



Ministry of Finance

Ameenah Magu, Male', Republic of Maldives

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### Clarification 1

1 لا عجز عن هذا

نمبر سند	TES/2019/W-84	
پراجیکٹ	Design and Build of 100 Housing Units at M.Kolhufushi	
نمبر	29 <sup>th</sup> July 2019	
نمبر	Boq: -01	Drawings: -02
نمبر	No. of Pages: -02	

Please include this amendment when submitting the bid.

- Find the attached Layout Drawings.
- Find sample form for calculating the ascertained final sum.
- Find the revised scope of works.

1. We would like to request for the site plan for the above titled project. So, that road width, parking, garbage collection points, children's play area can be identified?

The buildings are to be on individual plots of land, therefore the road widths will not be required. The parking and garbage collection area should be in accordance with the local regulations.

The children's play area is not required under the current scope of works.

2. Please provide us the master layout?

The plot locations can be shared with the selected Contractor upon award. Please consider the plots to be in different locations distributed throughout the island within the populated area.

3. Please provide the plot area for each house, also advice on building set back details on corner lot?

The size of the smallest plot is 25 feet by 39 feet approximately (rectangular plot). The size of the square plot can be assumed to be 33 feet by 33 feet (square plot).

The selected Contractor should survey the plots to determine the shapes and sizes of the plots. The ventilation voids designed and other setbacks are to be in accordance with the local regulations.



4. We noted that provision for parking area to be done. Please confirm that design of parking area for 100 homes in one common lot or to design for each house?

The parking provisions should be in accordance with the local regulations and should be provided if mandatory. If not parking provisions are not required.

5. Please confirm that the houses are single story or more than that. We noted that in one location it is mentioned as Ground floor and First floor?

The houses should be single story.

6. Please provide the quantity for proposed elongated and square plots?

The selected Contractor is required to conduct the survey to determine the plot shapes.

7. Please confirm that the tenderer need to provide all following documents in the tender submission, drawings in AutoCAD format, the Technical Specifications in MS Word format, the BOQ and the Structural calculations in MS Excel?

The tenderer needs to submit a conceptual layout of the floor plan and the building exterior for the two types of buildings.

8. Please provide the demolition details, drawing for lands which are having buildings?

84 plots are vacant except for minor trees and grass.16 plots have small building structures or other features that need to be demolished or cleared.

9. We request to extend tender submission date for 2 weeks?

Please refer to the addendum 1 of this project.

NOTE:

Revised requirements of the Clients is attached with this Clarification.

**All waste produced on site due to site clearance or other project activities should be disposed of at the waste management site at K. Thilafushi.**

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Name: Fathimath Rishfa Ahmed

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Signature:





**Republic of Maldives**

**REQUIREMENTS OF THE CLIENT**

**for**

**Design and Construction of  
100 Housing Units at M. Kolhufushi**

**Ministry of Housing and Urban Development  
Issued on: 29<sup>th</sup> July 2019**

## **Requirements of the Client**

### **1.1 Scope of Works**

The project requires design and construction of 100 social housing units in the form of single story housing units at M. Kolhufushi. The housing units are to be located on individual plots of land at different locations within the island. Setbacks, accessibility and such shall be taken into consideration and shall be designed and constructed in accordance with the local and internationally accepted building codes and standards.

#### **1.1.1 Design and Preparation of Architectural, Structural and Services drawings, Bill of Quantities and Technical specifications**

1. Design requirement are as follows;

- Detailed design of
  - 100 single story housing units on individual plots of land, the distances from the plot boundary to the building should be proposed to, and approved by the Client prior to construction.
  - The development should include but should not be limited to the design of water supply, electrical, sewerage and drainage.
  - The Contractor shall accommodate for any amendments regarding the layout and the distribution of the blocks as requested by the Client.
- Site investigations including site surveying, soil investigation and appropriate geotechnical surveys where applicable.
- Each housing unit shall cover a minimum built-up area of 92.9 square meters (1000 square feet) and shall not exceed 1100 square meters, excluding the balconies, voids and staircases.
- The building should be elevated for 0.3m from ground level (the finished floor level of the ground floor shall be 0.3m from the ground level).
- The entrance should be designed in consideration of the future inclusion of a ramp.
- All common areas and the apartments located on the ground floor shall be accessible by wheel chair.
- Height of the buildings should not exceed 5m in height up to roof apex level.
- Prepare detailed architectural, structural, services drawings (electrical, plumbing and



firefighting) for above mentioned buildings.

