International Conference on Recent Developments in Engineering, Humanities and Management
Osmania University Centre for International Program, Hyderabad (India) (ICRDEHM-18)
25th November 2018 www.conferenceworld.in ISBN:978-93-87793-57-6

Urban Landscape Planning: A Case Study of Palava City

Matieda Ajaysinh Dolatsinh

[1] *Post Graduate Student, Town and Country Planning,*

Sarvajanik College of Engineering and Technology (Surat, Gujarat)

ABSTRACT

Residential landscape and environment surrounding human being is important constituent of urban environment. The environment of residential area has closed relationship with human`s living. Urban landscape is combining urban buildings and space environment outside the buildings. Urban planning is necessary for safe city framework to achieve safety, health, convenience and comfort. The improper residential landscape planning had created negative effect on quality life of human being. This paper focuses on the importance of landscape planning and understanding of the role of gardens and green spaces in urbanization and urban planning with a case study of Palava City.

KEYWORDS *- urban planning, landscape planning, ecological environment, green city pockets*

1. INTRODUCTION

Urban planning and landscape planning are mutual effective and permeable. Urban planning paves the way for the development of landscape planning, while landscape planning specifically shows the function and culture of a city. Urban planning is about the specific arrangement and management of economic and social development, land utilization, space layout and other construction of a city. Urban planning is to appropriately utilize urban land and coordinate urban space layout and other construction. Urban landscape is the combination of residential living and outside space environment and co coordinating both the things in harmony.

Palava city is an exemplary case when studying the landscape planning and values of green pockets and spaces in the city. Palava is India `s first privately planned integrated smart city which has already been ranked India`s no. 1 smart city. Palava city was developed by Lodha group and is managed by Palava city management association. Palava is spread over 4500 acres of land which is wonderfully organized and planned with harmony of nature. It is located at the junction of Kalyan, Navi Mumbai and Dombivali. Palava city offers a wonderful environment which is having vast open spaces, world class education and sports facilities, walk to work opportunities, cultural avenues and modern homes. Over 1 lakh residents are residing in Palava City.

2. PLANNING OF PALAVA CITY

The planning of Palava city is shown below in Fig. 1 . The city`s various aspects of planning are based on the 5 p`s and they are broadly classified as follow:

2.1 Planned
2.2 Potential
2.3 Place
2.4 Pulse
2.5 Prudent

Fig. 1

detailed map of Palava city

2.1 Planned

Every part of Palava City from open spaces, cultural zones, business district and the university is thoroughly planned. Palava City is perfectly planned with perfect harmony of nature and connectivity to business centres. Palava is beautifully balanced and surrounded by natural gifts on one side and key amenities and infrastructure around it. The city is planned by connecting all the dots including human intelligence, technology and infrastructure. Palava Smart City is also known as the 'City of Opportunities'. The name of city is derived from the Sanskrit word '*palava*' (Budding Flower). Palava is a city with endless possibilities which help its people to flourish and exceed their potential in every aspect of their lives.

2.2 Potential

Palava Smart City not just offers quality of life to its citizens but also became a balancing ecosystem for nurturing businesses, creating jobs and delivering growth. Palava provided 1.5 lakh jobs. A smart card (Kotak Mahindra Bank) is given to all Palava citizens who allow cashless transactions at retail centres, access to bus service, public Wi-Fi within Palava's premises, building and commercial points of entry and information access from the Palava experience centre. This smart card is also capable of facial recognition and is used as a key to enter buildings with advanced security systems. The same smart card also operates the electrical equipment at home through motion sensor technology. In addition, there is a promise of 30 per cent savings on electricity and water costs, from the Maharashtra State Electricity Distribution Co. Ltd. for 24-hour electricity supply and solar panels powering street lights. It also has an intended tie-in with General Electric Co. (GE) for 100 per cent water recycling and automated water metering and billing, ensuring transparency and zero water loss. The city is one that should completely run on technology—be it for electricity, gas, sanitation and recycling, ensuring 24/7 water supply, traffic and transport systems that use data analytics to provide efficient solutions for easy commuting, automated building security and surveillance systems, requiring minimal human intervention.

