

Eco-housing Certification Program

Project Checklist
PROJECT TITLE:
LOCATION:
PROJECT BY:

DATE	
BUILT UP AREA:	
PROJECT COST:	
TOTAL NO. OF APTS.	

NOTE: The Eco-housing tracking sheet does not include all guidelines for implementation. Please refer to the Eco-housing Assessment Criteria for complete details

NO	DESCRIPTION	Applicability				PTS	SUBMITTAL REQUIREMENTS				PRIMARY RESPONSIBILITY FOR IMPLEMENTATION (DEVELOPER / CONSULTANT)	REMARKS	
		YES	MAY BE	NO	Gained Pts.		AT REGISTRATION	CONSTRUCTION PHASE		POST CONSTRUCTION			
								Phase 1 (Prior to excavation)	Phase 2 (During Construction Phase)				
1. Site Planning													
1.1	MANDATORY				0	5	Location map showing site and its surrounding area up to 2 km radius on the city Development Plan						
	Site selection to protect Eco sensitive zones of the city												
1.2	NOT MANDATORY				0	5	Location map showing site and the listed facilities within 1/2 km. Photographs of the facilities need to be attached						
	Locate the site so that basic amenities are within ½ km of housing												
1.3	NOT MANDATORY				0	5	Site plan showing site and the listed facilities with location on site.					Photographs of the facilities on site to be attached	
	Locate amenities namely i) convenience grocery ii) healthcare facility iii) community hall within site premises												
1.4	MANDATORY				0	5	Inventory Report on existing Flora & Fauna of site. Narrative and supporting concept landscape drawings on proposed biodiversity conservation measures					Certificate from landscape architect confirming implementation as shown in the landscape plan. Photographs to be attached.	
	Implement measures prescribed in the Biodiversity Conservation for Eco-housing to restore and promote the biodiversity of the area, for sites located in the vicinity of ecologically sensitive areas												
1.5	NON MANDATORY				0	5				Landscape drawings showing proposed measures to be implemented		Certificate from landscape architect confirming implementation on site.	
	Landscape design to promote and create habitats conducive to native fauna in the form of 'urban niches'.												
1.6	MANDATORY				0	10	Site plan (CAD drawing) along with a narrative to demarcate areas on site from which topsoil has to be gathered (Colour coded Red). Location of designate area where it will be stored (Colour coded brown) and indicative areas where it will be re-applied after construction is complete (Colour coded green) Top soil Analysis report showing pH, organic content and mineral content	Narrative and supporting documents (on site photographs) by the landscape architect should include the following 1. Volume of top soil excavated 2. Method of top soil storage		Narrative on phase wise reapplication of top soil		Certificate from landscape architect confirming implementation	
	For projects larger than 1.00 hectare, remove topsoil, and preserve for re use on site or send to PMC designated sites.												
1.7	MANDATORY				0	10	Conceptual CAD drawing showing site plan details and sections of existing slopes and site drainage pattern, erosion and sedimentation control measures proposed on site					Certificate from landscape architect confirming proper protection against soil erosion measures as indicated earlier	
	Prevent soil erosion for large sites during construction by providing sedimentation basin, contour trenching, mulching, as required.												

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		YES	MAY	NO	AT REGISTRATION			CONSTRUCTION PHASE			POST CONSTRUCTION		
1.8	NOT MANDATORY Preserve existing vegetation on site; land rich in bio diversity; follow detailed guidelines of tree preservation as per draft NBC; Part 10				0	15	CAD drawing showing proposed landscape plan with identification of trees (different colour coding to be used for trees protected, preserve, and transplanted) corresponding to a tabular tree survey (to be included in dwg). List details and photographs about species, which existed, and the species that will be replanted on site.	A one page report to explain in			Certificate from landscape architect confirming implementation		
1.9	NOT MANDATORY Do compensatory depository forestation in ratio of 1:5				0	10	List of details with photographs clearly highlighting the species, which are to be removed		List of details with photographs clearly highlighting the species which have been replanted in ratio of 1:5		Certificate from landscape architect confirming the compensatory depository forestation.		