- Provisions for other services such as cable TV, and internet should be provided.
2. Prepare Bill of Quantities for the above mentioned buildings. Bill of quantities shall include the building's whole of the works and in order to minimize any variation.
  3. Final drawings, BOQ and technical specifications shall be provided by the Contractor and shall include provisions for all civil, architectural, structural, electrical, plumbing and firefighting disciplines.
  4. Bills of Quantities and the drawings shall be provided separately for the individual building types.
  5. All plans and specifications must be in English.
  6. Design drawings, BOQ and detailed technical specifications shall include all considerations and details necessary for a builder to construct the Works, such as, but not limited to:
    - a. Site Work, sewage disposal system, drives, parking areas, curbs, storm drainage and end-walls, etc.
    - b. Architectural, including plans, elevations, wall sections, construction details, hardware and finishing schedules, waterproofing, sundries, etc.
    - c. Structural, including framing and concrete reinforcement layout, bar schedules and bending diagrams, bearings and connection details, etc.
    - d. Electrical, Security, and Communications including wiring diagrams, lighting fixtures, control panels, etc.
    - e. Mechanical, including heating, air conditioning and/or ventilation systems, as may be applicable.
    - f. Plumbing layouts should be complete with pipe diagrams, schedules, fixtures, etc., for each housing unit and for the development (shall include water provisions for irrigation).
    - g. Waste water disposal systems should be complete with all the elements required and all the internal connections leading up to the main sewer.
  7. Separate Bills of Quantities and detailed drawings should be provided by the Contractor for both types of housing units.
  8. All designs shall comply with the Building Act and all regulations stipulated under the Act as well as the relevant International Standards.
  9. For interior space management of the buildings, the Contractor shall maintain overall uses specified in the Specific Requirements. However Contractor may redesign any

component of the building/s based on the Design team's recommendations, and subject to prior approval of the Employer.

10. The Contractor shall make a minimum of seven amendments to the design proposed at no additional cost, upon receipt of comments and requests for the amendment of the prepared concept drawings, detailed drawings, the BOQ and the Technical Specification.
11. The contractor shall submit the raw soft copies of all the detailed design documents, including but not limited to drawings in AutoCAD format, the Technical Specifications in MS Word format, the BOQ and the Structural Calculations in MS Excel. The Ministry reserves all rights over the documents submitted.
12. The Contractor shall provide one hard copy of the finalized approved drawings complete with architectural checker stamp, structural checker stamp, along with all other permits and stamps required, from the relevant authorities.
13. The contractor shall submit a hardcopy of the BOQ and the Technical Specifications.
14. The Contractor shall apply for and obtain the Environmental Impact Assessment (EIA) permit if required.

#### **1.1.2 Specific requirements:**

1. Boundary walls of minimum 2m height should be provided around all the plots and an entrance shall be located to access the premises.
2. An adequate size of a reserve water tanks (overhead tanks and for rain water storage) shall be included in the buildings.
3. Installation of ground well and connection of utilities (electricity, water & sewerage) to that main lines shall be included.
4. Site clearing and demarcation of work zones and bypasses.
5. For additional Information, submit the sectional drawings with the dimensions.
6. Label the roads on site plans.
7. Specify boundary wall height and material. (we highly encourage boundary wall to be designed with perforations or with a natural green facade)
8. Submit pedestrian and vehicle circulation layout.
9. Identify the spaces required for the installation or provision of supporting facilities of transformers, pump rooms, storage tanks and service stations within the given area for the development.
10. Dedicated utility space at either ground floor ~~or first floor level~~ should be provided for the provision and or installation of relevant services as required.

