

IGBC Green Homes Version 3.0 Pre-certification Preliminary Review

Multi-dwelling Residential Units



IGBC Green Homes Rating System - Version 3.0 For Multi-dwelling Residential Units

#GH240274 Group Housing Sector 43, Gurugram

IGBC Green Homes Pre-certification Level: Not Certified

04 April 2024

IGBC Green Homes Rating system is voluntary based standard adopted by projects. This precertification review is based on the project goals and intentions to adopt green measures in the project. It is incumbent upon the project team to demonstrate that the credit requirements have been met at the design and construction certification reviews. The Precertification rating awarded need not necessarily correspond to the final certification IGBC Green Homes Rating. The final certification rating would depend on the implementation of all the committed design parameters detailed in the Precertification documents. All declarations submitted to IGBC during precertification shall be signed by the managing director/ owner of the project. Precertification is valid for 3 Years from date of precertification final review. It is mandatory to submit six monthly project updates till project undergoes Final Certification. The Developer / Owner is solely responsible for implementation of the envisaged green measures at design stage; IGBC is not responsible for the declarations made by Developer / Owner. For Pre-certified Projects, validity extension process to be referred. Please refer the disclaimer in www.igbc.in

18	66	0	Points Achieved		100	Points Available
Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
1	18	0	Sustainable Design (SD)		Points Available:	20
	N		SD Mandatory Requirement 1	Local Building Regulations	Y	Preliminary Review: The IGBC Green Homes Version 3 Template and submitted narrative states that the project would comply with necessary statutory and regulatory codes. The project has site area of 20,871 sq.m; built-up area of 70,30,060 sq.m (as per project brief) and 70,300 sq.m (as per template); number of residential towers is 3; number of floors are 2 basements + Ground + 32; number of occupancy is 1424 and number of dwelling units are 248. A declaration letter from developer has been submitted stating that the project is in initial design phase and approved drawings will be submitted during certification. The submittal includes site plan, floor plans, elevations and sections. Dwelling unit details with occupancy calculation is available in the general submittal folder and submitted template.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
						<p>However, additional information is required to award this mandatory requirement.</p> <p>Technical Advice: Please submit the following:</p> <ol style="list-style-type: none"> 1. A declaration from the project owner confirming the built-up area of the project. 2. Details of the local authority from whom the approval is sought. 3. Sanctioned site plan, floor plans, elevations and sections duly stamped by the approval authority OR the above mentioned plans signed by the Principal Architect. 4. A copy of the environmental clearance for the project received from the Ministry of Environment, Forest and Climate Change.
	N		SD Mandatory Requirement 2	Soil Erosion Control	Y	<p>Preliminary Review: The IGBC Green Homes Version 3 Template and submitted narrative states that the project has incorporated erosion control measures that conform to the best management practices highlighted in the National Building Code (NBC) of India. The narrative lists the Erosion and Sedimentation Control (ESC) measures planned on-site before, during and after construction.</p> <p>Pre and during construction measures include topsoil preservation, site barricading, dust suppression measures, wheel washing, sedimentation control, proper material storage and construction waste management. Post occupancy ESC measure is stormwater management.</p> <p>The submittal includes ESC site logistics plan, photographs of the site conditions before construction starts, copy of the construction contract and a declaration from the developer.</p> <p>However, additional details are required to award this mandatory requirement.</p> <p>Technical Advise: Please submit the following:</p> <ol style="list-style-type: none"> 1. Revised ESC plan with clear marking of the existing vegetation, basement extent and construction activity area. 2. Clarification on the trees that shall be retained on site and if any trees are cut-down, kindly submit the clearance for the same. 3. Post-occupancy Storm water management plan 4. Post-occupancy Landscape plan 5. Revised declaration from the developer confirming that ESC measures will be adopted during the post-occupancy of the project as well.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	4		SD Credit 1	Natural Topography or Vegetation : 15 %, 25% (Ground), 30%, 40% (Ground + Built Up structures)	4	Preliminary Review: The submitted narrative states that the project team has opted for Case B to include vegetation on ground and built-up structures. Submitted calculations indicate that the total site area is 20,871 sq.m and the proposed landscape area (on ground and built surface) is 8348 sq.m amounting to 40% of total site area. The submittal includes landscape plan along with trees list, landscape area calculation and a declaration from the developer. However, additional information is required to award this credit. Technical Advise: Please submit a copy of the local bye-laws specifying the minimum requirements for vegetated area. If there is no such bye-law, please submit a declaration letter from the project owner confirming the same.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	4		SD Credit 2	Heat Island Effect, Non-Roof & Roof: 50%, 75% & 75%,95%	4	Preliminary Review: <u>NON-ROOF:</u> The submitted template and narrative states that project has total non-roof area of 5,231 sq.m. The project proposes to install light SRI paved blocks for 100% of the exposed non-roof impervious areas (1,300 sq.m). The submittal includes site plan indicating the different surface finishes proposed and client declaration confirming high SRI paver materials would be installed for all hardscape spaces. However, few more details are required. <u>ROOF:</u> The submitted template and narrative states that project has envisaged to address 100% of the exposed roof areas (10,373 sq.m) shall be coated with high SRI paint/ China Mosaic tiles, basement roof will have vegetation or high SRI pavers. The submittal includes terrace plan, site plan with finishes, landscape plan, calculations indicating break up of roof & landscaped areas. However, additional details are required to award this credit.
