



Memories of the Platform
Guangzhou Railway Museum Landscape Renovation



PROJECT STATEMENT

The site of the Guangzhou Railway Museum holds multiple significances, serving as both a community public space and a riverside space of historical and cultural significance. The landscape renovation has breathed new life into this historically rich site, achieving a clever fusion of historical heritage and modern vitality.

By combining precious railway history with contemporary culture, this project has brought a unique cultural landmark to Guangzhou. Through five key design strategies including improving accessibility, post-occupancy evaluation plus micro-renovation, integration of railway cultural elements, space activation, and spatial reproduction, along with the use of special railway-themed materials and exquisite craftsmanship, the design team successfully conveyed the charm of railway culture, allowing visitors to relive this important history.

The landscape of the Guangzhou Railway Museum is not only a public green space but also a place carrying urban memories. It will continue to attract people to explore the past, experience the future, and add a unique scenery to the urban landscape of Guangzhou.

PROJECT NARRATIVE AND CONTENTS

01 Project Overview

The Guangzhou Railway Museum is located in the Xiguan Huangsha area in the southwestern part of the old Liwan District in Guangzhou, adjacent to the Pearl River, with views of Datansha to the west and Bai’ etan to the east. The original site was the former Huangsha Station of the **Guangdong-Han Railway**, which was established in the 27th year of the **Guangxu reign (1901)**. It served as a major passenger and cargo transport hub integrating both water and land routes at the starting point of the Guangdong-Han Railway. By 1948, the Guangdong-Han Railway was fully operational and reached its peak period. With national development and increased traffic, the Guangdong-Han Railway was gradually replaced by the Beijing-Guangzhou Railway and the Wuhan-Guangzhou Railway, and ceased operation in 2005, being repurposed as temporary warehouses.

Two preserved buildings, constructed in the 1970s, were listed in 2014 as part of Guangzhou's first batch of historic buildings. The current site includes various buildings and structures, many of which once served railway operations. Tracks have been removed, but remnants of the railway have been partially preserved.

02 Design Concept

Continuation — Overall Planning Design (2006-2012)

The project aims to transform the two preserved buildings and their surrounding environment into a railway museum, **retaining precious historical traces** while **injecting new modern vitality**. This integration achieves a holistic display of **"site, architecture, and exhibits."** We conceptualize the **800-meter riverside belt** as a unified site, using the remaining railway traces and revetment elements as the backbone of the site design, and the preserved buildings and railway tracks as containers for the site's stories and modern life.

Initiation — Landscape Renovation Design (2019-2023)

Over a century of railway history can only **be "seen"** through the thorough revitalization of the **old town's public space**. To achieve this, we have formulated five major design strategies. The goal of these five design strategies is to let **history settle in the place**, converse with the past in time and space, and revitalize the public space, **attracting more people** to engage, and ultimately allowing the culture to **be truly "seen and inherited."**

Strategy 1: Enhancing Accessibility

Replanning multiple visitor routes within the museum grounds to improve internal pedestrian accessibility. Externally, by analyzing surrounding road traffic, metro exits, public transportation routes, residential area entrances, non-motorized traffic, and parking lots, we integrate the site's internal pedestrian routes with the community, making it **an accessible part of the community**.

Strategy 2: POE + Micro-Renovation

After **surveying public feedback** on site usage and considering the designers' **on-site experiences**, the design team decided to make **micro-renovations** respecting the site's general outline. This includes site refurbishment, adding green spaces, lighting design, water feature modifications, and installing a steam locomotive as an exhibit.

Strategy 3: Incorporating Railway Cultural Elements — 24-Hour Outdoor Museum Exhibition

Featuring trains from different historical periods as key exhibits and utilizing various railway cultural elements (signs, markers, tracks, ballast, barriers) to create **an outdoor railway cultural exhibit** extending the indoor museum, **open 24/7**.

Strategy 4: Space Activation

The integration of railway cultural elements within the site is not merely about placing them rigidly. Building upon various railway cultural elements, we have extended the concept to include **railway ballast gardens** and **distinctive rail track pavements**, serving as the main landscape nodes of the site. Furthermore, as a crucial public green space within the community, the site should be maximally developed and utilized. By employing the Time Tunnel - railway ballast garden as the **landscape axis**, with green patches, various locomotives, and water features as embellishments, along with the flow of pedestrian traffic throughout the site, every previously **neglected corner has been revitalized**, attracting new vitality after the transformation.

Strategy 5: Recreating Spaces

We aim to revitalize the site to make the railway stories from over a century ago, the historical traces, and the vanished historical sites visible. The design creates a public space infused with railway culture, blending accessibility, vitality, and "light" cultural elements into **a cohesive riverside landscape** that attracts more citizens.

Beyond the five major design strategies, the design team remains committed to updates respecting the site's foundation:

Strategy 6: Green and Human-Centered Design

The design places great importance on preserving the **site's original ancient and large trees**, arranging the trees in strips parallel to the railway trajectory to form a green corridor. The diverse and well-coordinated plant combinations enrich the riverside skyline, allowing citizens to enjoy natural scenery in different seasons. Another focus is on **human-centered design**, with the combination of evergreen and deciduous trees and the inclusion of long resting benches under the trees providing shade in summer and sunlight in winter.

PROJECT NARRATIVE AND CONTENTS

03 Detail Design

Structure Design

The design integrates canopies and platforms to **connect the two buildings into a whole**. The **light canopies** become visual focal points in the riverside public space, creating a striking contrast between the new and the old structures. The dynamic platform follows the track's trajectory, forming an entrance plaza and a viewing platform, guiding people from the city to the riverside with its streamlined shape.

Paving Design

To create a space with a distinctive railway cultural character, we introduced various paving methods, including **ballast gardens** and **cement pedestrian crossings**. The plaza's paving design echoes the segmented rhythm of railway ties and extends this motif. Initially, we planned to pave the ground beside the tracks with railway ballast for aesthetic reasons. However, the museum director advised that **only plain concrete** could **faithfully replicate** the original platform surface. Understanding that this site is not just our design work but an important part of the **collective memory** of railway workers, we decided to use plain concrete despite its less refined appearance to **respect their collective memory**.

Lighting Design

When designing the lighting, we considered the safety of children from surrounding residential areas who might use the space. The designers carefully adjusted the **power** and **color temperature** of the lights to create a **soft and comfortable ambiance**. A large number of specially selected embedded lights were chosen for illuminating the railway tracks and train bodies, featuring **hidden fixtures**, **covered lights**, and **side illumination angles** to avoid glare and prevent accidents, such as children getting burned by the lights while playing.

04 Comprehensive Benefits

The project extensively utilizes materials from historical or existing **real railway scenes for transformation**, such as railway ballast, metal sleepers, wooden sleepers, etc., and carefully considers their practical integration with the site. These novel and unique materials effectively convey **railway culture**.

After multiple rounds of technical discussions and cost optimization with various parties involved in the project, the project was settled and audited for completion with a budget of over 8 million yuan. Compared to the estimated investment during the design stage, it **saved nearly 7 million yuan**, achieving the goal of **low-cost and durable maintenance**.

The project started during the **national epidemic control and containment period**, when the government imposed strict restrictions on offline work activities. The design team still insisted on visiting the site **three to four times a week**, day and night, to communicate design and guide construction until the project was completed.