11. Garbage collection area should be separated from common area. A central collection area at ground floor with ease of loading/unloading vehicular access should be provided.
12. A children's play area should be provided within the development.
13. The main entrance of the housing unit should be minimum 900mm wide.
14. Minimum width of the toilet or a bath room should be 1.2m.
15. The built-up area for each housing unit, excluding balconies and voids should be approximately 92.9 square meters (1000 square feet))
16. The Minimum dimensions for the following spaces are as specified:
  - i. Master bedroom- 13 feet x 12 feet
  - ii. Master bedroom toilet- 5 feet x 7 feet
  - iii. Bedroom 2 toilet- 4 feet x 7 feet
  - iv. Bedroom 3 toilet- 4 feet x 6 feet
  - v. In addition to the specified spaces above, bedroom 2, bedroom 3, living room, kitchen, dining, laundry and a small store need to be accommodated within the area allocated for the single story housing unit.
  - vi. The parking area should be 2.5 percent of the built-up area for each unit and should be provided within the plot.
  - vii. An appropriately sized garbage disposal location should be provided within each plot.

#### **1.1.3 General guideline:**

- a) **Electrical installation:** Wiring for lighting and power shall be concealed conduit except for spaces within DB's closet and area above false ceiling, which shall be exposed conduit/trunking. In each housing unit minimum of three electric socket in each room and one data/media and telephone points shall be provided. All electrical wiring shall be in accordance with the guidelines set out by the State Electric Company Ltd (STELCO).
- b) **Fire Rating:** structural members and walls are to be designed to accommodate the requirement of the local fire department. All structures above the ground floor shall be designed for a minimum period of 2 hours fire rating.

- c) **Fire Protection System:** Portable fire extinguishers, fire blankets, and microprocessor based addressable automatic smoke and heat detector should be provided.
- d) **Soil Investigation:** Bidders shall carry out soil investigation at their own cost, prior to commencement of detail design of the sub-structure.
- e) **Site Visit:** The Bidder, at the Bidder's own responsibility and risk, is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.
- f) **Supervision, inspection & test plan:** the supervision, inspection and testing of the materials and works shall be carried out in accordance with the local standards and legislature.
- g) **Earthing System:** shall be installed in accordance with the requirement of BS Code of Practice BS 7430, IEC 62305 and Rules and Regulations of "STELCO" and "MEA" to provide a low impedance earthing systems and connections for equipment earthing.
- h) **Approval of Materials and Systems**  
The materials and systems to be used in the building shall be approved by the Employer prior to use or installation.
- i) **Luminaires**  
Adequate lighting shall be installed and the illumination levels shall generally be in accordance to international IES and IEC standards.

Sitting Room / Dining Room / Kitchen / Toilets	300 - 500 lux
Services Room / Garbage Room	200 lux
Store Room	200 lux
Corridor / Lobby	150 lux
Parking area / Basement	30-50 lux (parking area) at working plane of 0.2m
Premises within the plot	100-150 x at working plane of 0.2m