						Technical Advise: <u>Non-roof:</u> Please submit the following: 1. Site plan showing basement extent with clear marking of non-roof areas with heat island mitigation measures. 2. SRI Value of paver blocks / floor finish <u>Roof A and Roof B:</u> Please submit the following: 1. For Roof-B, please submit revised site plan highlighting basement roof areas and the finishes for exposed roof area. 2. Product cutsheets with SRI value for pavers and high SRI paint.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
1			SD Credit 3	Passive Architecture	2	<p>Preliminary Review:</p> <p>The submitted narrative states that the project is designed such that at least 80% of exterior openings have a projection factor of 0.5 or more. The submittal includes floor plans, elevations and sectional drawings for all 3 towers showing that the windows in the project along with projection factor calculation for each unit type.</p> <p>Though it can be observed that some windows are not considered in the projection factor calculations (1 window in every unit type is left out), as more than 80% of the exterior openings achieve a projection factor of 0.5 or more.</p> <p>Hence this meets the credit requirement.</p>
	2		SD Credit 4	Universal Design - Case A & B	2	<p>Preliminary Review:</p> <p>The submitted narrative states that the project team shall provide following facilities that cater to differently abled. The submitted details indicate that project has proposed reserved parking space (3 nos.), toilet accessible to the differently abled (1 no.) and wheelchair / stretcher provision near entrance gate under Case A. The project has also proposed uniform floor level with ramps, walkways with adequate width, and Braille & audio assistance in lifts under Case B (3 measures only). The submittal includes site plan showing locations of the reserved car parking spaces and toilets at the ground level along with a declaration from the developer.</p> <p>However, additional details are required to award this credit.</p> <p>Technical Advice:</p> <p>Please submit the following:</p> <ol style="list-style-type: none"> 1. Under case B, the project has mentioned only 3 measure. Additional measure is required to award this credit point. 2. Detailed drawings of the toilets proposed for differently abled persons with internal dimensions clearly marked. 3. Site plan showing the location of the wheelchair/stretcher provision and ramps 4. Detailed drawings of proposed ramps with handrail. 5. Floor plans showing the corridor width and uniformity in floor level 6. Cutsheet of the shortlisted elevator showing Braille & audio assistance features. 7. Revised declaration stating all the measures for differently abled planned in the project.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	4		SD Credit 5	Green Parking Facility <ul style="list-style-type: none"> - Ventilation for basements - Electric charging facility - Dedicated Bicycle parking 	4	Preliminary Review: The submitted narrative states that the project will include the following: Ventilation for basements: Axial fans and CO sensors to meet minimum air changes per hour (ACH*) requirements as per NBC 2016 in the basement parking spaces. Electric charging facility: 492 electric charging points for the total available car parking spaces of 1970. This will cater to 25% of overall parking capacity. Dedicated Bicycle Parking: The calculation submitted indicates a total of 32 bicycle parking slots which is 6.5% of the dwelling units (492 units). The submittal includes parking plans highlighting the location of the electric charging points (car), axial fans and CO sensors in basement along with a declaration from the developer. Site plan showing bicycle parking is available under SD credit 4. However, additional details are required to award this credit. Technical Advice: Please submit the following: <ol style="list-style-type: none"> 1. Product cutsheets of the proposed CO sensors and axial fans. 2. Technical specifications of the shortlisted EV charging unit 3. Copy of the local bye-law stating the parking requirement. 4. Revised declaration to include provision of CO sensors and axial fans in basement.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	2		SD Credit 6	Access to Amenities	2	<p>Preliminary Review: The submitted narrative states that the site has access to 6 amenities including a park, grocery store, hospital, pharmacy, place of worship and restaurant within a walking distance of 1 km from the project entrance apart from several amenities provided within the project. The project also has planned toilets in common area, common seating area and kids play area.</p> <p>The submittal includes vicinity map showing distances to various amenities from the site, site plan showing the toilets, common seating and tot-lot, and proposed amenities inside the campus.</p> <p>However, toilets provided in the clubhouse cannot be considered towards credit compliance calculations.</p> <p>Technical Advice: Please provide a toilet in common area to cater to staff and visitors. Kindly submit drawings showing the toilet.</p>