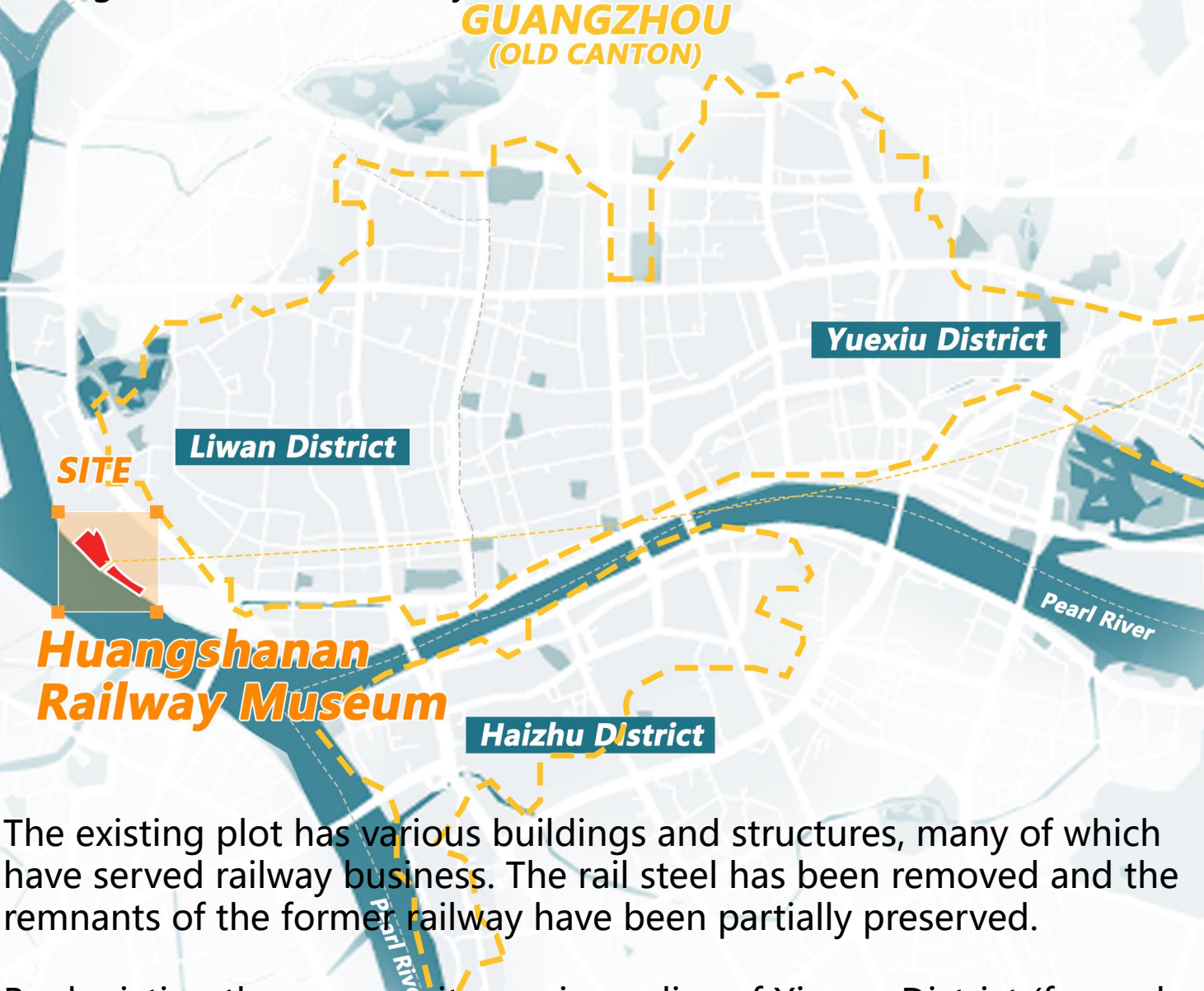
During the project, the city of Guangzhou had **not yet** established regulations for the protection of tree relocation in urban construction. However, the design team adhered to the principle of **respecting the site**, **surveyed** the status of site trees, **protected** on-site trees, and adjusted the original design based on the actual location of shrubs and trees on the site, contributing to the protection and enhancement of the environmental ecology of the area.

After the landscape renovation, the water area was reduced to approximately **one-third** of the original area, returning a naturally sloping area to the site, eliminating water accumulation, sanitation blind spots, and safety hazards. This not only **saves future operating and maintenance costs** for large water features but also **adds a rare public green space**.

SITE LOCATION AND BACKGROUND

How to bring the memories of a 125-year-old venue to the public?

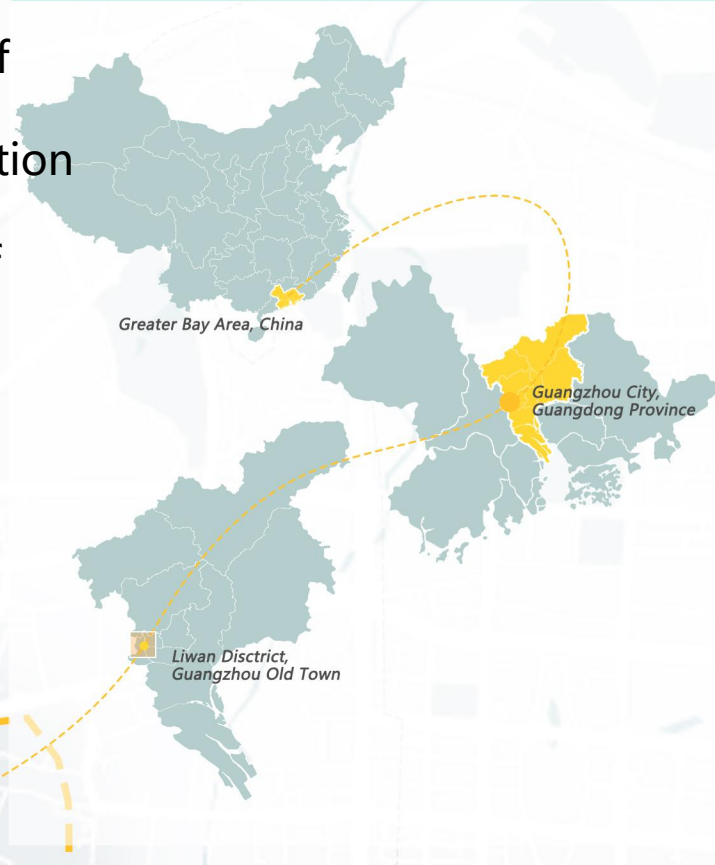
Guangzhou Railway Museum, located in the southwest of the old city of Xiguan Huangsha area, adjacent to the Pearl River, west to the Great Tansha, east to the White Goose Tan, is the former site of Huangsha station of Guangzhou-Wuhan Railway, built in 1901. It is a large passenger and freight station for land and water transportation at the starting point of Guangzhou-Wuhan Railway.



The existing plot has various buildings and structures, many of which have served railway business. The rail steel has been removed and the remnants of the former railway have been partially preserved.

By depicting the community service radius of Xiguan District (formerly Liwan District) Park, we found that the railway museum can fill the last gap in Liwan District. If the design can truly activate this site through renovation, it will greatly improve the fragmentary and narrow status quo of public activity space in Liwan District, stimulate more citizen activities, and strengthen the outdoor activity willingness and atmosphere of Guangzhou citizens.

SITE LOCATION



COMMUNITY SERVICE RADIUS ANALYSIS

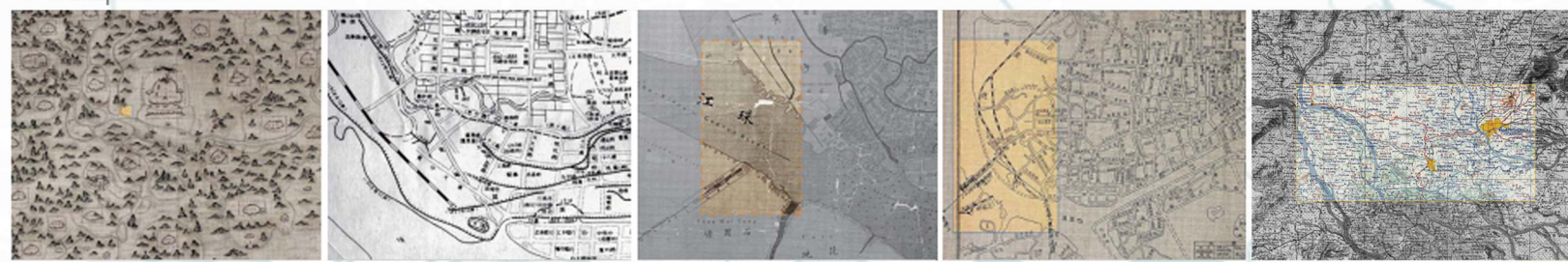


"The site records a hundred years of railway cultural history."