1.10	NOT MANDATORY Existing drainage pattern to be surveyed, documented. Proposed drainage pattern should not alter the existing drainage pattern.				0	10	Pre construction site survey plan showing existing drainage patterns, slopes and contours. Site plans for proposed construction to show compliance. A pre-construction survey has to be done and PMC approval certificate on proposed surface drainage system has to be submitted.						
1.11	NOT MANDATORY Measures shall be followed for collecting runoff from construction areas and material storage sites; diverting water flow away from such polluted areas, so that pollutants do not mix with storm water runoff from undisturbed areas. Temporary drainage channels, perimeter dike/swale, etc shall be constructed to carry the pollutant-laden water directly to treatment device or facility/municipal drains. The plan shall indicate how the above is accomplished on site, well in advance of the commencing of the construction activity.				0	10	Concept drawings showing material storage sites, proposed diversion channels and location of treatment devices or connection with municipal drains as applicable. Photographs	Narrative on measures adopted					
1.12	NOT MANDATORY Take adequate measures for spill prevention and control. Spill prevention and control plans shall be made, clearly stating measures to stop the source of the spill, to contain the spill, to dispose the contaminated material and hazardous wastes, and stating designation of personnel trained to prevent and control spills.				0	5	Storage area of hazardous material can be marked on submittal drawing for 1.11	Narrative on handling of			Provide signed letter from site incharge that all measures in the referenced document have been followed.		
1.13	NOT MANDATORY For large sites plan an aggregate utility corridor for utility systems near other corridor areas maintain minimum distance between corridors as per local code/norm to ensure safety and prevent contamination				0	10		Layout plans of utility corridors.					
1.14	NOT MANDATORY Site should be properly planned to mitigate the 'heat island effect' - Provide shade on at least 40% of non-roof impervious surfaces on the site, including parking lots, walkways, plazas etc. - Place a minimum of 50% of parking space underground OR plan covered parking with a reflective roof (net impervious area of less than 50%) for a minimum of 50% of the parking area. - Use light coloured (Solar Reflectance index >0.5) for pavements, walkways etc.	0	0	0	0	10	Site drawings showing paved/unpaved areas and parking lots. Show shading plans proposed for paved surfaces from 10 a.m- 3 p.m (by built form / vegetation) Show parking layouts		Material specification for paved/unpaved areas, parking lots. Detail specification with cut sheets of the materials selected to mitigate Heat Island effect. Please provide details of proposed trees to demonstrate that 100% shading shall be obtained by 5 years of establishment of proposed trees Bill of purchases of shading device items/ material (Trees/Pergola etc) for paved		Material Specification and Bill of purchases of paver material		
1.15	NOT MANDATORY Restrict net surface run-off of site to 0.6'				0	10		Run off coefficient calculation in					

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		YES	MAY	NO	AT REGISTRATION			CONSTRUCTION PHASE	POST CONSTRUCTION					
		0	0	0										
1.16	NOT MANDATORY Use renewable energy based (Solar PV, biomass, wind, fuel cells) lighting system for 50-100% external lighting (wattage) requirement in kW on site namely walkways, driveways, and landscaped areas.				0	40	Demarcate renewable energy based lighting systems in landscape layout for outdoor lighting. Specify RE application used and indicate if 50 % or 100% lighting is based on RE	Bill of purchase and product cut sheet of renewable energy based technology (Solar PV, biomass, wind, fuel cells)	POST CONSTRUCTION Certificate from Electrical consultant stating that renewable energy based lighting system is in operation as committed by developer.					