## 1.2 Expected Schedule of Finishes

Location/Area	Floor	Skirting	Wall	Ceiling	Partitions	Doors/Window
Ground floor// Parking area	Epoxy flooring system		Matte wall paint	-	Brick wall	Powder coated aluminum frame with tinted / clear glass
Common areas	Homogeneous/ Porcelain tiles	Homogeneous/ Porcelain tiles	Skim coating and emulsion paint	-	Brick wall	Powder coated aluminum frame with tinted, clear or frosted glass where appropriate.
Corridor at typical floors	Homogeneous/ Porcelain tiles	Homogeneous tiles	Skim coating and emulsion paint		Brick wall	Powder coated aluminum frame with tinted, clear or frosted glass where appropriate.
Stairing room & living area	Homogeneous/ Porcelain tiles	Homogeneous tiles	Skim coating and emulsion paint	-	Brick wall	Powder coated aluminum frame with tinted frosted glass / Timber door frame with timber panels
Store room/ Services room	Homogeneous/ Porcelain tiles	Homogeneous/ Porcelain tiles	Skim coating and emulsion paint	-	Brick wall	Powder coated aluminum frame with aluminum panels
Toilets	Non- slippery homogeneous tiles + 2 coats of waterproofing	-	Ceramic wall tiles	Fibrous plaster board ceiling	Brick wall	Powder coated aluminum frame with tinted frosted glass / Timber door frame with timber

	g (brush bond)					panels
Services room	Titanium finish		Skim coating and emulsion paint		Concrete/ Brick wall	Powder coated aluminum frame with aluminum panels
Outdoor tiled area	Homogeneous tiles + 2 coats of waterproofin g (brush bond)	Homoge neous + tiles	Ceramic wall tiles		Concrete/ Brick wall	Powder coated aluminum frame with tinted / clear glass
Garbage room	Homogeneous tiles + 2 coats of waterproofin g (brush bond)		Homogeneo us/ Porcelain tiles		Brick wall	Powder coated aluminum frame with aluminum panels

Materials, fixtures and fittings used on exterior walls and surfaces shall be weather-proof, external finishing materials, including fixtures and fittings.

All the major materials, fixtures and fittings shall be submitted to the Client for approval prior to installation or application.

### 1.3 General Design Obligations of the Contractor

1. The Contractor shall carry out, and be responsible for the design of the Works. Basic design shall be in accordance with the spaces defined in the Specific Requirements. Detail Design shall be prepared by qualified designers who comply with the following criteria:

**a) Architect**

- i. A registered architect at his/her country with minimum 07 years of architectural design experience. Must have designed at least 2 buildings of similar scale within this period.

**b) Civil/Structural Engineer**

- i. A registered engineer at his/her country with 07 years of experience in structural design of buildings of similar scale.

**c) Services Engineer**

- i. Minimum bachelor's degree and 07 years of experience in service design of buildings of similar scale.

**1.3.1 Tests on Completion**

Upon completion of the building Contractor shall allow for testing of the services installed in the building as part of commissioning.

**1.3.2 Contractors' Documents**

The Contractor shall submit preliminary designs, which includes floor plans, sections and elevations for the approval of the Employer. Once the preliminary design is approved by the Client, Contractor shall submit the detailed design for approval. The detail design shall be signed by a locally registered Architect and Engineer and shall be certified by accredited architectural and structural checkers. The materials used for construction shall be of good quality, with a design life of 50 years and where necessary design shall incorporate renewable energy and sustainable design components where practical.

**2. Specific Information**

1. The plots are located on different areas of the island and the plot sizes vary. The locations of the plots will be communicated with the selected Contractor.
2. There are 100 building plots out of which
  - 84 plots are vacant
  - 16 plots have small building structures or other features that need to be demolished or cleared.
3. Bidders are required to examine and consider the site conditions prior to bid submission.

### **3. Additional Information**

1. The average floor areas for the housing units are to be maintained between 1000-1100 square feet.
2. The Bidders are expected to provide two different designs for elongated and square plots proposed (sample design for the layouts are attached in Appendix 1).
3. Final price should be exclusive of the import duty for any imported construction material, equipment, machinery, etc.
4. The price also should include electricity and water required for the project.
5. Demolition waste and debris shall be transported to a designated waste management site.
6. Detailed design and 3D rendered images of the exterior of the buildings and the development as a whole, to be submitted in accordance with the timeline agreed with the Employer after signing of the Contract.