The original site was the former site of the Huangsha Station of the Guangzhou-Wuchang Railway. Huangsha Station was built in the 27th year of the Guangxu Emperor's reign (1901) and was a large passenger and freight station for water and land transportation at the starting point of the Guangzhou-Wuchang Railway. In the 37th year of the Republic of China (1948), the Guangzhou-Wuchang Railway was fully operational, reaching its peak. With the increase in national construction, economic development, and the flow of passengers and freight, the Guangzhou-Wuchang Railway was gradually replaced by the Beijing-Guangzhou Railway and the Wuhan-Guangzhou Railway. It was discontinued in 2005 and converted for temporary warehouse use, among other purposes.



The scope of the Guangzhou-Sanshui Railway in old records indicates the historical significance of the former Guangzhou South Station in transportation.



The city of Guangzhou between Baiyun mountain and Pearl river -Map of Guangdong Province

Changes of the Pearl River shoreline around Huangsha Station -Historical Geography of Guangzhou by Zeng Zhaoxuan

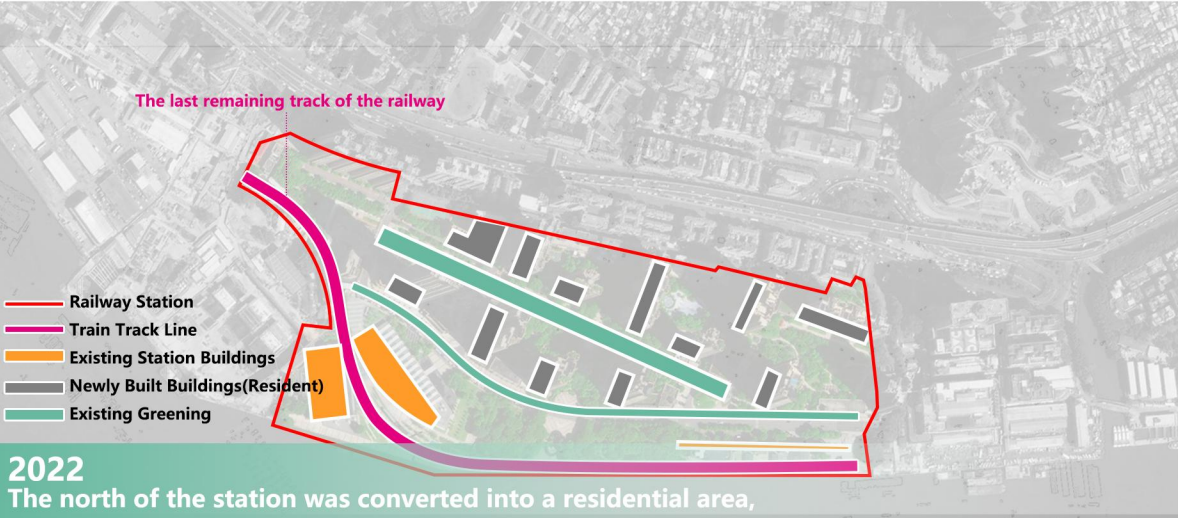
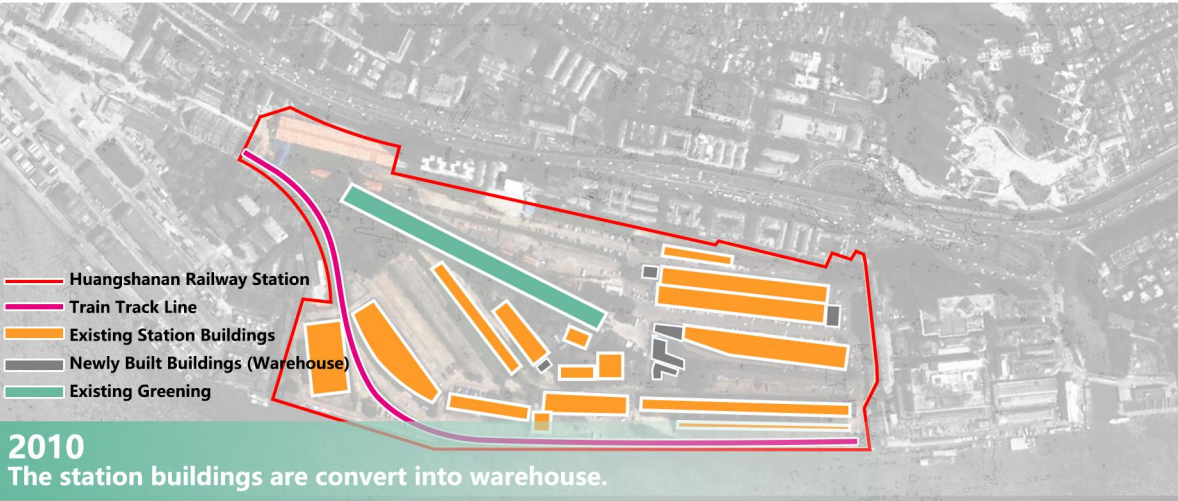
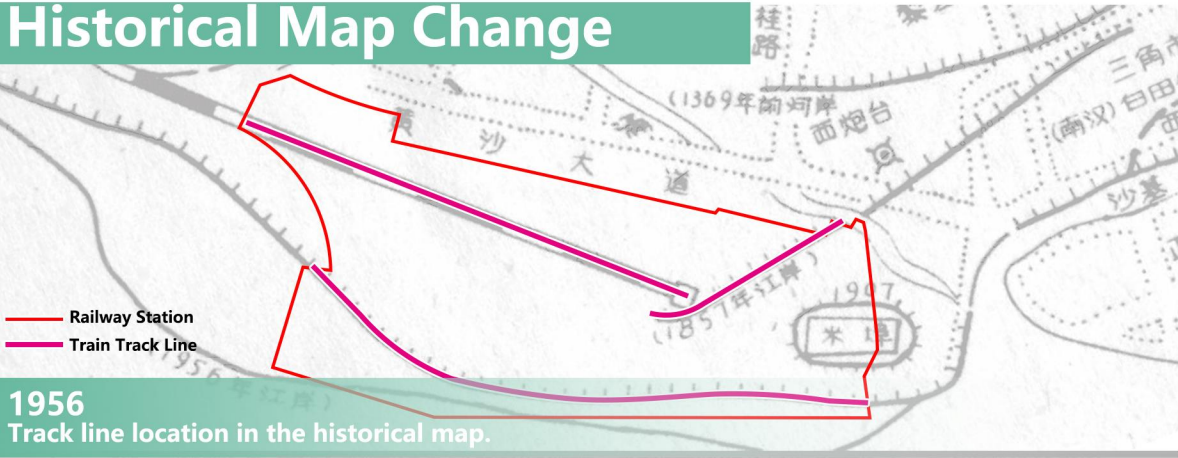
Guangzhou-Wuchang Railway and Huangsha Station -1907 Full Map of Inner and Outer City of Guangdong Province

The heyday of Guangdong-Han railway operation -1948 The latest Guangzhou Special City Road Traffic Map

