Landed - Single Owner (with the exception of Townhouse)
Lowrise - Strata Building in which the topmost floor is < 18.3 meter above ground level
Highrise - Strata Building in which the topmost floor is > 18.3 meter above ground level

RNC V3 (Draft B)

PART	CRITERIA	ITEM	RNC V3 (Landed)		RNC V3 (Lowrise)		RNC V3 (Highrise)	
1	EE	**ENERGY EFFICIENCY**						
		Design						
	EE1	**Minimum EE Performance (Pre-requisite Requirement)** OTTV≤50W/m2. RTTV≤25W/m2 U≤0.4W/m2K (Lightweight) or U≤0.6W/m2K (Heavyweight)		1		1		1
	EE2	**Advanced EE Performance** *Landed* OTTV a) OTTV≤46W/m2 b) OTTV≤42W/m2 c) OTTV≤38W/m2 RTTV a) U≤0.35W/m2K (Lightweight) or U≤0.50W/m2K (Heavyweight) b) U≤0.30W/m2K (Lightweight) or U≤0.40W/m2K (Heavyweight) c) U≤0.25W/m2K (Lightweight) or U≤0.30W/m2K (Heavyweight) d) U≤0.20W/m2K (Lightweight) or U≤0.20W/m2K (Heavyweight) e) U≤0.15W/m2K (Lightweight) or U≤0.15W/m2K (Heavyweight) *LowRise* OTTV a) OTTV≤46W/m2 b) OTTV≤42W/m2 c) OTTV≤38W/m2 d) OTTV≤34W/m2 e) OTTV≤30W/m2 RTTV a) U≤0.35W/m2K (Lightweight) or U≤0.50W/m2K (Heavyweight) b) U≤0.30W/m2K (Lightweight) or U≤0.40W/m2K (Heavyweight) c) U≤0.25W/m2K (Lightweight) or U≤0.30W/m2K (Heavyweight) d) U≤0.20W/m2K (Lightweight) or U≤0.20W/m2K (Heavyweight) e) U≤0.15W/m2K (Lightweight) or U≤0.15W/m2K (Heavyweight) *Highrise* OTTV a) OTTV≤46W/m2 b) OTTV≤42W/m2 c) OTTV≤38W/m2 d) OTTV≤34W/m2 e) OTTV≤30W/m2 RTTV a) U≤0.35W/m2K (Lightweight) or U≤0.50W/m2K (Heavyweight) b) U≤0.30W/m2K (Lightweight) or U≤0.40W/m2K (Heavyweight) c) U≤0.25W/m2K (Lightweight) or U≤0.30W/m2K (Heavyweight)	1 2 3 1 2 4 6 9	**3** 9	1 2 3 4 6 1 2 3 4 6	6 6	1 2 4 6 9 1 2 3	9 3
	EE3	**Renewable Energy** *Landed* a) Where 1kWp (PV or equiv) of RE is generated b) Where 2kWp (PV or equiv) or 40% of building energy consumption whichever is the greater, is generated by RE c) Where 3kWp (PV or equiv) or 60% of building energy consumption whichever is the greater, is generated by RE d) Where 4kWp (PV or equiv) or 80% of building energy consumption whichever is the greater, is generated by RE e) Where 5kWp (PV or equiv) or 100% of building energy consumption whichever is the greater, is generated by RE *Lowrise & Highrise (for common area only)* a) Where 3kWp (PV or equiv) or 5% of building energy consumption whichever is the greater, is generated by RE b) Where 6kWp (PV or equiv) or 10% of building energy consumption whichever is the greater, is generated by RE c) Where 10kWp (PV or equiv) or 15% of building energy consumption whichever is the greater, is generated by RE d) Where 20kWp (PV or equiv) or 20% of building energy consumption whichever is the greater, is generated by RE e) Where 30kWp (PV or equiv) or 25% of building energy consumption whichever is the greater, is generated by RE	1 2 3 4 5	5	1 2 3 4 5	**5**	1 2 3 4 5	5
		Efficiency Lighting & Appliances						
	EE4	**EE Lighting and Sensor** *Landed* a) High Efficacy Lighting at Driveway, Porch and Garden with lamp efficiency ≥100 Lumens per Watt b) Photo and/or Motion Sensors to control lighting at Driveway, Porch and Garden *Lowrise & Highrise* a) High Efficacy Lighting at ≥90% of Common Area (including Lift Lobby and Staircase) with lamp efficiency ≥100 Lumens per Watt b) Photo and/or Motion Sensors to control lighting at ≥90% of Common Area (including Lift Lobby and Staircase)	1 1	2	1 1	2	1 1	2
	EE5	**Home Office & Connectivity** Infrastructure for Internet connectivity to the residential unit should have capacity to meet the speed provided by the current majority service providers		1		1		1
		Maintenance						
	EE6	**Sustainable Maintenance** *Landed* Full set of Building, Structural and M&E Drawings, Manuals and Maintenance Plans. *Lowrise & Highrise* a) Maintenance Office, AND b) 3 years preventive Maintenance Budget, AND c) Full set of Building, Structural and M&E Drawings and Manuals, AND d) ≥50% of permanent building maintenance team to be on board 3 months before practical completion and fully participate in T&C		1		1		1
	EE TOTAL			**22**		**22**		**22**
2	EQ	**INDOOR ENVIRONMENT QUALITY**						
		Air Quality						
	EQ1	**Minimum IAQ Performance** a) All total habitable areas ventilation rate to meet local building code. b) 75% of the total habitable areas to be cross and/or stack ventilated c) All public and circulation spaces natural ventilated	1 1 1	3	1 1 1	3	1 1 1	3
