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## Integrated Redevelopment of Foreshore Estate and Srinivasapuram

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### ABSTRACT

*In Chennai, there are constraints on the availability of unused land within the city limits, coupled with fast-growing demand for built spaces and sky rocketing prices. On the other hand, that there are thousands of aging buildings which are dilapidated and under used blighted urban areas which have reached a stage where it is not possible to carry out structural repairs and rehabilitation as the same are not economically viable. Therefore, redevelopment has become a necessity as in time these areas become more dangerous and unfit for habitation. One such potential project is the Integrated Redevelopment of Foreshore Estate, where a large land parcel available for re-development, right on the shoreline. Foreshore Estate is an ideal location from where one could easily reach the most sought-after locations like Adyar(which is a largely residential neighborhood in south Chennai with very high property values), Besant Nagar, R A Puram, Alwarpet and Mylapore(it is a cultural hub and neighborhood in the southern part of the city of Chennai .it is also known for its tree-lined avenue), MRC Nagar ( it is a commercial hub of the city which also include residential areas), as well as the best of the hotels in the city, besides critical facilities like the airport, sea port and railway station within 10 to 30 minutes. The idea is to develop a mix of high-end residential units, a fair amount of commercial space and also allot sufficient space for the development of low-cost housing units, as the re-settlement of earlier tenements also has to be addressed. Tamilnadu Slum Clearance Board (TNSCB) and Tamilnadu Housing Board (TNHB) together hold 51.01 acres of land (23.5 and 27.51 acres respectively) in Srinivasapuram and Foreshore Estate area, facing the Marina Beach. Projected as the "Integrated Development in Foreshore Estate" the scheme envisions malls, luxury hotels and high-end residential complexes for private parties and senior Government officials and resettling the 3576 slums and 2000 housing board tenements.*

**Keywords:** *Redevelopment, Slums, Urban Level Study.*

### 1. INTRODUCTION

Chennai "The Gateway of South India" is one of the few cities in the world along with cultural significance, Temples and Beaches add more value to Chennai. Chennai is the third most visited city in India by foreigners after Mumbai and Delhi. It currently has thousands of people residing in both unrecognized and objectionable predominantly along the cities three major ways: The Adyar River, Cooum River, and Buckingham Canal. Srinivasapuram is sited upon a narrow stretch of land south of Chennai's Marina Beach at the mouth of Adyar River. Local Residents in both have been strident in their demand for more houses to accommodate a

large number of people without secure tenure and the natural expansion of tenement families. There are currently 2682 tenements and approximately 7000 encroachments in Srinivasapuram and Foreshore estate. The World Bank scheme, under the Emergency Tsunami re-construction project, was to have constructed 3576 tenements: 992 Foreshore estates and 2548 in Srinivasapuram.

## 2. HISTORY

In 7th Century Pallava port of Mylapore is believed to have been on the Northern bounds of Adyar estuary. In 1798, Adyar finds a position in British map as a Suburb. Later in the 18th&19th century British garden houses were built on the northern bank of the river. In 1967 A.D. the broken bridge was built connecting the fishermen hamlets on the Adyar side to that of Srinivasapuram on another side. In the mid 20's Fisheries Department of Government of Tamilnadu controlled the creek area and settled fish farming and related institutions. In the late 20's there was wastewater and sewage inflows, continuous dumping of debris and garbage along the river, estuary, and creek. In this 21st century heavy construction activity along the creeks edges of Marina Beach runs from Fort St. George in the north to Foreshore estate in the south, a distance of 6.5 Kms. It has been the most open space of the city and hosts several events throughout the year, which included the Jallikattu revolution.

## 3. AREA OF THE STUDY

The area of study includes Socioeconomic study, Market Analysis, Urban level study, Analysis of existing infrastructure, Neighborhood plan and land values as the land is in a prime area and is thoroughly underutilized.

