

DETAILS AND MINIMUM FACILITIES REQUIRED FOR 1 BHK and 2 BHK

1. Room dimensions : As per NBC
2. Stairs Riser : 125 mm
3. Stairs Tread : 250 mm
4. Width of Corridor : 1500 mm
5. Minimum floor to floor height : 3m

Sl.No.	Particulars	1BHK	2 BHK
01.	Dwelling Unit Carpet Area	30 Sqm	45 Sqm
02.	Foundation Work	Foundation as per approved Design based on SBC	Foundation as per approved Design based on SBC
03.	Type of Structure	RCC Structure as per tenderers own design with latest IS Code and NBC. The structure should be designed for 2 hr. Fire rating	RCC Structure as per tenderers own design with latest IS Code and NBC. The structure should be designed for 2 hr. Fire rating
04.	Super Structure		
	RCC WALL / AAC block Masonry as per IS - walling	Thickness should be as per latest IS Code and NBC 2016	Thickness should be as per latest IS Code and NBC 2016
05.	Lofts in Kitchen and Bed Rooms in Longest wall only	600 mm wide with RCC 75 mm thick	600 mm wide with RCC 75 mm thick
06.	Chejjas	600 mm wide with RCC 75mm thick	600 mm wide with RCC 75mm thick
07.	Corridors	Minimum 1.50 M wide. Extended corridor balcony in each floor of about 10 sqm to be provided.	Minimum 1.50 M wide. Extended corridor balcony in each floor of about 10 sqm to be provided.
08.	Finishing		

	Internal Plaster	15mm thick CM 1:6	15mm thick CM 1:6
	Ceiling Plaster	12mm thick CM 1:4	12mm thick CM 1:4
	External Plaster	18mm thick CM 1:6	18mm thick CM 1:6
	Internal Painting	Oil Bound Distemper	Oil Bound Distemper
	External Painting	Acrylic Emulsion	Acrylic Emulsion
09.	Flooring	600X600X10mm Vitrified tile flowing in all rooms with 100mm high skirting. Antiskid Ceramic Tiling in Bath & Toilets to be provided	600X600X10mm Vitrified tile flowing in all rooms with 100mm high skirting. Antiskid Ceramic Tiling in Bath & Toilets to be provided
10.	DADOOING in Toilet and Kitchen	Bath Room up to 2.00 M Toilet Room up to 1.20M Kitchen up to 0.60 M (above Platform) Glazed tiles 300X450X6 mm	Bath Room up to 2.00 M Toilet Room up to 1.20M Kitchen up to 0.60 M (above Platform) Glazed tiles 300X450X6 mm
11.	Flooring for Common Passage ,Staircase Tread Riser	20mm thick Granite/Tandur Blue flooring for Common Passage and Tread and Riser	20mm thick Granite/Tandur Blue flooring for Common Passage and Tread and Riser
12.	Stilt floor including Panel board, Energy Meter & DG	40mm thick Granolithic flooring	40mm thick Granolithic Flooring
13.	Windows & Ventilators With guard bars	2 track Sliding Aluminums/UPVC windows with soffits, sides and top with Marble/Granite	2 track Sliding Aluminums/UPVC windows with soffits, sides and top with Marble/Granite
14.	Doors	Main Door and Other Door frames – Shall be with RCC frame of 125X65mm with Powder coated Steel or Concrete or GI or powder coated solid door frame with 30 mm Flush shutter (both side commercial), with painting (should be got	Main Door and Other Door frames – Shall be with RCC frame of 125X65mm with Powder coated Steel or Concrete or GI or powder coated solid door frame with 30 mm Flush shutter

		approved).	(both side commercial), with painting (should be got approved).
		Bath & Toilet doors shall be with solid PVC Frame with PVC Shutter All Door Sills (except main, bath and toilet door frames) with Granite or Marble slab	Bath & Toilet doors shall be with solid PVC Frame with PVC Shutter All Door Sills (except main, bath and toilet door frames) with Granite or Marble slab
15.	Railing to Balcony	M S Railing as per approved Design	M S Railing as per approved Design
16.	Staircase Handrail	MS 50 mm X 50 mm Square pipe Hand rail (main) with 25 X 25 mm MS Square tube inside as per approved drawing.	MS 50 mm X 50 mm Square pipe Hand rail (main) with 25 X 25 mm MS Square tube inside as per approved drawing.

