



**Republic of Maldives**

**EMPLOYER'S REQUIREMENT**

**for**

**Remedial Work and Completion of  
100 Housing Units at  
Hdh.Nolhivaranfaru**

**Ministry of National planning, Housing and Infrastructure  
Issued on: February 2021**

## 1.0 Employers Requirement

### Scope of Works

- a) This project includes 100 Housing units constructed at different stages .  
The structure of all the Housing units is completed.

	CATEGORY	QTY
	ORANGE	4
	RED	6
	MAGENTA	18
	WHITE	6
	GREY	17
	CYAN	8
	GREEN	13
	PURPLE	13
	BLUE	13
	BLACK	1
	DARK GREEN	1
	<b>TOTAL</b>	<b>100</b>

- b) The stages are categorized based on the progress of work as per annex 2.
- c) Progress of each of these housing units is presented in annex 3A and annex 3B.  
Bidders are to check and verify and give prices accordingly.
- d) A typical floor plan for the Housing units is given in annex 4. Floor plan may vary slightly.
- e) 100 housing unit completions is a continuation of partially completed structures, thus the Contractor is required to do a detailed assessment of the remaining works.
- f) Contractor is required to submit detailed drawings for the existing structures. The contractor shall submit the raw soft copies of all the below mentioned detailed design documents
- Architectural drawings
  - Electrical drawings including wiring diagrams, lighting fixtures, control panels, etc.
  - Mechanical, including air conditioning and/or ventilation systems
  - Plumbing layout including pipe diagrams and schedules, fixtures, etc.
- g) The Works shall be carried out in accordance with the approved drawings, Bill of Quantities and standard technical specifications

- h) The Contractor shall be responsible for acquiring all the materials required for the completion of the housing units.
- i) Contractor is required to propose appropriate solutions and submit work methodology for repair of the existing structures which includes mould remediation, cracks, corrosion of exposed steel bars and repair of damp patches.
- j) Contractor is required to remove all fixed elements of the units which are not complying structural standards.
- k) All purlins and rafters which are defected must be removed and replaced with an appropriate material and specification
- l) All existing roofing sheets must be removed and replaced with Lysaght brand roofing sheets or equivalent specification
- m) All Rockwool insulations must be removed and replaced with an appropriate material and specification
- n) Ceiling areas damaged needs to be replaced with an appropriate material and specification.
- o) All doors and windows that are already fixed needs to be sealed with an appropriate material.
- p) Damaged Tiling areas need to be replaced.
- q) Electrical Cables, Electrical fittings, sanitary ware, doors and windows that are damaged need to be replaced with appropriate material and specification.
- r) Finishing works are to be carried out as per sub-clauses below
- s) An elementary Bill of Quantities for the housing units are required to be submitted by the bidders as per the format attached at annex 5
- t) Final drawings, detailed BOQ and technical specifications shall be provided by the Contractor and shall include provisions for all civil, architectural, structural, electrical, plumbing and firefighting disciplines, once detailed drawings are approved by the employer.

#### **1.1.1 Specific requirements:**

1. Connection of utilities (electricity, water & sewerage) to that main lines shall be included for each individual units
2. Site clearing and demarcation of work zones and bypasses. Contractor is required to remove and transport all construction waste and debris including the existing construction waste and debris to a waste management facility instructed by the island council

**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 sockets 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.
- c) **Fire Protection System:** Portable fire extinguishers
- d) **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.
- e) **Supervision, inspection & test plan:** the supervision, inspection and testing of the materials and works shall be carried out in accordance to normal industrial standards and practice, specifications, manuals and guidelines used in Maldives and as approved by MNPHI.
- f) **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.
- g) **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.
- h) **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
Garbage Area	200 lux
Store Room	200 lux

Corridor / Lobby	150 lux
Premises within Landscaped area	100-150 lux at working plane of 0.2m

## **1.2 Expected Schedule of Finishes**

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

Roofing sheets should be of “Lysaght” brand or of any equivalent material and specification

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

### **1. Bedrooms**

Walls shall have preparatory sealer and two coats of emulsion paint finish equivalent to Nippon brand

Ceiling shall be smoothed and finished with preparatory sealer and two coats of emulsion paint equivalent to Nippon Brand.

Floors shall be of Homogenous Porcelain tiles of size 600mm x 600mm. Skirting of Homogenous Porcelain tiles should be provided.