## 4. SETTLEMENT MAP



Figure-1: Settlement map from 2011-2016

## 5. TOPOGRAPHY AND CLIMATE

The city has an average elevation of 6m and its highest point being 60m with the coastline along Foreshore estate and Srinivasapuram is full of sandy soil. The temperature over the course of a year varies from 21°C to 38°C and rarely below 20°C. The precipitation is most likely around 1200mm/year with humidity from 39% to 95% over the course of the year and wind speed varies from 0m/s-7m/s. Chennai's tropical climate is high temperatures and humidity that supplies the region with an approximate rainfall of 1200mm/year. The Bay of Bengal produces several tropical storms every year that causes wide spread damage along the eastern coastline. Vardah crossed Chennai on December 12, 2016, with wind speed estimated 105 km/hr and claimed over 18 lives.

Table-1: Amenities

Transportation	Hospitals	Institutions
Airport : Chennai International Airport: 16km.	Private Hospital: 800m	St.Lazarus Middle School : 850m
Bus Stop: Srinivasapuram Bus Depot: 500m	BSS Hospital: 1.4km	Santhome Higher Secondary School: 1.9km
Railway Station: Light House MRTS Station: 2.9km	Apollo Spectra : 1.6km Billroth Hospital: 1.8km	St.Bed's Anglo Indian Higher Secondary: 1.3km

## 6. NEIGHBORING CONTEXT

Marina Beach is a natural urban beach in the city of Chennai, India, along the Bay of Bengal. Mandavelipakkam is seen as a residential and business area located between Santhome to the north and Adyar to its south. Mylapore is a cultural hub and neighborhood in the southern part of the city of Chennai. Mylapore is known for its tree-lined avenues Nochi and Dunningkuppam are largely populated fishermen residential area in Chennai, famous for fish markets. MRC Nagar is a

commercial hub of the City. It also includes residential area. Adayar is a largely residential neighborhood in south Chennai with very high property values.

