

Urban Design Portfolio

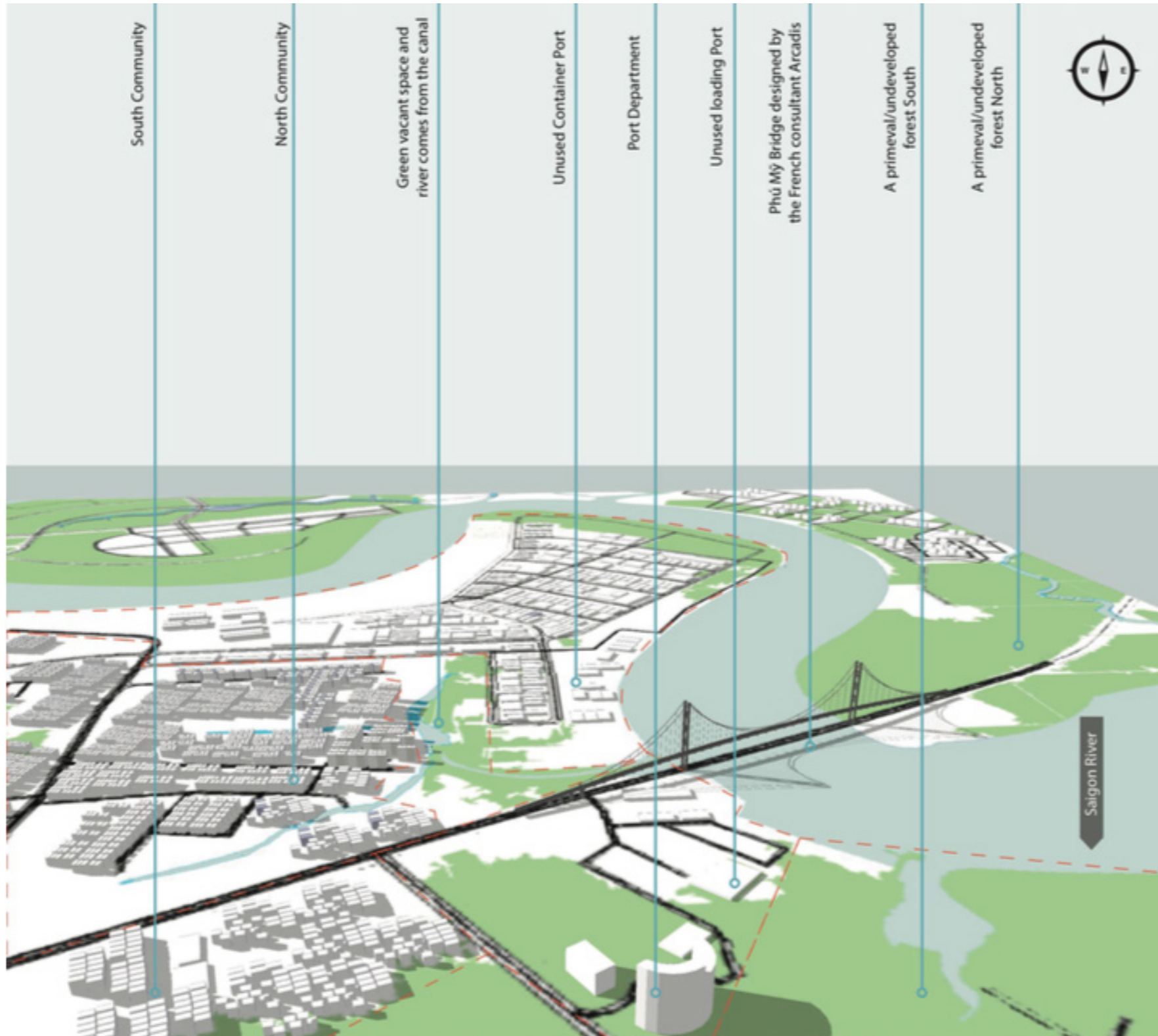
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Water City-HO CHI MINH CITY



Current Situation



Introduction:

Ho Chi Minh City (Saigon) is the economic centre of Vietnam. With only 8% of the national population, HCMC accounts for more than 20% of key aspects of the economy and attracts about 50% of all available foreign direct investments (FDI) capital. Having undergone rapid development, like many other cities in South East Asia, with significant and poorly controlled rural-urban migration, there has been a great separation between the rich and poor.

