



COOLING AGAIN

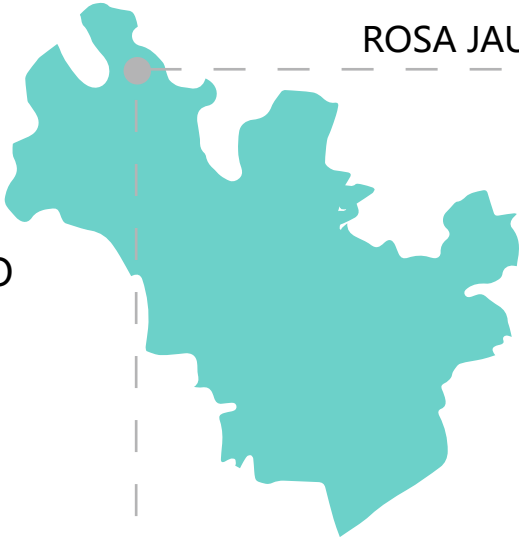
Santa Rosa Heat Island mitigation strategy

GEOGRAPHICAL LOCATION ANALYSIS

MEXICO



QUERETARO

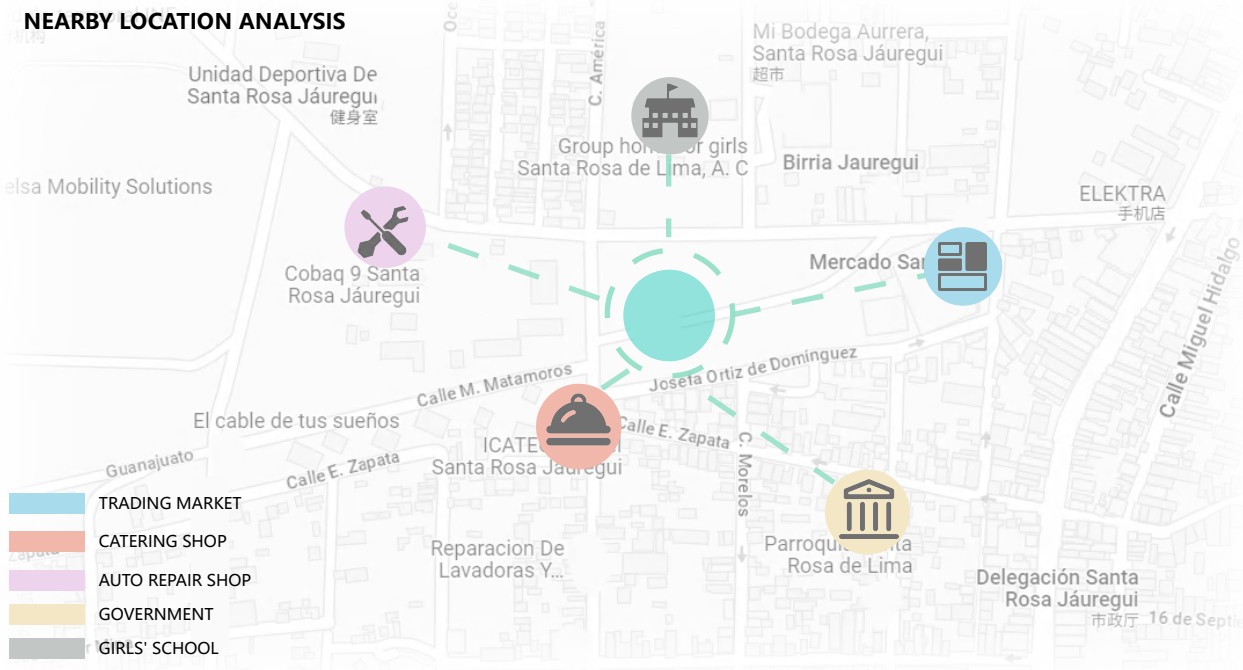


ROSA JAUREGUI

VICENTE GUERRERO AV. TO MORELOS ST.

LOCATION: VICENTE GUERRERO AV. TO MORELOS ST., SANTA ROSA JAREGUI, IN THE CITY OF QUERETARO, MEXCO. 20°4439.58" N - 10027107" W
 JOSEFA ORTIZ DE DOMINGUEZ CORNER VICENTEGUERRERO, 76220 QRO.

NEARBY LOCATION ANALYSIS



STREET LOCATION



PARTICULARITIES OF THE STREET

CETRAM is a transfer center of the collective public transportation system. It is an important node that receives and serves the inhabitants of the rural communities north of the city of Queretaro.

