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# UTTORAYON SILIGURI

THE LARGEST SUSTAINABLE TOWNSHIP IN EAST INDIA

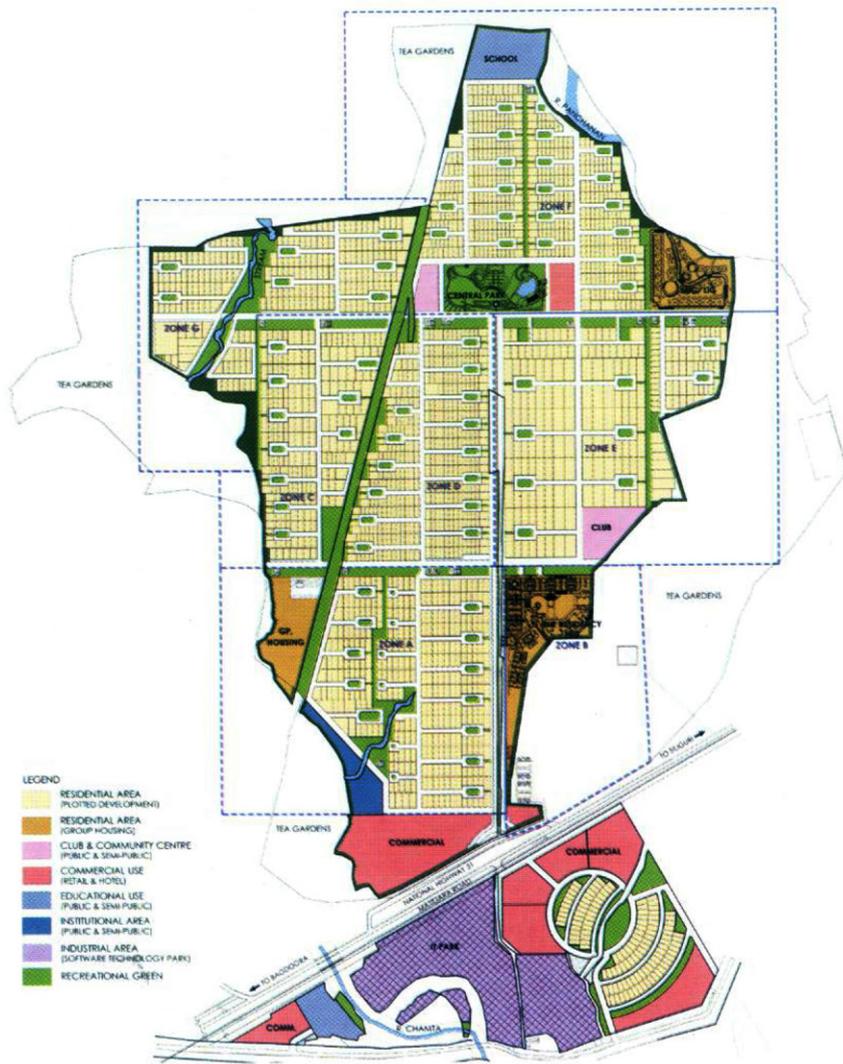
**S**iliguri is a location that demonstrates strong economic growth. Trade links are flourishing and the city is benefiting significantly from its strategic location as the gateway to the northeast. New jobs are being created to replace those lost in older traditional industries such as tea planting. Accompanying these changes is a desire for improvements in the built environment and in the general quality of houses, schools, hospitals and other socio-cultural facilities. The Uttorayon Township project strives to address these very issues and generate a development that may serve as a model for future developments.

Uttorayon is located on the fringe of Siliguri along National Highway 31 with a total projected development area of 394 acres and proposed population of 50,000.

The larger part of the proposed development lies to the north of the highway, and gently slopes up to the north with panoramic views of the Kanchenjunga, river Chamta, and the Siliguri town. The smaller part to the south of the highway is more undulating with large highway frontage and is planned for non-polluting industries, hotels, and other service sector projects. Nine kilometres from the Bagdogra Airport, Uttorayon is just 3 kms from the heart of Siliguri. Roads leading to Darjeeling, Assam, Kolkata, Katihar pass through the Matigara Road, which is the main arterial road of Uttorayon.

The aim was to achieve a development which would give back to the community and would have minimal impact on its environs. The approximately 394 acres site is a former tea garden which was on the verge of collapse due to topographical characters of the land. The project has been a collaboration between the land owner, a real estate developer and the state government.

Uttorayon is planned as a new urban neighborhood that addresses settlement identity, dynamic and flexible infrastructure, landscape and open space distribution through innovative approaches in planning, design and infrastructure provision. It is an ideal environment conserving all natural resources as well as ensuring a high quality life.

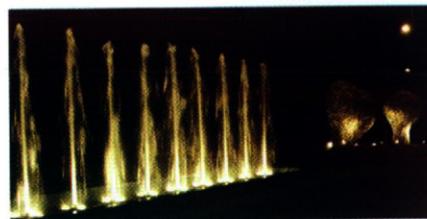


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**ABOVE: Master Plan of the Uttorayon Township**

**RIGHT: Entrance area**

**FACING PAGE**  
**ABOVE: The network of greens in the township**

**BELOW: Typical cluster layout plan with cluster green as the focus**



The core site planning strategy aimed to place the buildings and other usable areas on high ground while conserving the natural system of swales. The site has been divided into 7 zones and is designed as a grid with a main central axis and different social and commercial infrastructure facilities spread across the site as icons instead of isolated locations to give parity to the entire site.

