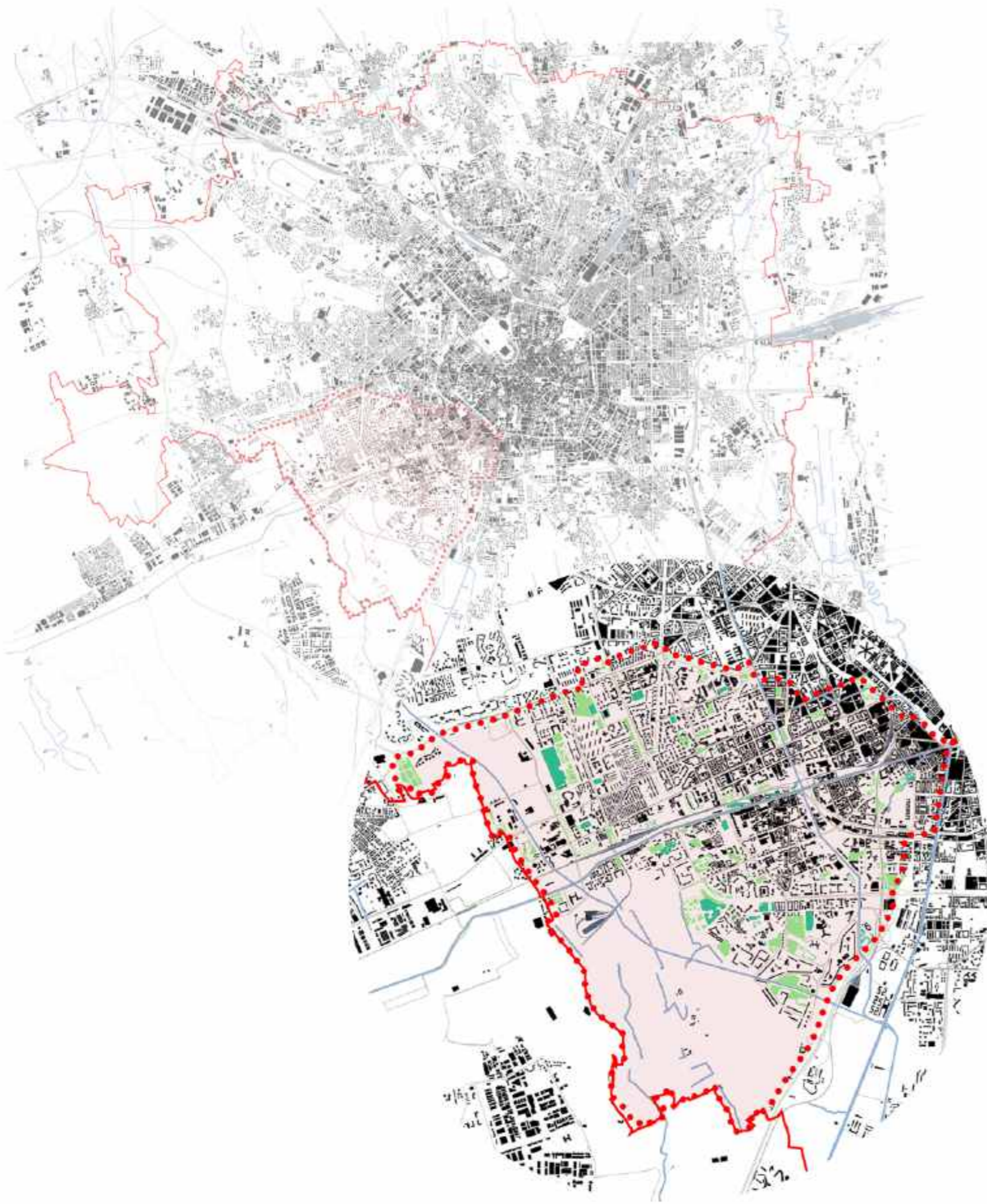


**“STITCHING THE CITY BACK TO CANAL,
NEW LIFE UNDER THE RAILWAY ARCHES”**



LOCATION STATISTICS

TOTAL AREA



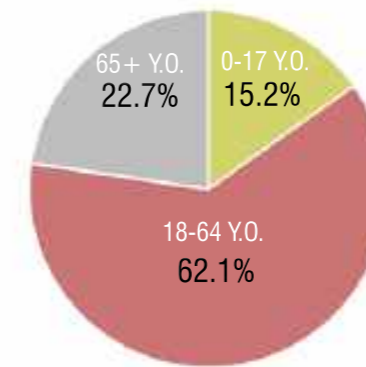
TOTAL POPULATION



POPULATION DENSITY



POPULATION STRUCTURE



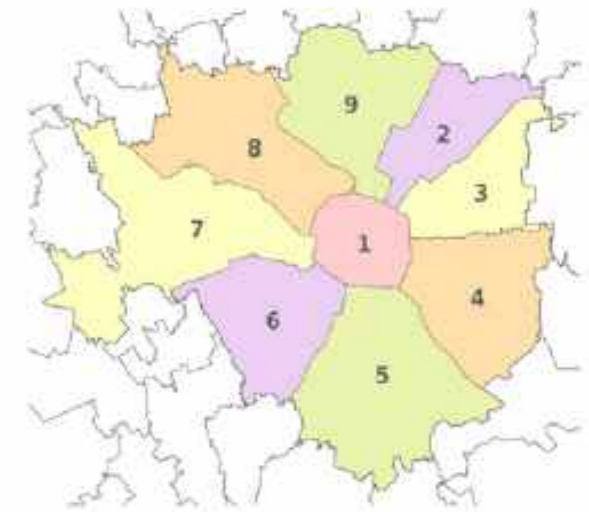
AVERAGE INCOME PER YEAR



MUNICIPALITIES OF MILAN

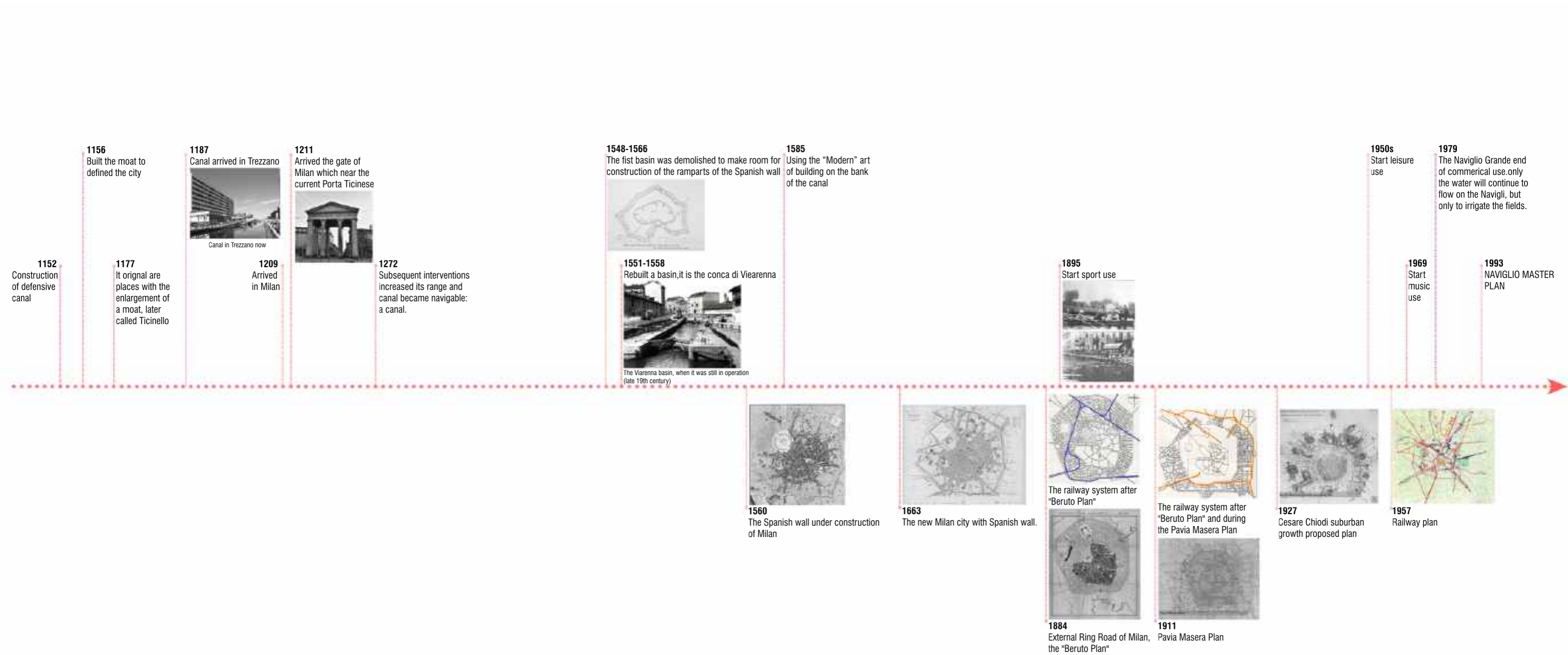


In the eighties and nineties the subdivision was in 20 zones



Nine districts in which is divided the municipality of Milan from 1990

TIMELINE OF NAVIGLIO GRANDE AND URBAN DEVELOPMENT



CLIMATE ANALYSIS

Solar Energy

This section discusses the total daily incident shortwave solar energy reaching the surface of the ground over a wide area, taking full account of seasonal variations in the length of the day, the elevation of the Sun above the horizon, and absorption by clouds and other atmospheric constituents. Shortwave radiation includes visible light and ultraviolet radiation.

The average daily incident shortwave solar energy experiences extreme seasonal variation over the course of the year.

The brighter period of the year lasts for 3.2 months, from May 12 to August 18, with an average daily incident shortwave energy per square meter above 6.0 kWh. The brightest day of the year is July 5, with an average of 7.1 kWh.

The darker period of the year lasts for 3.6 months, from October 26 to February 13, with an average daily incident shortwave energy per square meter below 2.5 kWh. The darkest day of the year is December 16, with an average of 1.4 kWh.

Hours of Daylight and Twilight

The length of the day in Milan varies significantly over the course of the year. In 2018, the shortest day is December 22, with 8 hours, 42 minutes of daylight; the longest day is June 21, with 15 hours, 41 minutes of daylight.