THESE CENTERS USUALLY HAVE TERMINALS FOR URBAN BUSES, SUBURBAN BUSES, NON-MOTORIZED MEANS, ETC, WITH LOADING AND UNLOADING PLATFORMS, AS WELL AS FACILITIES TO ENSURE PASSEN-



FARE INTEGRATION: IN MANY CASES, CETRAMS OFFER AN INTEGRATED FARE SYSTEM THAT ALLOWS PASSENGERS TO USE

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THE LOCATION OF CETRAMS IS OFTEN PLANNED TO ENCOURAGE SUSTAINABLE URBAN DEVELOPMENT AROUND THESE AREAS,

IN SUMMARY, A CETRAM IS A FUNDAMENTAL PART OF PUBLIC TRANSPORT INFRASTRUCTURE IN URBAN AREAS, DESIGNED TO IMPROVE THE EFFICIENCY AND ACCESSIBILITY OF THE TRANSPORT SYSTEM BY FACILITATING THE TRANSFER BETWEEN DIFFERENT MODES OF MOBILITY. THIS CONTRIBUTES TO REDUCING TRAFFIC CONGESTION, PROMOTING SUSTAINABILITY AND IMPROVING THE QUALITY OF LIFE OF CITY DWELLERS.

STREET PROBLEM ANALYSIS

INTERVIEW BUS DRIVER



Rubbish litters the lake and nobody cleans it up



Transportation center, parking out of sequence



No rest area for drivers, no waiting area

INTERVIEW TAXI DRIVER



The distance between trains is dense and the venue is crowded



Other vehicles are also present in the bus parking area



The temperature is high, and there is only one tree to provide shade



Cab drivers work from 6-20 hours. Drivers do not have rest areas or restroom facilities on site. During peak hours(6-7:30 hrs, 13:30-15:00 hrs, 18-19 hrs) there are an estimated 1,500 users per hour on week days and 2,100 on Sundays (10-16 hrs)



SOLUTION STRATEGIES

BUS PARKING LOT ROUTE PLANNING

FROM THE SITE CONDITIONS AND INTERVIEWS WE CAN TELL THERE ARE BIG PROBLEMS WITH BUS PARKING. THREE BUS COMPANIES PARKED THEIR CARS INDISCRIMINATELY. IMPORT AND EXPORT PLANNING IS NOT CLEAR.

THE IMPROVEMENT OF BASIC MEASURES

THE DRIVERS HAVE NO RESTING PLACE
NO BATHROOM
THERE ARE NO FIXED WAITING AREAS FOR PASSENGERS
SERVICE FACILITIES ARE NOT IN PLACE

HEAT ISLAND EFFECT PROBLEM

THE CAUSE OF HEAT ISLAND EFFECT
CAR EMISSIONS, LESS VEGETATION,
ONLY ONE TREE PROVIDES SHADE
NEARBY IS AN EXCHANGE MARKET
PRODUCES A LOT OF GARBAGE,
AND THE RIVER IS SERIOUSLY



PALANT ANALYSIS



The city of oueretaro has a semi-arid climate. According to this climate, we can grow some plants that are heat resistant, shade, long flowering and ornamental.