ISSUES

HCMC is one of the few cities in Asia that still retains much of its traditional urban structure. The city itself resembles a patchwork, made up of an elaborate network of canals and rivers of around 8,000 km in length. Although these navigable routes cutting across the urban tissue show a potential network of convenient transportation, they are now mainly used by residents to dispose of garbage and wastewater.

With the increasing population, and the rapid growing economy, the city and its historic districts is continuously being altered by the modern buildings and technological advancements common of the information era. Urban density is increasing significantly, and, as a result, the available space is lacking green growth and is encroaching on the natural water systems. Consequently, there are frequent indications that this is caused by rainfall and high river flows.

The water level is affected by a semidiurnal tide that usually reaches its highest value above mean sea level (AMSL) in September and October, and unfortunately, the tidal peak period is usually coincident with the annual peak in rainfall.

There are more than 100 serious flooded locations, including the city centre, that were reported after one single heavy rainfall event causing the street and building damages and creating prolonged traffic jams as thousands of motorcycles broke down.

There are over 4 million motorbikes within the city. In spite of explosive growth in motorcycle ownership, congestion is now reaching its limits. Motorbikes travel at the speed of 10km/h during rush hours whilst cars on major roads travel at 8km/h. As such, traffic accidents are a serious concern. Air quality degradation intensifies with increasing congestion.

The HCMC region is deemed as an environmental "hot spot" and one of the world's most affected agglomerations in regards to climate change. The fast development of the city combined with the slower processes of climate change will have a huge impact on the economy of HCMC and the quality of life of its inhabitants if immediate action is not taken.



TRANSPORT
Roads + Stream



OPEN SPACE
Greens + Recreation



RESIDENTIAL
Informal + Formal



INDUSTRIAL
Warehouses + Port Utilities



Master Plan

STRATEGIES

STAGE 1 (Covers for erosion): will elevate the soil height along the shoreline by 5 meters, for not only preventing the seawater erosion but also a safer place for pedestrian walk and cycling. The elevated soils will be constructed from the soil excavated from the basin of the Central Park.

STAGE 2 (Middle-class residential precinct): will provide a middle-class residential apartment complex that is well connected to surrounding areas, including jobs, school, shops, and natural environment.

STAGE 3 (High-class residential precinct): will provide high-class residential apartments for the people of different needs and with a yacht club behind.

Stage 4 (Office precinct): will provide office & commercial high-rise in relation to the existing port department.

