



## Redevelopment of GPRA Colony at Sarojini Nagar New Delhi, SH: Construction of Commercial C



<b>Location</b>	: Sarojini Nagar, New Delhi
<b>Site Area</b>	: 8,833.78 sq.m.
<b>Built up Area</b>	: 35,130.64 sq.m.
<b>Typology</b>	: Commercial
<b>Rating Category</b>	: GRIHA Provisional Rating
<b>Version</b>	: Version 2015
<b>Year of Award</b>	: 2025
<b>Client</b>	: NBCC India Limited
<b>Green Building Consultant</b>	: Mr. Udit Gaurav

The following strategies were adopted by the project team to reduce the building impact on the environment:

### Sustainable Site Planning:

- Air pollution control measures such as site barricading, wheel washing facility and other appropriate measures were strictly adhered to during construction.
- Out of 102 existing mature trees, 80 trees were transplanted and 66 new trees were planted.

### Energy:

- EPI reduction of 44.80% from the GRIHA base case has been demonstrated through the integration of high-performance systems.
- Solar photovoltaic system of capacity 25.07 kWp has been installed.

### Occupant Comfort:

- 100% of the regularly occupied spaces are day-lit and meet the daylight factor as prescribed by NBC 2005.
- Low-VOC paint, containing less than 50 g/L of volatile organic compounds and free from lead, has been utilized in the project.

### Water Management:

- Reduction of 51.93% from the GRIHA base case has been demonstrated in the building water demand by installing efficient low-flow fixtures.
- Reduction of 96.6% in landscape water demand from the GRIHA base case has been achieved through the plantation of native trees and shrubs.
- Membrane Bio Reactor (MBR) –based STP with a capacity of 100 KLD was installed in the project.

### Sustainable Building Materials:

- Replacement of 29% of Ordinary Portland Cement (OPC) with fly ash by weight of cement in structural concrete
- AAC blocks with 71% of fly ash content have been used for walling in the project.

### Waste Management:

- Centralized waste collection facility has been provided in the project.
- Multi-colored bins have been provided for segregation of dry & wet waste.