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SAGE



CACTUS



AGAVE



PALM TREE



PINE TREE

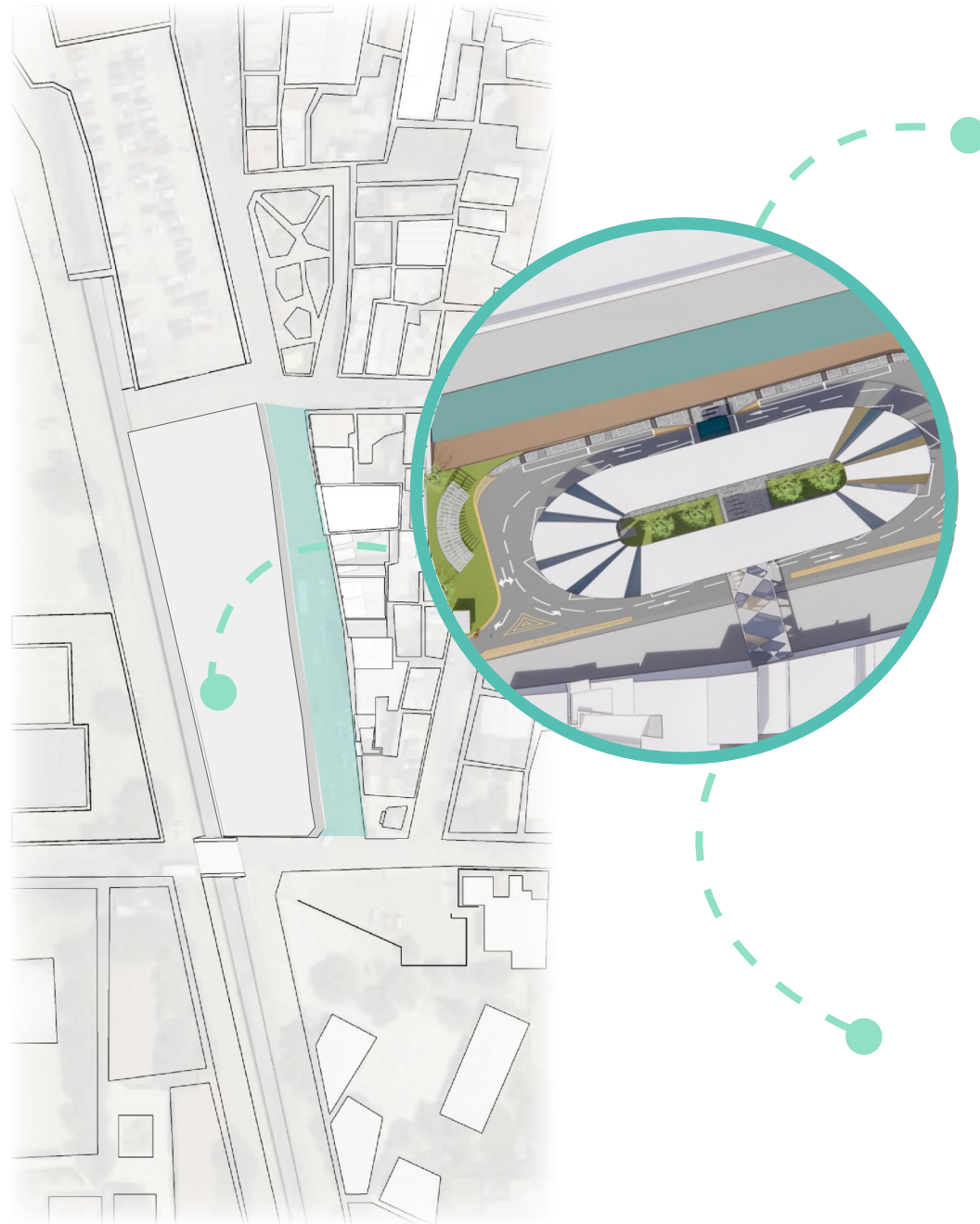


MANGO TREE

10M
8 M
6 M
4 M
2 M
0 M



ROUTE PLANNING AND CEILING ANALYSIS



- ① The main movement of employees is the our buildings in the middle of the site
- ② The secondary moving line is the node on both sides of the site
- ③ Employees mainly wander in maintenance vehicles and buildings

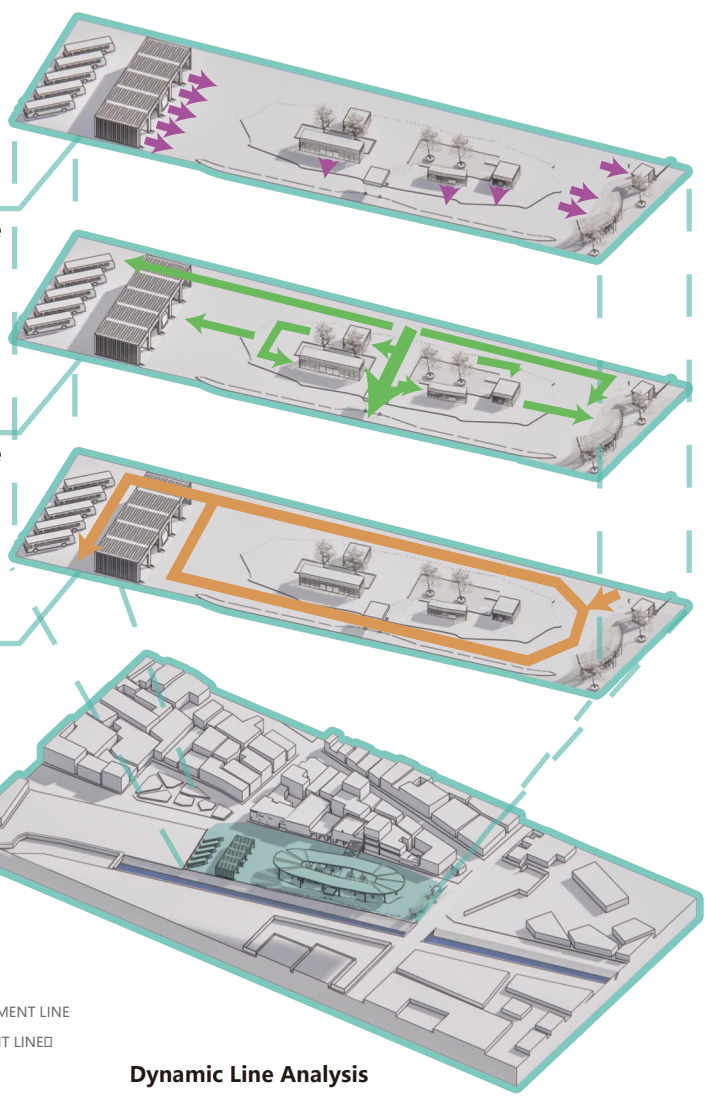
Service employee's movement line

- ① Pedestrians mainly enter from the zebra crossing in the middle of the site
- ② The four surrounding buildings are the main movement lines for pedestrians
- ③ The bicycle stop on the right side of the venue is the secondary track