Sanitary & Water Supply	All tenements must be provided with Internal Water supply arrangement in WC, BATH, Toilet and Kitchen from the OHT as per approved Design Taps to be provided in all toilets, bathroom and Kitchen. European Water Closet, Wash Basin, Gully Trap, Floor trap as per design are to be provided.
Internal wiring as per enclosed sheet	
Lift	One Lift of 8 passengers Capacity and One of Stretcher Type are to be provided to each block with all safety features as per BIS.
Generator	Back-up Generator of required capacity to be provided for common area lighting, lifts and domestic pumps.

Fire Fighting System	Shall be of either down commer or wet raisers and as per the NBC requirement. The NOC is to be obtained from Karnataka State Fire and Emergency Services Department.
Fire Tanks	Required capacity of sump and Fire Tanks are to be provided meeting the requirements of fire fighting system.
Lightening Arrester	Lightening arrester with copper / SW plate connection as per NBC Norms
Aviation Lights	Aviation lights have to be provided as per standards and as per requirements
External Water Supply	Bore wells to be sunk to provide ample water supply to the residents [minimum 500 Liters per dwelling unit per day] for Drinking and other purposes. UG sumps are to be provided in each cluster with adequate capacity of pump. From the sump, water has to be pumped to the OHT for regular water supply with required capacity of pumps. The permanent connection for Municipal Water Supply from statutory authority is to be obtained by the tenderer. All statutory fees / deposits will be paid by RGRHCL.
External Electrification	Detailed load calculation is to be submitted to RGRHCL. Design for the external electrification to be furnished and got approved by the competent authority. The required load is to be got approved by BESCOM and the adequate capacity of transformers are to be procured, installed and commissioned by the tenderer. The space for provision for electrical sub-station inside the layout is to be provided. Lay out electrification and corridor for common facilities including necessary cabling work with adequate transformers are to be provided. The Energy meter is to be purchased from BESCOM only. The main control panel and distribution panel and cabling work is to be carried out by the Tenderer. Street lights and Corridor lights with solar lighting and with LED to be provided for maximum lighting of open areas and streets in consultation with local body. Design for street light to be furnished and got approved by the competent Authority. All statutory fees / deposits will be paid by RGRHCL.
Road	All the internal road of 7.5m wide will be bituminous road as per MORTH specification meeting 3 MSA. The road work will be carried out as per approved

	layout drawing and with IRC Specification.
Drains	Open Box drains on both sides of the road is to be constructed to discharge the rain water into the main drain. The entry point to each block should be of covered drains with minimum offsets. Main drain upto the disposal point has to be constructed by the Contractor. For all the main drains the minimum size of opening should be of 45cm X 45cm. Box culvert to be designed for Road crossing, if any. Design for drain work to be furnished and got approved by the competent authority. The drains should cater to the draining of rain water taking into consideration of Bengaluru Annual Average Rainfall.
Rainwater Harvesting	Rain water harvesting system to be provided inside the scheme for maximum utilisation of rain water harvesting. a. Rain water sump connected to the UG sump of each block is to be provided to collect the rainwater collected from the terrace of each block. b. Adequate Recharge Pits/Percolation Pits.
Arboriculture	Ample number of plants are to be planted with approved species and watered regularly and maintained properly as per MoEF regulations.
Entrance Gate	Entrance gate with guard room
Commercial shop of 10 Sqm each	To be provided in each towers at least one for every 100 houses.
Ramp for Physically Challenged persons	Ramp with stainless steel hand rails are to be provided at entrance of each tower.
Housing for Physically Challenged persons	2 % of houses are to be provided for Physically Challenged at stilt level. Size of the toilet should be as per standard norms for PH.
Name board, Tower numbering, House numbers	Should be displayed at the stilt floor. At each floor the flat numbers are to be displayed for each flat/tenement.
Shafts	Shafts for Lift, Electrical, Fire, Water supply and Sanitary to be provided.
Compound Wall with Security Guard Shed	Construction of Boundary wall with entrance arch along with Security Guard Room.