	EQ2	**Volatile Organic Compounds** *1 point for any 2 of the following items, up to a maximum of 2 points:* a) Low VOC paint/coating or no finishes to walls b) Low VOC paint/coating or no finishes to ceiling c) Low VOC carpet/interior flooring or no finishes d) Low VOC or no use of adhesive & sealant		2		2		2
	EQ3	**Formaldehyde Minimisation** 1 point for any 2 of the following items OR 1 point if all of the following are not used: a) Composite wood and agrifiber products b) Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies b) Insulation foam d) Draperies		1		1		1
		Lighting Comfort						
	EQ4	**Daylighting** a) ≥50% of total habitable spaces with DF≥1% measure at floor level b) ≥75% of total habitable spaces with DF≥1% measure at floor level c) ≥75% of total spaces with DF≥1% measure at floor level	1 2 3	3	1 2 3	3	1 2 3	3
		Visual Comfort						
	EQ5	**External Views** Demostates that 75% of the habitable spaces has a direct line of sight through vision glazing		1		1		1
		Acoustic Comfort						
	EQ6	**Sound Insulation** Between dwelling units ≥45STC		1		1		1
		Evaluation						
	EQ7	**Post Occupancy Evaluation** Post occupancy comfort survey within 12 months after CCC		1		1		1
	EQ TOTAL			**12**		**12**		**12**
3	SM	**SUSTAINABLE SITE PLANNING & MANAGEMENT**						
		Site Planning						
	SM1	**Site Selection** a) Structure Plan and/or Local Plan, AND b) Infrastructure availability, AND c) Avoiding Environmentally Sensitive Areas, including Flood Plains		1		1		1
	SM2	**Redevelopment of Existing Building AND/OR Brownfield Site** a) Re-development or Refurbishment or Extension of Existing Building OR b) Rehabilitation of Brownfield Site		1		1		1
	SM3	**Community Services & Connectivity Management** *SM3A Basic Amenities ≤750m. 1 point for any 1 Basic Amenities, up to a maximum of 2 points;* Grocery Store/Mini Market, Restaurant/Coffee Shop, Playground/Public Park *SM3B Other Amenities ≤750m. 1point for any 4 Other Amenities, up to a maximum of 2 points;* Clinic/Medical Centre/Pharmacies, Police Station/Police Pondok, Religious Centre, School/Crèche/Kindergarten, Bank/ATM/Post Office, Library, Community Centre/Hall/Assembly Hall, Wet Market/Supermarket, Barber Shop/Hair Salon, Laundry, Hardware Store, Bakery, Newsagent	2 2	4	2 2	4	2 2	4
		Construction Management						
	SM4	**Earthworks - Construction Activity Pollution Control** Create and implement an ESC Plan		1		1		1
	SM5	**Sustainable Construction - Concrete Usage Index** ≤50 CUI/m2 ≤35 CUI/m2	1 1	2	1 1	2	1 1	2
	SM6	**IBS System** a) IBS score ≥50% b) IBS score ≥70%	1 2	2	1 2	2	1 2	2
	SM7	**QLASSIC - Quality Assessment System For Building Construction Work** CIDB's CIS: QLASSIC ≥70%		1		1		1
	SM8	**Worker's Site Amenities** Create and implement a Site Amenities Plan		1		1		1
		Transportation						
	SM9	**Public Transportation Access** *SM9A Public Transportation (Cover Seating and Waiting Area for ≥10% of total residential units up to maximum of 40 seats) (50% of points if use of private shuttle bus service)* a) 1 Lines (eg Bus) with walkway ≤500m b) ≥1 Lines (eg Bus) with walkway ≤750m c) ≥2 Modes (eg Bus & LRT) with walkway ≤1km *SM9B Connectivity* a) Dedicated walkway b) Dedicated 70% covered / shaded walkway	2 4 6 1 2	8	2 4 6 1 2	8	2 4 6 1 2	8
	SM10	**Dedicated Cycling Network** *Landed* Provision of Bicycle Lane (access to ≥90% of residential area) *Lowrise & Highrise* Provision of Bicycle Parking Area and/or Bicycle Lane (≥10% of total residential units)	1	1	1	1	1	1
		Design						
	SM12	**Stormwater Management** Implement a Storm Water Management Plan in compliance with MASMA		1		1		1
	SM13	**Hardscape** a) ≥50 combination of Shade (during occupancy) + Paving material with a SRI ≥29 + Open grid pavement system b) ≥75 combination of Shade (during occupancy) + Paving material with a SRI ≥29 + Open grid pavement system	1 2	2	1 2	2	1 2	2