	1		SD Credit 7	Basic Facilities for Construction Workforce	1	<p>Preliminary Review: The submitted narrative states that the project team will provide safe and healthy working conditions for the construction workforce. The submitted narrative includes a list of basic facilities that will be provided to the construction workforce which includes hygienic housing facility, first aid facility, adequate number of toilets, drinking water, PPE for the safety of workers, dust suppression measures and Adequate lightings during construction. The project team has also clarified that there are will be no women workers deployed on site- therefore, a creche is not required.</p> <p>The submittal includes logistics plan showing the locations of facilities for the construction worker, copy of the construction contract and a declaration from the developer.</p> <p>The declaration states that separate toilet facilities and crèche facility shall be provided, however narrative and ESC plan do not enunciate it.</p> <p>Technical Advice: Please confirm if there will be women workers, if so kindly provide separate toilet facilities and crèche facility. Resubmit the logistics plan showing the facilities.</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	1		SD Credit 8	Green Education and Awareness	1	<p>Preliminary Review: The submitted narrative declares that the workforce & occupants will be educated during construction and post construction phase to sustain the green features through the life of the building. The narrative states that the project team will provide green home guidelines document to each resident & prospective buyer and also install permanent signage highlighting the green features of the project.</p> <p>The submittal includes draft green homes tenant guidelines, developers environmental policy document, plan showing the tentative locations of the proposed green signages along with declaration from the developer.</p> <p>However, additional details are required to award this credit.</p> <p>Technical Advice: Please submit copy of the marketing brochure highlighting the green features of the project submitted to RERA.</p>
4	18	0	Water Conservation (WC) Points Available:		23	
	N		WC Mandatory Requirement 1	Water Efficient Plumbing Fixtures	Y	<p>Preliminary Review: The project team declares that the project shall use low flow plumbing fixtures that save a significant amount of water. The narrative indicates the use of flush fixtures with a flow rate of 6/3 LPF, faucets (Kitchen, health faucets, other) will have a flow rate of 3.8 LPM and shower heads with a flow rate of 6 LPM. Calculations demonstrate an overall reduction in water use by 33.4% using low flow fixtures.</p> <p>The submittal includes occupancy and water use calculations, manufacturing cut sheets of the shortlisted faucets & fixtures at 3 Bar pressure and a declaration from the developer.</p> <p>However, the flow rates have to be considered at 4 Bar pressure for this credit compliance.</p> <p>Technical Advice: Kindly resubmit the credit calculations and supporting documents considering the flow rates of the fixtures at 4 Bar pressure.</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
Y			WC Mandatory Requirement 2	Rainwater Harvesting	Y	<p>Preliminary Review:</p> <p>The submitted narrative states that the project falls under Case A and 100% rain water run-off of the one day rainfall will be harvested by the project. The submitted calculations indicate that the total rain water run-off of 653 cu.m is generated from 12,731.69 sq.m of impervious area (assuming 21.0% Average Peak Month Rainfall as One day rainfall) and total rainwater harvesting capacity of the proposed system is 712 cu.m. The proposed RWH system comprises of 11 RWH pits with desilting chamber and a harvesting tank with capacity of 442 KL and 270 KL respectively.</p> <p>The submittal includes IMD data, one day rainfall calculation, impervious area & run-off calculations, rainwater harvesting capacity calculation, site plan showing the location of rainwater harvesting pits and tank with its cross sections. The submittal also contains a declaration letter from the project owner stating that the proposed rainwater harvesting capacity.</p> <p>This meets the mandatory & credit requirement for 4 points.</p>
	5		WC Credit 1	Water Efficient Plumbing Fixtures : 10%, 15%, 20%,25%, 30%, 35%	6	<p>Preliminary Review:</p> <p>Please refer to the comments under WC Mandatory Requirement 1.</p> <p>Technical Advice:</p> <p>Please address the technical queries raised under WC Mandatory Requirement 1.</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	3		WC Credit 2	Landscape Design	3	<p>Preliminary Review: The submitted IGBC Green Homes Version 3 and narrative declares that the project landscape is designed to meet Case 1 (turf), Case 2 (native/ adaptive species) and case 3 (fruit/ vegetable bearing plants). The project team has submitted calculations and landscape drawing demonstrating a total landscape area of 8,348 sq.m out of which area under each type is as follows: Case A. Turf: 1,168 sq.m. (14% of the vegetated area) (1 point awarded) Case B. Native species: 6,781 sq.m (81% of the vegetated area), (1 point awarded) Case C. Fruit-bearing plants: 400 sq.m (5% of the vegetated area).</p> <p>The submittal includes list of drought tolerant tree species proposed, calculation of split up for native species area, turf area, fruit / vegetable bearing plant area and the proposed landscape plan.</p> <p>However, additional details are required to award this credit.</p> <p>Technical Advice: Please submit the following: 1. A list of fruit bearing trees proposed in the project along with revised landscape plans showing the locations where fruit bearing plants will be planted 2. AutoCAD plan of the proposed landscape drawing clearly demarcating the turf, drought tolerant species and fruit trees.</p>
