

EMBASSY OF NEPAL

Barakhamba Road, New Delhi-110001, India



CONSTRUCTION OF PRE-ENGINEERED RESIDENTIAL BUILDINGS. THE BUILDINGS SHALL BE TWO STOREYED UNITS, FULLY FURNISHED WITH; TOILET FIXTURES, LIGHT FIXTURES, SPLIT AIR-CONDITIONERS, MODULAR KITCHENS, LOOSE AND FIXED FURNITURE ETC. INCLUDING CONNECTIONS WITH EXISTING EXTERNAL SERVICES. COVERED AREA 2000 SQUARE FEET (2 NOS.) AND 1600 SQUARE FEET (2 NOS)

Tender Document

PART A

Notice Inviting Tender and Eligibility Criteria

PART B

Tender Specifications and Tender Drawings

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Schedule of Quantities / Financial Bid

MAY, 2017

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PART-A - NOTICE INVITING TENDER AND ELIGIBILITY CRITERIA

Notice Inviting Tender
Embassy of Nepal

Barakhamba Road, New Delhi-110001, India

Embassy of Nepal in New Delhi invites Sealed Tender from eligible firms / contractors in Two Bid System for the following work:-

NIT NO. 01/ NIT/Nepal Embassy/2017

Name of Work : Construction Of Pre-Engineered Residential Buildings. The Buildings Shall Be Two Storeyed Units, Fully Furnished with; Toilet Fixtures, Light Fixtures, Split Air-Conditioners, Modular Kitchens, Loose And Fixed Furniture Etc. Including Connections With Existing External Services. Covered Area 2000 Square Feet (2 nos.) And 1600 Square Feet (2 nos)

Estimated Cost	Rs. 3,00,00,000/- (Rupees Three Crores Only)
Earnest Money	Rs. 5,00,000/- (Rupees Five Lakhs Only)
Time of Completion	4 Months (Four Months) 1 Month : Pre Construction Stage (Design Stage) 3 Months : Construction Stage
Pre-Bid Meeting	22nd May, 2017
Last Date & Time of Submission of Bids	01st June, 2017 UPTO 1.00 PM
Date & Time Of Opening Of Technical Bid	01st June, 2017 AT 3.00 PM
Date of Opening of Financial Bid of Eligible Bidders	8th June, 2017

The Embassy retains the right to amend/modify/annual the notice, if required. For further notice and details, please visit the Website : www.in.nepalembassy.gov.np

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR TENDERING

Embassy of Nepal in New Delhi invites sealed bid from eligible firms / contractors in two bid system for the for the following work :-

Details of work for which tender has been invited :

Construction Of Pre-Engineered Residential Buildings. The Buildings Shall Be Two Storeyed Units, Fully Furnished with; Toilet Fixtures, Light Fixtures, Split Air-Conditioners, Modular Kitchens, Loose And Fixed Furniture Etc. Including Connections With Existing External Services. Covered Area 2000 Square Feet (2 nos.) And 1600 Square Feet (2 nos).

ELIGIBILITY CERTERIA :

- 1) The Bidder shall submit Past Performance and experience certificate of works completed duly signed by the competent authority of department/undertaking of any state /centre govt/ or any other Private Sector Project in India or Nepal of amount as detailed below must be attached with tender document.
- 2) One work if it is of **80%** of the value of the estimated cost of the tender
OR
 Two works if these are of **50%** of the estimated cost of the tender
OR
 Three works if these are of **40%** of the estimated cost of the tender
- 3) Bidder / Manufacturer must produce proof of having following technical person employed with him:-

Sr. No	Description	Nos.
1	Mechanical Engineer Degree Holder	1No
2	Mechanical Engineer Diploma Holder	1No
3	Civil Engineer Diploma Holder	1No
4	Skilled worker I.T.I.	2Nos

- 4) Financial Analysis-Details to be furnished duly supported by figures in balance sheet / profit & loss account for the last five years duly certified and audited by the Chartered Accountants, as submitted by the applicant (Copies to be attached). - **Annexure - IV**

Figures in Lakhs Rs.

Sl. No.	Particulars	Financial Years				
		2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
i)	Gross Annual turnover					
ii)	Turnover of works					
iii)	Profit / Loss					

GUIDELINES / INSTRUCTIONS FOR BIDDERS

- 1) Tender documents are to be purchased from the office of Embassy of Nepal, Barakhamba Road, New Delhi during office hours (10.00 AM to 5.00 PM) from **1st May, 2017 up to 31st May 2017**. Non- Refundable Tender Fee of **Indian Rs.3125/-** (Rupees Three Thousand One Hundred Twenty Five Only) **OR** Nepalese Rupee **5,000/-** (Rupees Five Thousand Only), in Cash shall be paid for purchasing Tender Documents.
- 2) Tenders shall be placed in sealed covers (in two envelopes duly marked as **Envelope-I (Technical Bid)** and **Envelope-II (SCHEDULE OF QUANTITIES)**). Envelope-I shall contain EMD, Eligibility documents; Certificates, Financials Documents etc., Notice Inviting Tender, Technical Specifications & Tender Drawings. **Envelope-II** shall contain **Priced Schedule of Quantities**. Envelope - I & Envelope - II (Duly Sealed with Stamp & Signatures) shall be placed in an outer Envelope with the name of the Bidder & the name of the Project written on the Envelope. Bids will be received till **01st June, 2017 up to 3.00 PM** in the office of Embassy of Nepal, Barakhamba Road, New Delhi.
- 3) The decision of the Embassy in accepting or rejecting the tender shall be final and binding on all tenderers.
- 4) **Financial bid (of only eligible bidders) shall be opened on 8th June, 2017 at 2.30 PM in the presence of the representatives of bidders** who choose to attend the bid opening at the Embassy.
- 5) The Tender shall be submitted in hard copy with the following mandatory documents;
 - a. Earnest Money Deposit in form of Demand Draft / Bankers Cheque in favour of **“Embassy of Nepal”**, payable at New Delhi
 - b. The bidder must produce proof of being manufacturer/Authorized dealer of LGSF building system. Support documents i.e. copies of Vat No. /Pan Card No/TIN No. / Registration with industries / Excise department, Labour license, Income Tax Returns, P/L statement and other relevant document etc. to fulfill eligibility criteria shall be submitted by the bidder.
 - c. The bidder must produce the proof of having facility of automated C.N.C. Cold Roll forming Machine of reputed make having capacity of rolling material of thickness of 0.75 to 1.8 mm and other parameters required for fabrication.
 - d. Agency must submit complete structural analysis report as an integral part of technical bid during the bidding. Physical submission of structural analysis report duly signed by competent structural Engineer is also to be done.
 - e. All documents shall be Signed and Stamped by Authorized person for the firms / contractors copy of Drawings along with N.I.T. Document
 - f. Contractor shall submit a Time Schedule indicating milestones of Pre Construction and Construction Activities along with the Techno Commercial Proposal for evaluation.
 - g. Feasibility of Construction Certificate after Site Visit / Pre - Bid Meeting stating that the Contractor has visited the site and is acquainted with site and is aware of the site conditions for carrying out all works pertaining to Construction of Pre – Engineered Buildings.
 - h. Certificate of Execution of Pre Fab Construction Contract to prove eligibility as per criteria.

- 6) Bids must be submitted to the following address on or before **15:00 hrs.** not later than **1st June, 2017**. Documents received after this deadline will not be accepted.
- Embassy of Nepal**
Barakhamba Road, New Delhi-110001, India
Telephone: 00091 11 23476200 Ext 215, 217
Email: eonnewdelhi@mofa.gov.np
- 7) The Contractor shall deposit original EMD of **Indian Rupees 5,00,000/- Lacs** in the office of **Embassy of Nepal**, Barakhamba Road, New Delhi-110001. EMD shall be payable in form of Bankers Cheque / Demand Draft in Favor of "**Embassy of Nepal**" payable at New Delhi.
- 8) The EMD of the selected Contractor shall be adjusted against the security deposit @ 5% of the total value of the Works. The Security deposit shall be released by the Embassy in two installments on successful completion of works.
- 2.5% Security Deposit shall be released after Six months of Completion and Hand Over of the Project on mitigation of defects.
 - Balance 2.5% One year after Completion of Project on mitigation of defects.
- 9) The Embassy of Nepal shall pay 25% advance against Bank Guarantee to the selected contractor on commencement of work at Site and at Factory. Running Payments shall be made on the Basis of Work Done at Site. Contractor shall be eligible to claim payment against (60% value) material delivered on site. The Embassy shall release further secured advances against Bank Guarantee during construction work. The Contractor will have to avail the advance payment as per instructions of the Engineer in Charge.
- 10) Contractor's Running Payment shall be cleared by The Embassy within a time of 15 working days (including time for verification and validation) from the date of submission of bills. Contractor shall provide all clarifications, information required by the Engineer in Charge for verification and validation of the bills.
- 11) Contractor shall submit to The Embassy a comprehensive set of Shop Drawings including all services drawings and technical submittals within 10 days for approval. The Engineer in Charge of the Embassy shall give comments, observations on the shop drawings within 7 working days of receipt of drawings, Revised Shop drawings after incorporating modifications shall be submitted for by the Contractor to Embassy within 7 days. On approval of working drawings the Contractor shall complete the comprehensive works on site within a period of 90 days.
- 12) The Construction of Residential buildings using LGSF structure (Light Gauge Steel Frame) is a Design Build Project. The contractor shall prepare all relevant shop drawings of structure, electrical, plumbing, HVAC, door window schedule & details etc. as per the description of items in this BOQ, List of Approved Makes and Design intent drawings given as a part of this tender document.
- 13) The cost quoted by Contractor shall be inclusive of cartage of all materials to site from source. The cost quoted by Contractor shall be inclusive of all applicable taxes on labour and materials. Service Tax, Labour Cess, VAT on final billing shall be indicated as extra on the total bid value submitted by the Contractor.
- 14) Water and Electricity for construction – Contractor shall make his own arrangement for construction water through Authorized water supply tankers. Electricity (raw Power) shall be provided by Client for Construction work at one point on site, distribution of power through suitable cables, panel etc. shall be organized by the Contractor. Contractor shall arrange his own D.G. set of suitable capacity to meet the requirement of backup in case of power failure.
- 15) Contractor shall obtain CAR (Contractor's All Risk) Policy of the value of project, from a Reputed Insurance Company to keep Client indemnified for any loss due to any accident, theft or mishap on site.