### **2. Toilets**

Interior of walls shall have ceramic wall tiling of size 300mm x 600mm.

A suspended Fibrous plaster board ceiling, concealing the plumbing pipeline shall be smoothed and finished with preparatory sealer and two coats emulsion paint equivalent to Nippon Paint

Floors shall be of non-slippery homogeneous tile finish of size 300mm x 600mm.

Toilets shall have adequate waterproofing.

Windows: Powder coated aluminum frame with tinted frosted glass

Doors: PVC doors

### **3. Sitting/Kitchen and Dining / Common Areas**

Walls shall have preparatory sealer and two coats of emulsion paint finish equivalent to Nippon brand

Ceiling should be a suspended Fibrous plaster board

Floors shall be of Homogenous Porcelain tiles of size 600mm x 600mm. Skirting of Homogenous Porcelain tiles should be provided.

Windows: Powder coated aluminum frame with tinted frosted glass

Doors: Timber door frame with timber panels

#### 4. Laundry

Walls shall have ceramic wall tiling (300mm x 600mm) up to 1.8m high from floor finish level. The rest of the walls may be paint finished with preparatory sealer and two coats of emulsion paint equivalent to Nippon brand.

Floors shall be of homogeneous porcelain tile finish of size 600mm x 600mm

#### 5. Garbage area, Common area, Store Room, Outdoor area, Entrance

Walls shall have preparatory sealer and two coats of emulsion paint finish equivalent to Nippon brand

Ceiling of entrance/parking area should be of a suspended ceiling of fibrous plaster board.

Ceiling of Garbage room shall be smoothed and finished with preparatory sealer and two coats of emulsion paint equivalent to Nippon Brand

Location/ Area	Floor	Skirting	Wall	Ceiling	Partition	Doors/window
<b>Garbage area</b>	Homogeneous tiles (600mm x 600mm) + 2 coats of waterproofing (brush bond)	-	Homogeneous/Porcelain tiles (300mm x 600mm)	Fibrous plaster board ceiling	Brick wall	Powder coated aluminum frame with aluminum panels
<b>Store Room / Common Area</b>	Homogeneous porcelain tile finish of size 600mm x 600mm		Wall sealer and two coats of emulsion paint finish equivalent to Nippon brand	Fibrous plaster board ceiling	Brick wall	Powder coated aluminum frame with aluminum panels
<b>Outdoor tiled area</b>	Homogeneous tiles (600mm x 600mm)	Homogeneous	Ceramic wall tiles	Fibrous plaster	Concrete / Brick	Powder coated aluminum frame

	600mm) + 2 coats of waterproofing (brush bond)	tiles	(300mm x 600mm)	board ceiling	wall	with tinted / clear glass
<b>Entrance</b>	Epoxy flooring system		Matte wall paint	Fibrous plaster board ceiling	Brick wall	Powder coated aluminum frame with tinted / clear glass

### 1.3 Additional Information

1. Final price should be exclusive of the import duty for any imported construction material, equipment, machinery, etc.
2. The price also should include electricity and water required for the project.
3. Project costing - The project is a lump sum contract. The Contractor shall submit a work breakdown schedule within ten working days from project award, indicating the price break down and the durations for each task. The work breakdown schedule will then be used as a basis for measuring the works completed in order to issue the interim payments.
4. It is contractors' responsibility to allow for and obtain all the permits required from regulatory authorities / service providers etc.
5. Demolition waste and debris shall be transported to designated waste management site.
6. Finalized work schedule- The contractor shall submit a finalized work schedule within 10 days from the date of receipt of the Letter of Acceptance.

### 1.4 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 concept drawings provided. 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 05 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 05 years of experience in structural design of buildings of similar scale.

**c) Services Engineer**

- i. Minimum bachelor's degree and 05 years of experience in service design of buildings of similar scale.

**1.4.1 Tests on Completion**

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

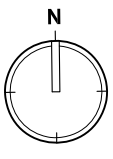
**1.4.2 Contractors' Documents**

The Contractor shall submit an assessment report which includes defects and work methodology for repair of the existing structures for approval of the Employer prior to start of civil works. Typical Floor layout of Housing units is to be submitted. The floor plans should be to a scale of 1:100 or 1:200, and shall include the furniture layout, fixtures, fittings and the column positions. Upon completion of civil work, contractor is required to submit as-built drawings and final progress payment will be released upon approval of the as-built drawings. 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.