	a) 50%					20								
	b) 100%					40								
1.17	MANDATORY Design street lighting (applicable for large sites requiring street lighting) as per IS: 1944 (Parts I & II) - 1970					0	10		CAD drawing showing layout for street lighting and specifications of lights used	Certificate from electrical consultant to indicate compliance and calculations				
1.18	MANDATORY Use fluorescent/compact fluorescent lamps operating on low loss ballast for general lighting of brightly lit outdoor spaces and common/circulation areas						0	10		Common area lighting layout indicating wiring diagram and locations of lights. Also provide calculations for luminaire efficacy. Manufacturers' details of lamps, fixtures and ballasts. BOQ and purchased proofs for the same.	Certificate from Electrical consultant stating that all fittings as mentioned in BOQ are installed and are ISI marked/ BIS marked			
	Minimum average luminaire efficacy to be 65lm/W													
1.19	MANDATORY The average luminaire efficacy for external lights not less than 40 luminaire lumens/ circuit watt. Use HID lamps for outdoor lighting such as high-pressure sodium lamps, SON etc						0	10		Outdoor lighting layout indicating position of lights Manufacturers' details of lamps, fixtures and ballasts. BOQ and purchased proofs for the same. Also provide calculations for luminaire efficacy.	Certificate from Electrical consultant stating that all fittings as mentioned in the BOQ are installed and are ISI marked/ BIS marked.			
	circuit efficacy of 80lm/W to be used.													
1.2	NOT MANDATORY Apply control devices, as appropriate, timers or photocells to turn lights on and off for a min 50% of installed lighting fixtures; Provide alternate circuits for groups of adjacent lamps; control points for easy accessibility						0	30	15 (for 50% lights on auto-controls); 30 (for 100% lights on auto-controls)	Indicate percentage for which automatic controls, timers will be provided	Wiring diagram and layout for the placement of automatic switch (es) for outdoor/ common area lighting. Bill of purchases of automatic switch (es) for outdoor/ common area lighting.	Certificate from Electrical consultant showing compliance		
	a) 50%							15						
	b) 100%							30						
1.21	NOT MANDATORY Design exterior lighting such that any luminaire within distance of 2.5 times its mounting height from property boundary shall have shielding such that no light from luminaire crosses property boundary.						0	10		Outdoor lighting layout indicating luminaires with light shields. Product cut sheets with cut off specifications as per IESNA. Provide sample drawings showing the shading.	Certificate from Electrical consultant showing compliance			
1.22	NOT MANDATORY Provide Fixed/pre-wired luminaires to have its sockets that will only accept Use lamps with an efficacy greater than 40lm/W.						0	10		Bill of purchases of pre wired CFLs / LEDs. Include copies of manufacturer/supplier catalogue.	Certificate from Electrical consultant showing compliance			
1.23	NOT MANDATORY All electrical systems to meet minimum efficiency criteria as specified by Energy Conservation Building Code 2005 (motors, transformers)						0	10		List and location of electrical systems (motors/ transformers) Purchase proofs for energy efficient electric systems. List should also include the efficiency levels for transformers, lighting and other products.	Certificate from Electrical consultant showing compliance with ECBC			
1.24	NOT MANDATORY Provide electrical charging point for charging of electric vehicles						0	5		Details and location of electrical charging point on outdoor electrical layout indicating Amperage.	Certificate from Electrical consultant showing compliance			
	Sub Total						0	260						

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		YES	MAY	NO	AT REGISTRATION			CONSTRUCTION PHASE		POST CONSTRUCTION		
2. Environmental Architecture												
2.1	NOT MANDATORY Set up an integrated design team with following members: architect, structural, electrical, mechanical, plumbing/water/waste, landscape architect, and energy/environmental consultant.				0	10	Name and profile of consultants appointed in project team					