- 16) Contractor shall be responsible for the Conduct of its Labourers and Supervisors, Engineers etc. deployed on site during execution of work on site. All labourers shall be provided with safety gear such as: Helmets, Safety Shoes, Safety Belts / Harnesses, Dust Masks etc. All temporary works such as: Scaffolding, Ladders, temporary platforms etc. shall be constructed in Pre-Fabricated M.S. systems. Use of bamboo, wooden ballies etc. shall not be permitted.
- 17) Contractor shall be responsible for the design and execution of the Structural Safety of the entire construction as per relevant BIS and NBC codes.
- 18) Bids shall be valid for a period of 90 days after bid opening.
- 19) **A pre-bid meeting** will be held on **22nd May 2017** at the Embassy for clarifying all technical and financial queries. Interested and eligible bidders may obtain further information by submitting their queries by email / letter up to the date of pre-bid meeting.
- 20) The Embassy reserves the right to accept or reject wholly or partially, any or all the bids without assigning any reason whatsoever.
- 21) In case the Contractor completes all works successfully prior to the scheduled completion date. A reward of **Rs.35,000/-** (Rupees Thirty Five Thousand Only) Per Day shall be payable by the Embassy to the Contractor. The maximum amount of award shall be limited to an amount **Rs.3,50,000/-** (Rupees Three Lakhs Fifty Thousand Only).
- 22) In case of any delay in completion of work due to reasons attributed to the Contractor. The Embassy shall impose a penalty of **Rs.35,000/-** (Rupees Thirty Five Thousand Only) Per Day applicable from the scheduled date of completion. The maximum amount of penalty shall be limited to **5%** (Five Percent) of the total value of Project.
- 23) The total number of Residential units proposed for Construction at the time of publication of notice is four numbers. The Embassy reserves the right to increase or decrease the total number of residential units at its sole discretion. Payment shall be made to the contractor on the basis of quantities of work execute by him in the Schedule of Quantities in the PART-C of the Tender document.
- 24) In case Two Eligible Bidders / Contractors quote the same bid amount then the selection of the contractor shall be done on the basis of Technical Capability & Financial capacity of the two contractors. The contractor having better technical capability & higher financial capacity shall be given priority.
- 25) For resolution of any Technical or Financial issue a Committee represented by the Engineer-in-Charge and Architect and nominated Embassy Officials shall be constituted. If the issue is not resolved by this Committee the matter shall be referred to **H.E. Ambassador** for final decision.

**Embassy of Nepal,
Barakhamba Road,
New Delhi-110001**

LIST OF DOCUMENTS TO BE FILLED IN BY THE TENDERERS to be submit within the period of bid submission:

1.	Demand draft/ Banker's Cheque of any Scheduled Bank against EMD (Annexure – I)
2.	Letter of transmittal (Annexure – II)
3.	Certificate of Financial Turnover from Chartered Accountant (Annexure – III)
4.	Details Of All Works Of Similar Nature Completed During The Last Seven Years (Annexure – IV)
5.	Structure & Organization (Annexure – V)
6.	Details of Technical & Administrative Personnel (Annexure – VI)
7.	Details of Construction Equipment
8.	ITR CA Certificate.
9.	Certificate of Registration for Sales Tax/VAT and Service Tax and acknowledgement of up to date filed ITR return
10	Certificate of Vat No. /Pan Card No/TIN No. / Registration with industries / Excise department, Labour license etc.

Note : All above cited documents duly stamped & signed by Authorized Signatory of Firm / Company

(ANNEXURE – I)

FORM OF EARNEST MONEY DEPOSIT

WHEREAS, contractor..... (**Name of contractor**) (hereinafter called "the contractor") has submitted his tender dated (date) for the construction of (**name of work**) (hereinafter called "the Tender")

KNOW ALL PEOPLE by these presents that we registered office at (hereinafter called "the Bank") are bound unto Embassy of Nepal, **New Delhi** in the sum of Rs.....(Rs.in words) for which payment well and truly to be made to the said Nepal of Embassy, **New Delhi** the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this day of 20.... THE CONDITIONS of this obligation are:

- (1) If after opening of tender; the Contractor withdraws, his tender during the period of validity of tender.
 - (2) If the contractor having been notified of the acceptance of his tender by the Embassy of Nepal, New Delhi
 - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required;

OR

 - (b) fails or refuses to start the work, in accordance with the provisions of the contract and Instructions to contractor,
- OR
- (c) fails or refuses to submit fresh Bank Guarantee of an equal amount of this against Security Deposit after award of contract.

We undertake to pay to the **Embassy of Nepal, New Delhi** either up to the above amount or part thereof upon receipt of his first written demand, without **Embassy of Nepal, New Delhi** having to substantiate his demand, provided that in his demand **Embassy of Nepal, New Delhi** will note that the amount claimed by him is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date* after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by **Embassy of Nepal, New Delhi**, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE

SIGNATURE OF THE BANK

WITNESS

SEAL

(SIGNATURE, NAME AND ADDRESS)

*Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.

ANNEXURE – II

LETTER OF TRANSMITTAL
(On contractor Letter Head)

FROM:

M/s
.....
.....

TO:

Embassy of Nepal,
Barakhamba Road,
New Delhi.

SUBJECT: Submission of Tender Document from Contractor M/s _____.

Sir,

Having examined the details given in Notice and tender document for the above project, I/we hereby submit the relevant information.

1. I / We hereby certify that all the statements made and information supplied in the enclosed and accompanying statements are true and correct.
2. I / We have furnished all information and details necessary for this bid and have no further pertinent information to supply.
3. I / We welcome you to approach in person or can send any person(s) to verify our competence and general reputation.
4. I / We submit the following certificates in support of our suitability, technical know-how and capability for having successfully completed the following projects along with prescribed format:

S. No.	Name of Work	Certified by / from

Enclosures
Signature(s) of Applicant(s)

Date of submission:

Seal of applicant:

(ANNEXURE – III)**CERTIFICATE OF FINANCIAL TURNOVER FROM CHARTERED ACCOUNTANT**

- 1) Financial Analysis-Details to be furnished duly supported by figures in balance sheet / profit & loss account for the last five years duly certified and audited by the Chartered Accountants, as submitted by the applicant (Copies to be attached).

Figures in Lakhs Rs.

Sl. No.	Particulars	Financial Years				
		2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
i)	Gross Annual turnover					
ii)	Turnover on construction works					
iii)	Profit / Loss					

Signed & Certified by Chartered Accountant

(ANNEXURE – IV)

DETAILS OF ALL WORKS OF SIMILAR NATURE COMPLETED DURING THE LAST FIVE YEARS

Name of the firm / contractor.....

Sl. No.	Name of work / project and location	Owner or sponsoring organization	Cost of work in Crores	Date of commencement as per contract	Stipulate date of completion	Actual date of completion	Litigation/ arbitration cases pending / in progress with details*	Name and Address (Postal & E-mail) / telephone number of officer for reference	Remarks
1	2	3	4	5	6	7	8	9	10

Certified that the above list of works is complete and no work has been left out and that the information given is correct to the best of my / our knowledge and belief.

SIGNATURE OF BIDDER(S)

WITH STAMP

*indicate gross amount claimed and amount awarded by the Arbitrator.

(ANNEXURE – V)**ORGANISATIONAL STRUCTURE**

(This form to be furnished by the Contractor)

1	Name & Address of the applicant	
2	Telephone No./Fax No./ Email ID	
3	a. Year of Establishment	
4	b. Date & Year of commencement of practice.	
5	Legal status of the applicant (attach copies of original document defining the legal status)	
6	a) A proprietary firm	
7	b) A firm in partnership	
8	c) A limited company or Corporation/ Joint venture/ Consortium	
9	Names of Directors & other executives with	
10	Designation of individuals authorized to act for the organization.	
11	Total No. of professional staff (In house):- Structure Design , Plumbing Design, Electrical Design, Interior Designer etc.	
12	Total Number of professional staff (Out Sourced):- Structure Design , Plumbing Design, Electrical Design, Interior Designer etc.	
13	Has the applicant, or any partner in case of partnership firm, ever abandoned the awarded project before its completion? If so, give name of the project and reasons for abandonment.	
14	Has the applicant, or any constituent partner in case of partnership firm, ever been debarred/black listed for competing in any organization at any time? If so, give details.	
15	Has the applicant, or any constituent partner in case of partnership firm, ever been convicted by a court of law? If so, give details.	
16	Any other information considered necessary but not included above.	

**SIGNATURE OF BIDDER(S)
WITH STAMP**

ANNEXURE – VI)**DETAILS OF TECHNICAL & ADMINISTRATIVE PERSONNEL TO BE DEPLOYED ON THE WORK**

Sl. No.	Designation	Total Number	Number for this work	Name	Qualifications	Professional/ Construction experience and details of work carried out	How these would be involved in this work	Remarks
1	2	3	4	5	6	7	8	9

