



BIRLA ESTATES

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LIFEDESIGNED™
FOR
SUSTAINABILITY



GREEN INITIATIVE HIGHLIGHTS

1

Our values,
Sustainability at Birla

3

About IGBC

5

Our Green Building Projects

7

Water Saving Measures

9

Landscape Design
Management of Irrigation Systems



11

Parking Facility for Visitors
Electricity Charging Facility for Vehicles

13

CFC Free Equipment
Energy Saving Measures

15

Separation of Household Waste
Renewable Material Use

17

Heat Island Effect

19

Adequate Day Lighting
Innovation & Design Process



OUR VALUES

The Birla legacy champions trust and transparency; the driving force behind everything that we do.

We were built on the values of

- INTEGRITY • EMPATHY
- COMMITMENT • AGILITY
- SEAMLESSNESS • SPEED



SUSTAINABILITY AT BIRLA

At Birla Estates, sustainability is an inherited value system that comes from the legacy of the group.



THE CORE PILLARS OF THIS VALUE SYSTEM BEING:

TRANSPARENCY:

Through open communication with all the stakeholders.

STAKEHOLDER ENGAGEMENT:

Educating the employees, customers, and the entire community through various channels, about measures such as waste reduction and energy savings / efficiency.

FORWARD THINKING:

Envisioning the future centered around social, environmental and economic factors with innovative ideas for implementation.

With these, we bring you Birla Vanya – a Gold rated Pre-Certified IGBC Green Homes development with the idea of green living.

ABOUT IGBC



Indian Green Building Council

Indian Green Building Council (IGBC) Green Homes is the first rating programme developed for India, exclusively for the residential sector.

It is based on accepted energy and environmental principles, and strikes a balance between known established practices and emerging concepts.

The rating system has been developed based on materials and technologies that are presently available.

THE OBJECTIVE OF IGBC GREEN HOMES® IS TO:

Facilitate the effective use of site resources | Water conservation| Energy efficiency | Handling of household waste | Optimal material utilization | Design healthy, comfortable and environment friendly homes.

SOME OF OUR GREEN CERTIFIED PROJECTS:

Both Birla Centurion and Birla Aurora are Platinum certified under the Indian Green Building Council's (IGBC) Leadership in Energy and Environmental Design (LEED) India Green Building Rating system. The projects pursued certification under the Core and Shell program where only the design and construction of structural shell, façade and envelope, service and circulation cores, common facilities is in the developer's scope.



**BIRLA
AURORA**

WORLI



**BIRLA
CENTURION**

WORLI

IGBC Platinum Certified

IGBC Platinum Certified

OUR GREEN BUILDING PROJECTS



Birla Aurora, Worli



Birla Centurion, Worli

Green Building Highlights

Double glazed, Low-E, high performance glass façade ensuring savings in energy through reduced thermal radiation and optimum use of natural light

Efficient water management system through STP and rain-water harvesting ensuring substantial reduction in water consumption

Integrated Building Management Systems to control and monitor HVAC (Heat Ventilation and Air-Conditioning) equipment making it energy efficient

Ventilation and Outdoor Air Delivery System that exceed the ASHRAE Standard 62.1.2004 (Ventilation for Acceptable Indoor Air Quality)



**BIRLA
VANYA**

KALYAN

WATER-SAVING MEASURES

RAINWATER HARVESTING

Rainwater harvesting is a technique of collection and storage of rainwater in the ground water table, so it is not lost during the surface runoff process.



0%
WATER
DISCHARGE
DURING
NON-MONSOON
PERIODS

WATER
REDUCTION
UP TO
49%*

SAVING
AND
REUSE OF
OVER
35%*
OF WATER

WASTE WATER TREATMENT & REUSE

Through this method we will save and reuse over 35%* of the natural water.

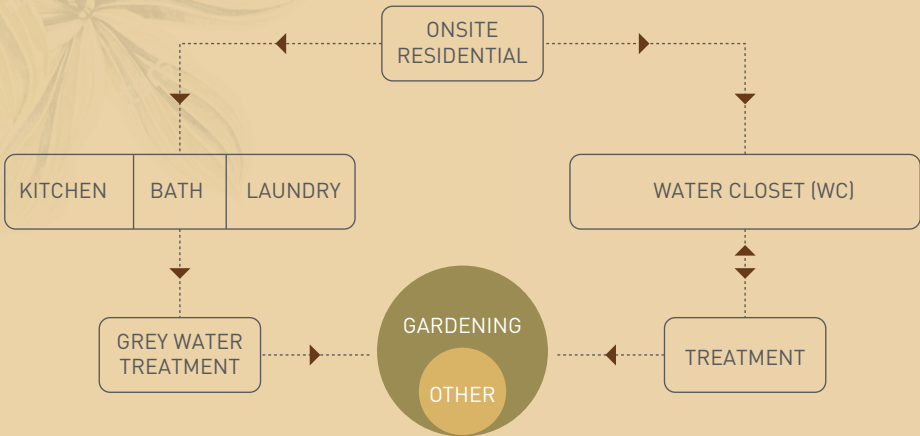
Water use reduction up to 49%* through the use of efficient flush & flow fixtures as well as use of treated water for flushing.