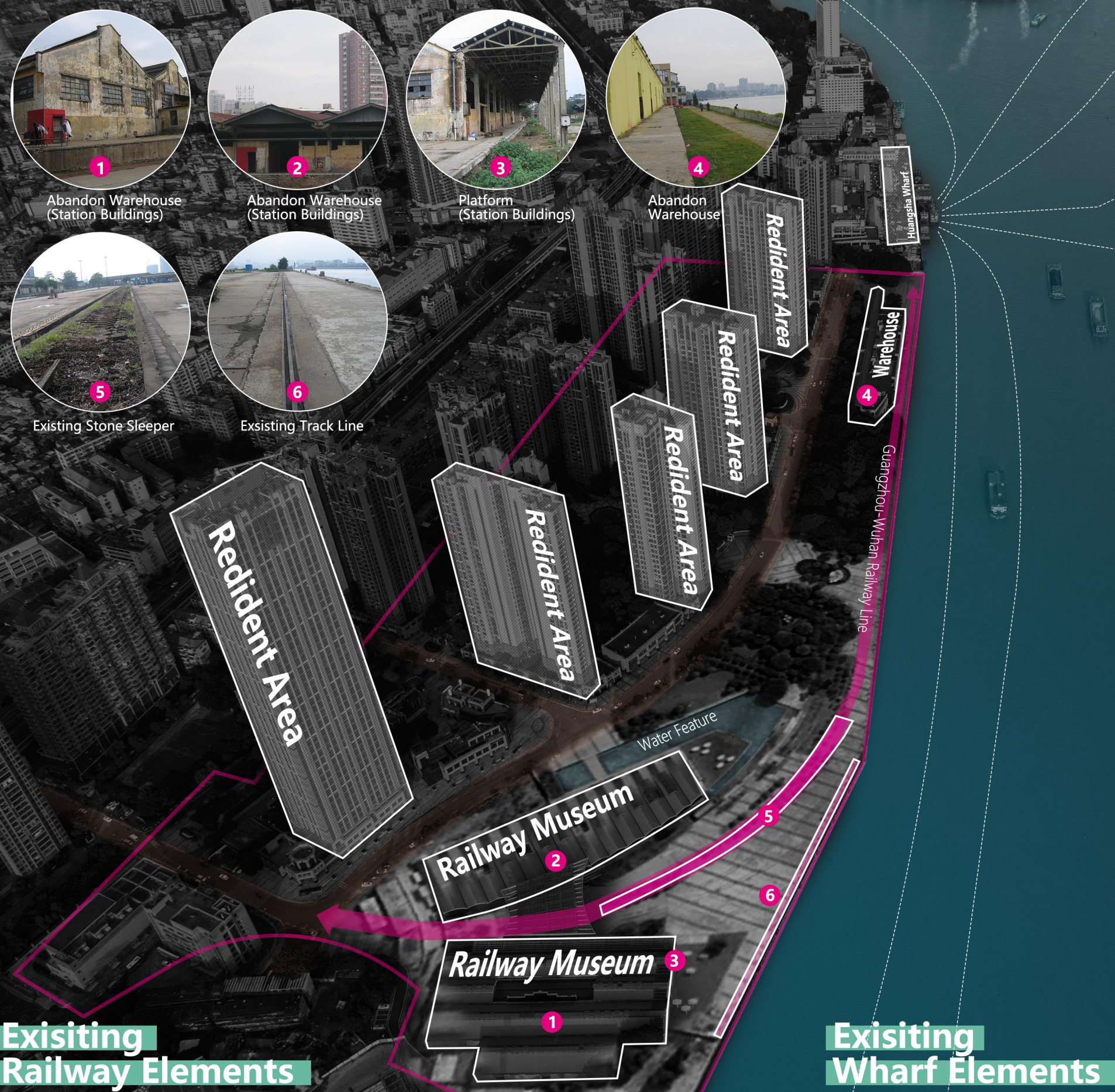
The Scope of the Guangzhou-Sanshui Railway -Guangzhou Old Map

SITE ANALYSIS : SITE'S HISTROY

Historical Map Change



Historical Resource Analysis



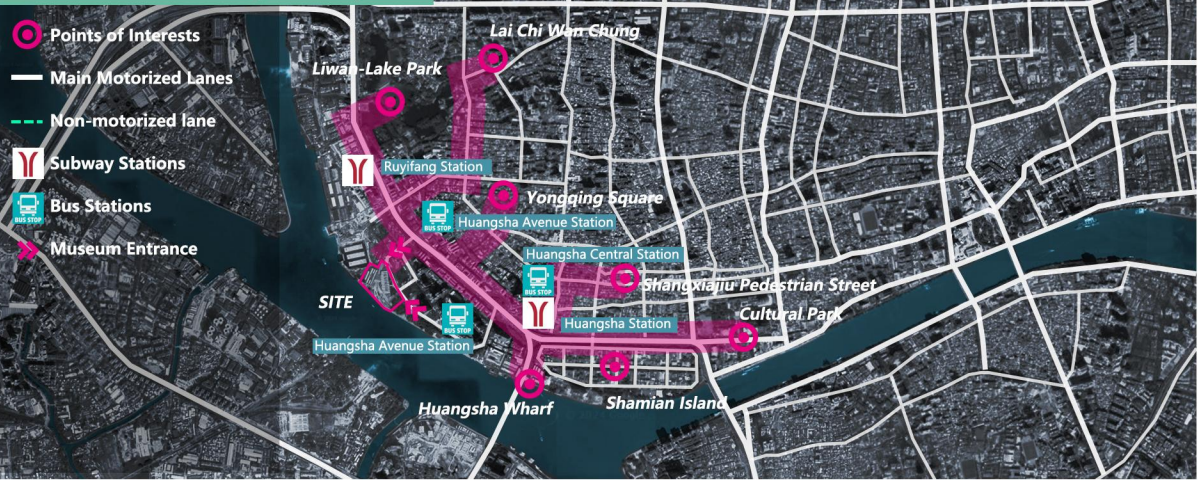
Exisiting Railway Elements



Exisiting Wharf Elements

SITE ANALYSIS : WHY IS THE SITE UNABLE TO ATTRACT PEOPLE?

Site Accessibility Analysis



Site Flow Line Analysis



Site Entrance Analysis



Site Issues

Floor Damage & Informal Occupation

The ground pavement is damaged in many places, result in flooded, which is not conducive to passage. The current situation of main entrance is an informal parking lot, reducing the accessibility of the museum.



01 The main entrance is cluttered and the accessibility of the site is low.

Bare Seats and Trees

The facilities and landscape elements of the site are monotonous and unattractive. The large square lacks shade facilities and the planting design is unreasonable, resulting in the space not being fully used.

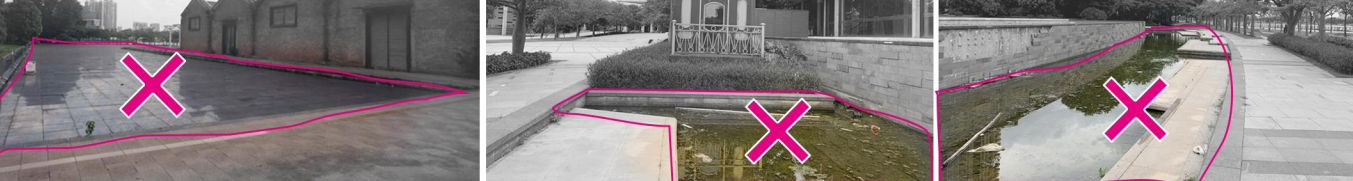


03 Current landscape is less attractive to tourists and the facilities for shade are not considered.

02 Current water feature area is large, difficult to maintain, and have poor water quality.

Water Eutrophication & Dry Water Features

Due to the improper design of the water feature, the current water feature area cannot be used, and the water quality is poor in some areas due to inadequate water circulation, accompanied by bad odor.