The earliest sunrise is at 5:34 AM on June 16, and the latest sunrise is 2 hours, 29 minutes later at 8:03 AM on January 7. The earliest sunset is at 4:39 PM on December 11, and the latest sunset is 4 hours, 35 minutes later at 9:15 PM on June 26.

Daylight saving time (DST) is observed in Milan during 2019, starting in the spring on March 31, lasting 6.9 months, and ending in the fall on October 27.

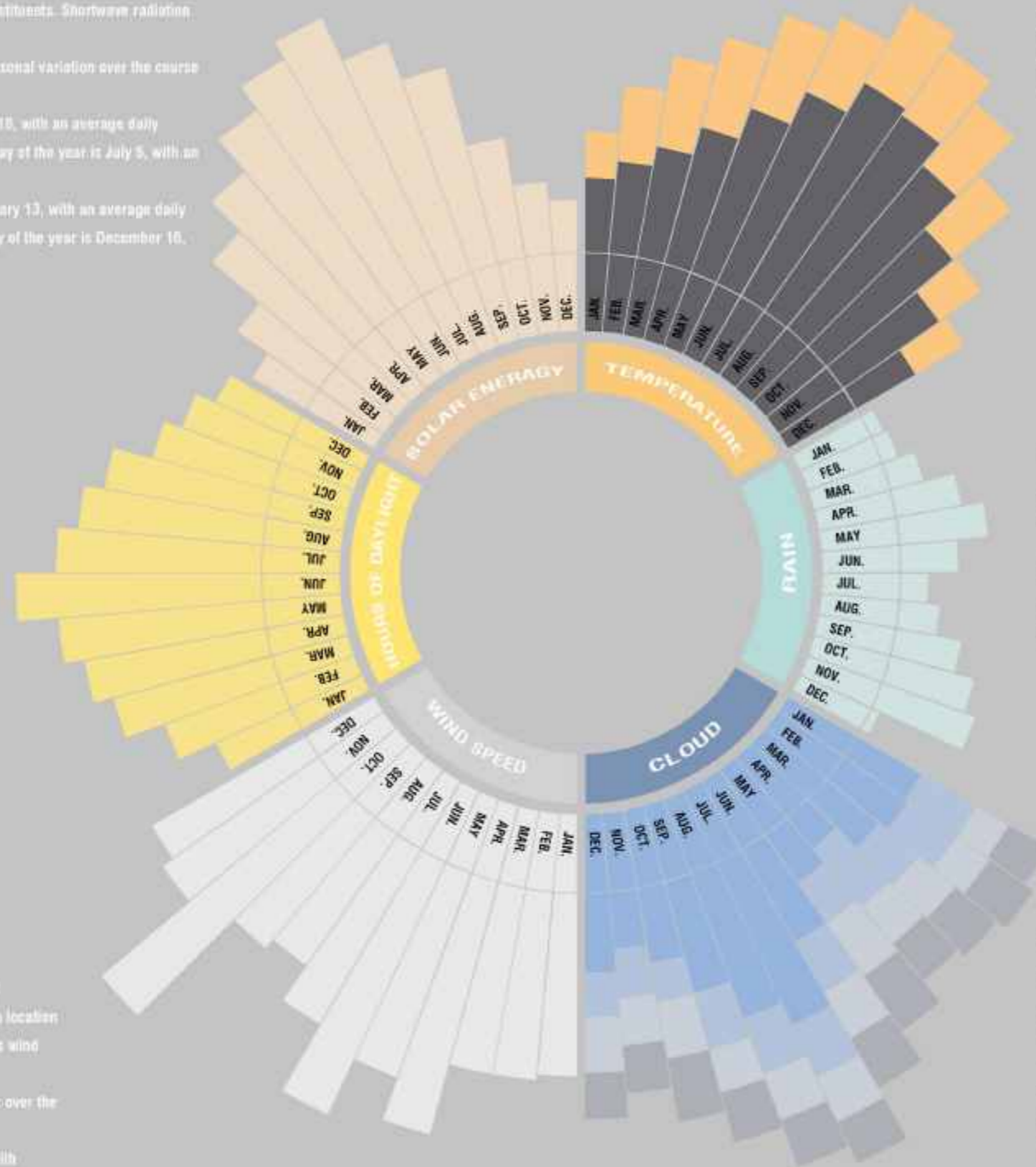
WIND SPEED

This section discusses the wide-area hourly average wind vector (speed and direction) at 10 meters above the ground. The wind experienced at any given location is highly dependent on local topography and other factors, and instantaneous wind speed and direction vary more widely than hourly averages.

The average hourly wind speed in Milan experiences mild seasonal variation over the course of the year.

The windier part of the year lasts for 4 months, from February 2 to June 1, with average wind speeds of more than 7.2 Kilometers per hour. The windiest day of the year is April 13, with an average hourly wind speed of 8.7 Kilometers per hour.

The calmer time of year lasts for 8 months, from June 1 to February 2. The calmest day of the year is August 5, with an average hourly wind speed of 5.9 Kilometers per hour.



Average High and Low Temperature

The hot season lasts for 3.4 months, from June 1 to September 13, with an average daily high temperature above 25°C. The hottest season of the year is July, with an average high of 30°C and low of 20°C.

