

Project name:-

Project Code :-

Registration Category :-

General Comments :-

Feedback:-

1st feedback

Drawings

No	Dwg Name	Dwg Description	Recommendation
1	Site survey plan	Site plan showing following in detail:- Existing vegetation with each tree detail like species, girth, canopy etc. Contours with levels Natural features like water body, stream etc.	
2	Approved plan	Plans submitted for approval to the local authority showing the following details :- Site area calculations Building area calculation (FSI etc.) Total built up area Ground coverage % Parking calculations	
3	Site location plan	Location plan demarcating site and surrounding areas up to 0.5 km radius around site showing :- Transportation services like bus/rail/metro station Infrastructure facilities like fire station, post office, shopping complex, temple, mosque, gurudwara, church etc.	

Proposed condition (during construction)

No	Dwg Name	Dwg Description	Recommendation
1	Proposed site management plan <i>(During Construction)</i>	Site plan demarcating area to which construction activity shall be limited. Also show :- Proposed building Topsoil collection and preservation area Prevention measures for top soil erosion Drainage Site office Construction material storage Waste segregation area Air pollution prevention measures etc. Layout for labor huts Drinking water and toilet facilities for workers	

Proposed condition (for construction)

No	Dwg Name	Dwg Description	Recommendation
1	Site plan	Architectural Site plan showing :- Proposed building Site section for proposed development Green spaces Parking lots Infrastructure facilities like guard house, ESS, Pump house etc. Road layout	
2	Building drawings	All floor plans with interior layouts All side elevation with levels and finishes Minimum 2 sections (more sections should be submitted if required) Architecture details Facilities for Physically Challenged toilets, ramps, staircase lifts etc. Fenestration details Door & window schedule	
3a	Service drawings (site)	Site service layouts showing :- Electric lines with street, landscape and architecture lighting proposed Water supply lines Fire hydrant lines Sewage lines (STP)	

		Rain water harvesting layout	
		Sections of utility corridor	
		Section of recharging pits	
		Sections for grease trap for surface run-off	
		Consolidated site service drawings	
		Renewable energy site layout and location	
3b	Service drawings (building)	Building service layouts :-	
		Electric schematic circuit diagram	
		HVAC schematic diagram	
		Water and sewage schematic	
		Fire prevention measures like sprinkler systems, house, reels etc.	
4	Landscaping plan	Proposed landscaping plan showing :-	
		Plantation marking newly planted, transplanted, and trees cut. Provide calculation for tree plantation for 1:4 ratio and tree details (girth, canopy and species etc.)	
		Paved areas with finishes	
		Parking areas with finishes	
		Road with finishes	
		Shrubs proposed	
		Grass patches	

Cr. No.	Criterion	Appraisal	Comments
1	Site Selection	Narrative indicating :- - Brownfield site or -Redevelopment site or -5 basic amenities	
2	Low impact design	Narrative indicating strategies adopted to reduce environment impact by various passive design and low-impact site planning strategies.	
3	Design to mitigate UHIE	Calculation indicating site design strategies which assist in reduction of Urban Heat Island Effect (UHIE)-Reducing hard paving/shaded surfaces/solar panel shaded surfaces/ surface with high SRI (Solar reflective index).	
4	Site imperviousness factor	Calculations indicating: - Net Imperviousness factor of site as per NBC 2005 - Post-construction storm water discharge from the site is zero	

5	Air and water pollution control	1) Narrative indicating strategies proposed on site to curb air and water pollution during construction. 2) Narrative specifying strategies proposed to control effects of spill from hazardous materials (spill prevention plan).	
6	Preserve and protect landscape during construction	Narrative indicating strategies proposed to preserve exiting mature trees and fertile (can be made fertile) top soil.	
7	Construction Management Practices	Narrative indicating strategies good construction management practices proposed on site.	
8	Energy efficiency	<p>Compliance option 1- Narrative indication: - Compliance with ECBC 2007 mandatory requirements - fans meeting BEE star labeling requirement - Outdoor lamps - EPI - Energy conservation measures</p> <p>Simulation demonstrating : -Compliance to Building Envelope Peak Heat Gain Factor thresholds. -List of Lamps with details for wattage, efficacy(lumen/watt), luminaries. -Simulation reports (along with I/O file) to demonstrate annual energy consumption and reduction vis-a-vis the GRIHA Benchmarks Energy Conservation Measures incorporated in the project</p>	
9	Renewable energy utilization	<p>Narrative indicating incorporation of renewable energy sources in the project.</p> <p>Calculation indicating - total energy demand (lighting &HVAC) - rated capacity of onsite/offsite RE system - generated energy from RE</p>	
10	Low ODP materials	Narrative indicating materials in building insulation, HVAC & refrigeration equipment and fire fighting systems with low ozone depleting potential.	