04 The site lacks cultural facilities and railway cultural elements.

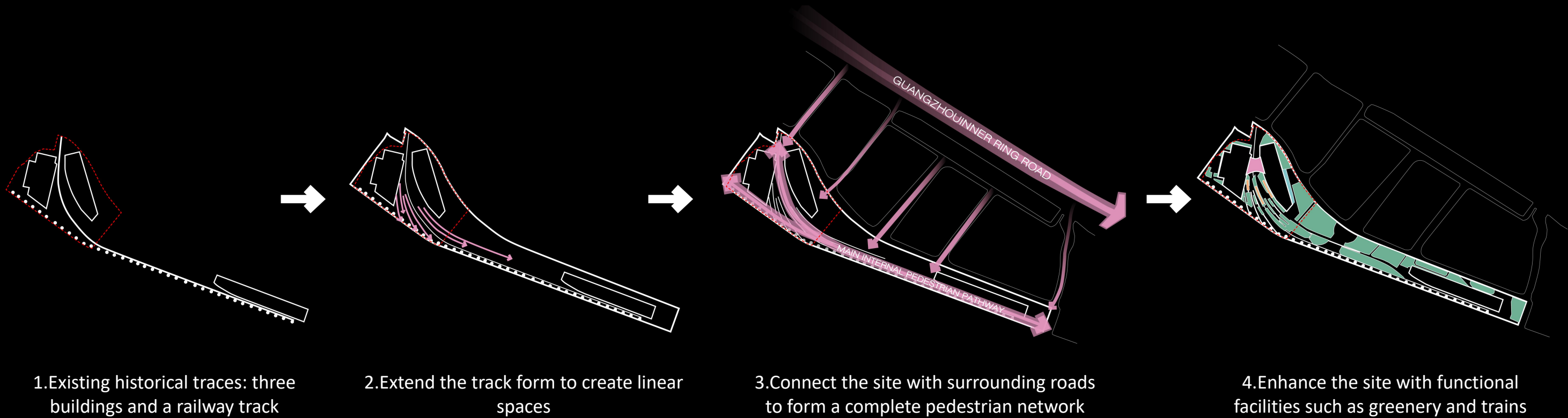
Underutilized Railway Station Elements

The historical and cultural resources of the site itself have not been excavated, and the site lacks train cultural elements and landscape characteristics.



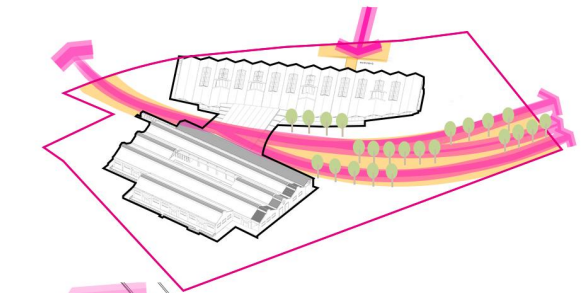
SUMMARY : The extensive paving on the site is relatively well-preserved, but the exposure of numerous issues helps us understand why it lacks appeal to the public. We need to start addressing existing pain points through micro-revamping.

DERIVATION OF DESIGN CONCEPTS



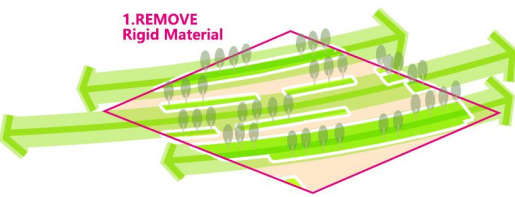
DESIGN STRATEGY

STRATEGY1: Enhancement of Accessibility

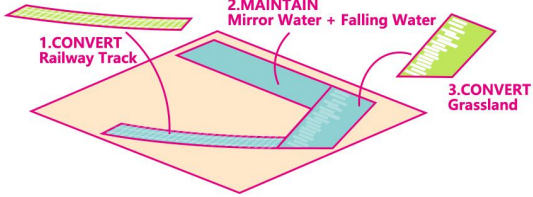


STRATEGY2: Post-Occupancy Evaluation + Micro-Renovations

1. Square Renovation

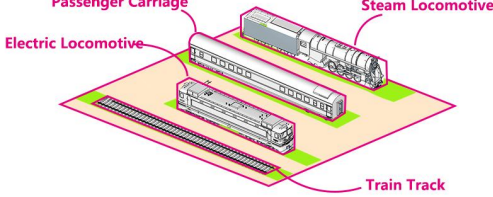


2. Waterscape Reconstruction

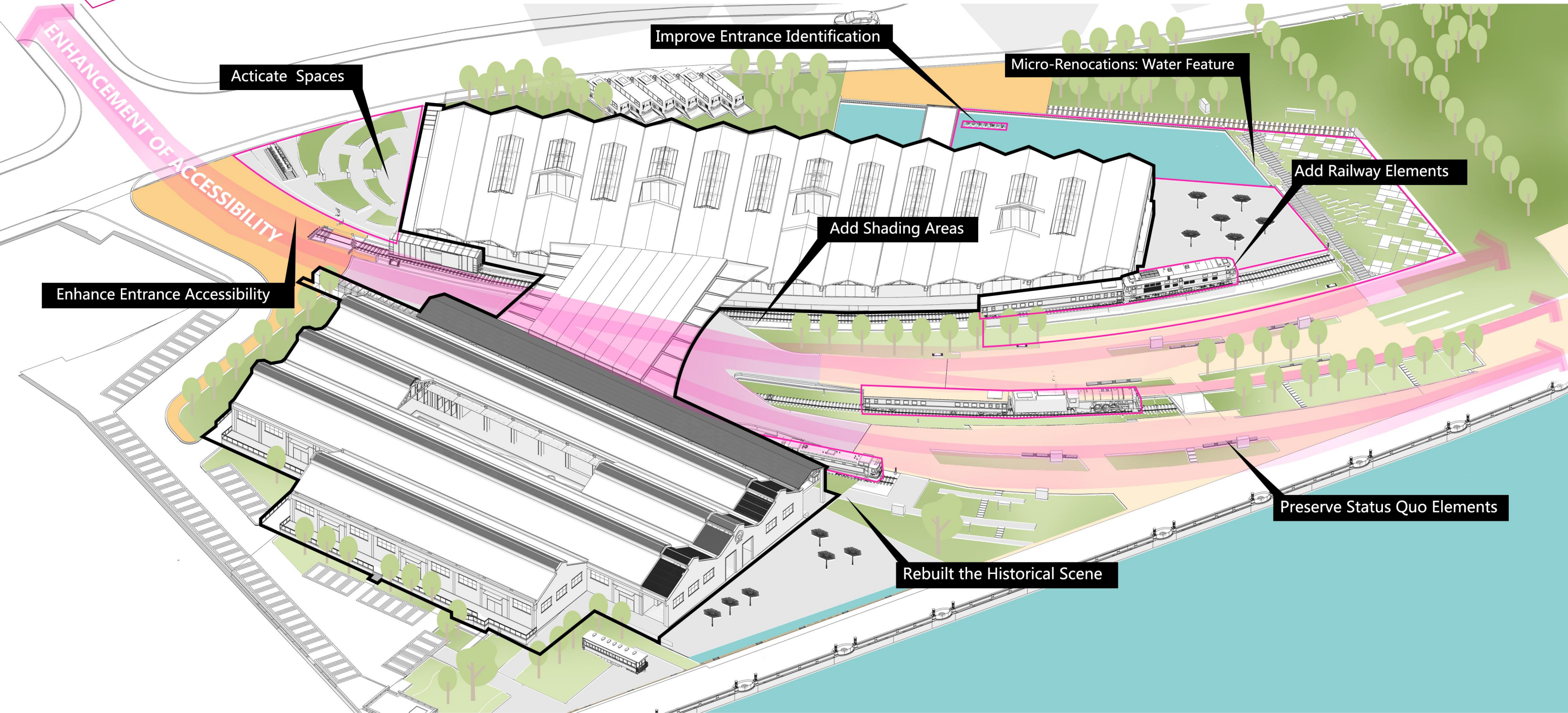
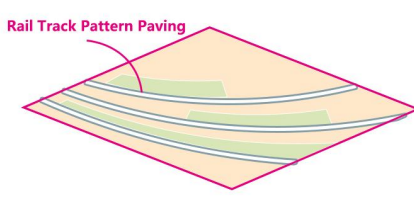