The cold season lasts for four months, from November 19 to February 25, with an average daily high temperature below 10°C. The coldest day of the year is January 12, with an average low of -1°C and high of 5°C.

RAINFALL

To show variation within the months and not just the monthly totals, we show the rainfall accumulated over a sliding 31-day period centered around each day of the year. Milan experiences significant seasonal variation in monthly rainfall.

Rain falls throughout the year in Milan. The most rain falls during the 31 days centered around November 5, with an average total accumulation of 95 MM.

The least rain falls around January 25, with an average total accumulation of 36MM.

CLOUD

In Milan, the average percentage of the sky covered by clouds experiences significant seasonal variation over the course of the year.

The clearer part of the year in Milan begins around June 17 and lasts for 3.1 months, ending around September 26. On July 22, the clearest day of the year, the sky is clear, mostly clear, or partly cloudy 75% of the time, and overcast or mostly cloudy 25% of the time.

The cloudier part of the year begins around September 26 and lasts for 8.9 months, ending around June 17. On November 12, the cloudiest day of the year, the sky is overcast or mostly cloudy 52% of the time, and clear, mostly clear, or partly cloudy 48% of the time.

DIACHRONIC HISTORY MAP



13th century



15th century



17th century

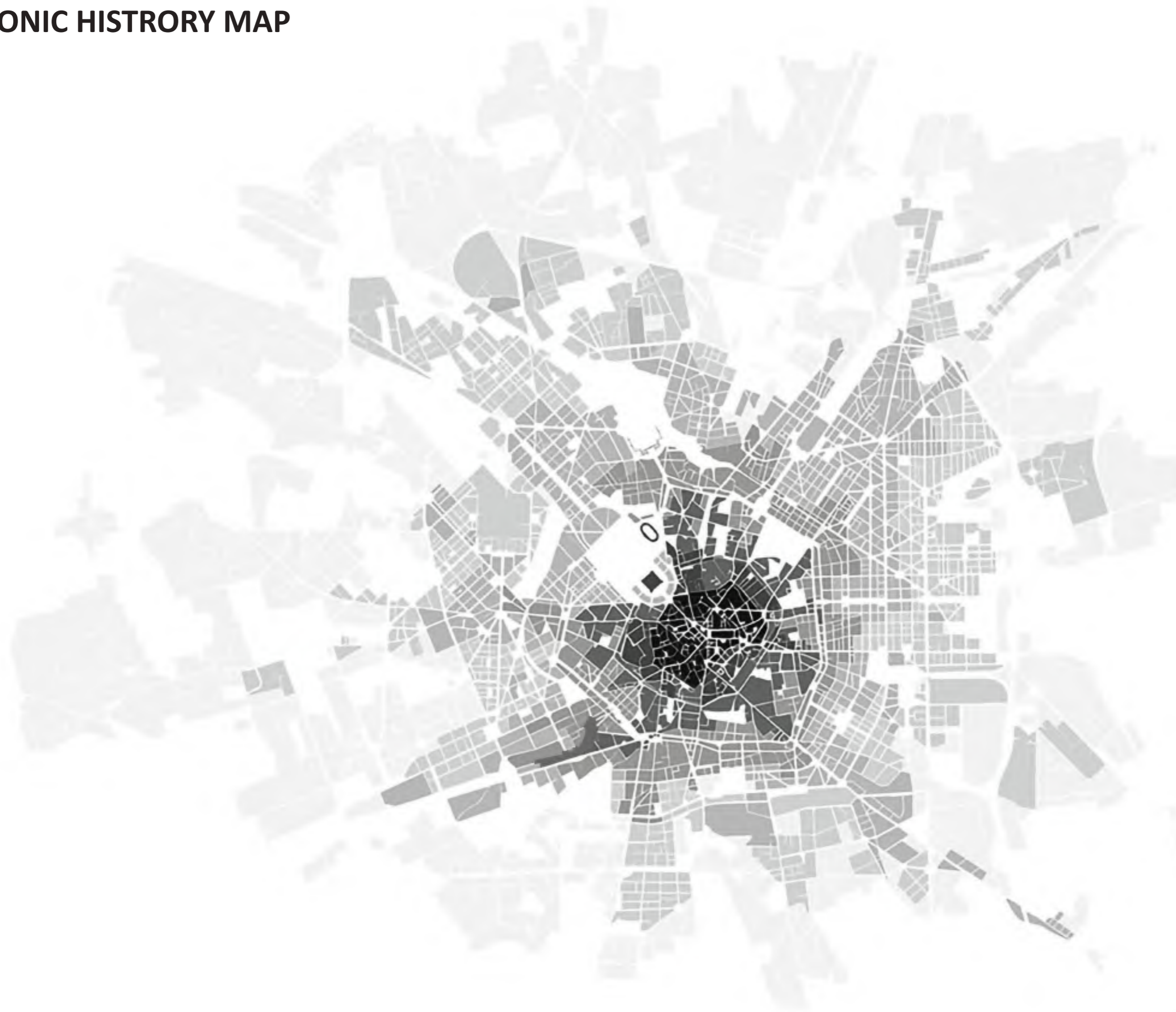


20th century



21st century

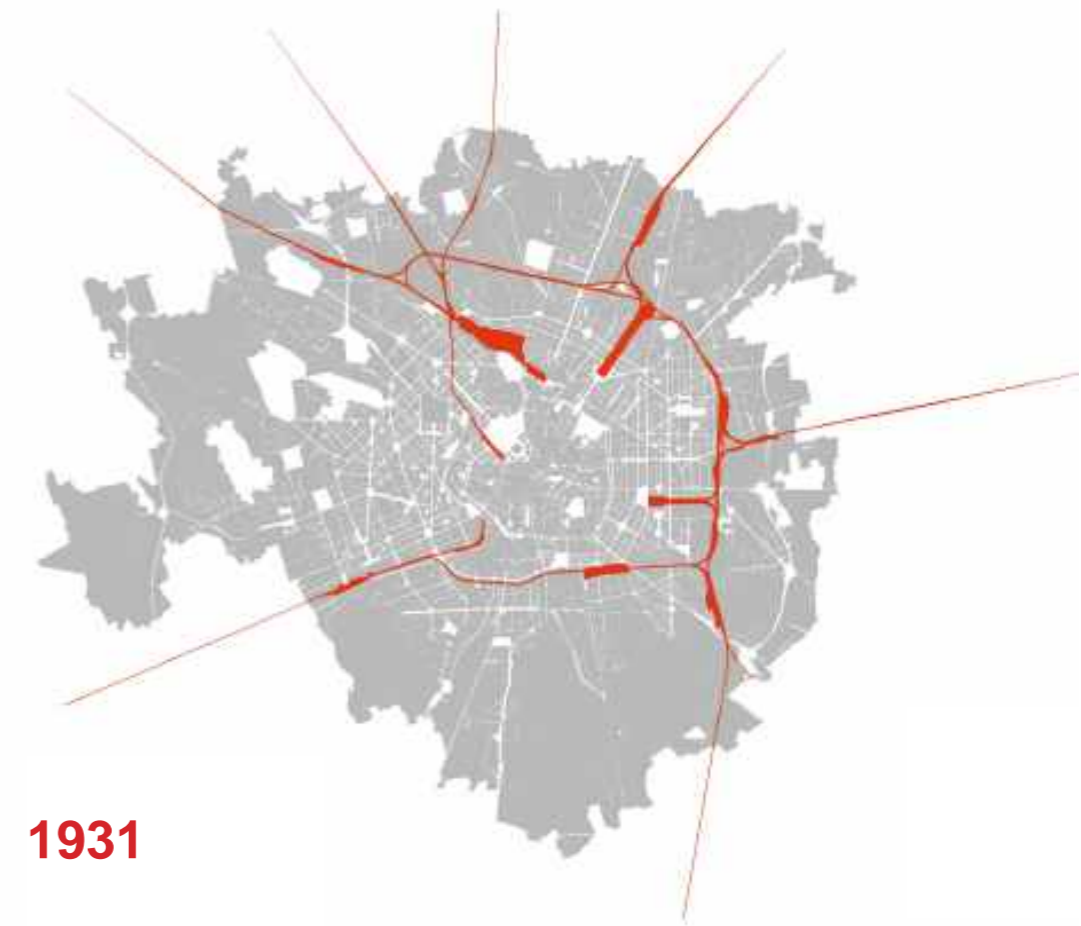
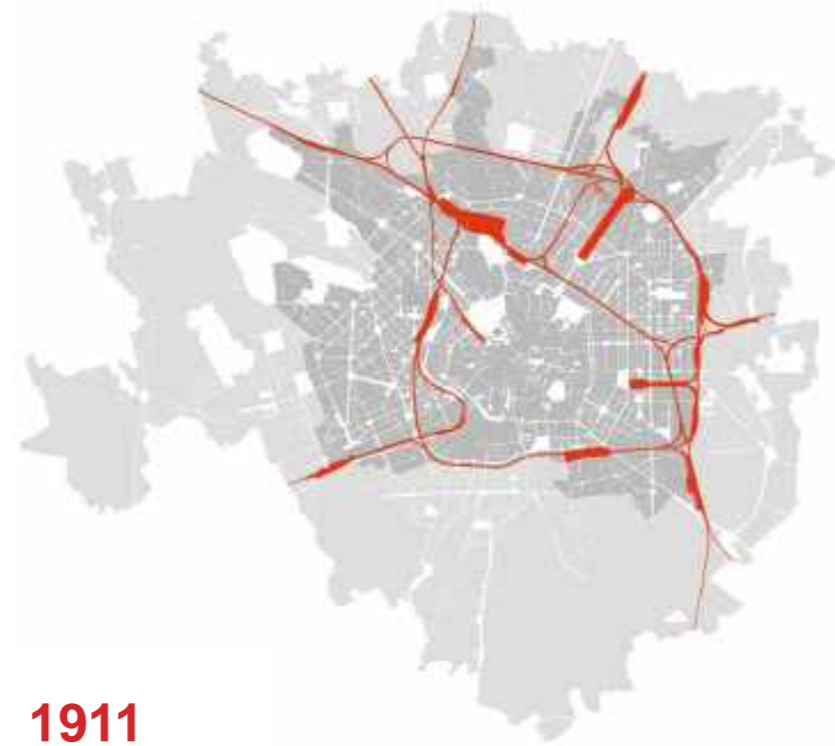
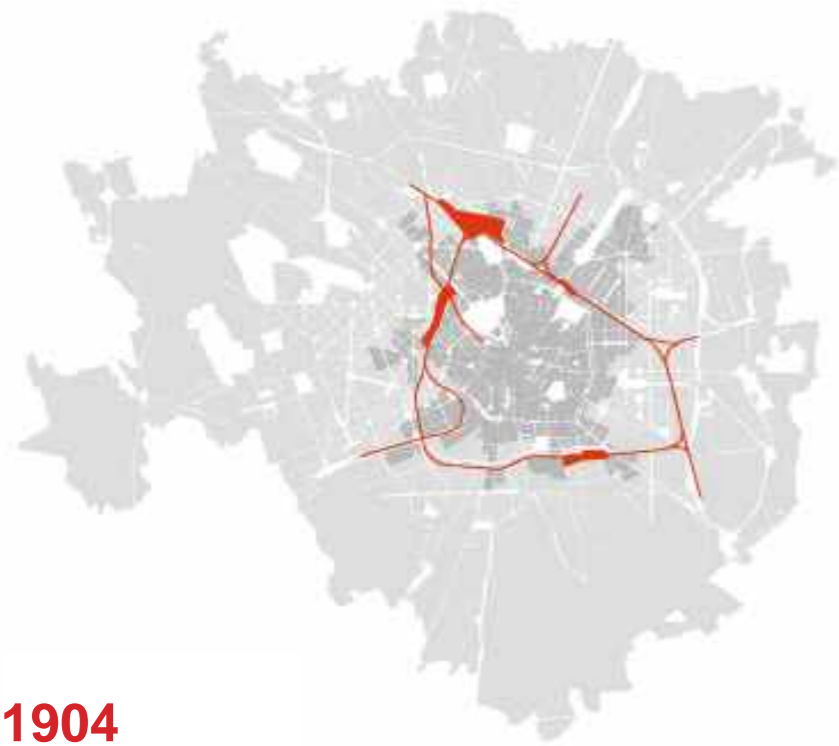
SYNCHRONIC HISTORY MAP