11	Achieving indoor comfort requirements (visual/thermal/acoustic)	<p>Provide a narrative on energy conservation and thermal performance improvement measures to be adopted to meet the mandatory criteria of ECBC</p> <ul style="list-style-type: none"> - WWR(Window Wall Ratio) should not be more than 60% - SRR compliance with ECBC - Min. 25% area should be daylight (as per GRIHA) - Effective SHGC (Solar Heat Gain Coefficient) of glass - Glass, Wall, Roof specifications with U factor - HVAC (Heating, Ventilation, Air Conditioning System)/air cooling/fans - Control for Lighting and HVAC <p>Electrical power</p> <ul style="list-style-type: none"> - Strategies on achieving the GRIHA EPI (Energy Performance Index) benchmark. - Provide supporting calculations for EPI (Simulation result or acceptable manual calculations explaining all assumptions) - Solar water heating 	
12	Maintaining good IAQ	<p>Narrative indicating:-</p> <ul style="list-style-type: none"> -the project meets minimum requirements to maintain good IAQ. - Monitoring the CO2, temperature and RH at the occupied spaces or at AHUs for the air conditioned spaces 	
13	Use of low-VOC paints and other compounds in building interiors	<p>Narrative indicating:-</p> <ul style="list-style-type: none"> - All interior paints will be low VOC and lead free. - All adhesives and sealants will be low VOC - All interior composite wood products will be free of urea formaldehyde. 	
14	Use of low-flow fixtures and systems	<p>Provide a narrative on:</p> <ul style="list-style-type: none"> - Measures and systems proposed to reduce water consumption in building - List of fixtures (w.c., taps, showers, faucets etc.)proposed in the building -Brochures for the proposed fixtures (if applicable) 	
15	Reducing landscape water demand	<p>Narrative on the:</p> <ul style="list-style-type: none"> - Measures and systems adopted to reduce water consumption in landscaping. - List of proposed trees and shrubs with species, girth and canopy details -Irrigation system and methods to be utilized - List and brochures for proposed irrigation systems 	
16	Water Quality	<p>Narrative indicating that:-</p> <ul style="list-style-type: none"> - Water used for various purposes like drinking, irrigation etc. shall conform to the BIS standards. - The STP installed on site meets the CPCB norms 	
17	On-site water reuse	<p>A narrative:</p> <ul style="list-style-type: none"> - Demonstrating that the project meets the on-site water reuse requirements in its annual water requirements for domestic use, buildings, landscape and utilities. - Calculation 	
18	Rainwater Recharge	<p>A narrative indicating:</p> <ul style="list-style-type: none"> - Recharge of surplus rainwater into aquifer (through appropriate filtration measures) - Calculation 	

19	Utilization of BIS recommended waste materials in building structure	A narrative on use of fly-ash in structure, block work, mortar & plaster.	
20	Reduction in embodied energy of building structure	Narrative on techniques proposed to reduce embodied energy structurally and non structurally	
21	Use of low-environmental impact materials in building interiors	Narrative on use of low environmental impact materials in interiors.	
22	Avoided post-construction landfill	Narrative on infrastructure to sustainably manage on-site solid waste during operation phase.	
23	Treat organic waste on site	Narrative on : - strategies to treat all organic (kitchen and landscape) waste on-site and to convert it into a resource (manure, biogas etc.). - Calculation	
24	Labour safety and sanitation	Narrative on:- -The health and safety measure to be provided on site for workers. drinking water, hygienic working & living conditions and sanitation facilities for workers -A crèche facility for children of construction workers	
25	Design for Universal Accessibility	Narrative on the facilities provided for physically challenged	
26	Dedicated facilities for service staff	Narrative on dedicated resting rooms and toilets for service staff (during operation)	
27	Increase in environmental awareness	Narrative about the measures that will be taken to increase environmental awareness in the project.	
28	Smart metering and monitoring	Narrative indicating: -Basic metering requirements - Extended metering requirements - Installation of one-way communicable Smart metering and monitoring system - Connect to GRIHA Online Benchmarking platform	
29	Operation & Maintenance Protocols	Complete list of operation and maintenance protocols for various system installed in the building.	
30	Performance Assessment for Final Rating	Declaration indicating audit to be done post occupancy.	
	Test reports	Description	Comments
1	Air quality monitoring report	Air quality should be within the limits prescribed	
2	Noise monitoring report	Noise levels to be as per the standards	
3	List of recommended plant	Native trees proposed for landscaping	
4	Sample location map	Location plan for sampling water and soil for testing	
5	Soil testing report	Soil sampling from 2 locations	
6	Water testing report	Bore well water testing, sampling from 2 locations	
	Other Documents	Description	Comments
1	Report on Other documents not being looked at in GRIHA	Report as per the checklist to be submitted	