STRATEGY 3: Integration of Railway Cultural Elements

1. Add New Train Elements



2. Utilize Existing Resources



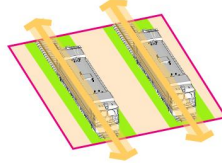
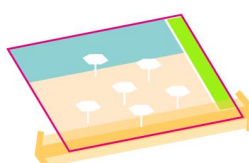
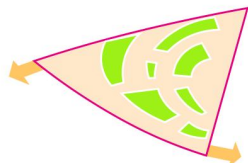
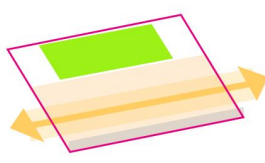
STRATEGY 4: Spatial Activation

1. Riverside Plaza

2. Children Playground

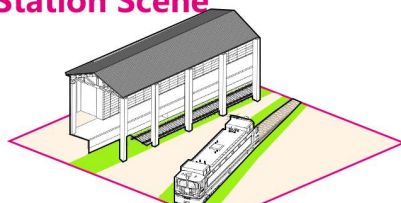
3. Viewing Platform

4. Ballast Garden



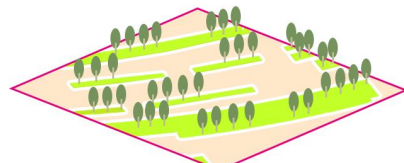
STRATEGY 5: Scenario Design

Station Scene

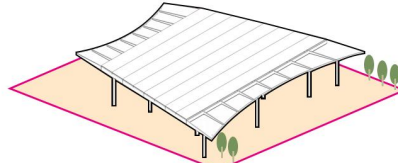


STRATEGY 6: Greenery Design and Humanization Design

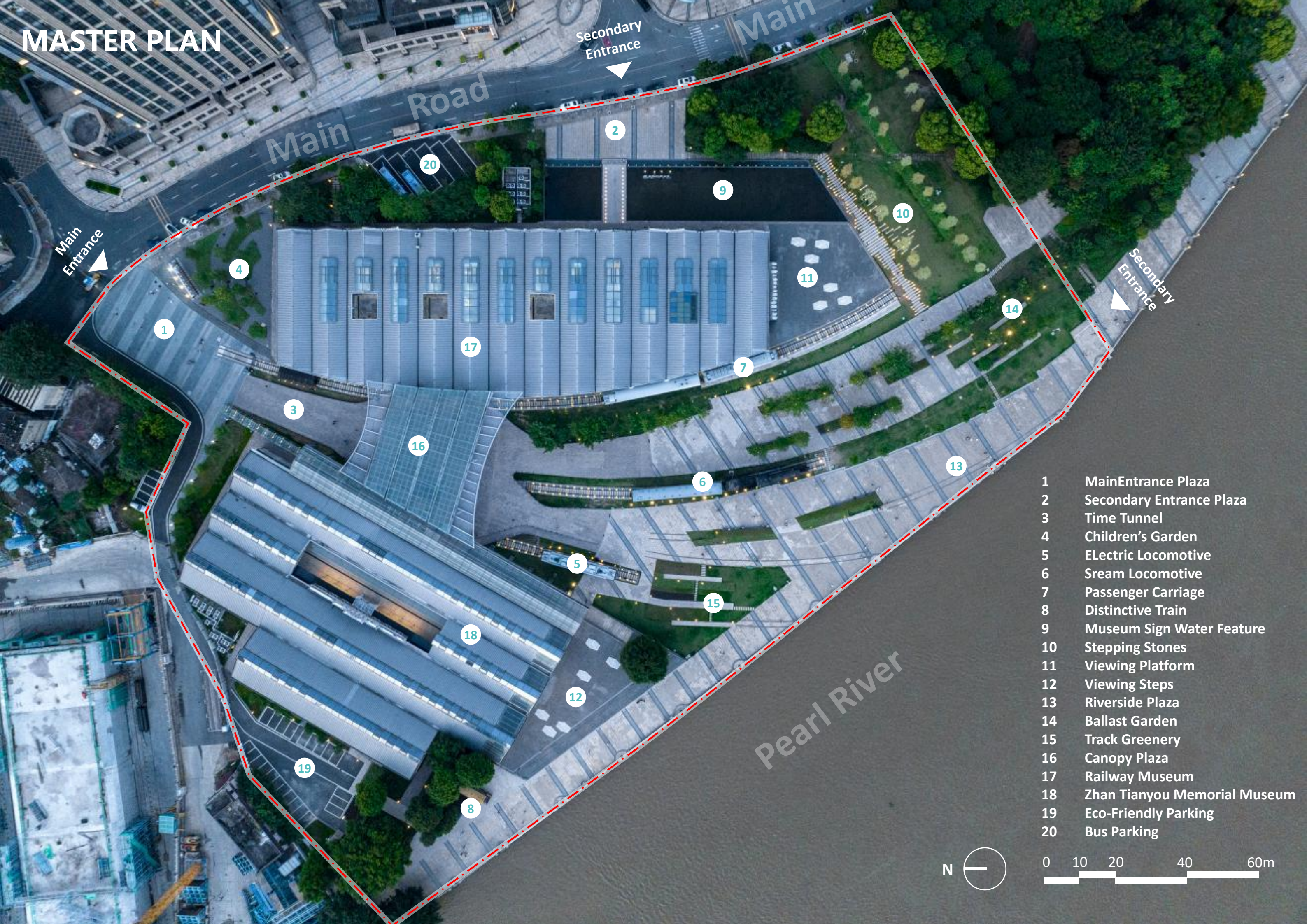
1. Add Plants



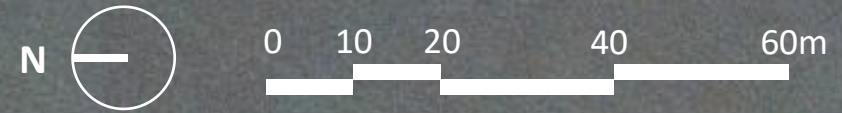
2. Add Shading Facilities



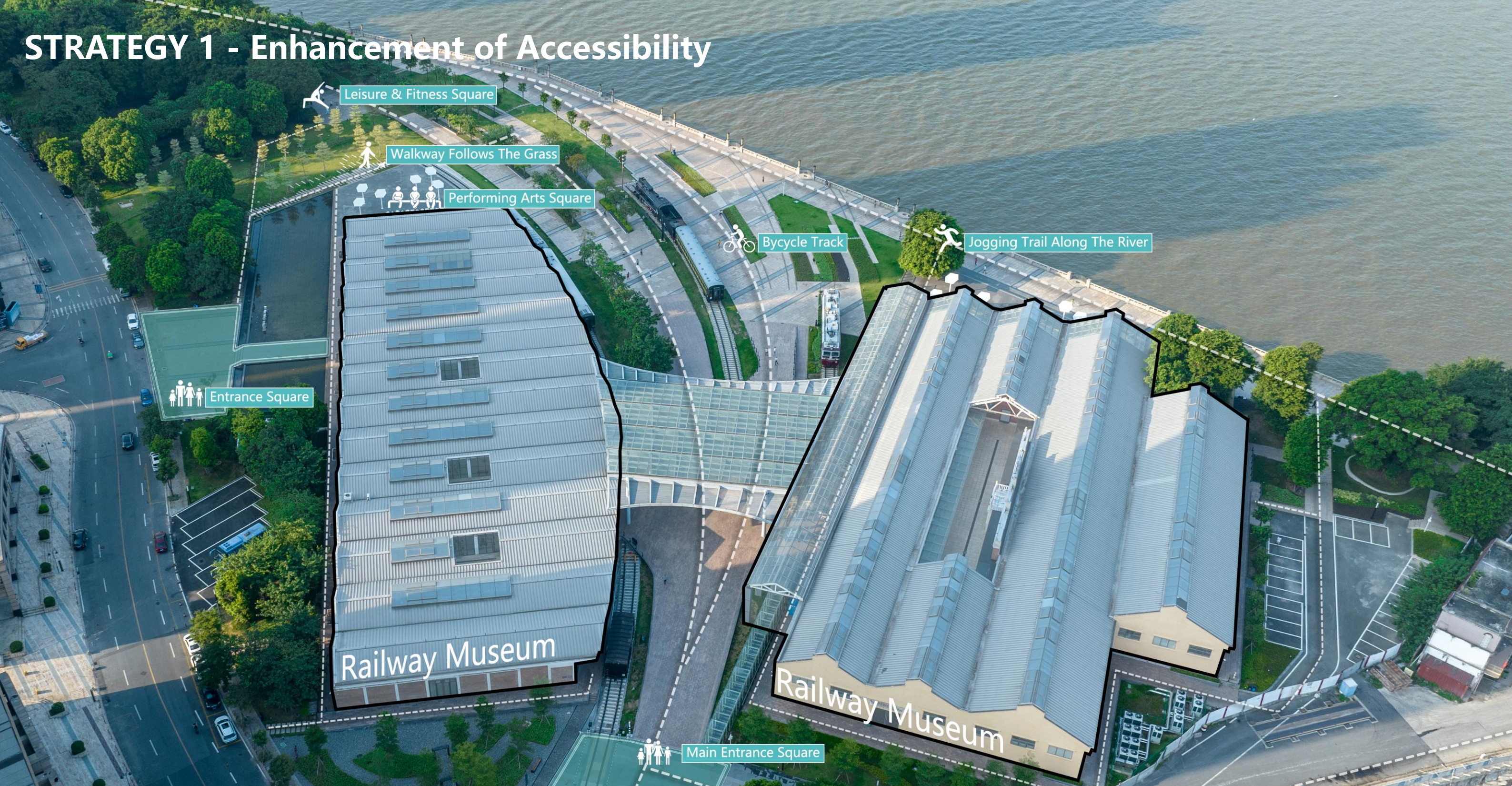
MASTER PLAN



- 1 Main Entrance Plaza
- 2 Secondary Entrance Plaza
- 3 Time Tunnel
- 4 Children's Garden
- 5 Electric Locomotive
- 6 Steam Locomotive
- 7 Passenger Carriage
- 8 Distinctive Train
- 9 Museum Sign Water Feature
- 10 Stepping Stones
- 11 Viewing Platform
- 12 Viewing Steps
- 13 Riverside Plaza
- 14 Ballast Garden
- 15 Track Greenery
- 16 Canopy Plaza
- 17 Railway Museum
- 18 Zhan Tianyou Memorial Museum
- 19 Eco-Friendly Parking
- 20 Bus Parking



STRATEGY 1 - Enhancement of Accessibility



Shaded Main Entrance Square

Special Signage

Efficient Activity Streamline