Ordinary passenger's movement line

- ① The peripheral roads of the main site are the main routes for buses
- ② The far left side of the venue is the bus parking spot
- ③ The moving line is looped and simple

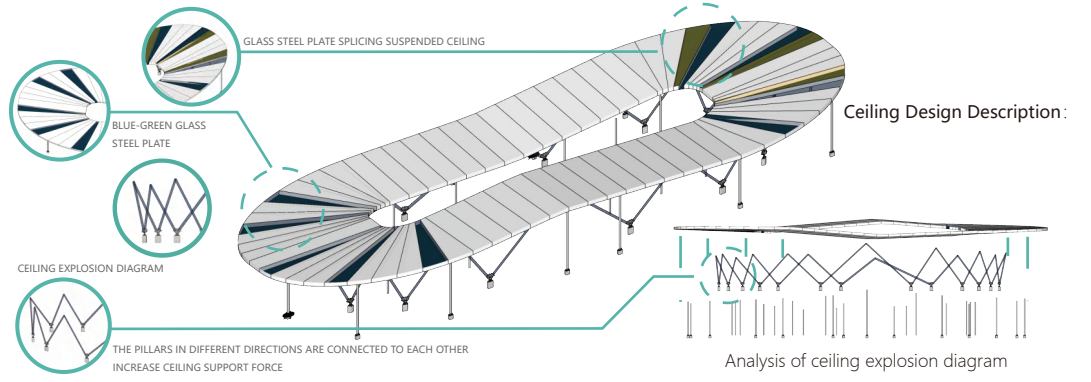
Bus driver's movement line



Annotated Illustration

- BUS DRIVER'S MOVEMENT LINE
- ORDINARY PASSENGER'S MOVEMENT LINE
- SERVICE EMPLOYEE'S MOVEMENT LINED

Dynamic Line Analysis

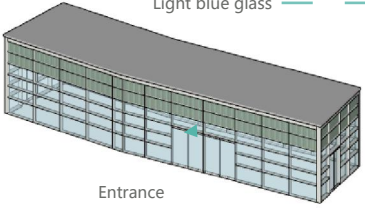
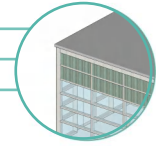


Analysis of Building Ceiling

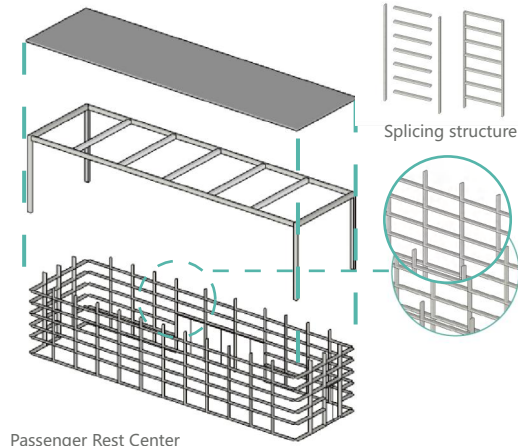
ARCHITECTURAL CHARACTERISTICS

These buildings are built with pre supported steel plates, using the simplest splicing structure and light blue glass. Large daylight area and low cost, and this quickly built building is suitable for maintenance and replacement

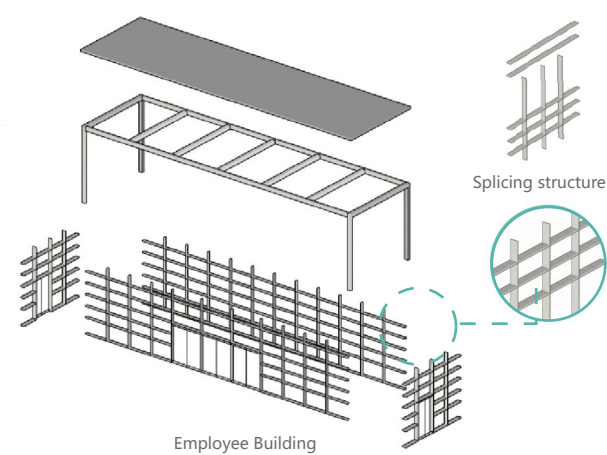
- Spliceable modular steel ceiling
- Brushed metal baffle
- Light blue glass