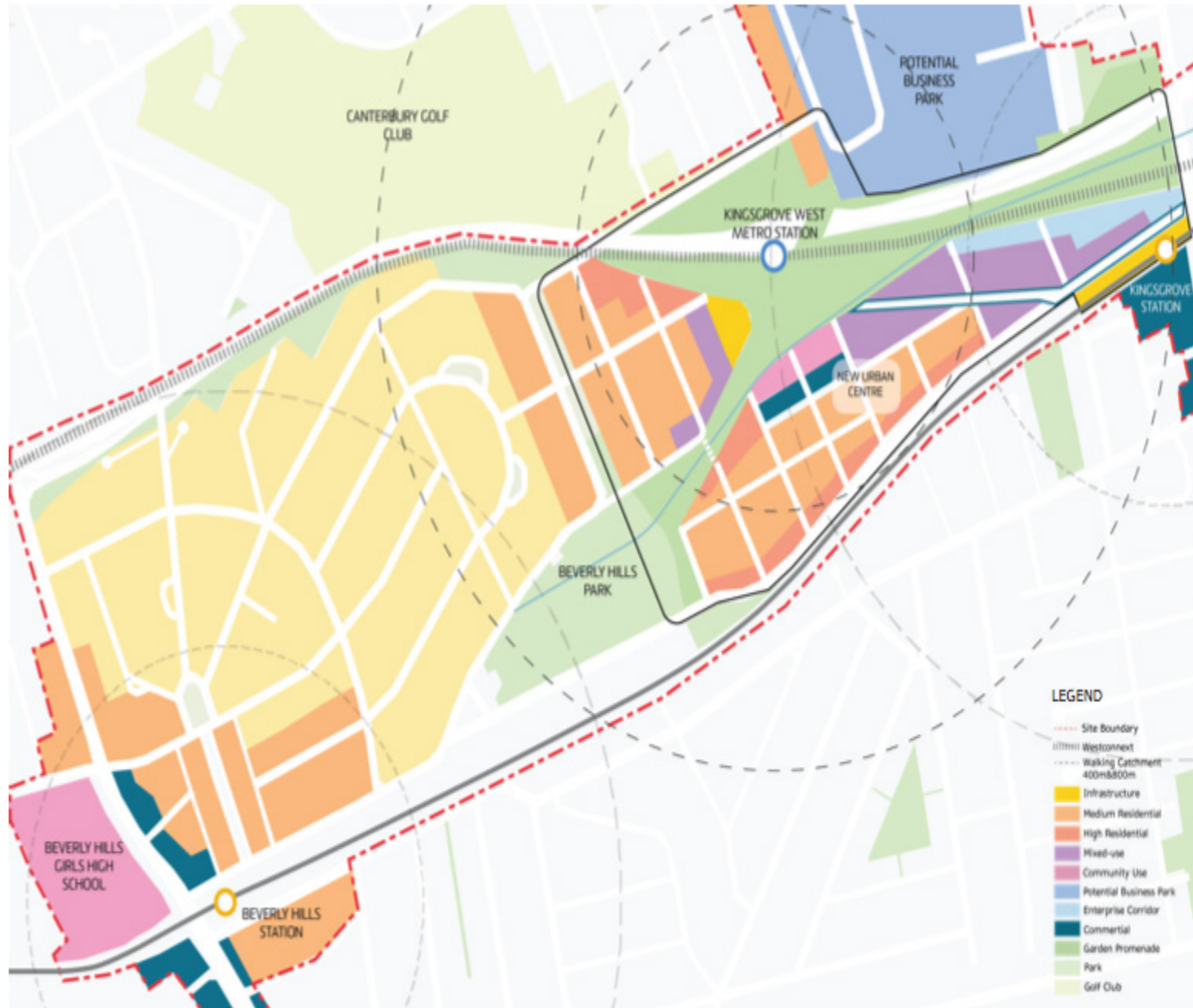
STAGE 5 (Port department improvement): will establish two buildings in accordance with the port department in order to make the place feel welcoming through conference and hotel usage.

STAGE 6 (Quan University): will develop a university researching ecology, architecture, landscape, geology, and climate change with such faculties as architecture and environmental design, planning and urban studies, at the North side of the project boundaries. This will be developed with student accommodations behind the campus and in accordance with both the road networks and block patterns, which are other future developments. The accessibility will be enhanced, as the students can access the campus from all directions.

STAGE 7 (Central Park): will improve the current vacant water-soil combined land to be an international, modern, but environment friendly inner-city linear water feature park that caters for people with various physical abilities; the old and the young. It will also emphasise the concept of green and aquatic colours. Besides, in order to adapt to flooding events, the apt strategy is to establish a drainage basin, which is designed to not overflow and with the potential for coordinated action and bio-retention system.

STAGE 8 (rail line extension): will extend the rail line into the office precinct at Park Avenue across New Port Avenue, which makes the place a key destination of workplace travel with its frequent and reliable transport.

Westconnex- M5 Kingsgrove



Beverly Hills - Kingsgrove West Precinct Plan

INTRODUCTION

The repositioning of Westconnex – New M5 Project poses a strong opportunity to rethink the urban neighbourhoods of Sydney. At a total of 9km length connecting from St Peters to Kingsgrove (Subject Site) and Beverly Hills, the repositioning of the tunnel project to a Metro Project indicated the potential uplift of the neighbourhoods along the Westconnex south-west alignment and the opportunity for Sydney to form active communities for a sustainable tomorrow.

As the end point of the Westconnex south-west alignment, Beverly Hills and Kingsgrove poses the opportunity to be uplifted and transform into an urban centre that reinforce the 'metro gateway'.

The transition of a suburban neighbourhood context to an active urban centre will significantly impact on community living and a comprehensive understanding of the existing urban context is vital prior to the design of an urban centre and the uplift of the surrounding neighbourhood.