2.2	MANDATORY Adopt climate responsive design practices to achieve thermal comfort criteria as specified in National Building Code Part 8, section 1 lighting and ventilation subsection 5.2.3.1 (under revision). Strategies may include (but not limited to) the following: Orient buildings to face north-south, longer face to be N-S Provide buffer spaces (staircases, lifts, store, toilets, double wall w/o opening) on at least 50% of west wall Window shading to be determined through solar path analysis to provide 100% shading between 10 a.m.-3 p.m. in months April-September, (adequate rain protection to be taken) for at least 50% of windows on south, east and west facades To ensure complete solar access on south façade, the distance between buildings facing south to be equal to height of building on southern side Position windows of living area within 0-30deg of prevalent wind direction, prevalent wind direction to be determined through appropriate wind rose diagram. Total area of openings (inlet and outlet) should be a minimum of 30% of floor area. Provide a gap between horizontal louver and wall. Take rain protection. Provide verandas/balconies (any projection extending from building that is accessible and is minimum 1.2 m wide), which are open on three sides. Plant hedges at a distance of 2 m from building on the leeward side.				0	25	Submit microclimatic analysis of site. Narrative (maximum 500 words with supporting drawings and sketches) should include climate responsive strategies for 1) thermal comfort 2) air movement and natural ventilation 3) day lighting 4) solar and rain protection control to ensure maximum thermal and visual comfort					
2.3	NOT MANDATORY Roof should be protected against excessive heat gain by appropriate insulation to give U-value as specified by Draft 'ECBC' 2005. Alternately provide roof garden for 100% of exposed roof area or provide 100% shading for 100% of exposed roof area				0	10	Narrative indicating the methods adopted for protecting the roofs from excessive heat gains(roof garden / insulation/ shading)	Detail layout and section of roof indicating method adopted, Material specification for protection against excessive heat gain. Bill of quantities with roof specifications and purchase proof. Also indicate the derived U value.				
2.4	NOT MANDATORY Design for following daylight factors: - Kitchen: 2.5 - Living room: 0.625 - Study room: 1.9 - Circulation: 0.313 - 1 Daylight Factor = 80 lux - Demonstrate compliance by using an appropriate simulation tool				0	10	Room plans with details of openings. Simulations or calculations showing daylight levels under overcast sky conditions for a typical summer day for kitchen, living room, study and circulation					
2.5	NOT MANDATORY Use of computer simulation tools for climate responsive design to demonstrate compliance with National Building Code as specified above, for 90% of occupied hours; This would include air flow, temperature and humidity profiles.				0	25	Simulation engine based analysis results for airflow pattern, day lighting, temperature, humidity profiles for typical representative spaces of the project					
Sub Total					0	80						

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		YES	MAY	NO			AT REGISTRATION	CONSTRUCTION PHASE			
								PRE CONSTRUCTION	POST CONSTRUCTION		
3. Energy Efficient Lighting											
3.1	NOT MANDATORY Lighting power density to be restricted to 7.5 W/sq. m				0	15			Calculations for lighting power density by Building Area		
3.2	NOT MANDATORY Lamp efficacy and ballast loss (CFL: 50lm/W; Fluorescent (TL) 80lm/W; ballast loss for CFL 3W; Fluorescent (TL) 4.5W)				0	15	Certificate from builder if he is providing the light fixtures		List of fixtures, lamp types and ballast type using table given in Eco-housing assessment criteria. BOQ and purchase proof of the same. Also submit manufacturer/suppliers' technical data sheets.		
3.3	MANDATORY Demonstrate efficient use of luminaries ,lamps ,ballasts in sample building.				0	5			Identification of sample flat. Detailed lighting plans and show compliance with established interior lighting power density for the sample flat. Also install energy meter at the distribution box.		
3.4	NOT MANDATORY Pre-wired CFL fixtures could be provided in all dwellings, @1 fixture per room.				0	15			Typical Wiring plan showing point for pre wired CFLs. Fixture details, BOQ and purchase proof for the same.		