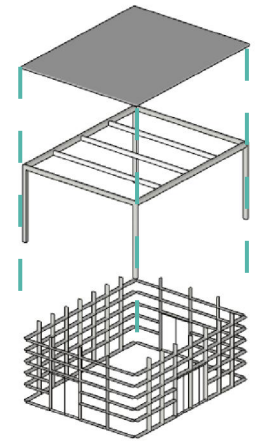
Entrance
Logistics Building



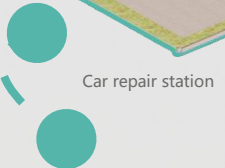
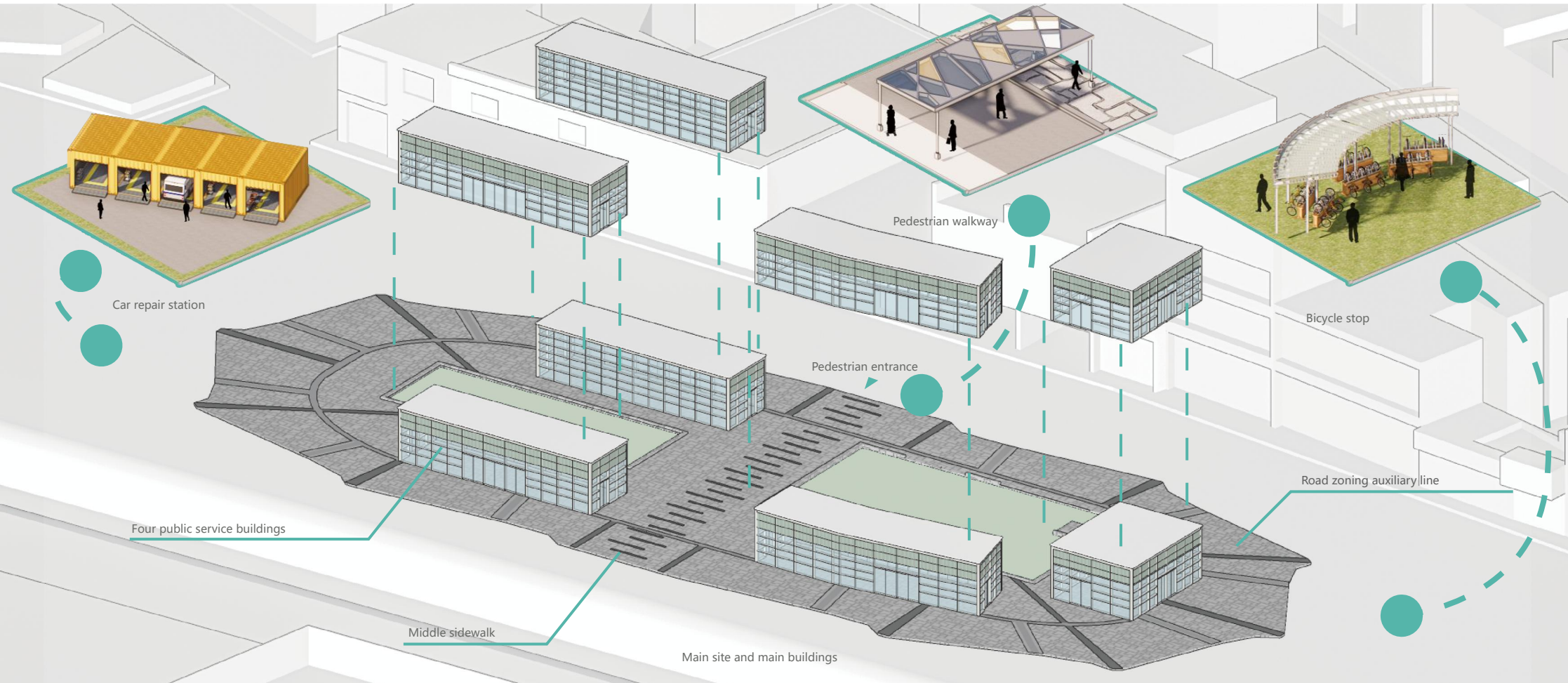
Passenger Rest Center