ISSUE

- **Connectivity Barrier to the North and South**
M5 and the New M5 separate Kingsgrove into North and the South Rail Corridor south of the site
- **Lack of Road Connectivity from the West and the East**
Minimal secondary road network connected to the site
- **Significant Gap between land uses and built form**
Separated land use, suburban to light industrial
Lack of density and variedness in land uses
- **Lack of an integrated park network and system**
Discourage the use of active transport:
walking, cycling and the use of public transport

PRINCIPLE

- **Connectivity**

Connecting Stations

Strengthen the Street Network across north, south and west to the east



Principle 1 Connectivity

- **Active Promenade**

Encourage mix of uses along the promenade



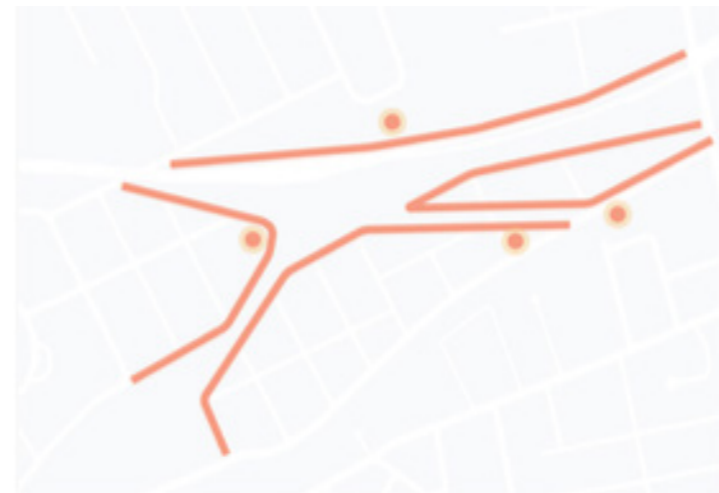
Principle 2 Active Promenade

- **Defining Edges**

Introduce higher density along landscaped park and the promenade

Introduce the key landmarks at intersections

Having different height in the built form that gradually decrease towards existing neighbourhood



Principle 3 Defining Edges

- **Quality Public Domain**

Extending landscape across the site to improve the quality of the built environment