Sub Total					0	50					
4. Solar Water Heaters											
4.1	NOT MANDATORY Provide solar water heating in all roof / parapet (south facing), minimum provision of capacity to supply hot water adequate for a family size of 4 members, per household (for all households)				0	30	Plan showing SWH installation and sizing calculation for a typical household.		System specifications, BOQ and purchase proofs	Certificate from the developer showing compliance	
4.2	NOT MANDATORY Provide solar water heater with non electric booster				0	10			System specification - BOQ and purchase proof	Certificate from the developer showing compliance	
4.3	NOT MANDATORY Provide plumbing for solar hot water to houses.				0	10			Plumbing drawings to show compliance. Bill of quantities and purchase proof for insulation for plumbing system.	Certificate from the developer showing compliance	
Sub Total					0	50					
5. Efficient Building Materials											
5.1	MANDATORY Base Materials for R.C.C. and Steel Systems Mandatory use of 25% Pozzolana Material Blended Portland cement (BPC) ¹	0	0	0	0	5			Bill of quantities showing quantity by weight of cement required and Inventory / Purchase schedule-showing quantity (by weight) of pozzolana material procured	Certificate from manufacturer (lot no.) to show compliance	
5.2	NON- MANDATORY Base Materials for R.C.C. and Steel Systems a. Use the following materials for structural systems	0	0	0	0	17					
	Increase of Pozzolana Material ¹ content in BPC to 30- 50% by direct addition of raw Pozzolana Material					5			Bill of quantities showing quantity by weight of cement required and Inventory / Purchase schedule-showing quantity (by weight) of pozzolana material procured		
	b. Use Sand & aggregate from pulverized debris and /or sintered flyash for concrete and mortar ²								Bill of quantities showing volume of aggregate and sand required and inventory / purchase schedule showing volume of alternative procured.		
	25 - 49%					2					
	50 - 74%					3					
	75% and above					4					
	c. Use Recycled steel forms and bars for reinforcement ³								Bill of quantities showing quantity (by weight) of steel required (structural and reinforcement) and inventory / purchase schedule showing quantity (by weight) of recycled steel procured. The manufacturer shall certify the steel as recycled.		
	Upto 75%					6					
	>75%					8					

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		YES	MAY	NO	AT REGISTRATION	CONSTRUCTION PHASE			POST CONSTRUCTION				
		0	0	0									
5.3	NON- MANDATORY	0	0	0	0	0	25						
	Alternative Structural System Design & construct the Structural System with following alternative tech:												
	a. Ferrocement and / or Precast components ¹ for columns, beams, slabs, staircases, lofts, balconies, roofs etc.							Identify areas or places of construction where alternative structural system is being used. Please mark on template provided.	Calculations along with diagrammatic representation for the area of roofing executed using either ferrocement or precast RCC members.	Certificate from structural consultant for compliance			
	25-49%						10						
	50-74%						15						
	75 and above												
	b. Ready Mix Concrete												
	50-74%						4		Bill of quantities showing total concrete requirement (by volume) and inventory / purchase schedule showing amount of concrete (by volume) procured as a ready mix.				
	75 and above						6						
	c. Use Resinous curing agents												
	25-49%						2						
	50% and above						4		Estimate for the total surface area of building components that require curing and estimate showing the surface area cured using resinous agents. Purchase proof along with brochure				
5.4	NON- MANDATORY	0	0	0	0	0	12						
	Masonry Use bricks/blocks made from following materials individually or in comb.												
	Fly ash + sand + lime bricks / blocks (IS4139), Pulverized debris + cement bricks / blocks, Industrial waste based bricks / blocks, Aerated lightweight BPC concrete blocks (IS2185), Phospho-Gypsum based blocks (IS12679) and Lato blocks (laterite + cement; IS12440).								Estimates showing total volume of masonry required and total volume of alternative masonry units proposed. Bill of quantities showing total volume of masonry required and total volume of alternative masonry units proposed. Inventory / purchase schedule must show the procurement of alternative units amounting to the volume calculated.				
	>75 %						12						
5.5	MANDATORY	0	0	0	0	0	3						
	Mortar Mandatory use of 25% Pozzolana Material Blended Portland Cement ¹						3		Bill of quantities and showing quantity of cement required. Quantities must be converted into volumetric equivalents for evaluation. Inventory / Purchase schedule-showing quantity (by weight) of pozzolana material Blended Portland Cement procured.				