- 1600-1860
- 1860-1914
- 1914-1936
- 1936-1961
- 1961-1994
- 1994-2015

DIACHRONIC HISTORY MAP

RAILWAY SYSTEM



RAILWAY SYSTEM MAP



Station

Railway

2000 1/50000

HISTORY TIMELINE

NAVIGLIO GRANDE CANAL

1179
the canals **were built** and dug for defensive and irrigation purposes.

1258
the Naviglio Grande **reached Milan**. The Naviglio Grande ('Grand Canal'), represents Milan's first and most important hydraulic work and soon **became a waterway** as its navigations system was improved by the genius of Leonardo da Vinci.

1386
Using a new system of two locks allow the canal to be used in **transporting stone and marble for the Duomo**. The canal was used for transporting goods between Switzerland and Milano.

1830
It **peaked again during the second world war** – with Allied planes bombing road and rail, water transport again became useful for transporting goods.

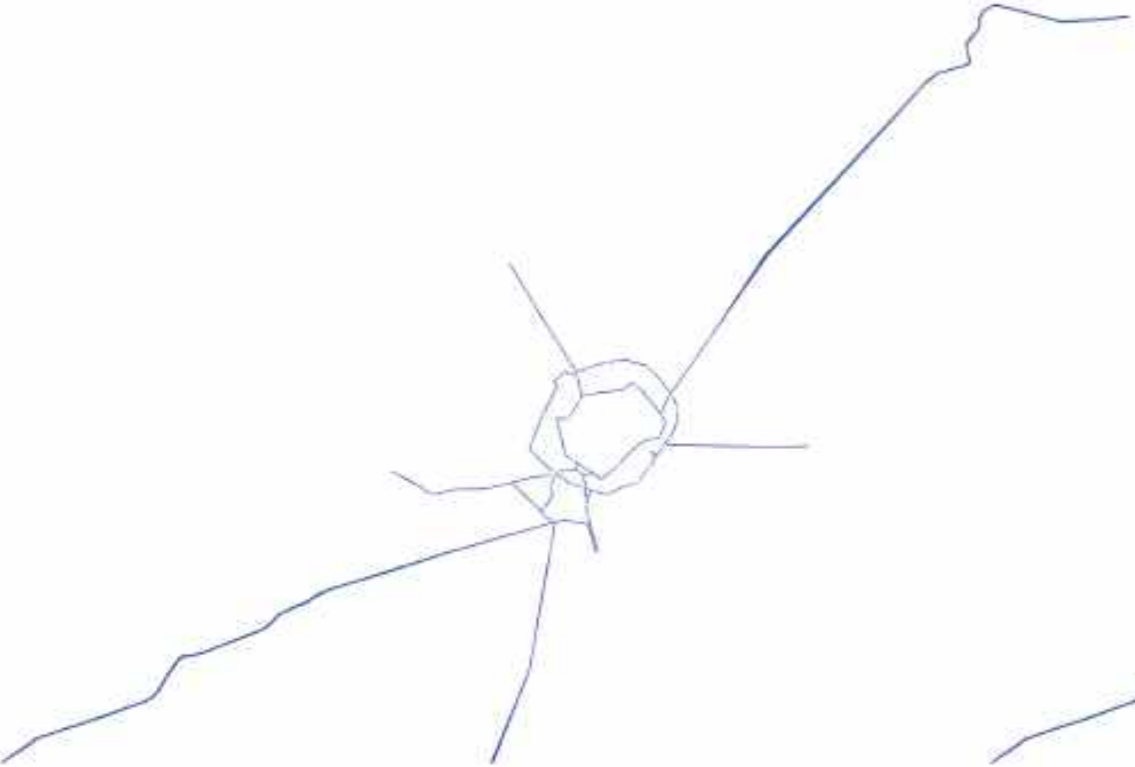
1953
With the advent of rail and wheel transportation, the five canals in Lombardy including Naviglio Bereguardo and Grande were **gradually abandoned**, until finally sections of the Naviglio Grande were covered with roads to improve city traffic.