### **4. Documents to be submitted with the bid**

1. Conceptual layout drawings of the proposed buildings.
2. Conceptual 3D drawings of the buildings.
3. The floor plans attached with the proposal should be to a scale of 1:100 or 1:200, and shall include the furniture layout, fixtures, fittings and the column positions.
4. Proposed equipment for works and work methodology.
5. Preliminary work schedule - The contractor shall submit a proposed work schedule with the bid. This work schedule shall indicate the major works to be carried out under the scope of the project. The work schedule shall clearly show the proposed start and end dates for all the project stages and the total project duration proposed.

### **5. Bid Price and Payment Terms**

1. Definitions of important terms as interpreted in this contract are as follows;

Contractor's Proposed Rate- The rate proposed by the Contractor for the complete works

Bid Price- The threshold price based on which the bid is evaluated and awarded.

Ascertained Final Sum- The final price calculated upon confirmation of the sizes and the numbers of the housing units, based on the Contractor's Proposed Rate.

2. Bidders are expected to quote the price based on the maximum average footprint area, using the following formula

$$100 \text{ (maximum number of housing units)} \times 1100 \text{ (square feet) (maximum area per unit)} \times \text{Contractor's Proposed Rate}$$

Where the maximum number of housing units shall be 100 and the development area shall not exceed 1100 square feet, on any plot.

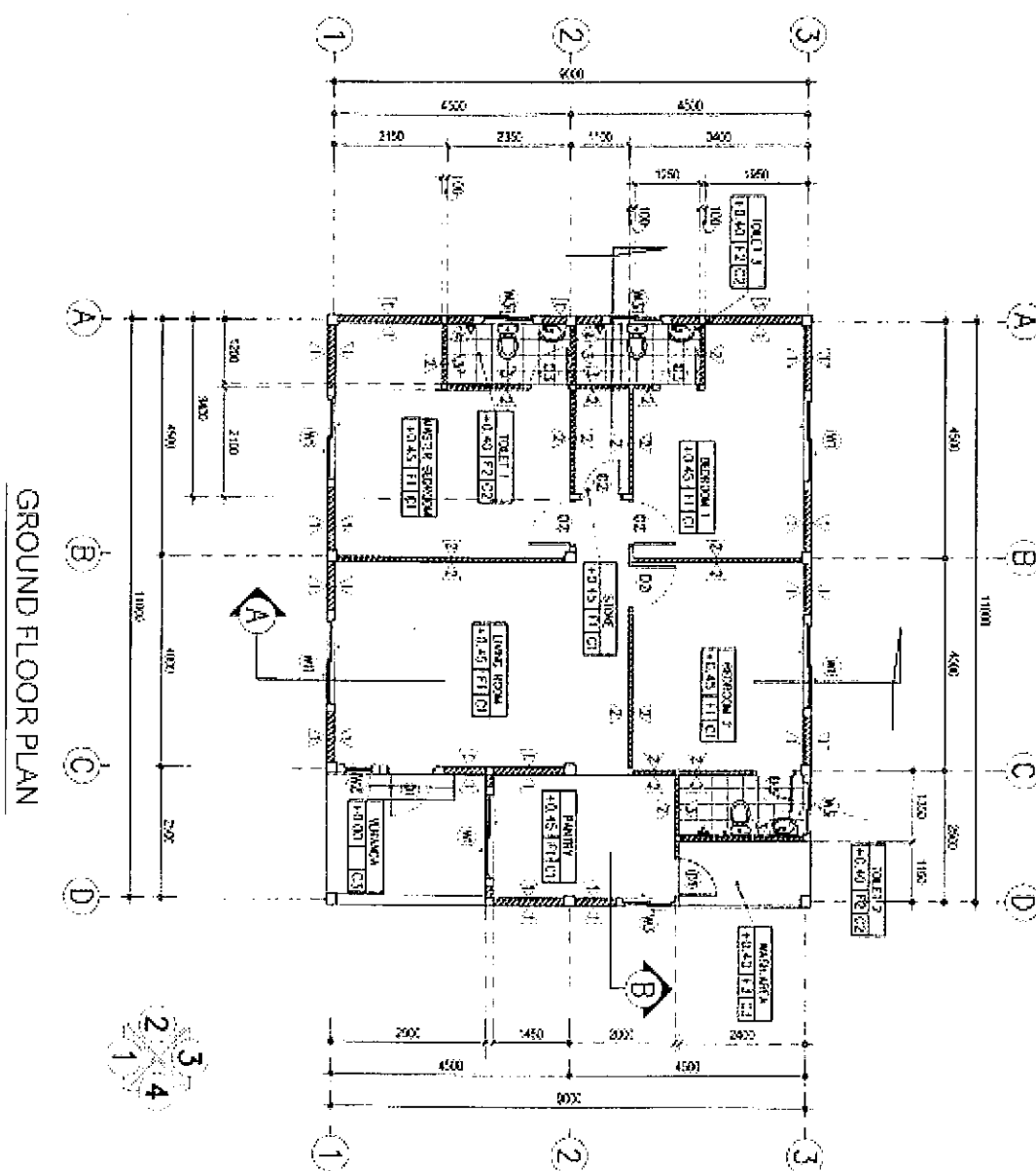
3. The bids shall be evaluated and awarded based on the Contractor's Proposed Rate for the quoted Bid Price (Award Price). The format for calculation of bid price is attached in Appendix 3 and should be attached with the bid.
4. The Contractor shall be provided with a layout plan indicating the location of the plots. The Contractor is expected to survey the plots and provide the two designs as stated in Additional Information.