100%* of the wastewater will be treated and reused.

We will be using treated water for flushes to ensure reuse and conservation in the residences.

100%*

USAGE OF TREATED WASTE WATER





LANDSCAPE DESIGN

THE LANDSCAPE IS DESIGNED TO
ENSURE MINIMAL WATER USAGE

Ensuring 36%* water usage across open lawns.

Up to 64%* of the plants being planted will be
draught tolerant.



36%*

ACROSS
OPEN
LAWNS



64%*

DRAUGHT
TOLERANT
PLANTS

MANAGEMENT OF IRRIGATION SYSTEMS

WE WILL INSTALL WATER EFFICIENT TECHNIQUES ACROSS THE PROJECT THROUGH MULTIPLE MEASURES:

Installation of a centrally-located safety shut-off valve.

Implementation of drip irrigation.

Installation of time-based controllers & pressure regulating devices.



DRIP IRRIGATION



SAFETY SHUT-OFF VALVE



TIME BASED CONTROLLER





PARKING FACILITY FOR VISITORS

10% of the parking spaces are dedicated for the visitors, available across the project.

The design has kept in consideration both 2-wheeler and bicycle parking spaces.



1179**

SPACES
FOR
RESIDENTS



117**

SPACES
FOR
VISITORS



2950**

2-WHEELER
SPACES



2950**

CYCLE
SPACES

ELECTRIC CHARGING FACILITY FOR VEHICLES

We have kept in mind facilities that make for a greener future.

There are multiple charging facilities for electrical cars and 2-wheelers across the project: specifically, 61 car and 151 two-wheeler charging stations have been provided.



61**

CAR
CHARGING



151**

2-WHEELER
CHARGING





CFC-FREE EQUIPMENT

Provision of 3-star* air conditioners with environment-friendly refrigerant.

The air conditioners in the clubhouse will use only BEE 5-star* rated.



AIR CONDITIONER



ENERGY SAVING MEASURES

We have ensured that the most energy efficient options are used.

All the domestic use pumps and motors will be having more than 60%* & 75%* energy efficiency respectively

25%* of the street lights are solar powered.

There is provision of solar hot water in one toilet of every apartment



BUILDING
ELEVATOR



WATER
PUMP



SEPARATION OF HOUSEHOLD WASTE

We have simplified the process of recycling waste.

Separate waste bins for segregation equipped with OWC are provided for use.



ORGANIC WASTE MANAGEMENT POST-OCCUPANCY

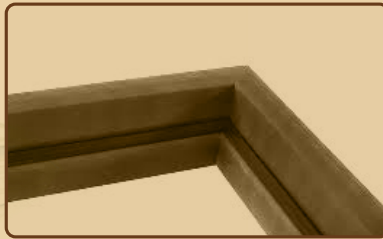
The organic waste management system installed will be able to treat 100%* of the waste generated on site, equalling to 750 kgs* per day. The converted manure will be used in landscape and the indoor plants within residences.



RENEWABLE MATERIAL USE



The door frames in all apartments will use 100%* FSC certified wood, ensuring responsible usage of wood.



LOW VoC MATERIALS, PAINTS & ADHESIVES

For better health, we will only use low Volatile Organic Compound (VOC)* paints and adhesives.





HEAT ISLAND* EFFECT

Concrete Built-up areas are hotter than nearby green areas

Air temperature in a city with 1 million people is warmer by
 $5.4^{\circ} - 1.8^{\circ}\text{F}^* (3^{\circ} - 1^{\circ}\text{C}^*)$.

In the evening, the difference is as high as
 $22^{\circ}\text{F}^* (12^{\circ}\text{C}^*)$.



HEAT ISLAND EFFECTS

Summertime peak energy demand

Air conditioning costs

Air pollution and greenhouse gas emissions

Heat-related illness and mortality

Water quality



MEASURES UNDERTAKEN TO REDUCE THE HEAT ISLAND EFFECT:

Residents can enjoy lower temperatures in open spaces (spread across approximately 11,500 sq. meters*) due to:

The use of light colored grey concrete in open driveway

Landscape features like open grid pavers on sidewalks that add to the greenery

Minimal hard paved surfaces.

Additional trees planted across the project to ensure maximum shade during the warm months.

Using treated water for flushing.

ADEQUATE DAY LIGHTING

All common areas have the adequate daylight level

Naturally daylighted apartments

FRESH AIR VENTILATION

Adequate natural fresh air ventilation in all apartments



Artist's Impressions

INNOVATION & DESIGN PROCESS

Through design methods, we have ensured that 40% of the entire project is green so that the residents and their families can experience uninterrupted greens



Artist's Impressions

40%*
GREEN



BIRLA ESTATES

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The Projects "Birla Vanya – Phase 1" and "Birla Vanya – Phase 2" are registered with MahaRERA under the Registration Nos. P51700019178 & P51700029755 respectively and can be viewed at <https://maharera.mahaonline.gov.in>.



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