Incorporate public art to activate the park and form creative spaces



Principle 4 Quality Public Domain



Master Plan

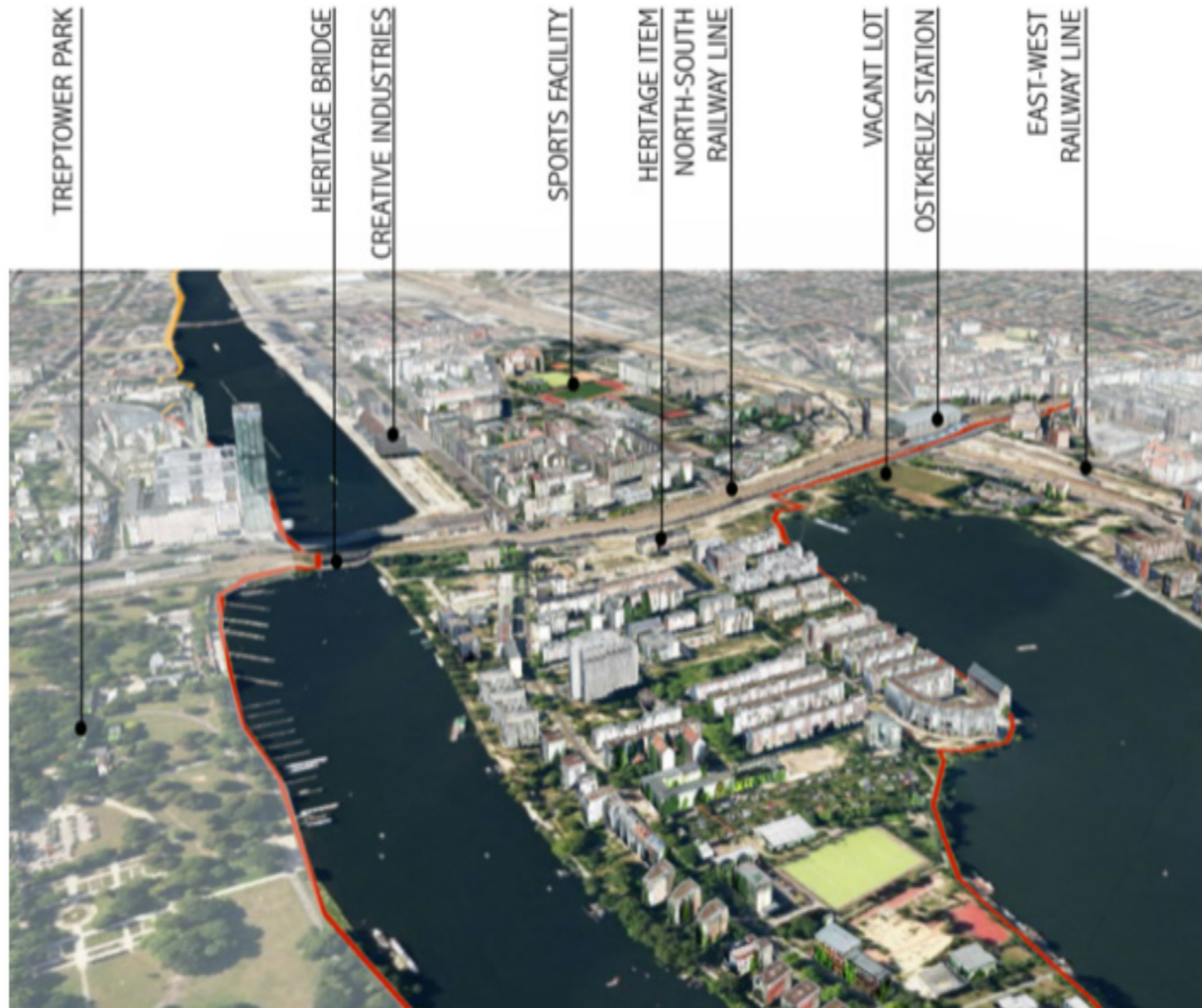
MAIN STRATEGY

- An Urban Centre that joins the surrounding community
Where communities meet, work, live and enjoy
- Connecting Stations of Rail Network
Including the New Proposed Metro Station - Kingsgrove West, existing Kingsgrove station with a potential to be upgraded as a bus & rail interchange hub and the Beverly Hills Station west of the site
- Active Promenade filled with opportunities for leisure and entertainment
- Innovative Public Domain
Extending the existing park across the site to form greater sense of place and the sense of community by incorporating public art strategy and landscape design that encourage varied uses during the week and weekends
- Quality Public Realm that has a hierarchy of parks that are well connected to encourage the use of Active Transport, including walking, cycling and use of public transportation



