

Ecological Sustainability – Energy Efficiency

- Natural Light and Energy Management
- Sociable Design
- Indoor Air Quality
- Water Conservation & Management
- Solar Energy Utilization

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Evolution comes with change! And change is both, challenging and interesting. Dalmia Bharat as an organization believes in adopting ideas that are eco-friendly and that benefits the environment. Dalmia Bharat Group's Infrastructure & Facilities Team worked with a firm to convert bare-shell to a fully furnished floor. The concept was to create an eco-friendly premise with effective utilization space but the underlying challenge was executing this in a multi-tenanted building in the commercial hub of the Capital – Connaught Place.

We all know that the base to any construction is the concrete that's been used. Hence, while doing the interiors for one of our premises, we opted for AAC (Autoclaved Aerated Concrete) shares Rahul Lal, National Infrastructure & Facilities Head, Dalmia Bharat Group who along with his team worked closely with architects in executing the design in sync with the corporate requirements. Materials used throughout the space, apart from AAC are glass work instead of wood, bio-green wall to ensure sufficient amount of oxygen, maximum natural light, LEDs, FM200 gas (gas suppression system in server room), double glazed tinted glass was introduced which has the capacity to absorb heat and make internal cooling temp more effective with less energy consumption. But the real star of this space is AAC and Lal shares the resultant advantages and benefits of using the AAC, such as:

1. Protection to Environment – It helps to reduce at least 30% of environmental waste
50% of decrease over green-house radiation
60% integrated energy on the surface of brick.
2. The remarkably good insulation properties of AAC means a pleasant interior environment and energy savings is achieved.
3. Excellent acoustic performance: Also, this can be used as an effective sound barrier like intertenancy walls.
4. AAC is totally inorganic and is incombustible so it is a fire resistant.
5. AAC wall self-adjusted the humidity by absorbing moisture and releasing humidity automatically, helps prevent condensation related to mildew.
6. It does not harbor or encourage vermin a light weighted as the block are one fifth of the weight of concrete and produced in available sizes of course easy to handle.
7. Long life – Very important they are not affected by a harsh climatic condition and will not degrade under normal atmospheric conditions.
8. Since they are light weight and easy workability means rapid on the and quick to install on site
"Also, while designing the project we tried to utilize the potential and the location of the property, as Hansalaya Building is considered to be one of the prominent buildings in Connaught Place, he adds".

There were a few notable changes that were incorporated to the interiors – These included:

Natural Light and energy Management – Replacement of existing windows with acoustic UPVC DGUs. Energy Efficient Light Fixtures like LED. This helps Maximize Natural light.

SOCIABLE DESIGN Open plan, use of glass embedded in floor & ceiling to create a visually contiguous office space. Small meeting hubs in cabin and cubical Acoustic Privacy- Door Systems and Glass partitions with Modernist furniture

INDOOR AIR QUALITY: Low VOC carpets, paints, etc. are used with individual temperature control for cabins and meeting rooms. Task Lighting & Ambient Lighting including Environmental Graphics.

WATER CONSERVATION & MANAGEMENT: Low flow prismatic fixtures for the conservation of the water

SOLAR ENERGY UTILIZATION: External glass to reduce heat gain.

Introduced “**Bio green Wall**” that helps in following ways.

- Remove Volatile Organic Compounds
- Prevent sickness in employees
- Reduce energy consumption

“Looking back, Lal takes pride in the new-look workspace today as ‘Implementing change that has led to mammoth reduction in environmental waste, integration of energy’. Opting for AAC was probably the best decision as it has led to benefits that are eco-friendly”, he concludes.

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