5.6	NON- MANDATORY	0	0	0	0	0	7						
	Mortar												
	a. Sand from pulverized debris and / or sintered flyash ¹												
	25- 49%						2						
	50 - 74%						3		Bill of quantities showing quantity (by weight) of cement and sand required. Inventory / Purchase schedule-showing quantity (by weight) for Sand from pulverized debris and / sintered fly ash procured.				
	75% and above						4						
	b. Increase of Pozzolana Material ¹ content in BPC to 30- 50% by direct addition of raw Pozzolana Material						3		Inventory / Purchase schedule showing quantity (by weight) of pozzolana material procured.				

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		YES	MAY	NO	NO			AT REGISTRATION	CONSTRUCTION PHASE	POST CONSTRUCTION		
5.7	NON- MANDATORY	0	0	0	0	0	13					
	Plastering											
	Use any of the following alternative plasters											
	a. Calcium Silicate Plaster											
	25-49%						2					
	50% and above						3					
	b. Cement Plaster (sand for plaster as per IS1542)											
	25 – 49%						1					
	50% and above						2					
	c. Fiber reinforced Clay Plaster/ Phosphogypsum Plaster.											
	Non-erodible Mud Plaster											
	25 – 49%						2					
	50% and above						4					
	d. Use Resinous curing agent instead of water											
	25-49%						2					
	50% and above						4					
5.8	NON- MANDATORY	0	0	0	0	0	7					
	Roofing and ceiling											
	Use the following eco-friendly materials for roofing											
	a. Fiber Reinforced Polymer (FRP) instead of PVC, Foam PVC, Poly Carbonates, Acrylics etc.											
	25- 49%						1					
	50% and above						2					
	b. Micro Concrete Roofing Tiles/ Bamboo Matt Corrugated Roofing Sheets											
	50 – 74%						3					
	75 – and above						5					
5.9	NON- MANDATORY	0	0	0	0	0	15					
	Flooring, paving and road work											
	a. Fly ash / industrial waste / pulverized debris blocks in BPC and/or lime-pozzolana concrete paving blocks (as per IS10359) to be used for all outdoor paving (as per IS7245)											
	50-75%						2					
	>75%						4					
	b. Bedding sand for pavement and outdoor hard surfaces has to be from pulverized debris											
	50-75%						2					
	>75 %						4					
	c. Terrazzo floor for terraces and semi covered areas (IS2114)											
	50-75%						2					
	> 75%						4					
	d. Use Ceramic tiles (non-vitrified)(IS13712) Mosaic Tiles/ Terrazzo Flooring (IS2114) Cement Tiles (IS1237, 3801) Phospho-Gypsum Tiles (IS12679) Bamboo Board Flooring, individually or in combination for interior spaces.											
	50-75%						2					
	> 75%						3					
5.10	NON MANDATORY	0	0	0	0	0	8					
	Windows, Doors and openings											
	a. Ferro cement and Precast R.C.C. lintel (IS9893), chajja, jali instead of RCC											
	50-75%						4					
	>75						6					
	b. Masonry bond combinations for jali work (achievable in rat trap bond)											
	50-75%						1					
	>75%						2					

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5.16	NON MANDATORY	0	0	0	0	0	9							
	Water supply, Sanitary and Plumbing System													
	a. Where applicable use products with recycled aluminum and brass components for fittings, fixtures and accessories													
	50-75%						1							
	>75%						2							
	b. Use Polymer Plastic (Random) (ISO EN 15874) hot / cold water system instead of G.I.													