**1.4.3 The Bidder shall submit the following with the bid**

1. Elementary Bill of Quantities as per the given format.
2. Proposed equipment for works and work methodology.
3. Proposed Personnel as per clause 1.4
4. 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.




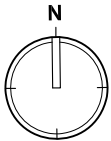


SITE (100 UNITS)




# ANNEX - 1A

<div><div>MINISTRY OF HOUSING AND URBAN DEVELOPMENT</div></div>			AMENDMENTS:		PROJECT:	DESIGN:	ENGINEER:
REV #	DATE	DESCRIPTION	REMEDIAL WORK AND COMPLETION OF 100 HOUSING UNITS AT HDH,NOLHWANAFARU		DRAWING TITLE:	DRAFTING:	APPROVED BY:
			HDH, NOLHWANAFARU LOCATION PLAN			DATE: 25 JAN 2020	DRAWING NO.
						SCALE: 1:5000	A-01



# ANNEX - 1B

 MINISTRY OF HOUSING AND URBAN DEVELOPMENT			AMENDMENTS:		PROJECT:		DESIGN:	
REV #	DATE	DESCRIPTION	REV #	DATE	DESCRIPTION	REMEDIAL WORK AND COMPLETION OF 100 HOUSING UNITS AT HDH,NOLHWANAFARU	DRAFTING:	ENGINEER:
						DRAWING TITLE:	DATE:	APPROVED BY:
						HDH, NOLHWANAFARU LOCATION PLAN	25 JAN 2020	DRAWING NO.
							SCALE: 1:2500	A-02