Super Structure	Required capacity RCC Overhead/GLSR water tank is to be provided as per NBC Norms Water tank of required Capacity to be fixed on terrace of each block as per requirement. All bore holes for pipes in Bath and Kitchen should be cleanly
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	packed and water proofing to be done and for Terrace floor waterproofing should be adopted, with a guarantee of 10(ten) years. Kitchen plat form is to be finished with 40mm thick Granite slab with Stainless Steel Sink. Inspection chambers are to be constructed at required points with required size till it is connected to the Sewer/trunk line/ Man hole. Separate PVC waste water lines are to be provided for bathroom and kitchen waste water disposal. Sewer lines below ground level should be PVC-U pipe
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SCHEDULE OF INTERNAL SANITARY, WATER SUPPLY FITTING & FIXTURES

Sl.No.	Particulars	1 BHK	2 BHK
01.	EWS with PVC low level flushing cistern	1	2
02.	Wash hand basins with Piller Cock	1	2
03.	Long body bib cock in Bath & kitchen	1	2
04.	Health Faucet in Toilet	1	2
05.	Kitchen Sink – 0.60X0.45M Steel	1	1

Note : The provisions given above are only indicative. The bidder has to provide the fittings and fixtures as per requirement and as per approved drawings. All internal piping with Cpvc pipes as per NBC.

Schedule of work for Electrical points for each Flat

Sl.No.	Particulars	1 BHK	2 BHK
01.	Light Points	6	9
02.	Two way light point	1	2
03.	Ceiling Fan Points	2	3
04.	Exhaust fan points	2	3
05.	6A Plug Points (Independent)	4	6
06.	6A Plug Points on same Board	2	2
07.	Call bell	1	1

08.	16A Power socket point	2	3
09.	20A Power Socket	1	1
10.	Telephone socket point	1	1
11.	TV Socket Point	1	1

Note : The provision given above are only indicative. The Bidder has to provide the fittings & Fixtures as per requirement and as per approved drawings and NBC. The sufficient number of 18 watt LED light fittings with solar lighting are to be provided in common area such as staircase, stilt and lift lobby

LIFT

Each Building Tower shall be provided with Two Lifts - One - 8 Passenger lift (680 Kg) and One – Stretcher Lift as per approved drawing. The approved makes shall be of BIS standard make and approved brand with power center doors in cabin and at each landing. The car shall be manufactured with stainless steel of required gauge. The firemen switch shall be provided at Stilt level. The copy of the detailed specification is as mentioned below:

SPECIFICATION FOR LIFTS

1. 8 Passengers Lift with ARD (Auto Rescue Device)

Load –Kgs	680 Kg (8 persons)
Speed-MPS	1.00 with VVF with Auto Rescue Devise
Travel –MTR	Stilt floor to Last Upper Floor as per Design.
Stops & Openings (Max)	Stilt floor to Last Upper Floor as per Design.
Power Supply	400Volts, 3 Phase, 4 wires, 50Hz, Alternating Current
Control	A.C.variable voltage variable frequency
Operation	Simplex Down Collective Control W/W.O. Attendant
Machine	Geared traction machine as per manufacturer design or equivalent placed directly above hoist way in the machine room
Car size (WxD)-mm	As per manufacturer specification.
Lift Well size (Wx D)-mm	As per ISI Norms
Car enclosure	IND – 145
Car Panels	Stainless Steel
Handrails on 3 sides	Stainless steel

False Ceiling	CD -30
Flooring	Vinyl Flooring
Car entrance	Automatic sliding SS Door
Size (W x H)mm	800X2000
Hoist way entrance	Protected by center opening sliding SS door
Size (W x H)mm	800X2000
Door operation	Automatic
Signals (Design)	S-60
Details	Combined luminous hall button and digital hall position indicator Integral full height car operating panel with luminous buttons, digital car position indicator combined with direction arrows, overload warning indicator and service cabinet. Battery operated alarm bell and emergency light Fireman's switch at main lobby
Face plate finish	SS
Face Place shape	Rectangular

with all safety features as per BIS.

2. Stretcher type lift

Specification & Design is as per BIS & to be got approved by RGRHCL.

Facilities to be Provided in the lay out.

- a. Rain Water Harvesting
 - i. Roof Water Harvesting
 - ii. Ground Water Recharge
- b. Sewage Treatment
- c. Roads & Culverts
- d. Storm Water Drains
- e. Lay out Electrification
- f. Sump Tank for each block
- g. Solar Lighting for Street Lights
- h. Arboriculture
- j. Compound Wall the Entrance Gate
- k. Security Guard Room
- l. Pump House for Water supply
- m. Control room for electrical, Sanitation, Fire fighting

n.	Housing	:	As Per local ZR
o.	Parks	:	As Per local ZR
p.	Civic Amenities	:	As Per local ZR
q.	Fire Fighting	:	As Per Norms
r.	Open area	:	As per local ZR

Note: All the Components shall be conforming to BIS. Specific type/brand, specifications of items, are to be got approved by Engineer in Charge of the Project.