	50-75%						2							
	>75%						3							
	c. Manholes and covers - use Precast cement concrete and high strength unplasticised PVC instead of C.I. (as per IS12592)													
	50-75%						3							
	>75%						4							
5.17	MANDATORY	0	0	0	0	0	6							
	Wood Work													
	a. Timber used must be renewable timber from plantations with species having not more than 10 year cycle or timber from a government certified forest / plantation or timber from salvaged wood.							4						
	b. If Plywood is used, it should be phenol bonded and not urea bonded.							2						
5.18	NON - MANDATORY	0	0	0	0	0	14							
	Wood Work – Instead of Plywood and Natural Timber use the following alternatives													
	a. Use of MDF Board (IS12406)													
	25- 50%						1							
	>50%						2							
	b. Use any of the following individually or in combination - Bamboo Ply/Mat Board (IS 13958), Fibre Reinforced Polymer Board, Bagasse Board, Coir Composite Board (Medium Density IS 15491), Bamboo mat Veneer Composite (IS 14588), Finger Jointed Plantation Timber Board, Recycled Laminated Tube Board and Aluminium-Foil+Paper+Plastic Composite Board													
	50-75%						6							
	>75%						8							
	c. Use of Mica Laminates and Veneer on Composite boards instead of natural timber.													
	50-75%						3							
	>75%						4							
5.19	MANDATORY	0	0	0	0	0	3							
	Water proofing chemicals, additives, sealants and adhesives													
	Use of water based chemicals instead of solvent based for 100% of use							3						

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		YES	MAY	NO	AT REGISTRATION			CONSTRUCTION PHASE	POST CONSTRUCTION			
6.7	MANDATORY Plant native/indigenous species with low water requirement to form at least 50% of the vegetated area.				0	5			Provide landscape plan showing the type of species and the areas covered by each of them.	Certificate from landscape consultant showing compliance with the criteria		
6.8	MANDATORY On site recycled water to be used to water lawns, fountains and other water bodies (Refer to the Appendix for water quality standards for various applications as per IS codes)				0	10			Provide narrative indicating the quantity and quality of recycled water used for gardening and other water bodies.	Recycled water quality report should be provided		
6.9	NOT MANDATORY Use sprinklers to water lawns and drip irrigation for trees				0	5			Layout plan and specification of the irrigation equipments indicating the flow rates	Certificate from landscape consultant showing compliance		
6.1	MANDATORY Harvest, store/recharge and make provisions for utilization of 100% rainwater from roof as well as site runoff of 60% (Refer to criteria on site imperviousness)				0	15			Calculations demonstrating the total quantity of rainwater collected from site and roof based areas and regional rainfall data, RWH plan indicating the capacity and location of storage and recharge facilities, drainage channels and water bodies where rainwater is directed	Certificate from developer showing compliance		
6.11	NOT MANDATORY Reuse collected rain water for gardening, washings and other building applications and recharge excess rainwater into ground to maintain utilisation efficiency of 1) 50% 2) 100%	0	0	0	0	10			Water budget calculations showing the reuse of water for each application. Calculations demonstrating the total quantity of rainwater recharged.			
6.12	MANDATORY Provide treatment facilities for supplied drinking water if the quality is not meeting IS standards-no.				0	5	Identify source of drinking water. Test report to confirm that it meet IS standards	Identify technology to be used and plan for treatment facility if water does not meet drinking water standards.		Certificate from technology provider to show compliance		
6.13	NOT MANDATORY Use dual plumbing lines for separation of total volume of grey and black water				0	20			Plumbing drawings indicating the separation of the grey water and black water lines.			