	2		WC Credit 3	Management of Irrigation Systems	2	<p>Preliminary Review: The IGBC Green Homes Version 3 Template and submitted narrative states that water efficient techniques will be implemented to manage the irrigation system. The narrative lists the following measures: drip irrigation for at least 50% of vegetated areas, sprinklers, central shut-off valve, pressure regulating devices and timer control.</p> <p>However, the measures mentioned in the declaration and narrative are different. Also additional clarifications are required to award this credit.</p> <p>Technical Advice: Please submit the following: 1. Manufacturer cut-sheets/ brochures of the proposed water efficient irrigation systems. 2. Revised declaration stating the proposed measures.</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	4		WC Credit 4	Recycle & Reuse of Waste Water	4	<p>Preliminary Review: The submitted IGBC Green Homes Version 3 Template indicates that 100% of the wastewater generated (121.42 KLD) shall be treated and reused on-site. The narrative states that STP of 3,000 KLD capacity will be installed in the project. The submitted calculations indicate that out of the 121.42 KL of waste water treated daily, 115.35 KL will be available for daily reuse of which 27.23 KL will be reused for flushing, 50.09 KL will be used for landscape watering and the balance 38.02 KLD for car washing.</p> <p>The submittal includes water balance chart, electrical SLD, site plan showing RWH layout and a declaration from the developer. Basement plan with STP location is available under SD Credit 5. However, additional details are required to award this credit.</p> <p>Technical Advice: Please submit the following: 1. Kindly address the queries under WC Mandatory requirement 1. 2. Schematic dual plumbing line drawing, 3. Details of the proposed STP including treated water parameters.</p>
	1		WC Credit 5	Water Quality	1	<p>Preliminary Review: The submitted IGBC Green Homes Version 3 Template and narrative states that the project will provide potable water to meet the IS 10500 standards. The declaration submitted states that the water will be tested upon completion of construction.</p> <p>However, additional details are required to award this credit.</p> <p>Technical Advice: Please submit the following: 1. Daily water requirement of the project including potable use. 2. Clarify if the project will be installing a WTP plant or if it receives water from municipal source. 3. If the project is installing a WTP please submit a detailed description of treatment the process along with Treatment water characteristics such as COD, BOD values 4. Site plan showing the location of the proposed WTP.</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
4			WC Credit 6	Enhanced Rainwater Harvesting	4	<p>Preliminary Review: Please refer to the Preliminary Review comments under WC Mandatory Requirement 2. The project demonstrates 100% rainwater harvesting considering 21% as one day rainfall.</p> <p>This meets the credit requirement for 4 points.</p>
	3		WC Credit 7	Water Metering	3	<p>Preliminary Review: The submitted narrative states that water meters will be installed to monitor the following uses of water: Municipal water supply, water consumption for Irrigation, water consumption for potable and flushing (for towers), and car washing.</p> <p>The submittal includes an electrical SLD drawing and a declaration from the project owner.</p> <p>However, it is unclear if the project shall provide water meters to individual dwelling units (75% - 1 point, 100% - 2 points). The water meters proposed in the narrative, template and declaration are inconsistent.</p> <p>Technical Advice: Please submit the following:</p> <ol style="list-style-type: none"> 1. Confirm if the project intends to provide water meters for individual dwelling units. 2. Provide revised declaration letter from the project owner confirming the various uses for which water meter will be provided. 3. Single line diagrams showing the water meters as proposed 4. Product cutsheets of the proposed water meters.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
3	12	0	Energy Efficiency (EE)	Points Available:	20	
	N		EE Mandatory Requirement 1	HCFC-Free Equipment	Y	<p>Preliminary Review:</p> <p>The submitted IGBC Green Homes Version 3 Template and narrative state that the project will avoid the use of CFC refrigerants and ozone-depleting gases. The narrative states that the team shall install halon free fire suppression systems and CFC free HVAC systems in the club house area that falls under the developer's scope.</p> <p>The submittal includes product brochures of the HVAC system proposed for the club house stating R410A as the refrigerant, draft tenant guidelines advising against the use of air-conditioners with CFC refrigerants along with a declaration from the developer.</p> <p>However, the mandatory requirement forbids the use of HCFC based refrigerants and not just CFC refrigerants. However, the submitted tenant guidelines only refer to CFCs. Also As per EE MR 2, the developer shall be providing HVAC for the entire project (dwelling units and amenities)</p> <p>Technical Advice:</p> <p>Please submit the following:</p> <ol style="list-style-type: none"> 1. Revised copy of tenant guidelines and declaration letter from the project owner confirming the scope and that all HVAC systems in the project will be CFC/HCFC free. 2. Product brochure of the halon-free fire suppression equipment.