### 7. SERVICES AND INFRASTRUCTURE



Figure-2: Showing the Encroachments

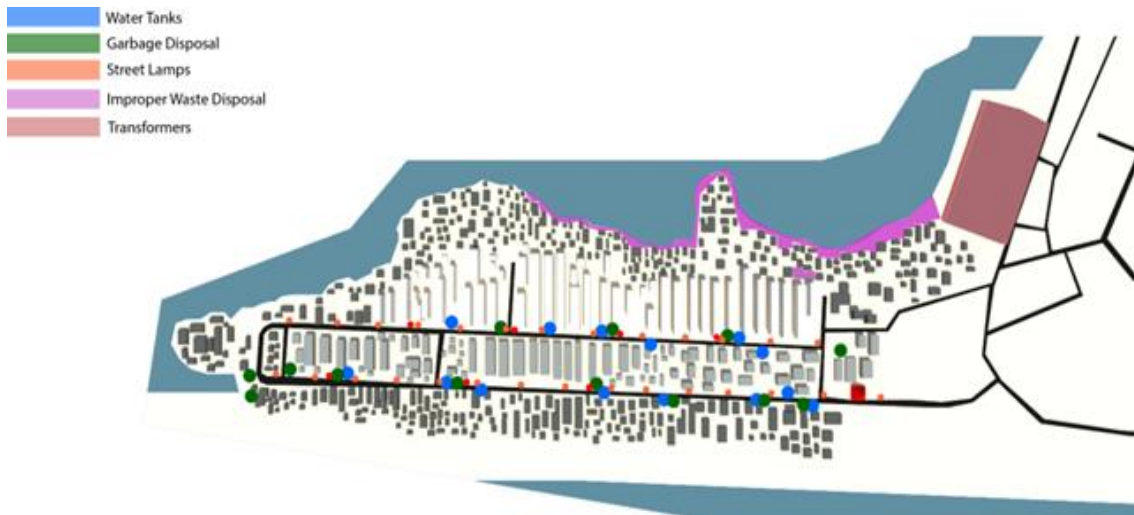


Figure-3: Showing the Services Systems

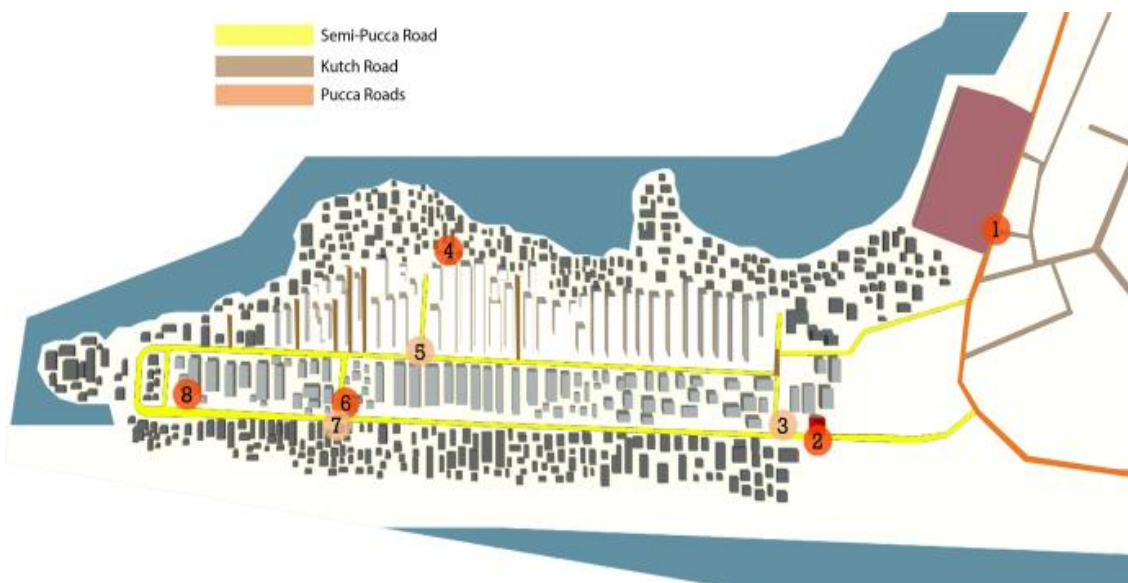


Figure-4: Showing the Roads Systems



Figure-5: Showing the Settlements

**Environmental Challenges**

- Height restrictions of the buildings on the shore line.
- Reduce the hard pavement.
- No compound wall facing the sea.

**Institutional Challenges**

- The non-existence of institutional memory.
- Poor transfer of information.
- Poor documentation of process and implementation.
- Lack of awareness and community participation.
- Lacks timeline in projects.

**Design Challenges**

- Minimize footprint.
- Incorporate community and educational needs.
- Multidimensional and flexibility.
- Provide the necessary social amenities and infrastructure.
- Prevent further encroachments

**Financial Challenges**

- Delay of payment due to change in political parties.
- Failure of public-private partnership.
- Less returns after completing the project.