**SIGNATURE OF BIDDER(S)
WITH STAMP**

PART – B - TENDER SPECIFICATIONS AND TENDER DRAWINGS

1.0	<u>TENDER SPECIFICATIONS</u>
1.1	<p>The work shall be executed in accordance with drawings and design approved by Engineer-in-charge. The drawing which is approved in principle is enclosed with this document, which shall be followed by the agency. The work shall be executed by the agency after approval of structural designs and drawings duly vetted from the institute of repute i.e. any IIT/NIT / Reputed Institution nominated by Engineer in Charge in India on the basis of general layout of the building enclosed with this document. However, some changes may be required to be made in design and drawing, owing to the site requirement and other requirements whatsoever, the same shall be incorporated and the work shall be executed as per approved design and drawing.</p> <p>It shall be responsibility of the agency to submit structural design and drawings, duly vetted from the institution of repute, as per decision of the engineer- in-charge. Work shall be executed as per approved design and drawings.</p> <p>The scope of work includes structural design and all work for construction and finishing of pre-engineered structure complete in all respect including all internal wiring, fittings and fixtures, internal water supply and plumbing along with all the necessary fittings, flooring, painting{external and internal) etc. i. e building complete in all respect including site demarcation, excavation, 150 mm thick PCC, RCC Footing, pedestral, brick work, RCC plinth beam with reinforcement as per design including all shuttering, curing, leveling and dressing duly approved by Engineer-in- charge. The electrical & plumbing drawing will be got approved from Engineer-in- charge before execution. The specifications and details of various components are as under:</p>
a.	<p><u>Earth Work :</u> Earth work shall be executed as per CPWD specifications. The surplus earth if any shall be disposed off as pre-marked approved dumping site as per direction of engineer-in-charge.</p>
b.	<p><u>Foundation: -</u> Design of foundation for nominal SBC 11-12 T/Sqm at 2.00 mtr. Depth from NGL based on super structure load reaction and local seismic, snow and wind conditions and construction at site including site demarcation, excavation, 150 mm thick PCC, RCC footing, pedestral, brick-work, RCC plinth beam with reinforcement as per design including all shuttering, strutting, curing, leveling and dressing, plinth protection and drain all around the building etc. duly approved by the engineer-in-charge as per approved drawings.</p>
1.2	<p><u>Structural frame work: -</u> Providing and installation wall frames made up of roll formed cold rolled lipped 'C' steel section made out from sheet of base metal of minimum thickness 0.95 mm with Alum/Zinc coating also known as galvalume {with 55% aluminium and 45% zinc) conforming ASTM A792 for galvalume with punching dimples for screws and provision of electrical and plumbing conduits etc. in standard C-section cold rolled steel in approved size for wall studs, bracings, floor joists, runners, roof truss and purlins with minimum 150 gsm coating of aluminum -zinc for anti-rusting and 550 MPa of yield strength i/c provisions for lip notches, lip cuts, web notches through highly précised machines. Exterior wall and all wall spacing should not exceed 410 mm. Provision for service web holes of 34 mm dia. along the walls. The steel pertains the assembly for load bearing walls with SDST galvanized wafer head screw of dimensions having head dia. Not less than 10 mm and assembly for load bearing joists, trusses with hexagonal head screws with heavy shear strength. The screws contains heavy shear strength to withstand heavy loads, also provision of 1 mm tolerance between vertical studs and top bottom plates to withstand earthquake situations. The provision of erection with hold sown bolts minimum of 120 mm length with subsequent dia. fixed at each 600 mm distance along the wall length 190 mm x 16 mm at corner and window with nut and bolt system {Hilti, Power fastener). The gap between bottom steel track and plinth beam to be filled with continuous rubber gasket. The purlin provided for roof sheets spacing at around 600 mm fixed with hex. head screws and L cleats. The structure will contain trusses of subsequent length with a maximum spacing of 1220 mm with load bearing walls with provision for doors and windows. The</p>

	cross members provided for strength called bracings, along with strap bracings. Proper hold down ties {Simpson or equivalent} must be installed at all corners and required necessary areas {hold down roof, truss clips, girder, truss, connector, stud plate, ties, hurricane ties, floor to floor connectors, foundation connectors should be installed from frames to foundations}.
1.3	<p><u>Building Codes & Standard :-</u> The light gauge cold-formed steel structural members shall be designed as per International Building Codes or any equivalent code of practice. Other Indian Standards Codes are: IS 811:1987- Cold formed light gauge structural steel sections {under evaluation}. IS 801:1975- Code of practice for use of cold formed light gauge steel structural member's in general building construction {first revision}. SP 6:1980- Handbook for structural engineers - cold-formed, light gauge steel structures</p>
1.4	<p><u>Design Loads :-</u> The building and structure shall be designed in accordance with the National Building Code of India, and IS 875, Code of Practice for Design Loads for Buildings and Structures.</p>
1.5	<p><u>Design Road & Live Road</u> The building and structure shall be designed in accordance with the National Building Code of India, and IS 875, Code of Practice for Design Loads for Buildings and Structures.</p>
1.6	<p><u>Seismic Loads</u> The structure shall be designed to resist seismic forces as per the seismic zone, conforming to IS: 1893 Part I-2002 {Criteria for Earthquake Resistant Design of Structures}.</p>
1.7	<p><u>Wind Loads</u> The structure shall be designed to take wind loads as per IS: 875 {Part III}- 1987 {Reaffirmed 1997}, 1987 edition of the NBCI - Part VI Structural Design.</p>
1.8	<p><u>Roofing :-</u> Supply and installation of pre-coated galvanized iron profile sheets {size, shape and pitch of corrugation as approved by engineer-in- charge} 0.50 mm +/- 5% total coated thickness {TCT} thick zinc coating @ 120 gsm as per IS: 277 MPa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns along with all accessories. Sheet should have protective guard film of 25 microns minimum to avoid scratches while transportation and should be supplied in single length up to 12 meters or as desired by engineer-in- charge. The sheet shall be fixed using self-drilling self-tapping screw of size {5.5 x 55 mm} with EPDM seal. Providing and fixing thermal insulation with resin bonded fiber glass wool conforming to IS: 8183 density 24 Kg/m³, 50 mm thick wrapped in Polythene bags placed below the roofing and held in position by providing wire mesh. Providing and fixing ridge, flashing, eaves gutter and downpipes of sizes should be as per the design and as approved by the engineer-in- charge. Ridge, flashing, gutters shall be of pre-coated GI sheets of thickness 0.5 mm, properly sealed for water leakages etc. Downpipes made of PVC of appropriate dia. should be provided at all strategic location with spacing not more than 12 meters. All the down pipes should first be terminated in the chamber of minimum depth as decided by Engineer-in-charge and all the chamber should be connected to one common chamber of appropriate size. Location and size of the main chamber shall be decided by the engineer-in-charge. Supplying and fixing of flames top heavy weight {138} with layers as high resistance aluminum foil/reinforced net/strong PE closing sheet, heat resistance {max R-value} {conforming to AS/NZS-4200.2}.</p>
1.9	<p><u>Walls :</u></p>
a.	<p><u>External Wall :</u> External wall system on Light gauge steel frame work with . Outer face having moisture/fire resistant lap siding 7.5mm thick and width as per standard sizes made of Cement fiber board fixed on 9mm thick heavy duty fiber cement board confirming to IS 14862:2000, category IV type A (High pressure steam cured) as per standard sizes fixed with self-drilling / taping screws / fasteners @ 60cm c/c of approved make. Lap siding shall be with embossed decorative finish to give pleasing</p>

	<p>exterior finish fixed horizontally with staggered joints including minimum overlap of 25mm on external cement fiber board conforming to IS 14682: 2000 fixed with self drilling / tapping screws / fasteners. Internal face shall be 12.5mm thick gypsum plaster board fixed on 8mm thick fiber cement board confirming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / tapping screws / fasteners @ 60cm c/c of approved make, proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.</p>
b.	<p><u>Internal Wall :</u> Internal wall panels on Light gauge steel frame work with 12.5mm thick gypsum plaster board conforming IS 2095:2011 fixed on 8mm thick fiber cement board conforming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / tapping screws / fasteners @ 60cm c/c of approved make, Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick of 8 to 10 gauge of length varying from 25 to 45 mm. Proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.</p>
1.10	<p><u>Flooring :</u> Providing and laying Vitrified / rectified Ceramic floor tiles of size 600x600 mm {thickness to be specified by the manufacturer) conforming to IS 15622 of approved make in all colors and shaded, laid on 20mm thick cement mortar 1:4 (1 cement: 4 coarse sand) or by using tile adhesive as per manufacturers specification including grouting the joints with white cement and matching pigments etc., complete. Size of tile 600x600 mm in approved colour, shade and pattern in all rooms, corridors, floor, operation theatre &labour room.</p>
1.11	<p><u>Intermediate Floor Deck System :</u> Floor using Built up sections made from hot rolled steel plates 2 layers of 20mm Cement Fiber Floor Board in staggered pattern.</p>
1.12	<p><u>Wet Areas :</u> Flooring in wet areas like Toilet, shall be water proof liner under tile and anti-skid Ceramic Tiles of 300x300 x8mm thick , of approved make and color, laid on a bed of 20 mm thick cement mortar 1:3 {1cement :3 coarse sand) finished with a flush pointing in white cement including preparation of surface, cleaning etc. complete. Tile should conform to IS:15622.</p>
1.13	<p><u>Dado :-</u> Glazed Ceramic tiles of 300x450 x 8 mm thick, up to height of 2100mm, for residential unit toilet and kitchen in Dado/wall tiles, of approved colour and make fixed on wall with the help of adequate adhesive, finishing, cleaning etc. complete. Tile should conform to IS: 15622.On tread & riser of steps 17 mm thick granite-stone shall be fixed or as decided by the engineer-in-charge.</p>
1.14	<p><u>Railing :</u> Providing and fixing MS Pipe { Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature {wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size along steps and in all the balconies and lobby area as as per entire satisfaction and direction of Engineer-in-charge. In balcony and lobby area c/c distance of vertical steel post should not be more than 15 cm.</p>
1.15	<p><u>Sanitary Works :</u> Supply and Fixing of Sanitary items as per following item description including all accessories, specials, bends etc. including all material, labour, T&Ps according to manufacturer's specification, drawings and as approved and directed by engineer in charge:- Providing & fixing Mirror of superior quality and size 600mmx450mm with beveled edge with 6mm thick hard board back fixed to wall with wooden cleats and C.P. brass screws & washers complete {mirror is to be fixed in every toilet of each flat). Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality and color. 450mm long towel rail</p>