2.3 Place

The city is situated between Thane, Dombivali and Navi Mumbai. It is, thus, well connected by road, rail, air and waterways. The city is strategically located, and is an approximately 30 minutes' drive from the upcoming Navi Mumbai International Airport (Panvel). It is also a short drive from the key employment hubs of Kalyan, Thane and Navi Mumbai. It takes hardly one hour from the central point of south Mumbai to reach Palava via the new eastern express highway. It is situated at the epicentre of business and provides a holistic, urban environment that will set the standard for twenty-first century living in India.

2.4 Pulse

The Smart City project would comprise a vibrant centre for arts and culture, as big as Mumbai's NCPA with multiple theatres, where one can watch famous plays, music and dance performances, concerts and also enrol in workshops promoting artistic pursuits like ballet and salsa classes and blues and jazz studios, among other activities. All great cities like New York, London and Paris have a buzzing, energetic and lively place referred

to as 'Downtown' that commands premiums in rental and capital values. Planned around the same concept, Downtown will be the heart of Palava City with entertainment hubs, buzzing shopping streets and vibrant cultural spaces. A 15-minute walk will lead to public facilities like the university, the Olympic sports centre with professional academies and the Commercial Business District (CBD). M/s Lodha have tapped into world-renowned experts on urban planning from companies such as Sasaki (Boston) and Buro Happold (New York), to initiate and support the planning process. Firms like Prabhakar Bhagwat Associates (India's leading master planning and landscape firm), Level Infra (New York) and Tata Consulting Engineers (TCE), apart from International Business Machines (IBM) have also been involved in the making of this city.

This includes a vibrant business environment, outstanding educational and healthcare facilities, unparalleled cultural and sports infrastructure and safe public spaces, in addition to high-quality residences at affordable prices for its residents. Indeed, Palava aims to be the model for twenty-first century urbanization in India where citizens, administrators and developers come together to create world-class opportunities of growth and prosperity for all.

2.5 Prudent of Palava

The technology driven consulting firm IBM has entered into an agreement with real estate player M/s. Lodha Group to design, develop, deploy and manage Smart City infrastructure through technologies. Palava is a completely Wi-Fi-enabled city.

Palava is incorporated by IBM's smarter city technology using advanced data-driven systems to integrate information from all operations in city into a single system. IBM has integrated services in areas such as power, water, waste, transportation, public safety and smart cards with a Central Command and Control Centre (4Cs). All lighting in common areas are solar or LED, while utility meters are installed to reduce wastage, for example, by detecting any water leakages. IBM is having a central hub to monitor and enable coordination among Palava city and agencies involved in public safety and emergency management system.

Palava City Management Association deal with day-to-day issues of the residents as well as 311 grievance helpline numbers and 911 emergency helpline are given to the citizens for their convenience. Palava's technology also extends to 500 surveillance cameras that capture real-time data from entire city, face recognition for entry and exit, panic alarms at every 200 metres. This is giving full security for whole city.

3. CITY PLANNING AND MANAGEMENT

An Intelligent City Operations Centre at Palava is acting as a centralized and integrated platform for citywide services and enables efficient city governance through the use of the latest 'smart' technologies. Recognizing the value of involving citizens in the running of the city, Palava is running by a not-for profit city council that is having representatives from the citizens and experts in city management as members. Each neighbourhood is

having a pedestrian-focused design and is planned to be self-sufficient, with all daily needs met within a 5- to 10-minute walk from home and public facilities merely 15 minutes away. In 2011, fibre optic cables were installed in the entire city. Today that is paying off because all city sensors, all city security cameras and every lift alarm and fire alarm provide data on that fibre back into City Centre.