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	N		EE Mandatory Requirement 2	Minimum Energy Performance	Y	<p>Preliminary Review:</p> <p>The IGBC Green Homes Version 3 Template and submitted narrative states that project has chosen Option-2 (Simulation approach). The project falls under Composite climate zone.</p> <p>The building envelope proposed in the project are as follows:</p> <ol style="list-style-type: none"> 1. Walls: 230 mm thick Mivan with plaster on both surfaces with u-value of 2.80 W/m² K (baseline: 1.8 W/m²K) 2. Roof assembly: 150 mm RCC with waterproofing and high SRI tiles u-value of 3.42 W/m²K (Baseline 1.5 W/m²K) . 3. Fenestration: SHGC of 0.28 and U value of 1.5 W/m²K and VLT of 60% (Baseline SHGC - 0.5 and U-value 5.7 W/m²K) <p>Other ECMs considered are:</p> <ol style="list-style-type: none"> 1. LPD reduction: the project has considered 50% LPD reduction in exterior areas and parking areas and 35% reduction in common areas when compared to the baseline case. 2. HVAC COP: The project has considered the COP of the HVAC system for the whole proposed case (residential towers as well as club house) as 4. <p>The submittal includes the energy simulation report (with BEEPS, BEPU and LV-D reports) as per which the project has claimed energy use savings of 13.6% over the baseline. Glazing specification cutsheet, Electrical SLD, cutsheet of the shortlisted HVAC system, wall and roof assembly cross sections and a declaration from the developer have also been submitted.</p>
						<p>However, additional details and clarifications are required to award this mandatory requirement and credit.</p> <p>Technical Advice:</p> <ol style="list-style-type: none"> 1. Please submit conceptual lighting plans and LPD calculations for the common areas of the project to justify the LPD values considered for the proposed case. 2. The specifications of the glazing as per the energy modelling report is inconsistent with the narrative and cutsheet submitted. Kindly recheck the energy modelling report and clarify.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	5		EE Credit 1	Enhanced Energy Performance	10	<p>Preliminary Review: Please refer to the Preliminary Review comments under EE Mandatory Requirement 2.</p> <p>Technical Advice: Please address the technical queries raised under EE Mandatory Requirement 2.</p>
3			EE Credit 2	Alternate Water Heating Systems - Solar Hot water / Heat Pump / LPD	3	<p>Preliminary Review: The submitted IGBC Green Homes Version 3.0 template and narrative states that the project intends to install 28.48 KLD hot water system based on heat pump to meet 100% of total hot water requirement considering 20 litres per person per day and occupancy of 1424 persons.</p> <p>The submittal includes cutsheet of the proposed heat pump with its efficiency (COP 3.23) and declaration letter from the owner.</p> <p>This meets the credit requirement for 3 points.</p>
	4		EE Credit 3	On-site Renewable Energy - Common area Lighting	4	<p>Preliminary Review: The submitted IGBC Green Homes Version 3 Template and narrative states that the project will install 60 kWp of solar PV over the roof-top of the project. The total annual common area lighting load consumption is 45,027 kWh/year. The proposed system can generate 86,321 kWh/year to meet 100% of the requirement.</p> <p>The submittal includes declaration from the developer confirming that at least 95% of the common area lighting consumption, NREL solar PV generation report, plan showing the location of the solar PV, and manufacture datasheet of solar PV.</p> <p>However, additional details are required to meet the credit requirement.</p> <p>Technical Advice: Please submit lighting power density calculations of interior and exterior lighting and annual lighting energy consumption calculations.</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	1		EE Credit 4	Energy Efficiency in Common Area Equipment	1	<p>Preliminary Review: The submitted IGBC Green Homes Version 3 Template and narrative states that the project will provide energy-saving measures in appliances and other equipment. The project has proposed to provide pumps with minimum efficiency of 70%, motors with minimum efficiency of 85%.</p> <p>The submittal contains the owner's declaration, manufacture cut sheet of the proposed motors and pumps.</p> <p>However, the submitted cutsheets do not have efficiency data. Also the motors are of IE 2 rating. <i>Please note: The minimum efficiency of Motors shall be BEE 4-star rated Motors (or) International Efficiency with class 3 (IE 3)</i></p> <p>Technical Advice: Please submit manufacturer cutsheets of pumps and motors with efficiency data compliant with the credit requirements.</p>
	2		EE Credit 5	Integrated Energy Monitoring System Case A or B	2	<p>Preliminary Review: The submitted IGBC Green Homes Version 3 Template and narrative states that the project will install energy meters under Case A for continuous monitoring of energy consumption of common services, exterior lighting, STP, clubhouse, basement ventilation, irrigation systems, pumps and motors and RE generation.</p> <p>The submittal includes client declaration and electrical SLD.</p> <p>However, the systems mentioned in the narrative, template and declaration are inconsistent.</p> <p>Technical Advice: Kindly submit a revised declaration stating the systems that will be monitored in the project.</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