	<p>with total length of 495mm, 78mm wide of weighing not less than 170gm, provided at appropriate location in every toilet of each flat.</p> <p>Providing and fixing PTMT towel ring in every toilet of each flat.</p> <p>Providing and fixing vitreous china wall hung water closet {European type} with seat and lid, 3/6 litre concealed flushing cistern and with all fitting and brackets etc., 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required, alongwith solid plastic seat and lid of, all complete in every toilet of each unit as approved by engineer- in-charge.</p> <p>Vitreous China Wash Basin of size 550x450 with CS/MS brackets, 32mm C.P. brass Waste of standard pattern, including painting of fittings and brackets, with a pair of 15mm C.P. Brass Pillar Cock in every toilet of each flat of colour as approved by engineer-in-charge.</p> <p>Providing & fixing PVC Flexible waste Pipe {consealed in the wall for disposable of waste for urinal/wash basin/sink), of 32mm dia. for wash basin coupling etc. complete in every toilet of each flat.</p> <p>Providing & fixing PVC Flexible waste Pipe{consealed in the wall for disposable of waste for urinal/wash basin/sink), of 40mm dia. for sink coupling etc. complete in every toilet of each flat.</p> <p>Providing & fixing PVC Flexible waste Pipe {consealed in the wall for disposable of waste for urinal/wash basin/sink), of 40mm dia. for sink coupling etc. complete in every toilet of each flat.</p> <p>Providing & fixing 100mm dia. Inlet & 75mm dia outlet, PVC Nahani Trap of self cleaning design in required numbers in every toilet of each flat.</p> <p>Toilet / Bathroom accessories shall be of Prayag or its equivalent.</p>
1.16	<p><u>Water Supply :</u></p> <p>Supply and Fixing Water supply items as per item description including all material, labour, T&Ps according to manufacturer's specification, drawings and as approved and directed by engineer-in-charge.</p> <p>Providing & fixing GI/CPVC pipe fitting of 15mm, 20mm, 25mm dia. Nominal bore including connection from main pipe line, as required and making good the chase.</p> <p>Providing and fixing 32mm dia. bore gun metal Gate Valve ISI marked (IS: 778 Class 1, PN-1 Mpa) with CI wheel of approved quality (screwed end) 20 mm nominal bore.</p> <p>Providing and fixing 15mm dia. Nominal bore GI/ CPVC connection pipe with brass union 45cms. Length.</p> <p>Providing and fixing 150mm dia. C.P. Brass Shower Rose with 15mm dia inlet.</p> <p>Providing and fixing 15mm dia. Nominal bore C.P. Brass long body Bib Cock of approved quality confirming to IS:8931 weighing not less than 690 gms.</p> <p>Providing and fixing 15mm dia. Nominal bore C.P. Brass Stop Cock (concealed) of approved quality confirming to IS:8931.</p> <p>Providing and fixing of 75mm,110mm PVC pipe with 6 Kg/cm² pressure band, door band, tee and socket, as per required, for the outlet of waste water till main-holes.</p>
1.17	<p><u>Materials :</u></p> <p>All materials to be supplied by the Contractor shall conform to relevant Indian Standards as approved by the Engineer-in-charge.</p> <p>Steel materials required for the work shall be free from imperfections, mill scales, slag intrusions, laminations, fittings, rusts etc. that may impair strength, durability and appearance. All materials shall be of tested quality only. Test Certificates in respect of each consignment shall be submitted to Engineer-in-charge before use in work. Whenever the materials are permitted for procurement from identified stocks, a random sample shall be tested at an approved laboratory, as directed by the Engineer-in-charge</p>
1.18	<p>Structure Steel: Structural steel conforming to IS:2062 : Grade B- Fe 410 {yield strength=240 MPa shall be caused for main members of girder structures, cross girder members, bracings, gussets plates etc.</p>

1.19	<p>Nut & Bolts: For splicing of any structural member wherever required HSFG bolts and nuts of property class-8.8 conforming to IS:3757 and IS:6623 {1985} respectively shall be used. Unless specified otherwise, the bolts shall be hexagonal. All the HSFG bolts are tightened up to the proof load as per IS: 4000 {1992}. All anchor bolts shall be of property class of 8.8 shall conform to IS:1363 {1992}, IS:1364 {1992} and IS:1367, as applicable, and unless specified otherwise, shall be hexagonal. All nuts shall conform to property class compatible with the property class of the bolt used. Washers For HSFG bolts , washer shall be conforming to IS:6649 {1985}.</p>
1.20	<p>Plain washers shall be conforming to IS:5369 (1975), unless otherwise specified. One washer shall be supplied with each bolt and, in case of special types of bolts, more than one washers needed for the purpose shall be supplied. An additional double coil helical spring washer, conforming to IS:6755 {1980}, shall be provided for bolts carrying dynamic or fluctuating loads and those in direct tension.</p>
1.21	<p><u>Storage of Materials :</u> General : All materials shall be so stored as to prevent deterioration, and to ensure the preservation of their quality and fitness for the work. If required by the Engineer-in-charge, the materials shall be stored under cover and suitably painted for the protection against weather condition. Any material, which has deteriorated or has been damaged shall be removed from site and replaced by new members, as directed by the Engineer-in-charge at no extra cost and time. The steel to be used in fabrication shall be stored in a separate stack clear of the ground section wise and lengthwise. The storage area shall be kept clean and properly drained. Structural steel shall be so stored and handled in such a manner that members are not subjected to excessive stresses and damage. Girders and beams shall be placed in upright position. Long members shall be supported on closely spaced skids to avoid unacceptable deflection. The Contractor shall have a suitable shop storage yard at his own premises for storing the fabricated steel structures and other materials. The yard shall have proper facilities such as drainage and lighting including access for cranes, trailers and other heavy equipments. All Shop / field connection materials, shop paints etc. shall be stored on racks and platforms, off the ground in a properly covered building by the contractor. The contractor shall have proper arrangement for sand blasting of steel sections so that these sand blasted material may be used for fabrication wherever required.</p>
<p><u>Note: Any discrepancies noticed in architectural drawings/technical specification should be brought to the notice of engineer-in-charge and his decisions shall be final.</u></p>	

LIST OF APPROVED MAKES

APPROVED MAKE -CIVIL WORKS

SL.NO	MATERIALS	APPROVED MAKE
1	CEMENT (PPC/ OPC)	ACC/ ULTRATECH/VIKRAM/ AMBUJA/ JAYPEE CEMENT/ J.K. CEMENT/ LAFARGE/ BIRLA/L&T
2	WHITE CEMENT	J.K. WHITE/ BIRLA WHITE
3	REINFORCEMENT STEEL	SAIL/ TATA STEEL Ltd./ RINL/ JINDAL STEEL & POWER Ltd AND JSW STEEL Ltd.
4	STRUCTURAL STEEL SECTIONS	SAIL/ TATA STEEL Ltd./ RINL/ JINDAL STEEL & POWER Ltd AND JSW STEEL Ltd.
5	SUPER PLASTICIZERS	MC BAUCHEMIE/FOSROC/SIKA/BASF
6	STAINLESS STEEL	JINDAL STEEL/ SALEM STEEL/TATA /SAIL
7	CERAMIC TILES	KAJARIA/H & R.JOHNSON/NITCO/ SOMANY
8	VITRIFIED TILES	H & R JOHNSON//RAK CERAMICS/RESTILE
9	UPVC DOORS	LINGEL/VEKA/KOMMERLING/ DECEUNINCK
10	UPVC WINDOWS	LINGEL/VEKA/KOMMERLING/ DECEUNINCK
11	COMMERCIAL BOARD	GREEN/DURO/MERINO/CENTURY/LEGEND
12	COMMERCIAL PLYWOOD	GREEN/DURO/MERINO/CENTURY/LEGEND
13	BWP PLYWOOD	GREEN/DURO/MERINO/CENTURY/LEGEND
14	POLYSULPHIDE SEALANT	FOSROC/PIDILITE/SIKA
15	DASH FASTENERS	HILTI/FISCHER/BOSCH/CANNON
16	ALL TYPES OF GLASS	AIS /ST. GOBAIN/ MODIGUARD/PILKINGTON
17	PU ENAMEL METALLIC PAINTS ON MS STRUCTURE	SKK/OIKOS/ACRO
18	EPOXY PRIMER AND PAINTS	ICI/NEROLAC/ ASIAN PAINTS
19	LAMINATED FLOOR	SQUAREFOOR/ ACTION TESA/PERGO
20	STUD ANCHORS CHEMICALS & MECHANICAL ANCHORS	HILTI/FISCHER/BOSCH/CANNON
21	ANCHOR FASTENERS	HILTI/FISCHER/BOSCH/CANNON
22	ADHESIVE FOR FLOOR VITRIFIED TILES, MARBLE STONE, GRANITE STONE ETC.	LATICRETE/FERROUSCRETE/BAI LENDURA
23	LACQUERED GLASS, MIRROR	SAINT GOBAIN/GLWAVERBEL/MODIGUARD
24	WEATHER SILICON SEALANT	WACKER/DOW CORNING/MCCOY/ SOUDAL
25	BACKER ROD	SUPREME IND LTD./SYSTRANS POLYMERS

SL.NO	MATERIALS	APPROVED MAKE
26	EPOXY MORTAR	FOSROC/SIKA/CICO/LATICRETE
27	METAL DECKING SHEET	CRIL/RAJINDER ALLOYS LIMITED/ PENNAR INDUSTRIES LIMITED
28	CEMENTOUS GROUT	XYPEX /FOSROC/KRYTONE
29	CRYSTALLINE CEMENTIOUS WATERPROOFING COMPOUND	BASF/ XYPEX/CONSRUCTION CHEMICALS/ KRYTONE
30	STAINLESS STEEL DOOR HANDELS, LOCKS AND FITTINGS	DORMA/HAFELE/GEZE/GUARDIAN
31	FLOOR SRINGS, DOOR CLOSERS, PANIC BARS	DORMA/HAFELE/GEZE/GUARDIAN
32	METAL CEILING	HUNTER DOUGLAS / ARMSTRONG/ LINDNER/ SAINT GOBAIN GYPROC/ DURLAM
33	GYP SUM CEILING	SAINT GOBAIN GYPROCK / USG BORAL / INDIA GYP SUM
34	MOISTURE RESISTANT GYPBOARD	ST. GOBAIN GYPROC/USG BORAL/INDIA GYP SUM
35	WATER PROOFING COMPOUND (LIQUID)	PIDILITE/ FOSROC/ CICO
36	EPOXY TILE GROUT	BASF/ LATICRETE/ ARDEX ENDURA
37	POLYURETHANE SPRAY INSULATION	BASF/ DOW CORNING/ LLOYD
38	MODULAR KITCHEN & WARDROBE	SPACEWOOD / MATRIX -GANPATI FURNITURE /MOD FURNITURE
39	MODULAR KITCHEN FITTINGS/ACCESSORIES	HETTICH/ HAFELE/GILMA/HACKER
40	PVC EDGE BAND TAPE	DOLKIN / MERINO/ REHAU
41	EXTRUDED POLYSTYRENE INSULATION	DOW/OWENS CORNING/ISO BOARD
42	STUD ANCHORS	HILTI/FISCHER/BOSCH
43	ANCHOR FASTENERS	HILTI/FISCHER/BOSCH
44	LOCKS IN CABINETS, FURNITURE	HETTICH/BLUM/HAFELE
45	ADHESIVES	FEVICOL/ANCHOR/DUNLOP/PIDILITE
46	ADHESIVE FOR FLOOR VITRIFIED TILES, MARBLE STONE, GRANITE STONE ETC.	LATICRETE/FERROUSCRETE/BALLENDURA
47	LACQUERED GLASS, MIRROR	SAINT GOBAIN/GLAVERBEL/MODIGUARD
48	WEATHER SILICON SEALANT	WACKER/DOW CORNING/MCCOY/ SOUDAL