STRATEGY 2 - Post-Occupancy Evaluation + Minor Renovations

BEFORE

The waterside plaza the design is monotonous, the lack of human consideration, and the green recreation area lacks popularity...



After the transformation, the green space is increased, the spatial scale is reasonable, the space activities are abundant, and the popularity of the square is significantly improved.



The existing plaza seating was removed, the recreational green space was added, and the original curves were retained, while the historic character of the site was maintained through the renovation.



The design combines railway cultural elements, arranges the steam locomotive as an exhibition, and transforms the site into an open-air railway museum to enrich the cultural functions of the site.

STRATEGY 3 - Integration of Railway Cultural Elements



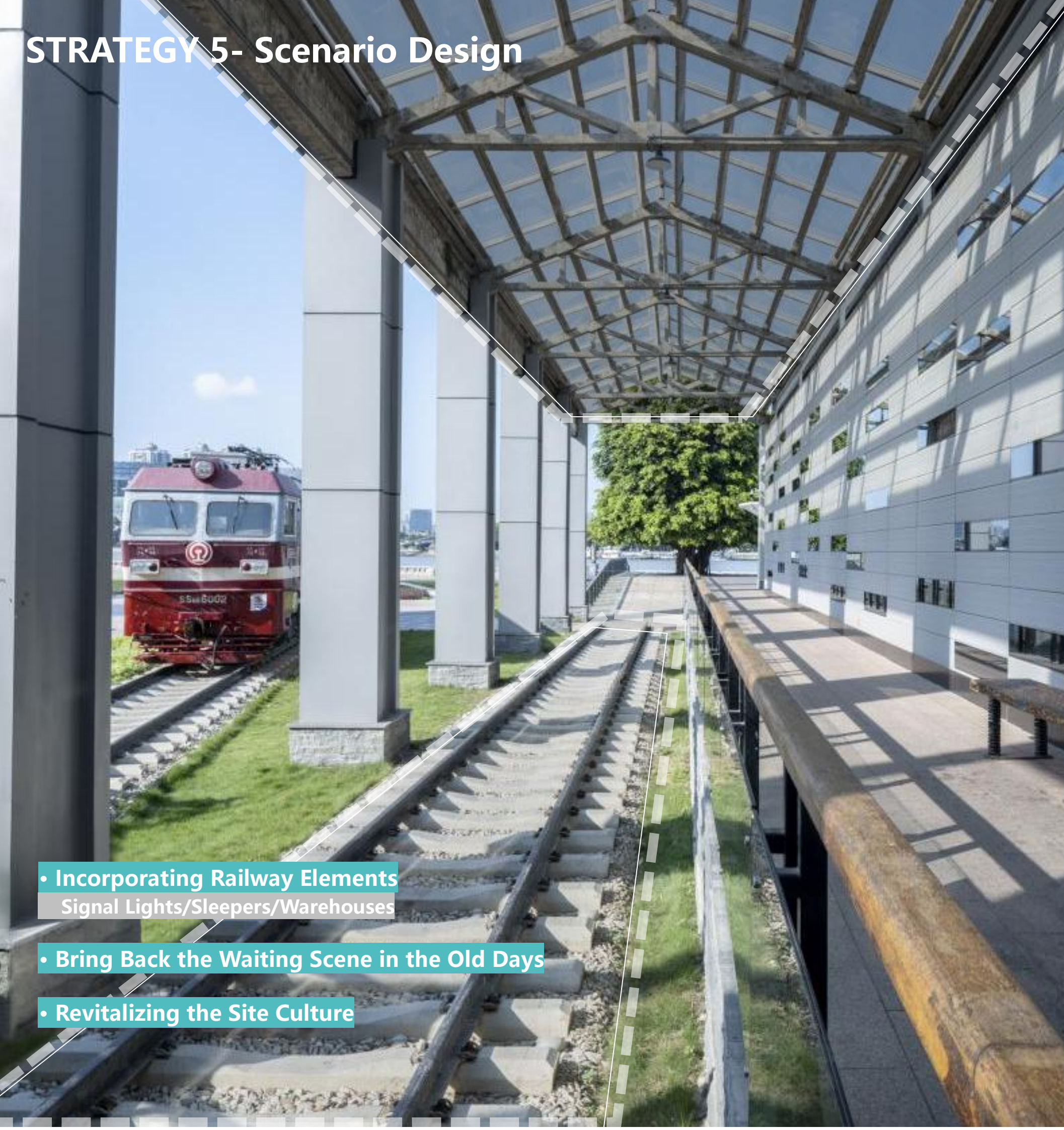
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STRATEGY 4 - Spatial Activation



As a crucial public green space within the community, the site should be maximally developed and utilized. By employing the Time Tunnel - railway ballast garden as the landscape axis, with green patches, various locomotives, and water features as embellishments, along with the flow of pedestrian traffic throughout the site, every previously neglected corner has been revitalized, attracting new vitality after the transformation.