1975
the canal **was plagued with pollution**, negligence and its river banks even ended up collapsing.

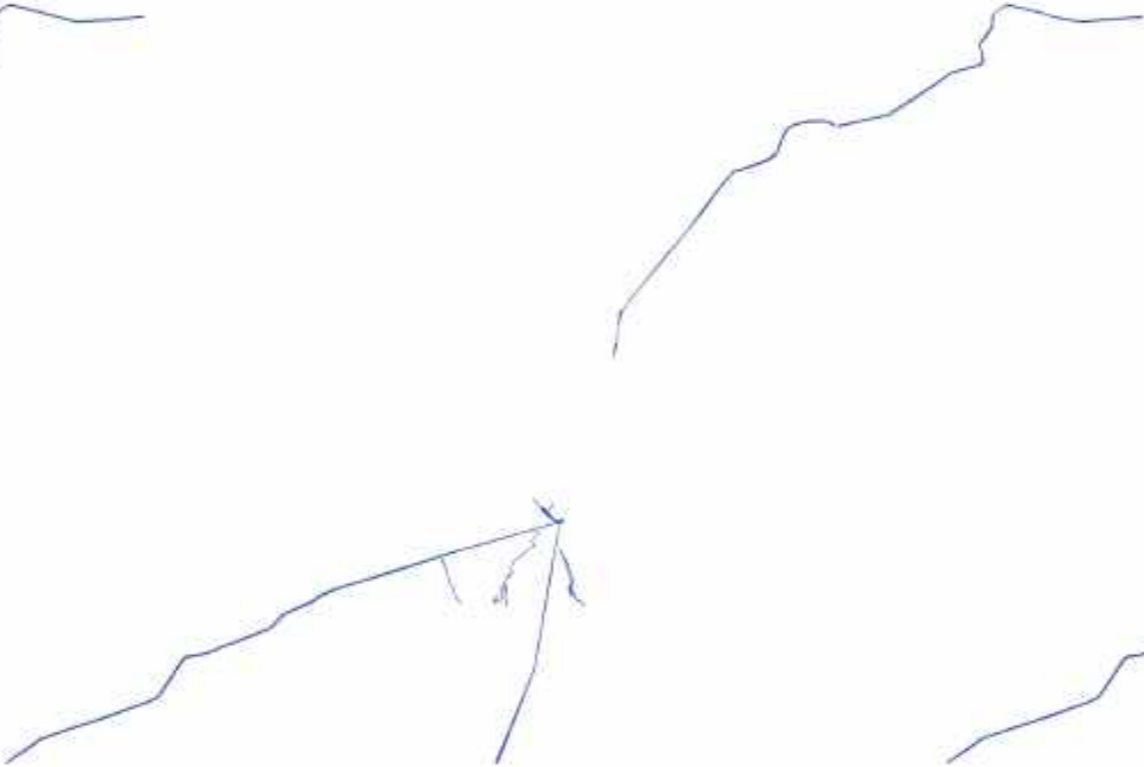
2012
On the last weekend of each month, a **canal market** is held by Associazione del Naviglio Grande, with functions including **retro market, art market and flower market**.