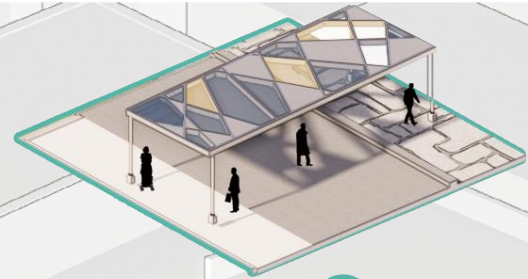
Employee Building



Public Service Building



Car repair station



Pedestrian walkway



Bicycle stop



Pedestrian entrance

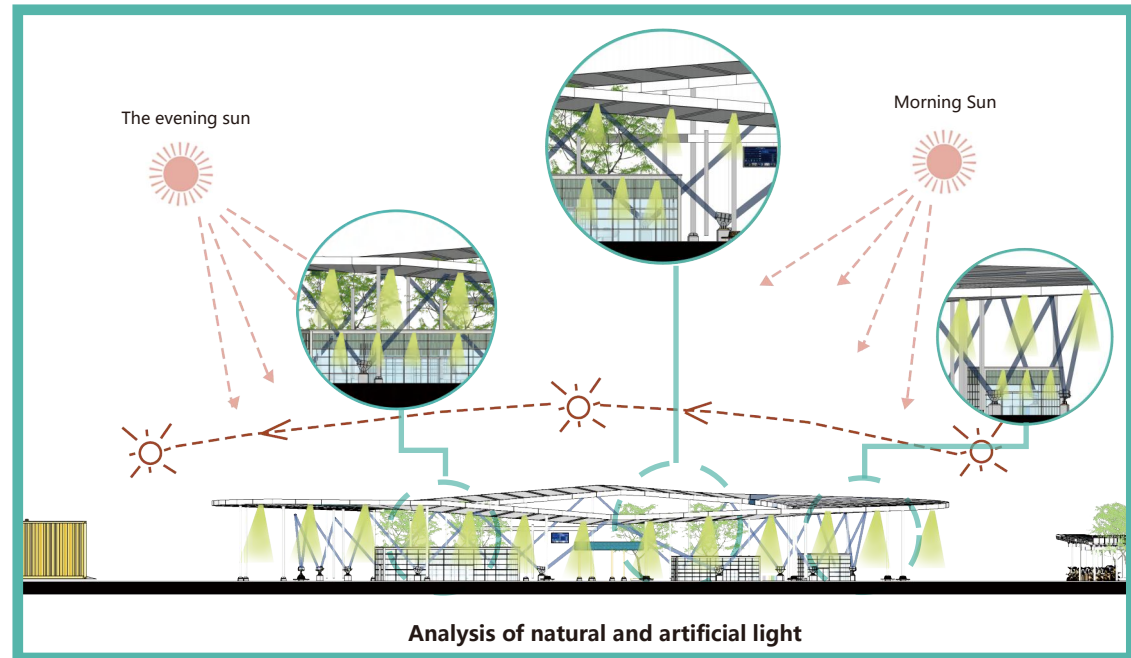
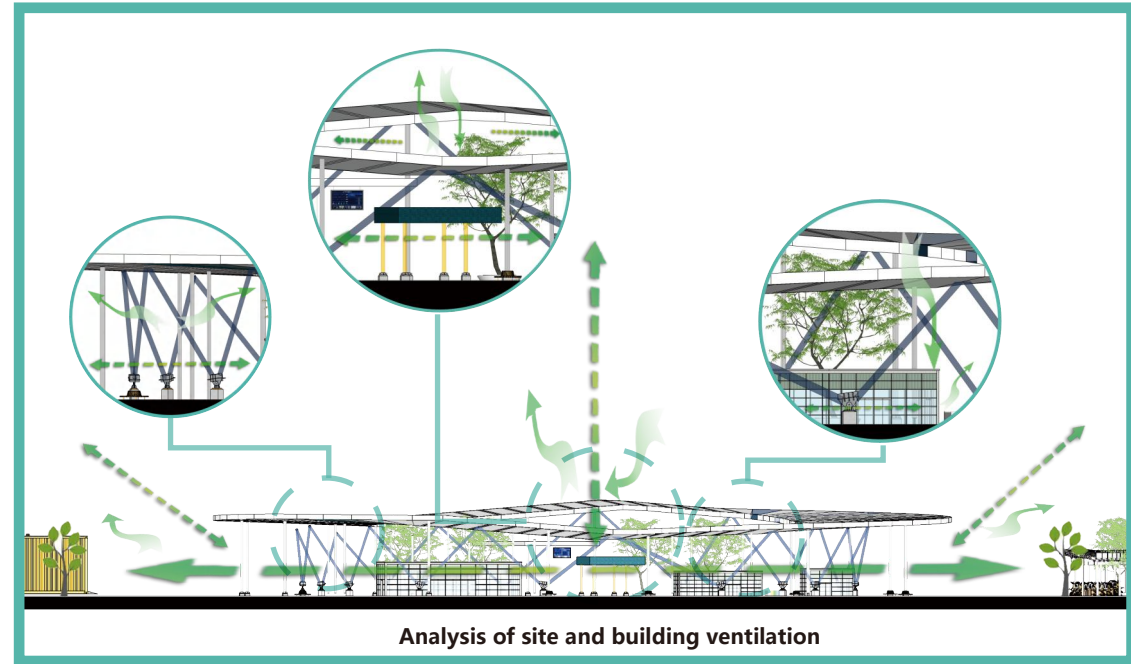
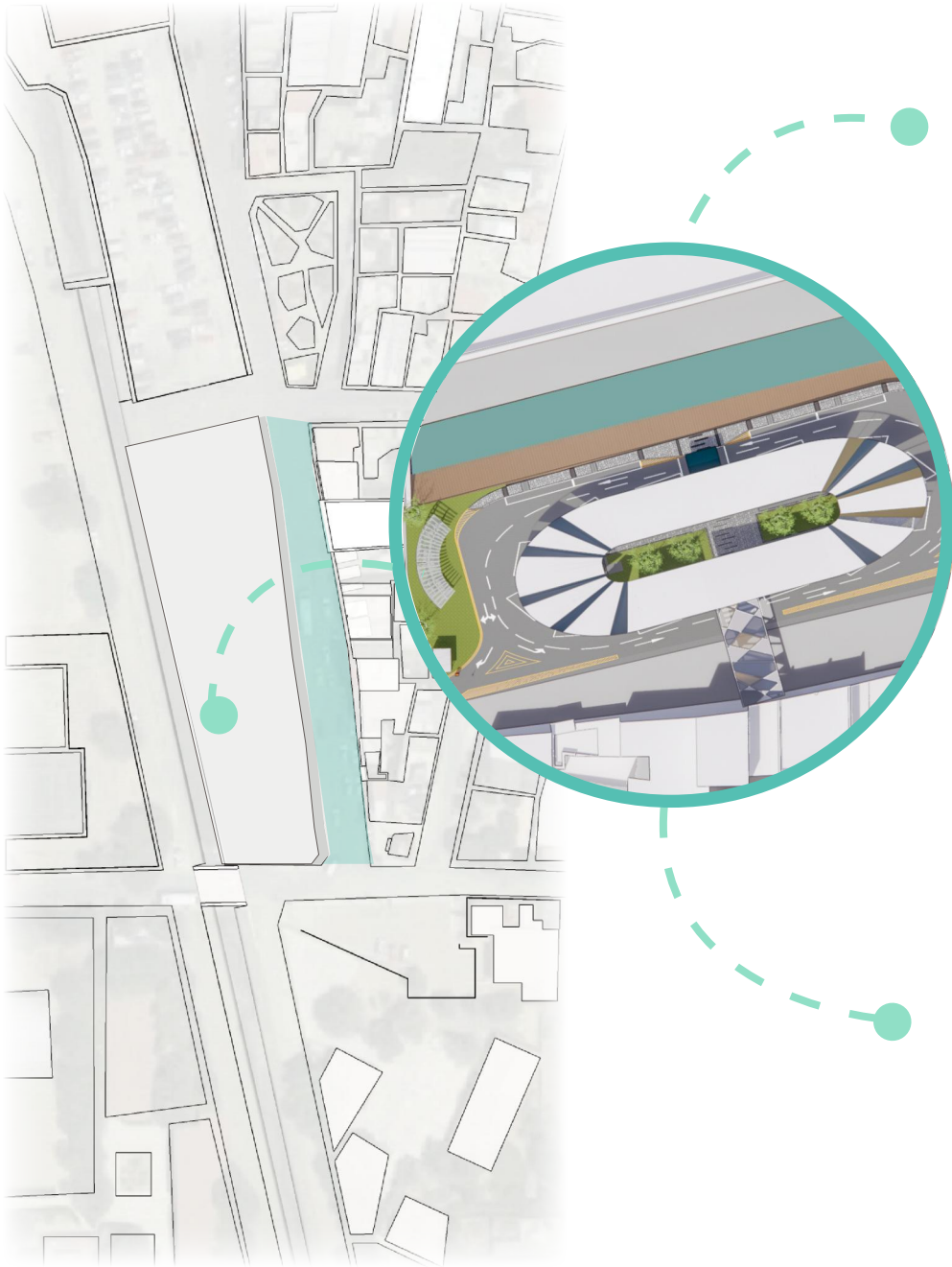
Four public service buildings

