFICES ON 9TH AND 10TH FLOOR
 BILLS OF QUANTITIES FOR UPS INSTALLATIONS

ITEM No.	DESCRIPTION	QTY	UNIT	RATE (KShs Cts)	AMOUNT (KShs Cts)
1.01	Acquire and submit a Bank Guarantee for 10% of the sub-contract sum, as a Performance Guarantee.		Item		
1.02	Acquire and submit Insurance for the sub-contract work.		Item		
1.03	Allow for presentation of all the required samples as per specifications, Bills of Quantities and Drawings.		Item		
1.04	Prepare and submit Shop Drawings FOR ups i) Draft soft copy ii) Amended soft copy iii) Final soft copies to Architect, Client, Quantity Surveyor, and Engineer iv) Final hard copies of working drawings to Engineer, Architect, Client, Contractor.		Item		
1.05	Allow for detailed training, demonstrations, full-load testing, providing technical manuals, users hand-book etc.		Item		
1.06	All other items of general preliminary to cover, but not limited to:- i) Attendance to all other sub-contractors, such as for Electrical, Structured cabling Installations etc. ii) Hiring and keeping a Supervisor/Foreman on site iii) Constant supervision of the works. iv) Provision of all the required spares. v) Testing and Inspection of materials/works. vi) Provision of labour camps. vii) Storage of materials. viii) Initial maintenance (During Defects Liability) ix) Providing water/electricity for the works. x) Protection of the works/materials xi) Clearing away on completion. xii) Preparing Final Account. xiii) Providing all Test Certificates, etc.		Item		
Total (Inclusive of VAT) C/F to Main Collection Page for Electrical Installations					

ICPAK
 PROPOSED OFFICES ON 9TH AND 10TH FLOOR
 BILLS OF QUANTITIES FOR UPS INSTALLATIONS

ITEM NO.	DESCRIPTION	AMOUNT (KShs Cts)
S1	<u>PART A</u> Total For UPS Installations B/F from Page A/1	
S2	<u>PART B</u> Total For General Items B/F from Page B/1	
S3	Sub-Total	
S4	Allow 5% of Item S3 above as contingency	
	Total Amount (Inclusive of VAT) Carried to Form of Tender	

Total Amount in words

.....

Tenderer's Name and Stamp

Signature.....

Date

PIN No.

VAT No.....

Witness

Address

Signature

Date

BILL NO.7
PRIME COST AND PROVISIONAL
SUMS

Item	Description	Qty	Unit	Rate	Amount (Kshs.)
<u>BILL NO. 7 : PC AND PROVISIONAL SUMS</u>					
<u>PROVISIONAL SUMS</u>					
<u>All Provisional Sums are to be measured on completion and priced in accordance with the rates contained in these bills of Quantities or pro-rata thereto or deducted in the whole if not required</u>					
A	Allow a provisional sum of Kenya Shillings Fifty Thousand for Builders Works in connection to services installations		Item		50,000.00
B	Allow a provisional sum of Kenya Shillings Three Hundred and Fifty Thousand for Reception desk joinery		Item		350,000.00
<u>PRIME COST SUMS</u>					
<u>P.C. Sums for works to be executed by nominated Sub-contractors</u>					
C	Allow a prime cost sum of Kshs. 200,000/ for Signage/ Artwork/ Graphics/ Graphiti		Item		200,000.00
D	Allow for profit and attendance		%		
E	Allow a prime cost sum of Kshs. 8,500,000/ for Loose Furniture		Item		8,500,000.00
F	Allow for profit and attendance		%		
TOTAL FOR P. C. AND PROVISIONAL SUMS CARRIED TO MAIN SUMMARY					

MAIN SUMMARY

ITEM	DESCRIPTION		PAGE NO	AMOUNT (KSHS)
1	<u>MAIN SUMMARY</u>		}	
	PARTICULAR PRELIMINARIES			
	CONTRACT PARTICULARS			
	GENERAL PRELIMINARIES			
2	BILL NO. 1:	NINETH FLOOR - BUILDERS WORKS	1/10	
3	BILL NO. 2:	TENTH FLOOR - BUILDERS WORKS	2/10	
4	BILL NO. 3	ELECTRICAL INSTALLATIONS	ELEC/1	
5	BILL NO. 4	STRUCTURED CABLING INSTALLATIONS	SC/1	
6	BILL NO. 5	FIREFIGHTING INSTALLATIONS	FF/1	
7	BILL NO. 6	UPS INSTALLATIONS	UPS/1	
8	BILL NO. 6	PC & PROVISIONAL SUMS	PC/2	
9	<p>CONTINGENCIES Provide the Provisional Sum of Kenya Shillings One Million, Two Hundred Thousand for Contingencies to be expended at the discretion of the Client</p>			1,200,000.00
	<p>VALUE ADDED TAX</p> <p>The Contractor's attention is drawn to the Finance Bill, 2023 which requires the Contractor to pay Value Added Tax (V.A.T.) To the Government of Kenya for all Contracts entered into after 1st July 2023. The Contractor is therefore to allow for such taxes as are</p>			IN RATES
10				
	TOTAL CARRIED TO FORM OF TENDER (INCLUSIVE OF VAT)			

DRAWINGS