	SM14	**Heat Island Effect (Greenscape and Water Bodies)** *Landed* a) Landscaping with native & adaptive plants including water body to 25% of development area b) Landscaping with native & adaptive plants including water body to 35% of development area c) Landscaping with native & adaptive plants including water body to 45% of development area d) Landscaping with native & adaptive plant including water body to 55% of development area e) Landscaping with native & adaptive plant including water body to 65% of development area *Lowrise & Highrise* a) Landscaping with native & adaptive plants to 15% of development area b) Landscaping with native & adaptive plants to 25% of development area c) Landscaping with native & adaptive plants to 35% of development area d) Landscaping with native & adaptive plants to 45% of development area e) Landscaping with native & adaptive plants to 55% of development area	1 2 3 4 5	5	1 2 3 4 5	5	1 2 3 4 5	5
	SM15	**Composting** Recycle landscape and/or organic waste to meet at least 50% of landscape fertilizer needs.		1		1		1
	SM16	**Building User Manual** Provide a Document detailing the Green building design features, strategies and maintenance requirements		1		1		1
	SM TOTAL			**32**		**32**		**32**
4	MR	**MATERIALS & RESOURCES**						
		Reused & Recycled Materials						
	MR1	**Materials Reuse and Selection** a) ≥2.0% of material reused b) ≥5.0% of material reused	1 2	2	1 2	2	1 2	2
	MR2	**Recycled Content Materials** a) ≥10% of material with recycle content b) ≥30% of material with recycle content	1 2	2	1 2	2	1 2	2
		Sustainable Resources						
	MR3	**Regional Materials** a) ≥50% of the material within 500km b) ≥75% of the material within 500km	1 2	2	1 2	2	1 2	2
	MR4	**Sustainable Timber** a) ≥50% of wood-based materials with MTCC&FSC b) ≥75% of wood-based materials with MTCC&FSC	1 2	2	1 2	2	1 2	2
		Waste Management						
	MR5	**Storage & Collection of recyclables** a) During Construction, provides dedicated area for recycling collection AND b) During Building Occupancy, provide permanent recycle bins	1 1	2	1 1	2	1 1	2
	MR6	**Construction Waste Management** a) ≥50% non-hazardous construction debris salvaged b) ≥75% non-hazardous construction debris salvaged	1 2	2	1 2	2	1 2	2
	MR TOTAL			**12**		**12**		**12**
5	WE	**WATER EFFICIENCY**						
		Water Harvesting & Recycling						
	WE1	**Rainwater Harvesting** (Lowrise and Highrise - Reduction in potable water consumption for common areas only) a) ≥10% reduction in potable water consumption b) ≥30% reduction in potable water consumption c) ≥40% reduction in potable water consumption d) ≥50% reduction in potable water consumption	1 2 3 4	4	1 2 3 4	4	1 2 3 4	4
	WE2	**Water Recycling** (Lowrise and Highrise - Reduction in potable water consumption for common areas only) a) ≥10% reduction in potable water consumption b) ≥30% reduction in potable water consumption	1 2	2	1 2	2	1 2	2
		Efficiency Landscaping & Fitting						
	WE3	**Water Efficient Landscaping** a) ≥50% reduction in potable water consumption b) 100% reduction in potable water consumption	1 2	2	1 2	2	1 2	2
	WE4	**Water Efficient Fittings** a) ≥10% reduction in annual potable water consumption b) ≥30% reduction in annual potable water consumption c) ≥40% reduction in annual potable water consumption d) ≥50% reduction in annual potable water consumption	1 2 3 4	4	1 2 3 4	4	1 2 3 4	4
	WE TOTAL			**12**		**12**		**12**
6	IN	**INNOVATION**						
	IN1	**Innovation in Design & Environmental Design Initiatives** **1 point for each approved innovation, up to maximum of 9 points.** eg 1) Bioswale (25% of the building perimeter) eg 2) Central Vacuum System (50% of NLA) eg 3) Charging Station for Hybrid Car (5% of the total provided parking spaces) eg 4) External Shading Devices (50% of glazed facade) eg 5) Herb Garden (For Landed-25% of landscape area and for Low and Highrise-10% of landscape area or 20m² whichever is the larger) eg 6) LED Facade Lighting eg 7) Light Pipes (1% of NLA) eg 8) Performance 'over the above' the stated criteria. (case-to-case basis) eg 9) Provision of 5-Star Energy Efficient Appliances eg 10) Recycling Fire System Water during regulat testing (Sprinkler and Wet Riser system) eg 11) Regenerative Lift (50% of installed lifts) eg 12) Self-cleaning Facade (90% of facade area) eg 13) Solar Hot Water System (all showers) eg 14) Turbine Ventilator (all roofs) eg 15) Wind Chimney eg 16) Vertical Green Wall (10% of facade)	1 1 1 1 1 1 1 1 1	9	1 1 1 1 1 2 1 1	9	1 1 1 1 1 1 1 1 1	9
	IN2	**Green Building Index Facilitator** At least 1 principal participant with the project team shall be GBIF		1		1		1
	IN TOTAL			**10**		**10**		**10**
TOTAL				**100**		**100**		**100**