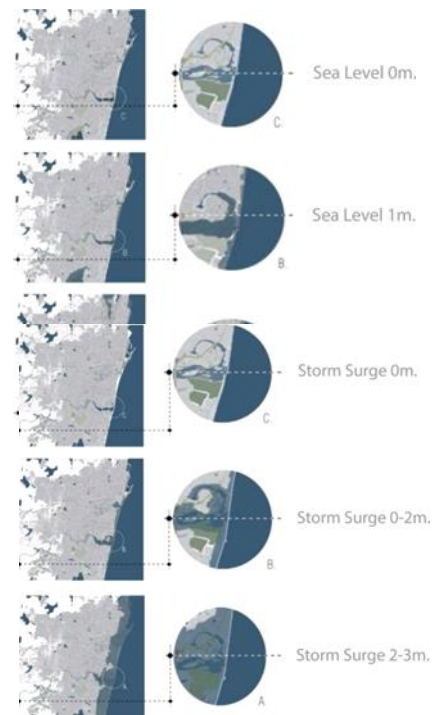


Figure-6: Showing the Storm surge & Tides

Table-2: SWOT Analysis

Strengths	Weakness	Opportunities	Threats
<p>Living next to the seashore, the fresh environment marks their strength</p> <p>The natural sea breeze reduces the load on electrical air-conditioning</p> <p>Since the markets are present next to the residences there is less travel between work space and home for the people belonging to the fishermen community</p>	<p>Unhygienic living conditions created due to poor living standards and improper drainage systems</p> <p>Encroachments between open spaces and setbacks</p> <p>The inadequacy of basic amenities</p> <p>Social in acceptance in the shifting of place</p>	<p>Seafront development</p> <p>Proper proposals for housing development will increase the living conditions of the people.</p>	<p>High risks of flooding</p> <p>Risks of disasters like storms, cyclones, tsunami etc.</p> <p>Political conflicts</p> <p>Risk of increase in encroachments</p>

**8. FINDINGS & INFERENCES**

- To focus on the uplift of Infrastructure facilities in the selected region, as this acts as a prime location in Chennai.
- To give new life to the community
- To avoid encroachments by providing all amenities for satisfying all their needs
- To uplift the environmental conditions by adding eco-parks and promenades for relaxing
- To rework on the existing transportation facilities by adding additional routes for the convenient free flow of traffic.

### 9. THE PROPOSAL OF SRINIVASAPURAM

A Podium is created which acts as the commercial platform for Srinivasapuram. The commercial area can be accessed only through the main road that runs along the Adyar Phase II Park. The HIG residential towers sit over the commercial platforms. The Residential towers can be accessed from the restricted entries from the cross roads.