ANNEX - 02

PROGRESS OF WORK FOR CATEGORIZED STAGES - REMEDIAL AND COMPLETION OF 100 HOUSING UNITS

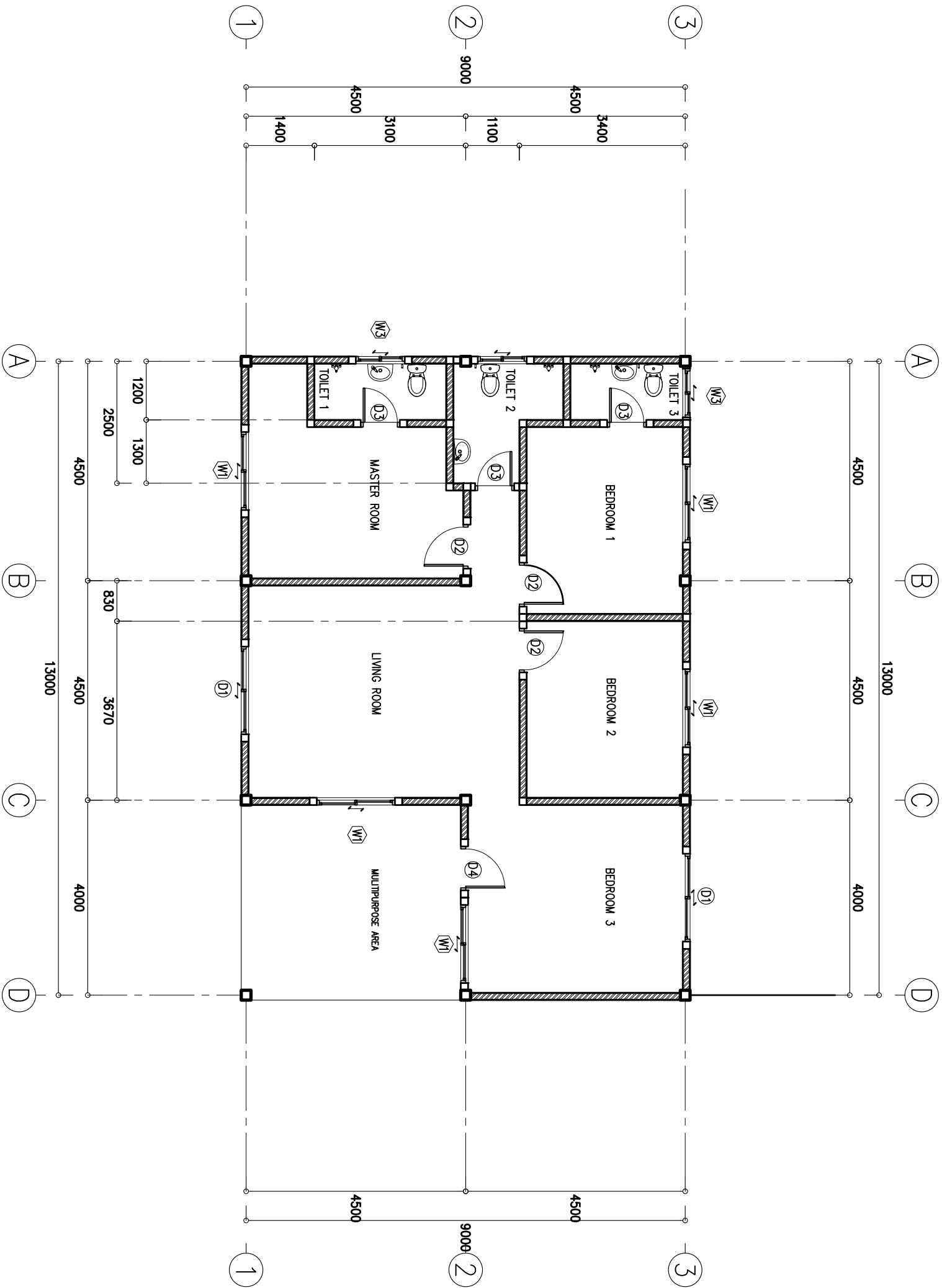
SUMMARY OF WORKS DONE IN HDH.NOLHIVARANFARU

DESCRIPTION OF WORKS											
<b>Concrete works</b>											
Foundation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Columns	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Roof beams	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Lintel beams	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Floor Screed	100%	100%	100%		100%	100%	100%	100%	100%	100%	100%
<b>Block works</b>											
Exterior Masonry works	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Interior Masonry works	100%	100%	100%		100%		100%	100%		100%	100%
<b>Plastering</b>											
Exterior Plastering	100%	85%					85%	85%	85%	100%	100%
Interior Plastering	100%	85%						85%		100%	100%
<b>Roofing Works</b>											
Roofing frame	100%			100%	100%		100%	100%	100%	100%	100%
Rock wool installation	100%			100%	100%		100%	100%	100%	100%	100%
Roofing sheet installation	100%			100%	100%		100%	100%	100%	100%	100%
Gutter and downpipe				50%	50%		50%			50%	50%
<b>Finishing Works</b>											
Interior Painting										100%	100%
Exterior Painting	100%									100%	100%
Ceiling works (Interior & Exterior)	70%									100%	100%
Tiling	85%									70%	70%
Doors										30%	15%
Windows										80%	
<b>Utilities</b>											
Plumbing	80%									80%	80%
Electrical wiring	80%							20%		100%	100%
Installation of Electrical fittings											50%
Installation of Sanitary ware											80%
Well	100%										

CATEGORY	QTY
ORANGE	4
RED	6
MAGENTA	18
WHITE	6
GREY	17
CYAN	8
GREEN	13
PURPLE	13
BLUE	13
BLACK	1
DARK GREEN	1
<b>TOTAL</b>	<b>100</b>








TYPICAL FLOOR PLAN

ANNEX - 4

<div><div>MINISTRY OF HOUSING AND URBAN DEVELOPMENT</div></div>	AMENDMENTS:		PROJECT:		DESIGN:	ENGINEER:
REV #	DATE	DESCRIPTION	REMEDIAL WORK AND COMPLETION OF 100 HOUSING UNITS AT HHJ.NOLHIVARANFARU		DRAFTING:	APPROVED BY:
			DRAWING TITLE:		DATE:	DRAWING NO.
			TYPICAL FLOOR PLAN		25 JAN 2020	
					SCALE:	A-03
					1:5000	

**REMEDIAL AND CONTINUATION OF 100 HOUSING UNITS AT HDH.NOLHIVARANFARU**  
**ELEMENTARY BILL OF QUANTITIES**

No	Item	Amount
1.1	Detail assesment of remaining works and submission of defects report	
1.2	Detailed drawings, Bill of quantities and Technical Specification	
1.3	Preliminaries	
1.4	Concrete works	
1.5	Masonry and Plastering works	
1.6	Doors and windows	
1.7	Ceiling Works and Wood Works	
1.8	Floor and Wall Finishes	
1.9	Painting works	
2.0	Roofing works	
2.1	Electrical Installations	
2.2	Hydraulics and Drainage	
2.3	Fire Protection System	
2.4	External works	
2.5	Additions/Omissions	
<b>SUBTOTAL</b>		
G.S.T 6%		
<b>GRAND TOTAL</b>		