6.14	MANDATORY Install a treatment system based on non energy intensive and ecofriendly technology for treatment of total volume of grey water				0	20	Location site plan showing proposed treatment facility		Details of treatment plant indicating the capacity, components of system, treatment efficiency, and projected quality of treated water. Purchase proof for the	Certificate from technology		
6.15	NOT MANDATORY Install an eco-friendly treatment system for combined stream of grey water and black water				0	35	Location site plan showing proposed treatment facility		Details of treatment plant indicating the capacity, components of system, treatment efficiency, quality of water. Purchase proof for the treatment system adopted	Certificate from technology provider to show compliance		
6.16	NOT MANDATORY Install a separate plumbing line for use of treated water for flushing				0	15			Plumbing drawings indicating the separation of the grey water and black water lines. Plumbing drawings and calculations demonstrating reuse of treated water	Certificate from plumbing consultant to show compliance		
6.17	NOT MANDATORY Reuse the treated water for various building applications and gardening depending on the treatment level and meeting of prescribed standards				0	5			Calculations demonstrating reuse of treated water for various building applications. Please indicate the treatment capacity and capacity of the storage tanks.	Certificate from the developer showing compliance		
6.18	NOT MANDATORY Minimize water use during construction by minimizing water use during curing; admixtures during concreting, use of recycled water				0	10			Narrative describing the measures taken for minimizing water use during construction			
Sub Total					0	200						

NO	DESCRIPTION	Applicability			Gained Pts.	PTS	SUBMITTAL REQUIREMENTS			PRIMARY RESPONSIBILITY FOR IMPLEMENTATION (DEVELOPER / CONTRACTOR)	REMARKS	
		YES	MAY	NO			PRE-REGISTRATION	CONSTRUCTION PHASE	POST CONSTRUCTION			
7. Solid Waste Management												
7.1	MANDATORY Shall provide separate bins for every block / building for collection and separation of wastes. A centralized collection facility at colony level for batteries, drugs, clinical and hazardous wastes				0	15			Plan showing capacity and location of bins.	Purchase proof for all garbage collection bins'. Bill of quantities for the garbage collection bins provided		
7.2	NOT MANDATORY Contract with local dealers for collection and transportation of recyclable materials				0	5				Contact details and agreement		
7.3	MANDATORY Set up decentralized treatment plant based on non-energy intensive and ecofriendly technology for the treatment of 100% of organic wastes.				0	35			Details of technology being used including electricity consumption. BOQ and purchase proof.	Certificate from the developer showing compliance.		
7.4	NOT MANDATORY Recover energy and manure from treatment plant and application onsite 1) 50% of waste 2) >75% of waste	0	0	0	0	20			Calculations for Energy generation level per unit amount of waste processed and consumption rate	Certificate from the developer showing compliance		
7.5	NOT MANDATORY Recover manure from biodegradable waste for 100% utilisation (within the site/sale)				0	5			Calculations for total quantity of manure produced per unit amount of waste processed			
	Sub Total				0	80						
8. Other Innovative Measures												
8.1	MANDATORY Adopt construction safety measures draft National Building code Part 7:				0	10			Clause in contractors tender docu			
8.2	NOT MANDATORY Adopt measures to control suspended particulate matter during construction				0	10			Test results as per CPCB rules to show that SPM/ RPM levels are not increased due to construction activities			
8.3	MANDATORY Provide minimum level of sanitation on site as per DC Rules				0	10		Areas on site demarkating labour camps with sanitation facilities.	Clause in contract document to demonstrate compliance;	onsite photographs shall be also submitted		
8.4	MANDATORY Provide facilities for handicap access as per DC rules				0	10		Municipal approval drawing for handicap access per DC rule				
8.5	NOT MANDATORY Adopt measures to ensure the ambient noise standard as specified by the Central Pollution Control Board is not exceeded beyond site limit				0	10		Narrative of precautions to be taken to ensure CPCB prescribed indoor and out door noise levels		Site photographs indicating measures adopted for noise control.		
8.6	NOT MANDATORY Swimming pool facility with arrangements for recycling and use of renewable sources for heating, if heated				0	10				Water quality report. Details of filtration plant and solar water heating system if applicable.		
8.7	NOT MANDATORY Other innovative eco friendly measures not listed				0	10		Narrative (not more than 250 words) for each measure.		Site photographs, plans or details indicating measures adopted wherever applicable.		
8.8	NOT MANDATORY Maintenance manual and public awareness programs for individuals in eco-housing societies				0	10			Initiate preparation of document to be provided to the residents and management of society on maintenance guidelines, special instructions to ensure that the eco intent is met	Complete guidebook for residents and management of society on maintenance guidelines, special instructions to ensure that the eco-intent is met with.		
	Sub-total				0	80						
	Grand-total				0	1000						