4	11	0	Materials & Resources (MR)	Points Available:	18	
	N		MR Mandatory Requirement 1	Separation of House-hold Waste	Y	<p>Preliminary Review: The submitted narrative states that the project shall provide separate bins to segregate wet and dry waste at dwelling unit level and common areas to segregate & collect waste. The submittal includes floor plans of the towers showing the locations of the waste collection bins and basement plan showing the location of the centralized waste segregation facility. The submittal also includes waste segregation guidelines along with a declaration from the developer.</p> <p>However, additional details are required to award this mandatory requirement.</p> <p>Technical Advice: Please submit the following: 1. Site plan showing the location of bins in common areas at site level for wet waste, dry waste and other waste (Batteries, e' waste and Lamps) 2. List of e-waste hauler identified.</p>
1			MR Credit 1	Green Procurement Policy	1	<p>Preliminary Review: The IGBC Green Homes Version 3 Template and narrative states that the project shall use green products and materials which are eco-labelled and have lower impact on the environment. The narrative states that the procurement policy shall address the aspects of high recycled content, greater energy efficiency, reduced water consumption, materials with lower emissions and certified green products.</p> <p>The submittal includes a green procurement policy document addressing the eco-friendly aspects considered by the developer along with a declaration.</p> <p>This meets the credit requirement.</p> <p><i>During certification, please submit a policy document signed by the managing director along with the list of eco-labelled products used in the building construction with their respective invoices.</i></p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	1		MR Credit 2	Optimization on Structural Design	1	<p>Preliminary Review:</p> <p>The project team has submitted a narrative stating that at least 2.5% by weight of steel and cement will be saved by comprehensive structural design. The submittal includes a letter from structural engineer stating the methods by which cement and steel use is optimised in the structural design and a declaration from the developer.</p> <p>However, additional information is required to award this credit.</p> <p>Technical Advice:</p> <p>Please submit the following:</p> <ol style="list-style-type: none">1. Calculations to demonstrate the savings.2. Manufacturer brochure for the FE500 and details of other construction techniques planned in the project.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	5		MR Credit 3	Certified Green Products	5	<p>Preliminary Review:</p> <p>The submitted narrative states that project shall procure certified green products. The submitted narrative states that the project intends to procure Cement, Steel, Glass, Paint, RMC, Gypsum plaster and AAC blocks from a list of identified brands which are green certified amounting to 76% (Rs. 1,14,24,67,786 /-) of total material cost (Rs. 1,49,56,26,781/-).</p> <p>The submittal includes master material sheet (screenshot), sample GreenPro certificates of shortlisted material along with a declaration from the developer.</p> <p>However, it is observed that the material data sheet contains AAC blocks for the interior walls while 100 mm thick RCC (Mivan) as proposed as per EE MR2 / Credit 1.</p> <p>Technical Advice:</p> <p>Please address the clarification raised above. If required, please submit revised calculations.</p>
Not Pursuing			MR Credit 4	Local Materials : 50%, 75%	2	<p>Preliminary Review:</p> <p>Not Pursuing</p>
	2		MR Credit 5	Eco Friendly Wood Based Materials : 50%, 75%	2	<p>Preliminary Review:</p> <p>The submitted narrative states that the project will source composite wood for 100% of its wood requirement, which consists of doors, door frames. The narrative states that the total cost of wood materials in the project is Rs. 7,62,10,800.</p> <p>The submittal includes GreenPro certificates of the shortlisted wood supplier and a declaration letter from the project owner.</p> <p>However, the project has omitted wooden flooring in the calculations.</p> <p>Technical Advice:</p> <p>Please submit revised calculations including all wood based materials used in the project (Wooden flooring and external doors).</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	1		MR Credit 6	Alternate Construction Materials : 5%, 10%	2	<p>Preliminary Review: The project team has not submitted any supporting documents are narrative for this credit.</p> <p>Technical Advice: Please submit the following:</p> <ol style="list-style-type: none"> 1. Narrative describing the proposed strategies for use of alternate construction materials to replace the natural resources in construction. 2. Provide tentative calculations for alternate construction materials with respect to industry benchmarks 3. Proposed list of identified vendors as applicable. 4. Cut-sheets/ brochures from manufacturers.