STRATEGY 5- Scenario Design



• Incorporating Railway Elements
Signal Lights/Sleepers/Warehouses

• Bring Back the Waiting Scene in the Old Days

• Revitalizing the Site Culture



Railway Signal Lights



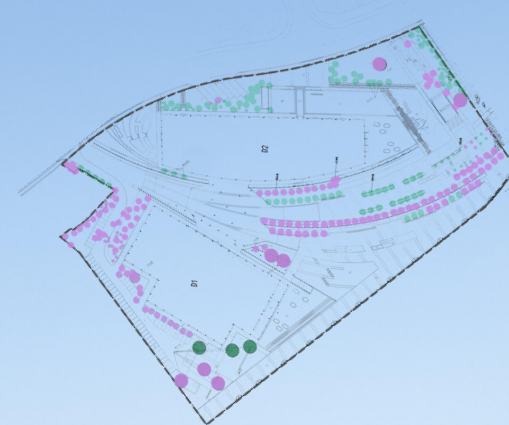
Sleepers



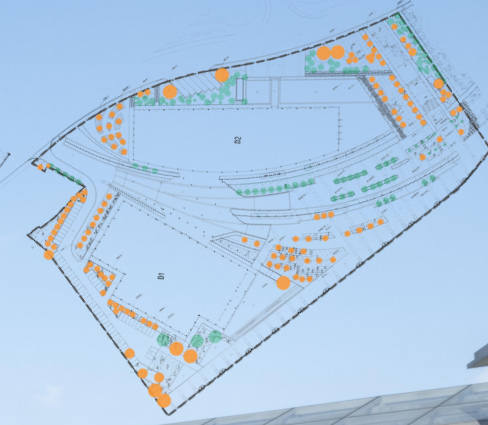
Warehouses

STRATEGY 6-Greenery Design and Humanization Design

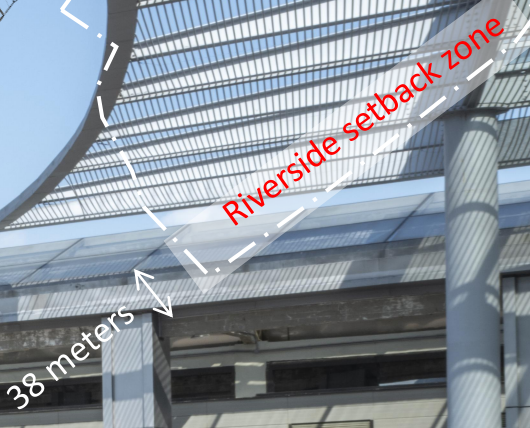
- The trees are spread out in a strip pattern parallel to the track of the railway route to form a green corridor. The design emphasizes the protection of existing ancient and large trees, and complies with the requirement to plant trees with a setback of 38 meters from the riverbank.



The relocated tree's planar position



The final planar position of the relocated tree



- Humanization is another key focus of the design.

Resting benches are placed under the trees, providing shade in summer and allowing sunlight to freely filter through in winter, enhancing comfort for visitors throughout the year.

DETAIL-Structure Design

• The dynamic platform follows the trend of the track, which leads the flow of people from the city to the riverside in a streamlined form.

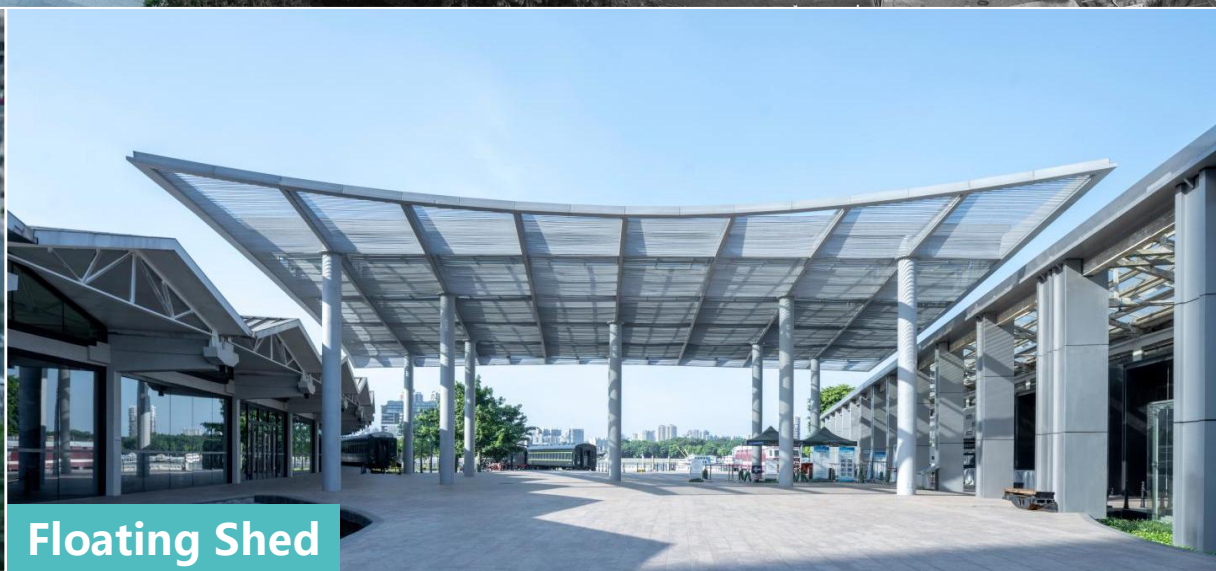
Expanded the Platform Area •

• The floating shed and platform to connect the two buildings as a whole.

• Time Tunnel



Streamline Form Green Space



Floating Shed



DETAIL-Paving Design

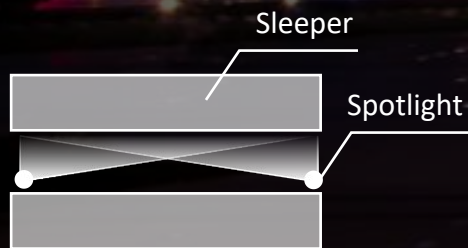
- Echoes the segmented rhythm of railway.
- It was a crucial for conveying a sense of authenticity.



DETAIL-Lighting Design

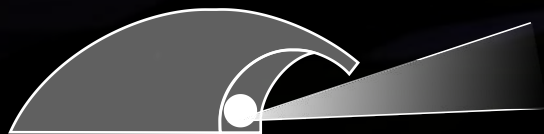
When designing the lighting, we considered the safety of children from surrounding residential areas who might use the space. The designers carefully adjusted the power and color temperature of the lights to create a soft and comfortable ambiance. A large number of specially selected embedded lights were chosen for illuminating the railway tracks and train bodies, featuring hidden fixtures, covered lights, and side illumination angles to avoid glare and prevent accidents, such as children getting burned by the lights while playing.

Lighting design floor plan for railway tracks



Spotlights illuminate the sleepers, while linear light strips highlight the track design.

Lighting fixture cross-section diagram



Side illumination design can prevent glare. The fixtures are waterproof and will not cause burns, ensuring safety and durability.



• The lighting accentuates the train's number and year.

• Linear lighting enhances the crosswise texture of the sleepers.

PROJECT BENEFITS

01 CULTURE BENEFIT

100% Promote

ABANDON RESOURCE

RECREATION AREA

02 CONSTRUCTION COST

1500 MILLION CNY

700 MILLION Reduce

800 MILLION CNY

03 ENVIRONMENT BENEFIT

100% Preservation of Existing Trees



04 WATER FEATURE

GREEN SPACE AND ACTIVITY AREAS

2450m²

PROMOTE

0m²

AREA

3582m²

Reduce to 1/3

1132m²

COST

3,384,000 CNY

1/2 Reduce

1,695,400 CNY

BENEFIT

PROMOTE

Beautiful Water Feature Museum Sign

Negative Space



Memories of the Platform
Guangzhou Railway Museum Landscape Design