APPROVED MAKE - SANITARY & PLUMBING WORKS

S. No.	Details of equipment/ material	MAKE
1	Concealed Cistern	HINDWARE/JAQUAR/CERA
2	Flush Plate	HINDWARE/JAQUAR/CERA
3	Waste Couple	HINDWARE/JAQUAR/CERA
4	Bottle Trap	HINDWARE/JAQUAR/CERA
5	Kitchen Sink	JAYNA/ KINGSTON/ CERA
6	Sink Mixer	JAQUAR/ HINDWARE
7	Shower	JAQUAR/ HINDWARE
8	Ceiling shower arm	JAQUAR/ HINDWARE
9	Shower Mixer	JAQUAR/ HINDWARE
10	Wall mounted bath spout	JAQUAR/ HINDWARE
11	Hand Shower Health Faucet	JAQUAR/ HINDWARE
12	Robe Hook	JAQUAR/ HINDWARE
13	Toilet Paper Holder	JAQUAR/ HINDWARE
14	Brass Bib Cock	JAQUAR/ HINDWARE
15	Soap dispenser	JAQUAR/ HINDWARE
16	Angle Stop cock	JAQUAR/ HINDWARE
17	Shower tray	JAQUAR/ HINDWARE
18	C.P Copper connection of 375 mm long	HINDWARE/ CERA
19	Geyser	RACOLD/JAQUAR/VENUS
20	RO Unit	EUREKA/ OASIS/SUNROC
21	uPVC Pipes & fittings	SUPREME/FINOLEX/PRINCE/AKG
22	CPVC Pipes	ASTRAL/AJAY FLOW/ AASHIRWAD
23	CI Pipes/fittings (I.S: 3989-1984)	NECO / KAPILANSH / RIF / SKF/ BIC
24	SS Grating	NEER/CAMRY/CHILLY/DAKSHA
25	DI Manhole cover	NECO / DAKSHA / TRU FORM/ BIC
26	Flanges	TABLE 'H'/CLASS 150/ OR ISI MARKED
27	Cast Brass Clean Out Plugs	CAMRY /NEER / CHILLY
28	G.I. Pipes	TATA / JINDAL HISSAR / SURYA PRAKASH
29	G.I. Fittings(malleable Cast Iron)	DRP - M / ZOLOTO/ UNIK / JAINSONS
30	G.I. Pipe jointing material	LOCTITE 55/DR.FIXIT / M- SEAL
31	Lead Caulked Joint	NECO / KAPILANSH / RIF
32	Rubber Insulation	THERMAFLEX/ARMAFLEX/ KFLEX/ AFLEX
33	SS Hinged Grating	NEER/CAMRY/CHILLY/DAKSHA
34	Stoneware Pipes and Gully Traps	PERFECT / ANAND/ BURN/ PRAGATI
35	RCC Pipes	J K SPUN / PRAGATI / LAXMI SPUN
36	Gunmetal Valves (Full way valve) Class-I	ZOLOTO/ LEADER/ SANT/ IBP/ DANFOSS
37	C.I. S&S / Double flanged fittings specials	NECO/NATIONAL/ KESORAM/ ELECTROSTEEL
38	SFRC Manhole Cover & Frame	K.K.MANHOLE/JAIN SPUN PIPE/ PRAGATI
39	C.I Manhole Cover (IS: 1726-1991)	NECO/ KK / RIF/ BIC

S. No.	Details of equipment/ material	MAKE
40	Butterfly Valve	ZOLOTO / ADVANCE/ AUDCO/SANT/AIP
41	Gate Valve	ZOLOTO / ADVANCE/ AUDCO/SANT/AIP
42	Non Return Valve (C.I)	ZOLOTO / ADVANCE/ AUDCO/SANT/AIP
43	Ball Valves	ZOLOTO / ADVANCE/ AUDCO/SANT/AIP
44	Foot Rest	KGM EXPORT / OR ISI MARKED
45	Sluice Valve/ Air Valve/ Scour Valve	LEADER / KIRLOSKAR/ ZOLOTO
46	Two way GM Solenoid Valve	V.K. VALVES / DANFOSS
47	Dash Fastners	HILTI/ FISHER/ LOVELY
48	Automatic Air Vent	ZOLOTO/TBS/ KARTAR/ DANFOSS
49	Pipe Clamps/ Hangers/ Support	EUROCLAMP/ CHILLY/ LOVELY
50	Anti Corrosive Bitumastic Paint	SHALIMAR/ BERGER/ ASIAN
51	Epoxy Paint	SHALIMAR/ BERGER/ ASIAN
52	Pipe Protection anti corrosive tape treatment	PYPKOTE / HIND / COATEK
53	C.I Floor Trap	NECO / KAPILANSH / RIF/ SKF / BIC
54	Pressure Switch	INDFOSS/ASTER (USA)/ DANFOSS / PORTER
55	Level Switches	V. AUTOMAT/PUMPTROL/TECHNIKA
56	Pressure Gauge/Dial Thermometer	H GURU/FIEBIG/PRICOL
57	Vibration Elimination / Vibration Isolaters	RESISTOFLEX / KANWAL
58	Y-Strainer	ZOLOTO/EMERALD/SANDHU/SMI
59	Foot Valve	KIRLOSKAR / KALPANA / DANFOSS
60	Anti Corrosion Tape	PYPKOTE/COATEK
61	Strainer (Y Strainer/Bucket Strainer)	ZOLOTO/EMERALD/SANDHU/SMI
62	Clamps & Support	HILTI / EASY FLEX
63	Water level indicator & controller	ITAL / TECHNIKA / MINILEC
64	Insulation for pipes	THERMAFLEX/LLOYD / MIN WOOL ROCK
65	Solar Panels, collector boxes, support frames, water tank and integral piping	EMVEE SOLAR/ SOLAHART/ SOLPOWER/ BOSCH
66	PRV	RB (ITLY)/ HONEYWELL/ ZOLOTO/CASTLE
67	FRP Filter	AVENTURA/AQUANOMICS / PENTAIR
68	MS Filter	THERMAX / ION EXCHANGE
69	Multiport Valve (Manual)	MIDAS / INITIATIVE
70	DI Manholes & Gratings	NECO/ KAPILANSH / ACO / NEER
71	FRP Grating	THERMODRAIN/ ACO/ KT FRP

APPROVED MAKE- ELECTRICAL WORKS

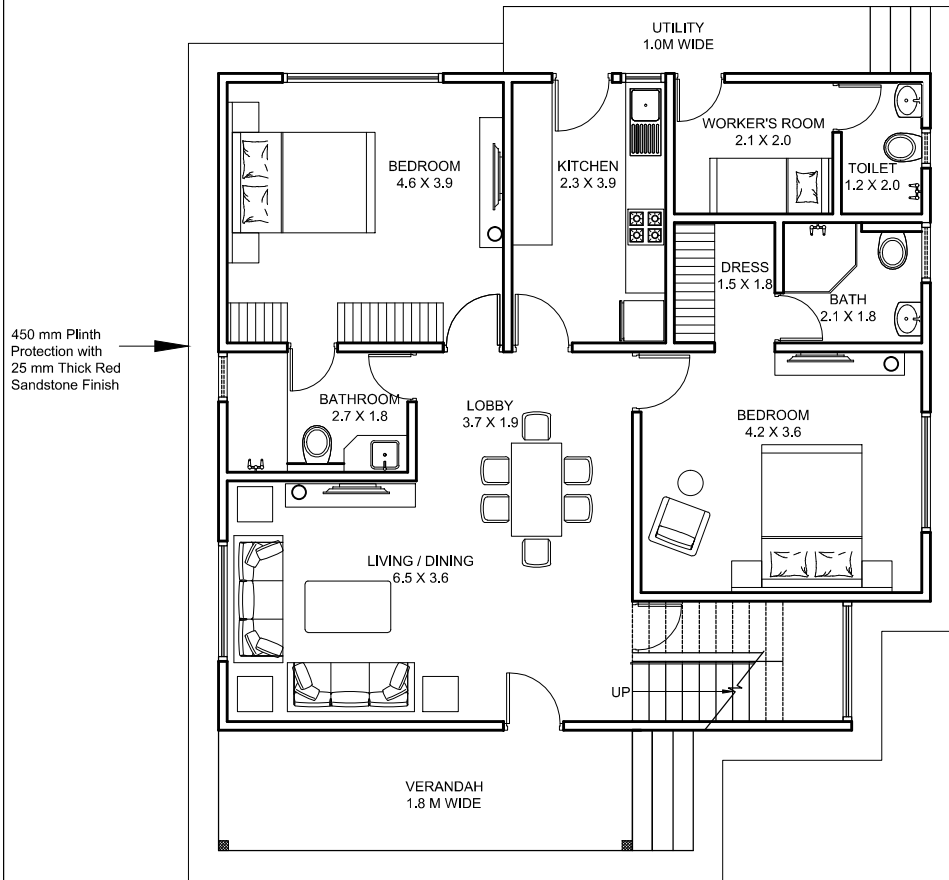
Sr. No.	Material/ Equipment	Vendor
1	HRC Fuse and Fuse Fitting	ABB
		GE
		Siemens
		L&T
2	MCCB	ABB
		Schneider
		Siemens
3	Contactors	ABB
		Schneider
		Siemens
4	Push Buttons	ABB
		L&T
		Schneider
		Siemens
		BCH
5	B. Power Distribution Panels & Boards (Non TTA)	Advance Panels & switchgears (P) Ltd.
		Adlec Power Private Limited
		Tricolite
6	Switches, Time Delay Relay	Schneider
		Siemens
		Hager
		Legrand
7	Indicating Lamps	Siemens
		Schneider
		ABB
		L&T
8	Exhaust	Crompton
		Khaitan
		Havells
		Orient
9	LT Power Cables	Universal
		Finolex
		KEI
		Polycab
10	LT Jointing Kit & Termination Kits	Birla-3M
		Raychem
		Safe Kit
		M seal