	2		MR Credit 7	Handling of Construction and Demolition Waste : 50%, 95%	2	<p>Preliminary review: The IGBC Green Homes Version 3 Template and submitted narrative states that the project team shall divert waste from being sent to landfill or reuse. The narrative states that at least 95% of the construction waste generated will be reused on site or sold to recyclers.</p> <p>The submittal includes site logistics plan showing location of proposed waste management yard and an estimate of the construction waste generated (56,168.11 kg) of which 56,048.11 kg (99.8%) is diverted from landfill.</p> <p>However, additional details are required to award this credit</p> <p>Technical Advise:</p> <ol style="list-style-type: none"> 1. Please resubmit the waste estimation calculation including all types of waste generated in the project (wood, glass, stone, etc) 2. Please submit a list of identified recyclers for recycling construction waste.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
3			MR Credit 8	Organic Waste Management, Post Occupancy : 50%, 75%, 95%	3	Preliminary Review: The IGBC Green Homes Version 3 Template and submitted narrative states that the project will provide an organic waste converter to treat 100% of the organic waste generated. The submitted calculations indicate that total wet waste generation of 356 kg/day based on 0.25Kg /day/person for a total of 1424 occupants and the project proposes to install an organic waste converter on site of capacity 360 kg/day. The submittals include site plan highlighting the location of the proposed organic waste converter system, product cut sheets of the shortlisted organic waste composters and a declaration from the developer. This meets the credit requirement.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
5	4	0	Resident Health & Wellbeing (RHW) Points Available:		14	
	N		RHW Mandatory Requirement 1	Minimum Daylighting	Y	<p>Preliminary Review:</p> <p>The project team has opted for Option-1 Prescriptive Approach to demonstrate credit compliance and has submitted narrative stating that at least 50% of the regularly occupied spaces achieve daylight factor of 1 in Living and Bedrooms and 2 in Kitchen. The submittal includes daylighting calculations, floor plans, site plan glazing cutsheet and a declaration from the developer. The calculations assume VLT of 60%.</p> <p>The calculations demonstrate that all dwelling units achieve 100% daylighting. Elevation and section drawings are available under general submittal folder.</p> <p>However, additional information is required to award this mandatory and credit requirement.</p> <p>Technical Advice: Please submit daylight calculations for the clubhouse.</p>
	N		RHW Mandatory Requirement 2	Ventilation Design	Y	<p>Preliminary Review:</p> <p>The submitted narrative states that the project is designed to meet the fresh air ventilation as per the compliance. The fresh air calculations have been submitted for all living spaces, bedrooms, kitchens & toilets. Submitted calculation indicate that the minimum percentage of openable area to the total carpet area in living spaces, kitchen and bathrooms are 10%, 8% and 5% respectively (for more than 5 floors).</p> <p>The submittal includes natural ventilation calculations for the dwelling units along with floor plans.</p> <p>However, additional information is required to award this mandatory and credit requirement.</p> <p>Technical Advice: Kindly submit fresh air calculations for the clubhouse.</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	N		RHW Mandatory Requirement 3	No Smoking Policy	Y	Preliminary Review: The submitted narrative states that the project team shall prohibit smoking in all common areas of the project. The submittal includes floor plans showing proposed locations of No Smoking signage, draft tenant guidelines, no smoking policy document and a declaration from the developer. However, additional details are required to award this credit. Technical Advice: Please submit site plan showing no smoking signages in common areas and outdoor areas in the project.
	2		RHW Credit 1	Enhanced Daylighting : 75 %, 95 %	2	Preliminary Review: Please refer to the Preliminary Review comments under RHW Mandatory Requirement 1. Technical Advice: Please provide the documents requested under RHW Mandatory Requirement 1.
	2		RHW Credit 2	Enhanced Ventilation Design	2	Preliminary Review: Please refer to the Preliminary Review comments under RHW Mandatory Requirement 2. Technical Advice: Please provide the documents requested under RHW Mandatory Requirement 2.