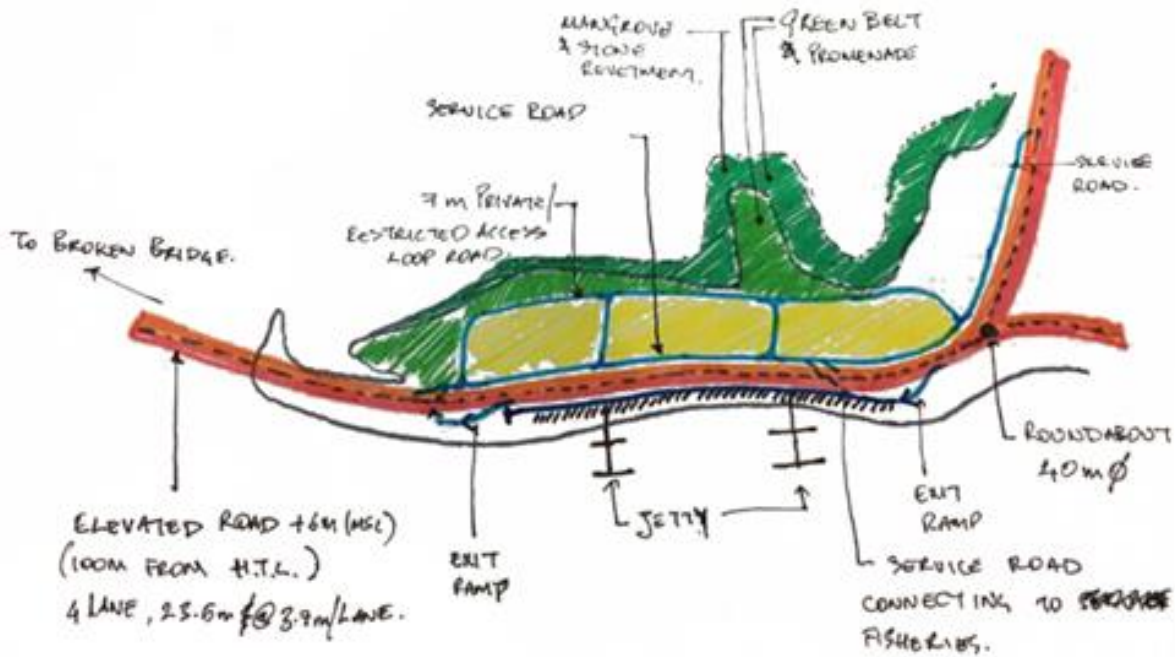


Figure-7: Showing the Different Zones in Srinivasapuram

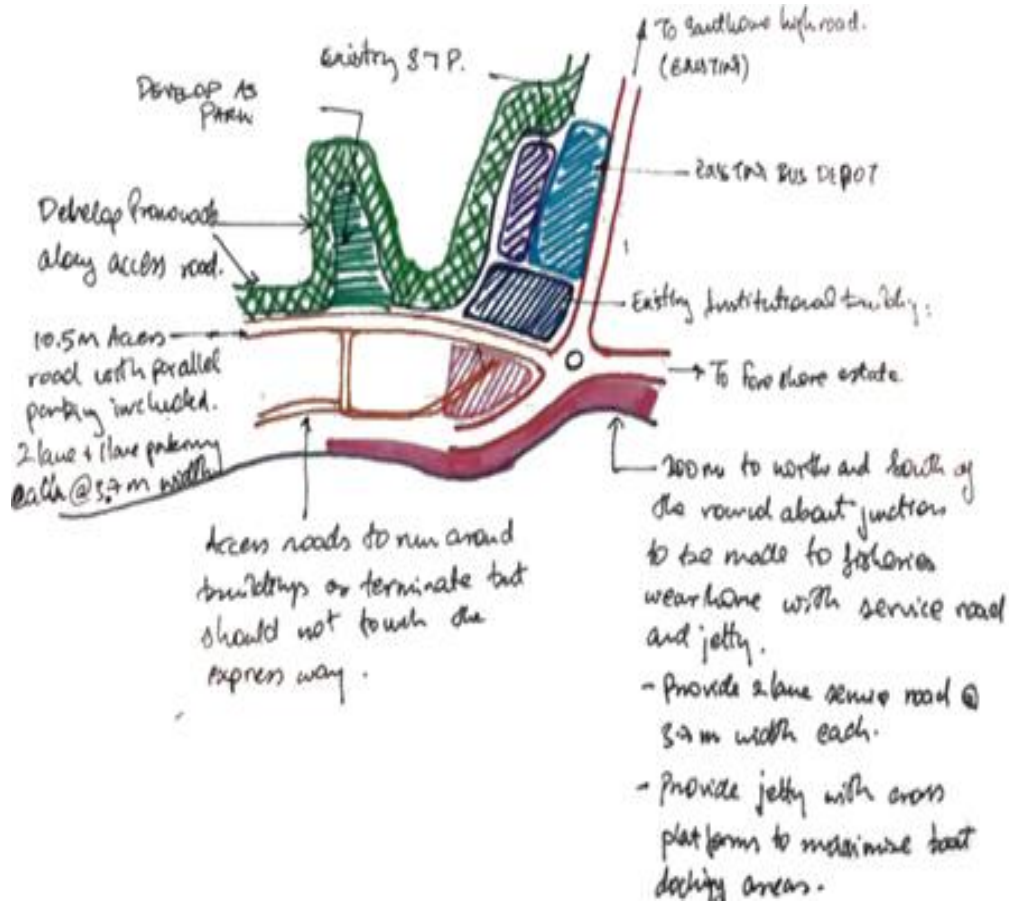


Figure-8: Showing the Different Zones in Foreshore Estate

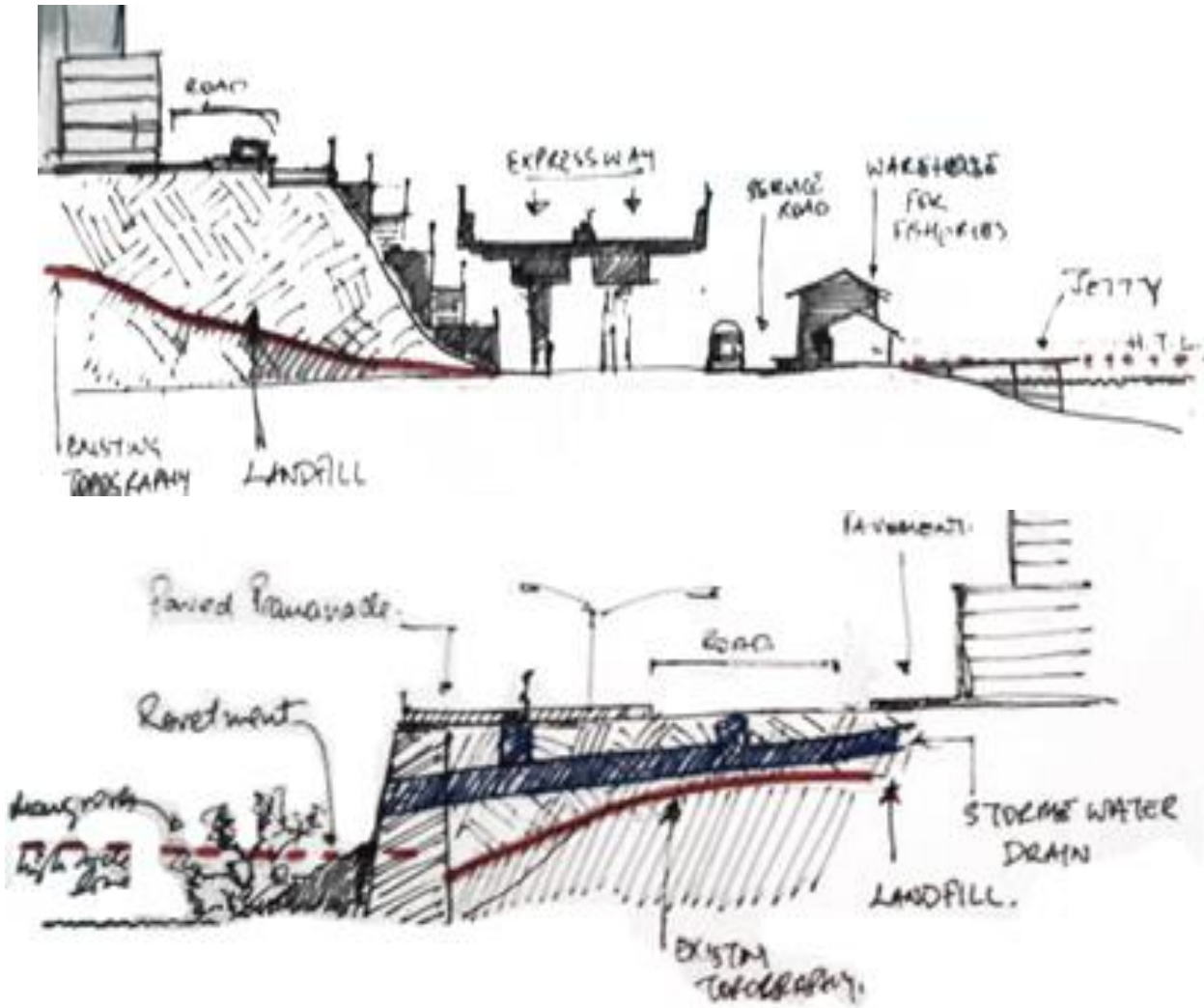


Figure-9: Showing the Road Sections

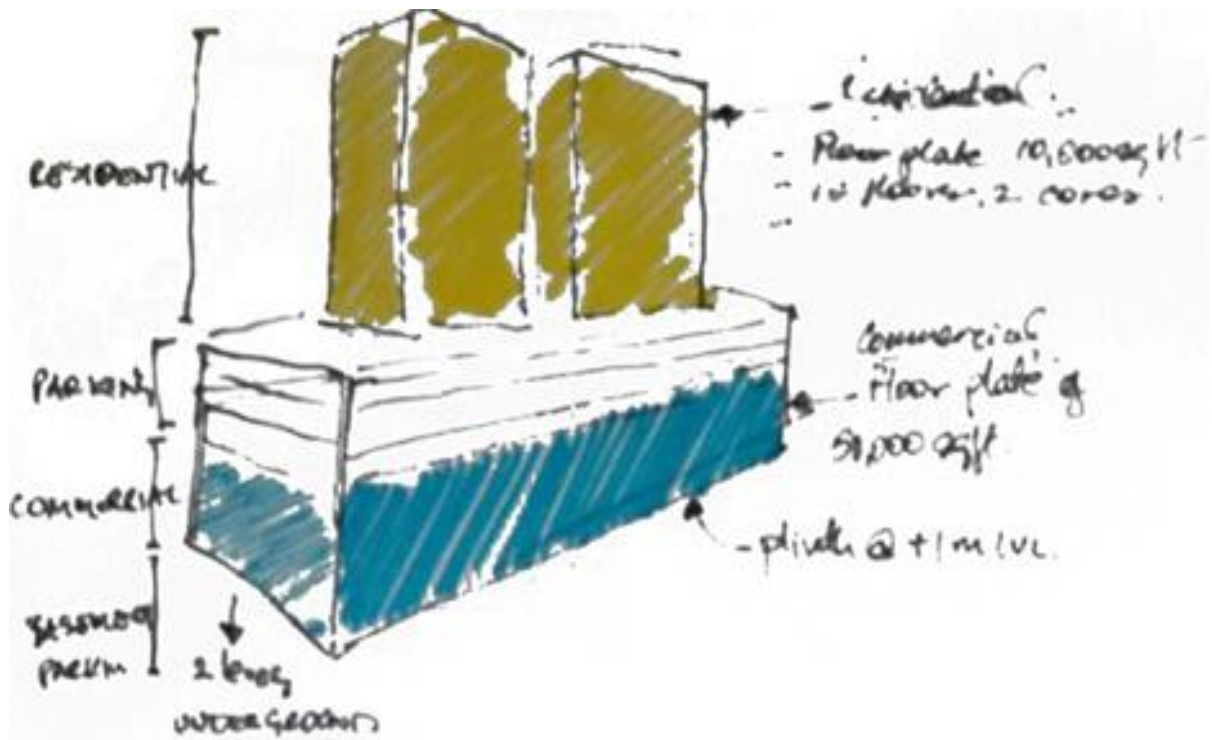


Figure-10: Showing the Conceptual sketch for Exterior View of Proposed Building

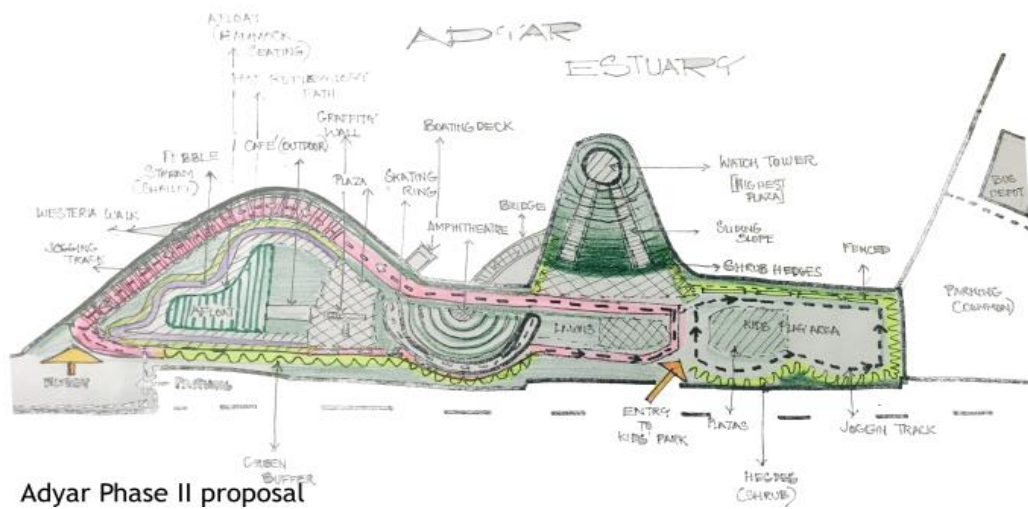