Upon finalization of the initial concept design, the Client shall provide the Contractor with the areas and the numbers of housing units. The Ascertained Final Sum depends on the size of the plots and the type of the selected design, which are to be confirmed following the survey and initial design.

5. The Contractor shall then provide a work breakdown schedule within 10 days from the date of signing the agreement for the Ascertained Final Sum, indicating the price break down and the durations for each task. A sample format for calculation of the Ascertained Final Sum is attached in Appendix 2.
6. The proposed work schedule will then be finalized following negotiations between the Client and the Contractor.
7. Finalized work schedule- The Finalized work schedule will then be used as a basis for measuring the works completed in order to issue the interim payments.
8. The Contractor shall obtain all the permits required from regulatory authorities / service providers etc.

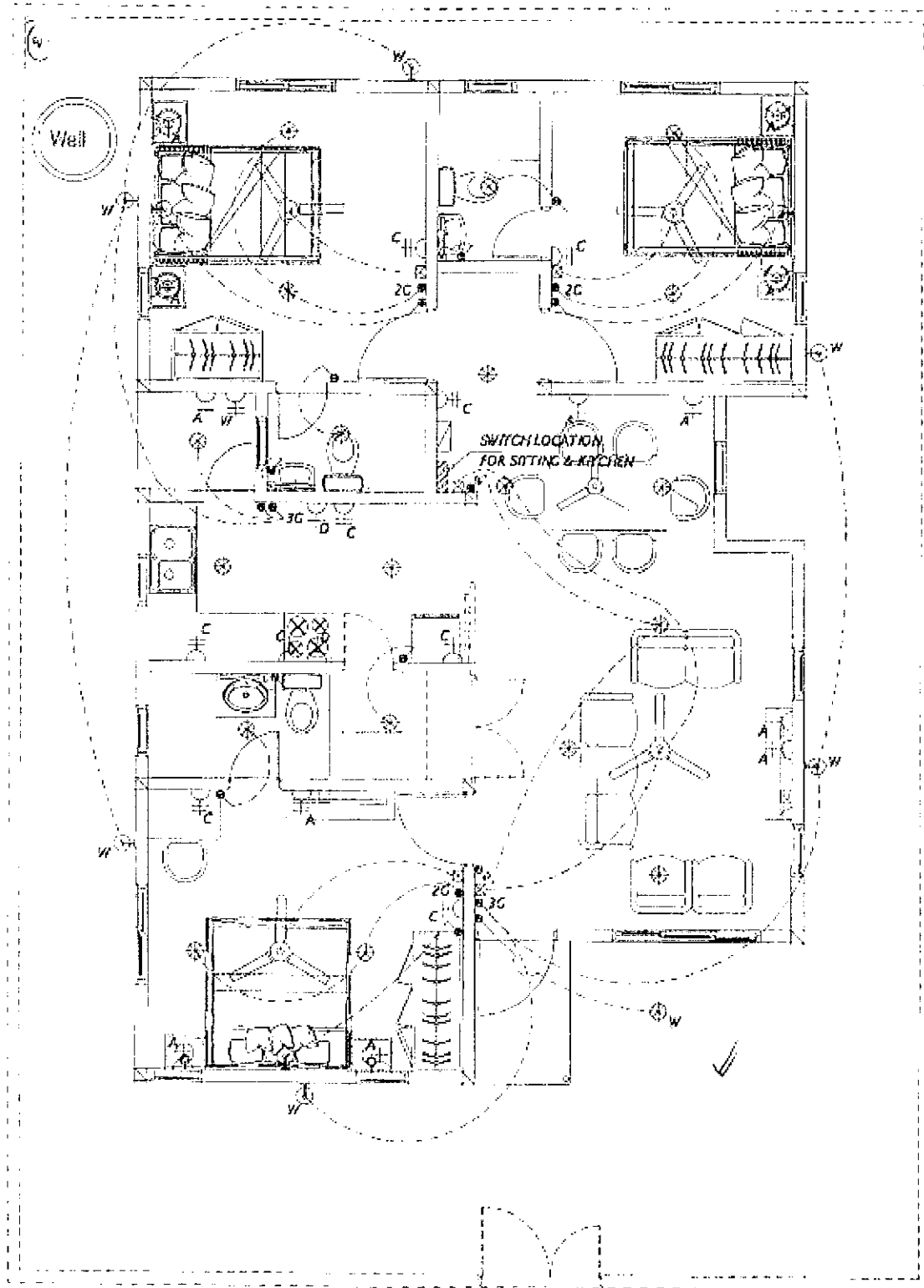
## Appendix 1

Sample layout for Type 1





## Sample layout for Type 2



## Appendix 2

### Sample form for calculating the Ascertained Final Sum

#### Ascertained Final Sum:

<b>Type 1:</b> (no. of housing units) x (area per unit) x Contractor's Proposed Rate	(Currency amount in figures) (Currency amount in words)