Sr. No.	Material/ Equipment	Vendor
11	Termination (Lugs)/ Cable Glands(Double compression)	Commet
		Dowell
		Jainson
12	Selector Switches	Kaycee
		ABB
		Siemens
		Schneider
13	Copper Conductor PVC Insulated Wires/ Stranded Flexible Wires (FRLS) (including panel wiring)	Finolex
		RR Kabel
		KEI
		Havells
14	Modular Switches, Socket Outlets And Wiring Accessories With Moulded Cover Plate.	Legrand (Myrius)
		Schneider (Opale)
		MK (Blenze)
15	MCB/RCCB/ SPD	Legrand
		Schneider
		Siemens
16	Final Distribution Boards(MCB DBs)	Legrand
		Schneider
		Siemens
17	Telephone Wires/ Telephone	Delton
	Cables	RR Kabel
		Belden
		Bonton
18	Telephone /TV Outlet	Legrand
		Schneider
		MK
19	Light Fixtures (General)	Wipro
		Philips
		Bajaj
		Trilux
20	Ceiling Fan (5 star rating)	Crompton
		Bajaj
		USHA
		ORIENT
21	Exhaust Fans (5 star rating)	Crompton
		Khaitan
		Havells
		Orient

TENDER DRAWINGS

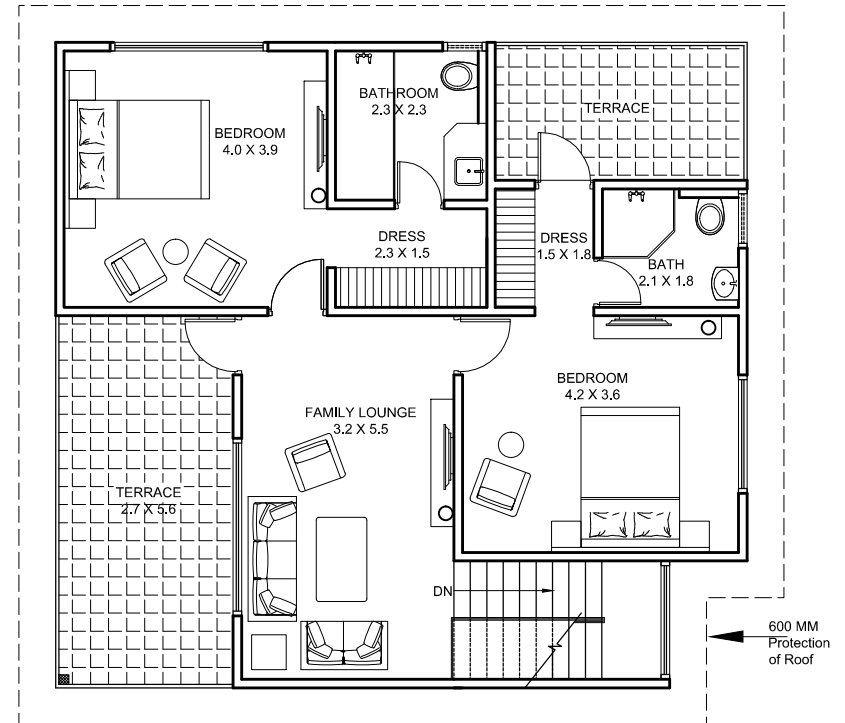
S.No.	Description	Drawing No.
1)	Unit Floor Plans Type – I – 2000 Sq.ft	A -2.1
2)	Unit Floor Plans Type – II – 1600 Sq.ft	A -2.2

TYPE I- 2000 sqft



Note: Windows (At Ground Level) Shall be Provided With 600 mm Wide Sunshade

GROUND FLOOR



FIRST FLOOR

NOTES & INFORMATION

1. ALL DIMENSIONS AND LEVELS ARE INDICATED IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS TO BE READ AND NOT MEASURED.
3. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECTS.
4. ALL ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH RELEVANT STRUCTURAL AND SERVICES DRAWINGS.
5. ALL FIXED AND LOOSE FURNITURE ARE INDICATIVE.

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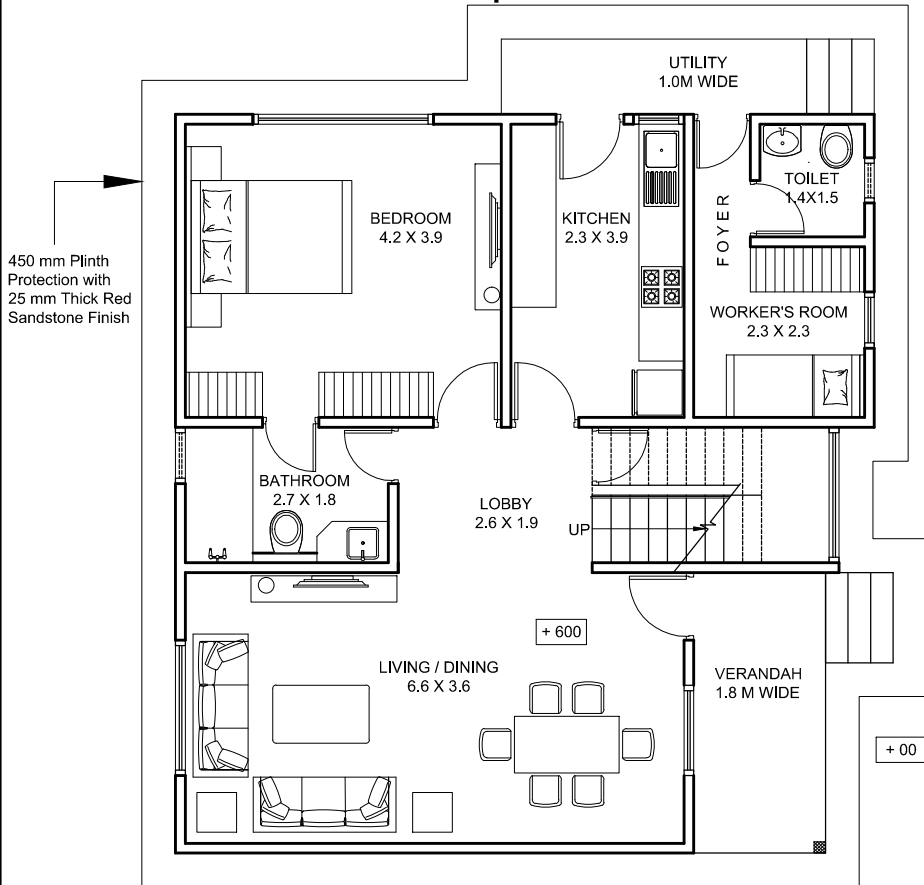
PROJECT:
 EMBASSY OF NEPAL
 BARAKHAMBA ROAD,
 NEW DELHI

UNIT FLOOR PLANS
 TYPE-I

SCALE : 1:100	DATE:-1-05-2017	DRAWN BY: MEHAK
PHASE	SENDER	AREA
PRE	ARC	ARC
DRAWING NUMBER		REV NO
A-2.1		R2

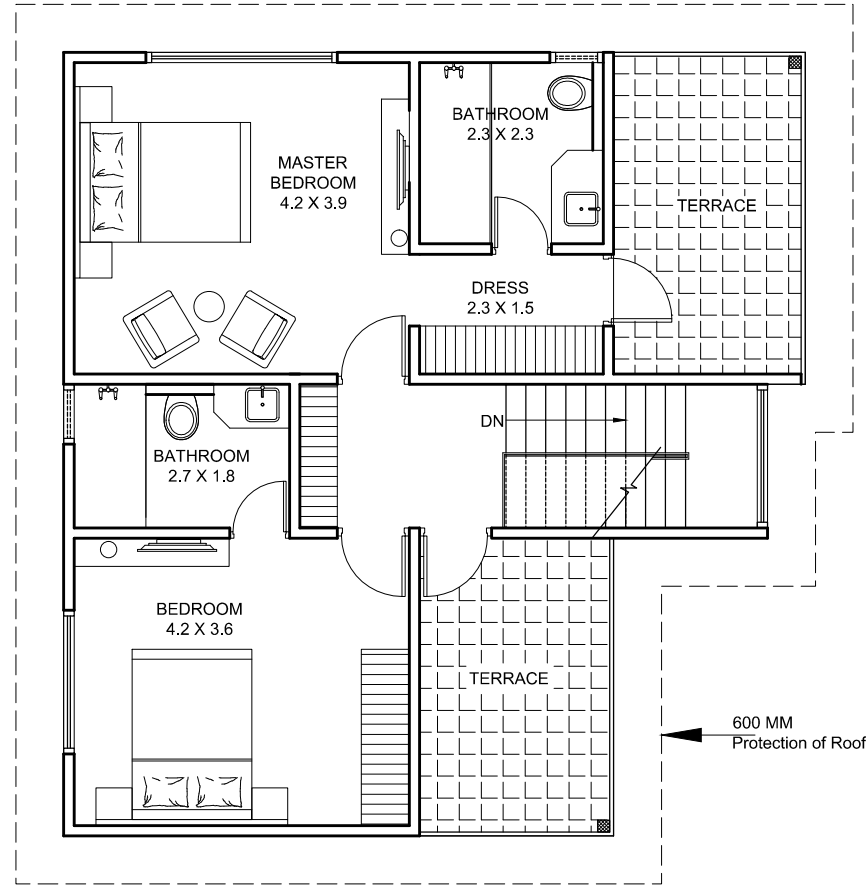
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TYPE II- 1600 sqft



Note: Windows (At Ground Level) Shall be Provided With 600 mm Wide Sunshade

GROUND FLOOR



FIRST FLOOR

NOTES & INFORMATION

1. ALL DIMENSIONS AND LEVELS ARE INDICATED IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS TO BE READ AND NOT MEASURED.
3. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECTS.
4. ALL ARCHITECTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH RELEVANT STRUCTURAL AND SERVICES DRAWINGS.
5. ALL FIXED AND LOOSE FURNITURE ARE INDICATIVE.