Middle sidewalk

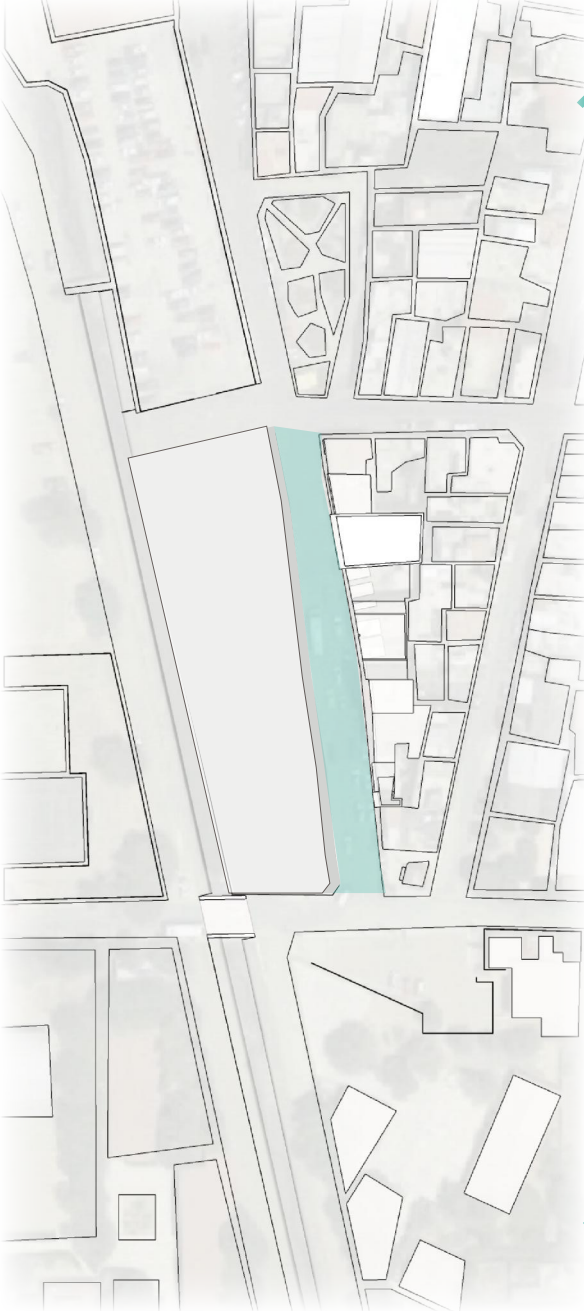
Main site and main buildings

Road zoning auxiliary line

LIGHTING AND VENTILATION ANALYSIS



FUTURE VISION



IN TWO YEARS(2023-2025)