4. PARTICIPATIVE GOVERNANCE

The city intends to offer well-rounded and fulfilling lives to its citizens by enabling economic prosperity and creating an inspiring social and cultural environment. IBM built a service platform for citizens to interact with city administration and manage various services offered by the city. Using mobile and social technology, the service platform enabled citizens to communicate with city officials, access amenities and services, report on issues and receive feedback from city officials. This enabled city officials to better handle citizen concerns, rapidly gather feedback via social media (Facebook, Twitter, LinkedIn) and more effectively manage city resources to fulfil various needs. Some of the technologies for participatory governance include Palava e-Portal and smart cards.

5. TRANSPORTATION

The already operational eco-drive buses provide service within the city and a state-of-the-art transport hub will connect with external transport facilities. The Fleet Management System ensure efficient operation of public vehicles while system enablers that predict traffic, help prevent congestion. The Parking Management System ensure hassle-free parking. 24/7 monitoring and emergency response teams, video surveillance, a highly trained security force, street level panic alarm systems, electronic access control and automatic fire alarm systems in buildings ensure total safety in the city.

6. HEALTHCARE AND LEISURE

A multi-specialty hospital affiliated with the university to encourage R&D, pharmacies and clinics is planned to be within a 10-minutes' walk from one's home, and it will ensure world-class healthcare at Palava. The Centre for Arts and Culture, lakefront and river-front plazas, a 0.5 million sq. ft. mall with a multiplex, high street retail and a 100-acre central park are just some of the numerous spaces in the city that enable people to indulge in a range of pursuits, towards a fulfilling life. The city management planned to plant even the healthcare tourism facilities.

7. SECURITY

Lodha's vision of public safety is one of the primary focus areas for Palava. IBM is employing expertise from numerous client engagements to define and set up technology-enabled procedures to effectively handle different types of situations that could affect the city. IBM support a central hub to monitor and enable coordination

among the Palava city and agencies involved in public safety and emergency management. Centralized city operations allow for real-time monitoring of incidents and enable public safety personnel to take coordinated actions quickly. A large number of CCTVs, IP cameras and smart cards assist in people, physical objects and even event monitoring in the real-time systems.

8. BUSINESS

The Central Business District (CBD) offer millions of square feet of world-class offices at competitive rates and world-class infrastructure. Palava's vision is to create 3.5 lakhs jobs by 2025 across retail, education, medical, entertainment, services and other sectors. This will truly make the objective of 'walk to work' life for Palava citizens a reality.

9. EDUCATION AND SPORTS

Palava City will be home to over 20 schools, a world-class multi-disciplinary university and an Olympic Sports Complex with international-level professional sports academies. Palava already has operational world-class facilities such as the Lodha World School and a preschool, sports facilities and training academies in clubhouses, a cricket ground, a FIFA standard football field and a nine-hole golf course, apart from convenience retailers.

10. CONCLUSION

This paper concludes the concept and principles of urban landscape planning, namely, urban landscape planning should follow the principles of nature priority and humanism to properly organize and allocate urban landscape structures and functions so as to achieve the goal of safety and comfort. It takes the case study of landscape planning in Palava City to analyze its orderly development and livable ecology; looks into the future of urban landscape planning, namely, sustainable planning to provide theoretical support for the development of an ecologically and environmentally friendly low-carbon city. Paper shows various planning principles on which Palava City is constructed and thus shows the harmony of planned structure with nature.

REFERENCES

[1] Hanyun Liu, Status Analysis and Vision on Urban Landscape Planning Take Chengdu City as an Example, *1890, 040029 (2017); doi: 10.1063/1.5005231, American Institute of Physics*

[2] Bruno Notte boom, Residential landscapes—Garden design, urban planning and social lformation in Belgium, *Elsevier Journal Urban Forestery and Urban Greening G Model UFUG-25860*

[3] Somayya Madakam, Ramaswamy R., Hema Date, Quality of Life @ Palava Smart City: A Case Study, *DOI: 10.1177/0972150917721822 Sage Publications at Global Business Review*