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PROJECT:
 EMBASSY OF NEPAL
 BARAKHAMBA ROAD,
 NEW DELHI

UNIT FLOOR PLANS
TYPE-II

SCALE : 1:100	DATE:-1-05-2017	DRAWN BY: MEHAK
PHASE	SENDER	AREA
PRE	AR	ARC
DRAWING NUMBER	REV. NO	
A-2.2	R2	

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PART – C (SCHEDULE OF QUANTITIES)

<u>PART- C - SCHEDULE OF QUANTITIES</u>			
CONSTRUCTION OF PRE-ENGINEERED RESIDENTIAL BUILDINGS . THE BUILDINGS SHALL BE TWO STOREYED UNITS, FULLY FURNISHED WITH; TOILET FIXTURES, LIGHT FIXTURES, SPLIT AIR-CONDITIONERS, MODULAR KITCHENS, LOOSE AND FIXED FURNITURE ETC. INCLUDING CONNECTIONS WITH EXISTING EXTERNAL SERVICES. COVERED AREA 2000 SQUARE FEET (2 NOS.) AND 1600 SQUARE FEET (2 NOS)			
S.NO.	DESCRIPTION	:	AMOUNT (RS.)
A	STRUCTURE WORKS	:	
B	FLOOR & WALL FINISHES	:	
C	DOORS & WINDOWS	:	
D	PLUMBING & SANITARY WORKS	:	
E	ELECTRICAL WORKS	:	
F	HVAC WORKS	:	
G	LOOSE FURNITURE	:	
H	FIXED FURNITURE	:	
I	ELECTRICAL APPLIANCES	:	
	TOTAL AMOUNT	:	
(Rupees			
.....			
Date of submission:		Sign & Seal of applicant:	

EMBASSY OF NEPAL AT BARAKHAMBA ROAD, NEW DELHI					
SCHEDULE OF QUANTITIES FOR PROPOSED PRE ENGINEERED RESIDENTIAL BUILDING					
2,000 (2 Nos.) and 1600 Sft. (2 Nos.)					
S.No.	Description of Work	Unit	QTY	Rate	Amount
A	STRUCTURE WORKS				
1	Plinth				
(a)	Earth work in excavation by mechanical means (Hydraulic excavator / manual means) for laying foundations. Item includes disposal of surplus earth, back filling of good earth As per directions of Engineer-in-charge.	Sqm	380		
	Machine mixed / ready plain cement concrete as per approved design as per directions of Engineer-in-charge.				
	Brick masonry work in plinth and foundation as per approved design as per directions of Engineer-in-charge.				
	RCC Column footings, Columns upto Plinth, Plinth beams as per approved design as per directions of Engineer-in-charge.				
	Cement concrete sub-base for flooring with nominal reinforcement (8mm dia @ 200 c/c) as per approved design as per directions of Engineer-in-charge.				
(b)	Plinth Protection (450 mm wide)				
	Providing and laying in position machine mixed / plain cement concrete (100mm thick) as per approved design and directions of Engineer-in-charge.	Rmt	89		
	Gangsaw cut, 25mm thick red sandstone over a bed of cement sand mortar for plinth protection as per approved design and directions of Engineer-in-charge.				
2	Light Gauge Steel Framed Super Structure				
(a)	Designing, providing, installing and fixing factory finished custom designed cold form Light Gauge Steel Framed super structure comprising of steel wall panel, trusses, purlins etc manufactured out of minimum 0.75 mm thick steel sheet as per design requirements. The steel sheet shall be galvanized (AZ-150 gms Aluminium Zinc Alloy coated steel having minimum yield strength 300- 550 Mpa) conforming to AISI specifications and IBC 2009 for cold formed steel framing and construction and also as per IS: 875- 1987, ISO 800-1984 and IS: 801- 1975. The wind load shall be as per provisions of IS 875 (part -III). LGSFS frame shall be designed as per IS: 801 using commercially available software such as Frame CAD Pro-11.7/ STAAD PRO-V8i/ArchitekV2.5.16/ Revit architecture- 2011 or equivalent. Proper usage of Connection Accessories like Heavy Duty Tension Ties, Light Duty Hold-ons, Twist Straps (to connect truss with wall frames), Strong Tie, Tie Rod, H-Brackets, Boxing Sections, L-Shaped Angles for better structural stability. The framing section shall be cold form C-type having minimum web depth 89 mm	Sqm	669		
	x 39mm flange x 11mm lip in required length as per structural design requirement duly punched with dimple/slot at required locations as per approved drawings. The slots will be along centre line of webs and shall be spaced minimum 250mm away from both ends of the member. The frame can be supplied in panelized or knock down condition in specific dimensions and fastened with screws extending through the steel beyond by minimum of three exposed threads. All self drilling tapping screws for joining the members shall have a Type II coating in accordance with ASTM B633(13) or equivalent corrosion protection of gauge 10 & 12, TPI 16 & 8 of length 20mm. The frames shall be fixed to RCC slab or Tie beam over Neoprene rubber using self expanding carbon steel anchor bolt of dia as per approved drawings. design subject to minimum 12mm diameter and 121mm length conforming to AISI 304 and 316 at 500mm c/c with minimum embedment of 100mm in RCC (RCC to be paid separately) and located not more than 300mm from corners or termination of bottom tracks complete in all respects. The item also includes the submission of stability reports duly examined and issued by any NIT/IIT/ Reputed Institution nominated by Engineer-in-charge .The rate includes the concept design, detailed design, fabrication of sections, transportation, installation and all required fixing arrangement at site as described above.				

S.No.	Description of Work	Unit	QTY	Rate	Amount
(b)	External Wall :				
	External wall system on Light gauge steel frame work with . Outer face having moisture/fire resistant lap siding 7.5mm thick and width as per standard sizes made of Cement fiber board fixed on 9mm thick heavy duty fiber cement board conforming to IS 14862:2000, category IV type A (High pressure steam cured) as per standard sizes fixed with self-drilling / tapping screws / fasteners @ 60cm c/c of approved make. Lap siding shall be with embossed decorative finish to give pleasing exterior finish fixed horizontally with staggered joints including minimum overlap of 25mm on external cement fiber board conforming to IS 14682: 2000 fixed with self drilling / tapping screws / fasteners. Internal face shall be 12.5mm thick gypsum plaster board fixed on 8mm thick fiber cement board conforming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / tapping screws / fasteners @ 60cm c/c of approved make, proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.				
(c)	Internal Wall :				
	Internal wall panels on Light gauge steel frame work with 12.5mm thick gypsum plaster board conforming IS 2095:2011 fixed on 8mm thick fiber cement board conforming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / tapping screws / fasteners @ 60cm c/c of approved make, Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick of 8 to 10 gauge of length varying from 25 to 45 mm. Proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.				
(d)	Roofing : Precoated galvalume iron profile sheets :				
	Precoated galvalume iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness. The sheet shall have a hot- dip metallic coated of Zinc and aluminum (AZ 150 gms / Sqm. coating mass total of both side as per AS1397), 550-Mpa yield stress, with 20 microns exterior coat of Silicon Modified Polyester paint system over 5 micron exterior primer and 5 micron polyester back coat over 5 micron prime. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self-drilling / self-tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required as per entire satisfaction and direction of Engineer-in-charge.				
(e)	Roof Insulation :				
	Thermal insulation with Resin Bonded Fiber glass wool conforming to IS: 8183. Density 24kg/m ³ , 50 mm thick, placed over vapour barrier and held in position by chicken wiremesh as per entire satisfaction and direction of Engineer-in-charge.				
(f)	Intermediate Floor Deck System :				
	Floor using Built up sections made from hot rolled steel plates 2 layers of 20mm Cement Fiber Floor Board in staggered pattern.				
(g)	Staircase Steps				
	Main staircase steps shall be filled with 20mm Fiber (Cellulose fiber) cement Floor board below as a substrate. The risers and treads shall be made in 17mm thick granite stone of aproved colour & texture.				

S.No.	Description of Work	Unit	QTY	Rate	Amount
(h)	Soffit and Eaves Lining :				
	External Soffit and Eaves Lining shall be with 9 mm thick Heavy duty Fiber cement boards of exterior grade (Type-A).				
(i)	Vapour Barrier :				
	Exterior face panels shall be provided with a layer of breathable vapour barrier underneath the cement fiber board as per National Building Code 2009. The work shall be completed as per direction of Engineer-in-charge.				
(j)	Foam Filler :				
	Providing & applying appropriate Foam filler possessing excellent insulation properties, low moisture-transmission, favourable chemical characteristics. Specifically designed using polyethylene foam (etha-foam) and conventional cutting tools & by hot-wire forming, for roofing shall be used to provide ingress protection and to make the building water tight.				
(k)	False Ceiling :				
	12.5 mm thick Gypsum board False Ceiling suspended on G.I. framework as per manufacture specifications.				
TOTAL FOR STRUCTURE WORKS (A)					
B FLOOR & WALL FINISHES					
1	Vitrified Tiles : 600x600 mm (on Floor and skirting 100 mm height) of approved color laid on a bed of 20mm thick cement mortar 1:3 (1Cement:3 Coarse sand) finished with a flush pointing in tile grout with matching pigment including preparation of surface, cleaning etc complete.	Sqm	293		
2	Anti-skid Vitrified Ceramic Tiles : of 600x600mm Floor tiles in wet areas and terraces of approved make and color laid on a bed of 20 mm thick cement mortar 1:3 (1 Cement: 3 Coarse sand) finished with a flush pointing in tile grout with matching pigment including preparation of surface, cleaning etc complete.	Sqm	164		
3	Wooden Flooring : 8 mm thick Laminated wooden flooring planks, tongued and grooved in flooring, including fixing. Item includes appropriate foam underlayer and all hardware for fixing and skirting, profiles at junction with other floor materials.	Sqm	174		
4	Ceramic Glazed Wall Tiles : 1st quality ceramic glazed wall tiles of approved make and colour, of 300mm x 600mm size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	Sqm	151		
5	Applying Acrylic emulsion paint on ready to paint surface for interior (including taping and jointing and a coat of primer).	Sqm	516		
6	Fixing Wall paper with appropriate adhesive on ready to paint surface for interior (including taping and jointing and a coat of primer) Basic Rate of Rs. 75/- Per Sq.ft	Sqm	516		
7	Finishing (Exterior Paint)- Acrylic based exterior grade paint on external surface with sealant and cement primer coat on external surface of fiber cement boards	Sqm	429		
TOTAL FOR FLOOR & WALL FINISHES (B)					