Figure-11: Showing the Proposal of Eco Park

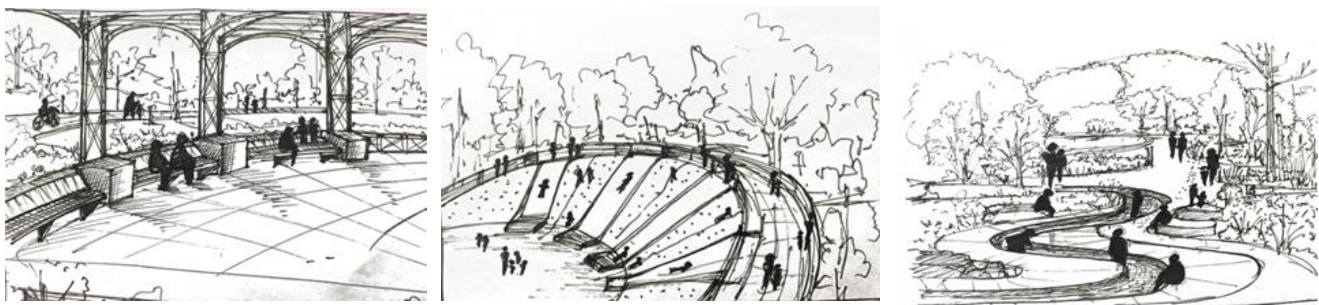


Figure-12: Showing the Sketches of the Eco Park with Play and Relaxing Areas

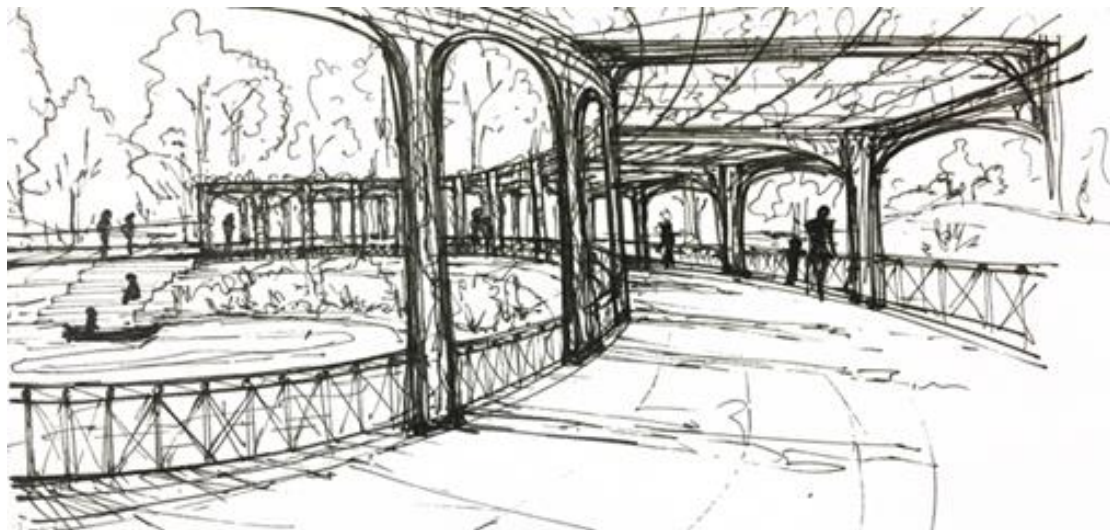


Figure-13: Showing the Sketch of Promenade

## 10. CONCLUSION

After thorough study of the life style of the people, living conditions, surroundings, the storm and tidal study, challenges faced by the people, SWOT Analysis, a proposal is made to uplift the living standards of the people, provide them with required amenities like malls, Luxury Hotels, high-end residential complexes for private parties and senior Government officials and also resettling the 3576 slum and 2000 housing board tenements with additional recreational spaces with open, semi-open and enclosed, creating promenades, by which increases the land value and socio-economic conditions of the people. The connecting bridge that was proposed in the design reduces and controls the traffic flow in making the travelers to reach the destinations within no time. And promenades are added along the periphery of the bridge proposed for nature viewers.

Thus, finally proposed to achieve and add value to the environment of the Srinivasapuram and Fore shore estate.

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