<b>Type 2:</b> (no. of housing units) x (area per unit) x Contractor's Proposed Rate	(Currency amount in figures) (Currency amount in words)
<b>Total for the units</b> <b>(Sum of Type 1 and Type 2)</b>	(Currency amount in figures) (Currency amount in words)
<b>GST Rate:</b>	(Currency amount in figures) (Currency amount in words)
<b>Ascertained Final Sum:</b>	(Currency amount in figures) (Currency amount in words)

\* To be submitted by the selected Contractor upon completion of the site survey.

### Appendix 3 (newly included)

#### Calculation of the bid price:

##### Bid Price:

<b>Survey and conceptual design:</b>	(Currency amount in figures)
<b>Survey and conceptual design inclusive of GST:</b>	(Currency amount in figures)
<b>Total for survey and conceptual design</b>	(Currency amount in figures) (Currency amount in words)
<b>Detailed design and construction:</b> 100 (maximum no. of housing units) x 1100 (maximum area per unit) x Contractor's Proposed Rate	(Currency amount in figures)
<b>Detailed design and construction inclusive of GST:</b>	(Currency amount in figures)
<b>Total for detailed design and construction:</b>	(Currency amount in figures) (Currency amount in words)
<b>TOTAL BID PRICE</b>	(Currency amount in figures) (Currency amount in words)