PARKING LOT



Bus site route planning
Neat and orderly
Address security issues

ROAD



Increase parking space for bicycles
The relevant infrastructure
has been improved

BASIC MEASURE

Customers have fixed waiting tables
The driver has a rest area
The diversion of people and vehicles
solves the crowding problem



ENVIRONMENTAL PROBLEM



The road has parking lots in the gray space zone. More greenery has been added, some for shade. Use green plants to reduce the problem of high temperature

MAINTENANCE AND IMPROVEMENT OF BUS PARKING FACILITIES

After the redesign of the parking lot planning route, daily maintenance of facilities should be carried out. Design real-time bus mini program, bus electronic plate, convenient for passengers to reserve time, increase the parking lot takeout, errand service, etc.

ENVIRONMENTAL PROTECTION, GARBAGE PROBLEM

Environmental issues are a protracted battle. First of all, to increase people's awareness of environmental protection, in this place, you can set up garbage classification. Recyclable and non-recyclable. Reduce the burden on sanitation workers, and at the same time can better divide and burn. Reduce white pollution

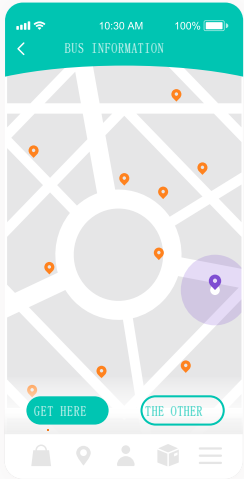
ECONOMIC BENEFIT

If the surrounding environment is handled well, the exchange market can be reformed, and some fixed positions of Sunday market stalls can be designed to increase revenue, and online goods trading can be designed to expand the market.

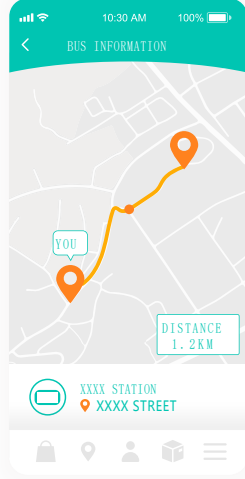
5-YEAR PLAN(2023-2028)

FUTURE EXPECTATION

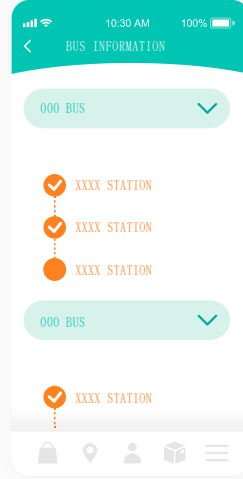
With the advent of the electronic age, we can use electronic technology to design a public transportation service app, which will have the function of viewing bus stops and bus routes and calling taxis. The concept diagram is as follows:



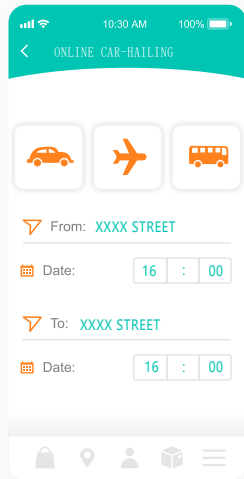
Check the nearby bus stops



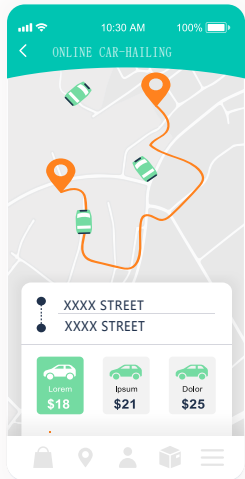
Find the nearest route



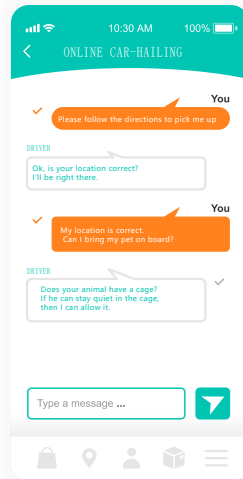
Check the bus arrival status



Transportation can be booked on the platform



You also can call travel traffic directly



You can talk to the driver

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KITCHEN WASTE HARMFUL WASTE RECYCLABLE OTHER WASTE