Not Pursuing			RHW Credit 3	Cross Ventilation : 25%, 50%, 75%, 90%	4	Preliminary Review: Not Pursuing
1			RHW Credit 4	Connectivity to Exteriors	2	Preliminary Review: The submitted narrative states that the project has been designed to ensure connectivity to the exterior for 50% of regularly occupied spaces in all dwelling units. Submittals includes calculations, floor plans, site plan highlighting exterior connectivity along with a declaration from the developer. From the calculations submitted it can be observed that the 3 BHK unit Type 1 and type 2 in towers A and B achieve the lowest connectivity of 66.69% and 66.74 % respectively. This meets the credit requirement for 1 point. <i>During certification, please submit photographs of the openings in every typical unit in the project that connect to the exteriors.</i>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
2			RHW Credit 5	Low VOC Materials, Paints & Adhesives	2	<p>Preliminary Review:</p> <p>The IGBC Green Homes Version 3 Template and submitted narrative states that the project will use paints and adhesives having low Volatile Organic Compound (VOC) content. The narrative states that the products are not finalised yet and the cutsheets will be submitted at the time of certification.</p> <p>The submittal includes sample GreenPro certificates of paints and adhesives and a declaration from the developer.</p> <p>This meets the credit requirement.</p> <p><i>During certification, please submit purchase invoices, cut-sheets of materials indicating the VOC content of the paints & adhesives. and on-site photographs of all the low VOC products used in the project.</i></p>
2			RHW Credit 6	Facility for Physical Wellbeing	2	<p>Preliminary Review:</p> <p>The IGBC Green Homes Version 3 Template and submitted narrative states that the project team has ensured that adequate space for physical wellbeing is provided. The project team has proposed a range of facilities for health and well-being in the club house that can cater to 548 persons at a time. This amounts to 38% of the total occupants (1424 persons). The submittal includes clubhouse plan showing the areas for physical wellbeing, landscape plan showing outdoor amenities, NBC occupancy cut sheet, Occupancy calculations for the amenities and a declaration from the developer.</p> <p>This meets the credit requirement.</p> <p><i>During certification, please photographs of the physical wellbeing facilities in the project.</i></p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
1	3	0	Innovation & Design	Points Available:	5	
	1		ID Credit 1.1	Innovation : Green Housekeeping	1	<p>Preliminary Review:</p> <p>The project team has attempted a point under innovation for implementing green housekeeping practices in the project. The narrative states that the project facility management team shall use eco-friendly chemicals to clean surface and glass and the occupants are encouraged through guidelines to occupants on use of eco-friendly chemicals.</p> <p>The submittal includes cutsheets of the identified green housekeeping products, tenant guidelines document advising the tenants to use green housekeeping chemicals and a declaration from the developer stating that the project will use green house keeping chemicals for the common areas.</p> <p>However, additional details are required to award this credit.</p> <p>Technical Advice:</p> <p>Please submit a revised declaration from the developer stating that the project will be maintained by the developer for at least 3 years after project completion.</p>

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
	1		ID Credit 1.2	Innovation : CSR	1	<p>Preliminary Review:</p> <p>The project team has attempted a point under innovation for implementing CSR program. The narrative states that the program will involve educating residents to carry out various activities such as conducting a workshop training for school children, measuring the impact over a period of time through a survey report, and also measuring through the various initiatives related to water, energy savings, and waste reduction and management undertaken within the project and surrounding neighbourhood.</p> <p>The submittal includes the CSR policy of the developer (Godrej Properties limited)stating the objectives, key focus areas, governance structure and annual action plan among other details.</p> <p>However, it is unclear how this CSR policy applies to this project and how it will be carried out.</p> <p>Technical Advice:</p> <p>Please submit the following:</p> <ol style="list-style-type: none"> 1. A detailed narrative stating how the project team will implement CSR activities in this project along with a list of activities that are planned. <i>(Kindly note that education and awareness session for the residents by itself does not qualify for this credit, further action for the benefit of the society and the neighbourhood is required)</i> 2. A declaration from the developer stating how long the CSR initiatives planned will be carried out by the developer.

Expected	Pending	Denied				Certified 50 to 59 points
						Silver 60 to 69 points
						Gold 70 to 79 points
						Platinum 80 to 100 points
Not Pursuing			ID Credit 2.1	Exemplary Performance:	1	Preliminary Review: Not Pursuing
	1		ID Credit 2.2	Exemplary Performance: MR Credit 3 - Certified Green Products: >30%	1	Preliminary Review: Please refer to the review comments under MR Credit 3. Technical Advice: Please address the queries raised under MR Credit 3.
1			ID Credit 3	IGBC Accredited Professional	1	Preliminary Review: The submitted Green Homes Template and narrative states that the project team has included IGBC AP as part of the project team. The submittal includes a copy of the IGBC AP certificate of Mr. Girish Gopinath Gholap who is involved in the project. This meets the credit requirement.