Kingsgrove Place's Metro Station

Berlin-RUMMELSBURG : WEAVING THROUGH THE BARRIERS

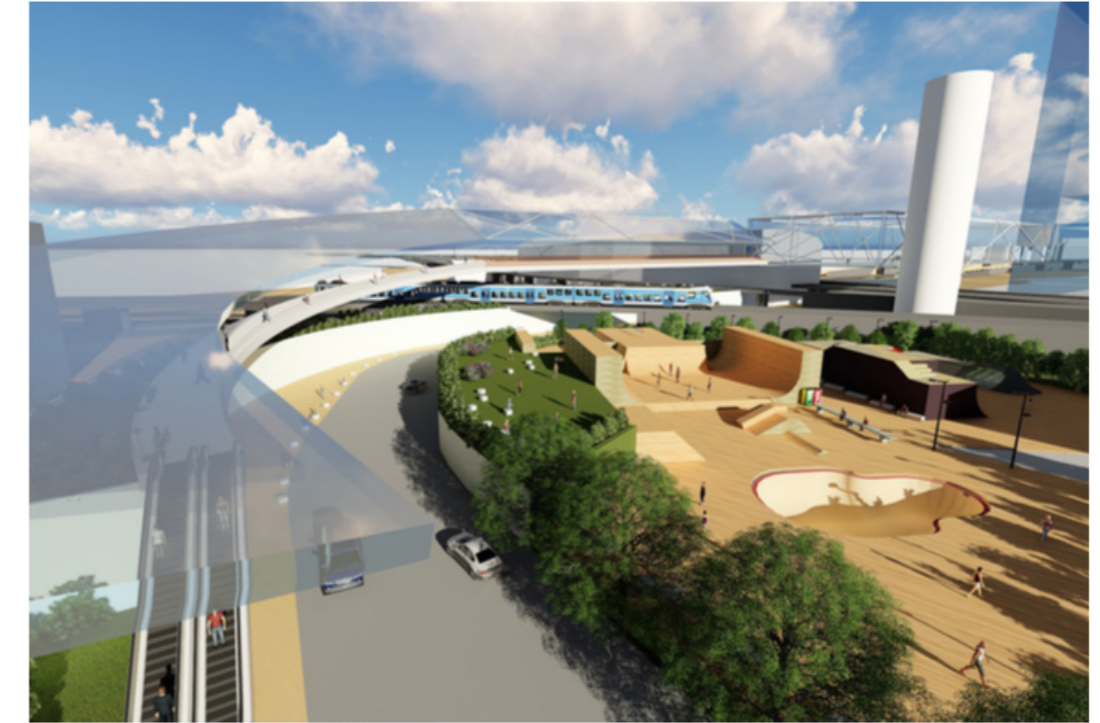


Current Situation

Site Context

Rummelsburg is a German locality in the borough of Lichtenberg. It is located on the eastern side of the city of Berlin. The Straulau peninsula, also known as the 'appendix of Berlin' housed a number of industrial sites at the end of 19th century. It took quite some time before developments sprung out of this area. Today the historical place has been slowly converted into a waterfront development of attractive residential block.

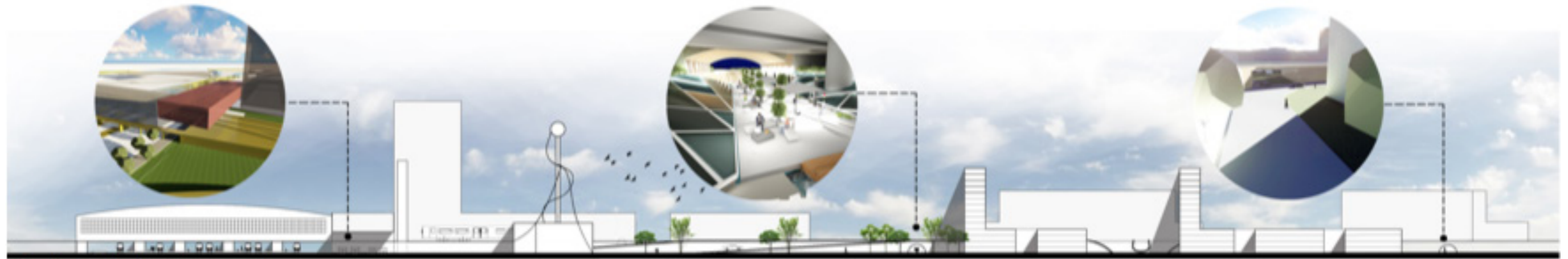
The site sits on the west of the Rummelsburg See Cove, which takes a long stretch of the waterfront. The river Spree runs on the south of the site. Transport network connects the area with two railway lines. East-West line lies on the north boundary and the North-South line cuts through the middle of the site. The railway infrastructure creates a barrier between the old berliner blocks and new waterfront residential houses. This restricts activation of the streets and delays potential development along it, leaving the area as a passive developed land.



View showing Sky Bridge connection and Cultural Hub

Strategies

- Renewal of Paul and Paula Shore and an improved series of connections and public spaces linking the city behind with the shore through the transportation barrier.
- To create a network of open spaces with different levels of public domains which strengthens connection between new and existing spaces.
- To use urban form in creating links between the fragments of existing developments and to encourage mobility through the infrastructure.
- To build and strengthen existing and new access nodes through the infrastructure barrier.
- To design built form which is defensive and protective towards transport infrastructure along with allowing people to enjoy leftover spaces.
- To promote sustainable living by integration of water sensitive urban design.



Section DD showing three connections (Scale 1:1500)



Section EE showing waterfront development (1:1500)