### Green networks working at multiple levels

- Focal cluster greens,
- Central green – 6.5 acres,
- Connecting green networks, pedestrian paths, and
- Peripheral greens.

There has been a conscious attempt to include landscape as an ordering element. So while there is a central green, it is supplemented by peripheral green belts, green networks long the pedestrian spines and focal greens at the cluster level. The pedestrian spines in a typical cluster help form direct linkages to the peripheral greens, thereby ensuring balanced use and access to the larger greens in the township.

### Cluster Layout

- Closed settlement system,
- Easily identifiable,
- Single point of focus, and
- Defines territory clearly

A concept that has been intrinsic to the Indian context that of the clusters, has been re-interpreted and employed throughout the township to create a sense of settlement identity.

The clusters work on the basis of having a series of different house types arranged around a central focal green. Cluster greens become the centre of various community activities and act as truly democratic multi-functional spaces used as children's play

grounds, event spaces, as a celebration square and neutral interaction areas. Mixing of plot sizes around the greens ensures an equitable distribution of green throughout the site. The clusters are further linked to form a zone where vehicular and pedestrian movements have been segregated. This type of planning ensures each unit overlooks an open space for adequate light and ventilation which could become issues in a typical double loaded arrangement.

Based on detailed GIS studies of the land a drainage system was developed which would provide for virtual elimination of all storm water drains using the natural slopes of the land. This has resulted in seamless deployment of all services in a cost effective manner with minimal conflicts within the different layers of service systems and effective disposal of all rainwater without any flooding. This is given the fact that Siliguri receives the most rainfall in a year, almost upto 3 meters per annum. Natural methods like planting of reed beds and effective sewage treatment plants allows for the waste water to be reused within the site for horticultural purposes without employing traditional more expensive sewage treatment methods.

The fact that the site is a former tea estate, it was important to address the concerns of the workers of the tea estate. To minimize displacement of these people, there was adequate accommodation created for them within the township. In addition to which, the creation of community level greens and spaces that encourage social interaction between residents was an attempt at ensuring sustainability on the social and cultural front.

There are numerous methods employed to help the development to be environmentally sustainable. The entire development is a largely low rise, low-density township with minimum demands on its surroundings.





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**TOP: Amphitheatre with floating stage over the lake act as the main activity zone**

**BELOW: The pathway along the lake with colored foliage planting**

**FACING PAGE**

**The cluster green becomes the centre of various community activities and act as multifunctional spaces for the different age groups**

## Ecology

Seasonal water course run through the length of the site, some carrying water from the adjacent fields at slightly higher elevations. These are heavily eroded and through extensive grading these miniature valleys have become the landscape features of the township and have been planted with native trees. Check dams have been proposed at intervals on the length of the stream which will ensure that the water gets absorbed into the ground. The watercourse forms a linear landscape of wilderness with opportunities of recreation, bird watching and ecological learning. It is a natural setting enhanced so as to encourage a greater awareness of ecology as part of a holistic education.

## Central Park

The central park on the termination of the axis of 35 metre main road is 6.5 acres of open landscaped area. The location of the park is strategic at the notional centre of the township, between the housing zones D and F. The surrounding residential land use makes it the hub of all activities.

The park has been divided into various areas dedicated to a variety of activities for different age groups and visual experiences. According to the functional requirements the park has a specialized restaurant, children's play area, terrace garden, jogging tracks etc. The restaurant area serves as the main activity zone.

An amphitheatre with a floating stage over the lake has been created to add an element of activity to the complex. A series of fountains line the stage which have been aesthetically coordinated with the natural mountain range in the distance to provide an exquisite backdrop.

Other than the specialized restaurant entries, there are six other well-distributed entry gates. This caters to the high number of residents using the park from the adjacent housing. Each entry has been given a different landscape experience with mounds, pavilions, water body and terrace garden.

The visual character inside the park has been given different geometries. For example the terrace garden on the north side has been given formal straight-line geometry in contrast to the jogging tracks which follow a curvilinear arrangement. The pavilions and mounds bring up the volumes and reduce the planar layout.

The varied activity areas of the park such as the restaurant, amphitheatre, children's park etc. are held cohesively by the curvilinear jogging track thus giving the park a single entity with pockets and zones of specialised interests.

This has helped in achieving a centralized open green area. The culmination of pathways into pavilion or tree clusters creates secondary focus within the park.



The park addresses ecological issues like water run-off; maintaining existing landforms and plantations. The slopes of the park are designed in a manner which facilitates the collection of the water run-off in a specialised sunken area which can be later used for rain water harvesting. A large number of trees have been planted along the periphery of the park to visually contain it within boundaries and to act as a buffer against the traffic roads.

To visually create a mixed landscape green, the trees are divided into segments of ornamental, ground covers and large trees. The planting scheme is developed depending on the seasons, the probable heights and volumes, shades, fragrances and floral arrangements that the trees are expected to exhibit once in full bloom.

Project Name **Uttorayon Township**  
 Location **Siliguri, West Bengal**  
 Total Area **394 Acres**  
 Client/ Developer **Luxmi Township Ltd.**  
 Landscape Architect **Integral Designs**  
 Landscape Design Team  
**Samir Mathur**  
**Malavika Samanta, Sumedha**  
 Architect  
**Morphogenesis Architecture Studio**  
 Landscape Civil Contractor  
**Bengal Ambuja Housing Devp. Ltd.**  
 Landscape Horticulture Contractor  
**Maya Nursery**  
 Year of Commencement and Completion  
**2004 – ongoing**  
 Current Stage **Phase III**

Plans and images courtesy the author

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