S.No.	Description of Work	Unit	QTY	Rate	Amount
C DOORS & WINDOWS					
1	UPVC Doors- Providing and fixing UPVC Door Frames made complete with necessary SS hardware as per directions of Engineer-in-charge. The doors shall be provided with 6mm thick toughened glass infill panels / 10 mm thick solid compact laminate panels. (suede finish)	Sqm	135		
2	UPVC Windows - UPVC Window frames with fixed glazing / Openable Glazed Panels and openable flymesh shutters inside all complete with necessary SS hardware as per approved drawing. The windows shall be provided with 6mm thick toughened glass as required.	Sqm	108		
TOTAL FOR DOORS & WINDOWS (C)					
D PLUMBING & SANITARY WORKS					
1	Complete Plumbing and Sanitary works in Toilets : Sanitary works in Toilets; Comprising of CPVC pipes for hot and cold water supply, UPVC waste disposal pipes, all necessary Chrome plated brass fittings such as Single lever mixers in wash basins and diverters in showers, angle valves, Toilet paper holder, soap tray, mirror, Robe hooks etc. complete with all accessories. Works also include all Chinaware in toilets such as; Wall mounted Wash Basins, Wall hung WCs with concealed cisterns etc. all complete with accessories. Each toilet shall be provided with 35 liters Geyser. Shower area in Toilets shall be provided with sliding toughened glass enclosures on one side. <u>Note : Worker Toilet in each residential unit shall be provided with an Indian WC instead of EWC</u>	Nos.	18		
2	Urinals : Wall mounted Urinals with cistern and all accessories.	Nos.	4		
3	Sanitary works in Kitchen : Sanitary works in Kitchen; Comprising of CPVC pipes for hot and cold water supply, UPVC pipes for waste disposal pipes, all necessary Chrome plated brass fittings such as Kitchen sink mixer, SS Sink complete with all accessories all complete with accessories. Each kitchen shall be provided with 15 liters Geyser and one RO Unit.	Nos.	4		
4	Water Tanks & Distribution System : Each unit shall have an independent 1000 Litre under ground water tank with Water level indicator & controller. Each Tank shall be provided with a domestic Hydronpumatic pump for water supply at maintained pressure .	SET	4		
5	Connection to External Services : External stone ware pipes including all Manholes, Gully traps, for connection of Four proposed units to existing network of sewage disposal system on site.	L.S.	1		
TOTAL FOR PLUMBING & SANITARY WORKS					

S.No.	Description of Work	Unit	QTY	Rate	Amount
E	ELECTRICAL WORKS				
1	Electrical Fittings & Fixtures				
	Fixing of Ceiling fans 1500 dia, Exhaust fans with inbuilt louvers in all toilets & kitchen, LED light Fixtures such as Wall brackets, Door Bell, ceiling mounted, recessed, surface mounted fixtures as required all complete as per drawing.	Sqm	669		
	Utility & Power Points :				
	Complete electrical work comprising of PVC Conduiting, Point wiring, circuit wiring, Distribution Boards, M.S. Boxes, Cover Plates, Switches, and 6 amp and 16 amp Sockets, Motor starters for AC points all complete as per drawing.				
	Submains Wiring / Cabling :				
	Submains wiring / cabling of proposed distribution boards to proposed electrical panels. Inclusive of cable connections to the existing electrical system and commissioning and testing of new system.				
	Low Voltage : Telephone, TV, LAN etc.				
	Conduits, Cables including all accessories for telephone points, TV points and LAN points for the residential units.				
	TOTAL FOR ELECTRICAL WORKS (E)				
F	HVAC WORKS				
1	Supplying, Installation, Testing & Commissioning of Hi Wall Split AC Units (Three Star Rating) complete with indoor & outdoor units with mounting stands, cordless remote control and electronic voltage stabilizers as required. Capacity - 1.5 TR inclusive of comprehensive copper piping, Hard PVC insulated drain water piping, electrical wiring, with complete fitting & insulation including chisling, making good of walls to conceal all pipes.	Nos	22		
	TOTAL FOR HVAC WORKS (F)				
G	LOOSE FURNITURE				
1	Six Seater Dining Table :				
	Providing & Fixing Six Seater Dining Table made in solid sheesham wood & veneer. (Model : DUBLIN / OSLO - INLIVING or equivalent, www.inliving.com)	Nos.	4		
2	Dining Chairs :				
	Providing & Fixing Dining Chairs made in solid sheesham wood & upholstead seat. (Model : OSLO / DUBLIN - INLIVING or equivalent, www.inliving.com)	Nos.	24		
3	Three Seater Sofa :				
	Providing & Fixing Three Seater Sofa with wooden legs & fully upholstered leatherette Seat & Back. Item includes Two Sofa Cushions in leatherette uphostry. (Model : RICHMOND - DURIAN or equivalent, www.durian.in)	Nos.	4		

S.No.	Description of Work	Unit	QTY	Rate	Amount
4	Two Seater Sofa :				
	Providing & Fixing Two Seater Sofa with wooden legs & fully upholstered leatherette Seat & Back. Item includes Two Sofa Cushions in leatherette uphostry. (Model : RICHMOND - DURIAN or equivalent, www.durian.in)	Nos.	4		
5	Coffee Table :				
	Providing & fixing Cofeeee Table made in Solid wood base with 900mm x 900mm toughened glass top Model : HELENA/ CT - DURIAN or equivalent, www.durian.in)	Nos.	4		
6	Side Tables :				
	Providing & fixing Side Table made in Solid wood (390mm dia x 490mm Height) (Model : POLKA- DURIAN or equivalent, www.durian.in)	Nos.	12		
7	Double Bed :				
	Providing & fixing Double Bed with head board made in seasoned & polished Sheesham Wood (2160mm x 1700mm x 850mm). (Model : CADBURY - INLIVING or equivalent , www.inliving.com)	Nos.	14		
8	Bed Side Table with Storage :				
	Providing & fixing Bed Side Table with Storage made in solid Sheesham Wood and veener with walnut finish (500mm x 500m x 660mm). (Model : OSLO - INLIVING or equivalent , www.inliving.com)	Nos.	28		
	TOTAL FOR LOOSE FURNITURE (G)				
H	FIXED FURNITURE				
1	Curtains with Curtains Rods :				
	Providing & Fixing curtain made in approved fabric with backing including all accessories such as; SS curtains rings etc. all complete. Item includes 35mm thick SS curtain rod, SS brackets, finials etc. all complete. (Basic Rate of Fabric : Rs. 250/- Per R.M.)	Sqm	145		
2	Wardrobe Cabinets :				
	Providing and fixing modular factory made wardrobe cabinets 630 mm deep (Approx.) with openable shutter and sufficient number of drawer of 19mm thick commercial board cabinet having back panel of 6 mm thick commercial plywood of laminated with 0.80 mm thick matt finish laminate on all over inner portion i/c edges finished with 2mm thick PVC edge banding tape. The shutter and drawer front, sides and back shall be of 19mm thick commercial board and drawer shall have base of 6 mm thick commercial ply. Outer face of shutter and drawer having 1.00 mm thick glossy/ approved design laminate and all inner face of shutter, cabinet and drawer shall have 0.80 mm thick matt finish laminate of approved quality i/c Auto closing sensys hinges and 20" telescopic channel as per requirement (of approved make) with S.S screws, nails etc complete. Item includes Coat hooks as well as hanger rods, handles , magnatic catchers and locks etc. The work shall be executed as per shop drawing to be prepared by the contractor. Only face area of openable shutter and drawer shall be measured for payment.	Sqm	120		
3	Under Counter Modular kitchen Cabinets :				
	Providing and fixing factory made Under Counter Modular kitchen Cabinets with depth of 580 mm. (Approx.) with openable shutter and sufficient number of drawers made of 19mm thick BWP plywood cabinet having back panel of 6 mm thick BWP plywood laminated with 0.80mm thick matt finish laminate on all over inner portion i/c 2mm thick PVC edge binding tape i/c nails, screws & adhesive etc. complete. The shutter and drawer shall be of 19mm thick BWP plywood having 1.00 mm thick glossy laminate of approved quality on outer face. All Modular kitchen accessories such as ; Soft/ Auto closing sensys hinges as per requirement, with handles etc. fixed with S.S screws, nails etc shall be included in this item (Hettich or equivalent). Item also includes providing & fixing 17mm thick Black granite counter top with mirror polishing of all exposed edges and around SS Sink opening. The work shall be executed as per shop drawing to be prepared by the contractor. Only face area of openable shutter and drawer shall be measured for payment.	Sqm	24		

S.No.	Description of Work	Unit	QTY	Rate	Amount
4	Overhead Modular kitchen Cabinets :				
	Providing and fixing factory made Overhead Modular kitchen Cabinets with depth of 420 mm. (Approx.) with openable shutter and shelves of 19mm thick BWP having back panel of 6 mm thick commercial plywood laminated with 0.80 mm thick matt finish laminate on all over inner portion i/c edges finished with 2mm thick PVC edge banding tape. complete. The shutter shall be of 19mm thick BWP plywood finished with 1.00 mm thick glossy laminate on outer face and shelves shall be both side laminated with 0.80 mm thick laminate of approved quality i/c Soft/ Auto closing sensys hinges with handles etc.as per requirement (of approved make) fixed with S.S screws, nails & adhesive etc. complete. The work shall be executed as per drawing, sample prepared in sample flat at site and direction of Engineer-in-charge. Only face area of openable shutter shall be measured for payment.	Sqm	20		
	TOTAL FOR FIXED FURNITURE (H)				
I	ELECTRICAL APPLIANCES				
1	Fully Automatic Front Load Washing Machine				
	Providing and fixing in position including all accessories 7 KG Fully Automatic Front Loading Washing Machine. Model (WAK 20160 N White), Bosch or equivalent.	Nos.	4		
2	Double Door Refrigerator 240 Litres Capacity				
	Providing & fixing in position Double Door Refrigerator 240 Litres Capacity with (2 Star Rating). Model - LG (GL-B25 VLGY) or equivalent.	Nos.	4		