DIACHRONIC HISTORY MAP

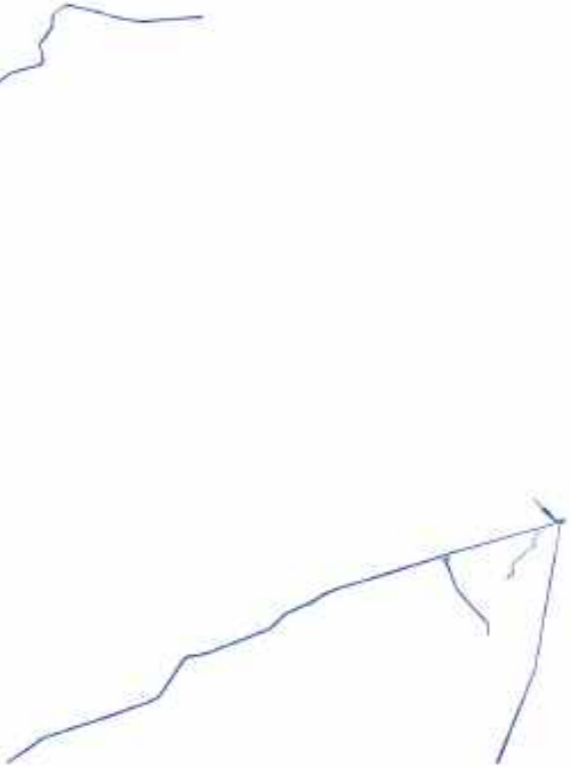
NAVIGLIO GRANDE CANAL



15th century
Built for transportation and defense



19th century
Replaced by roadways and railways







21th century
Use as canal market



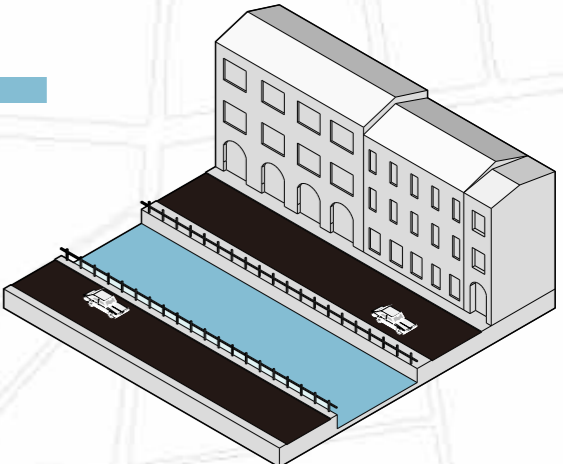
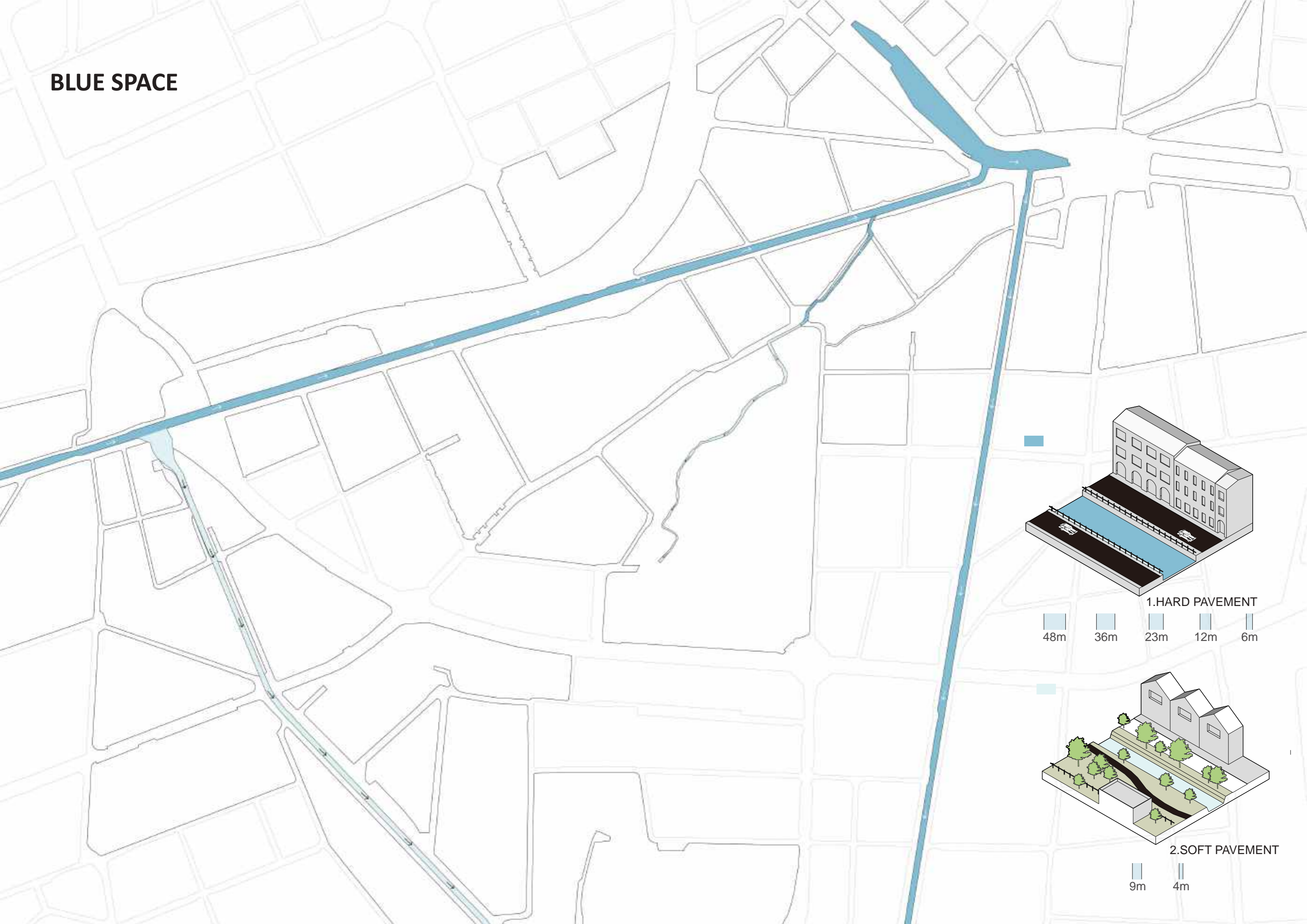
GREEN & BLUE SPACE



- Park 
- Cultural space 
- Temporary events in public space 
- Naviglio 

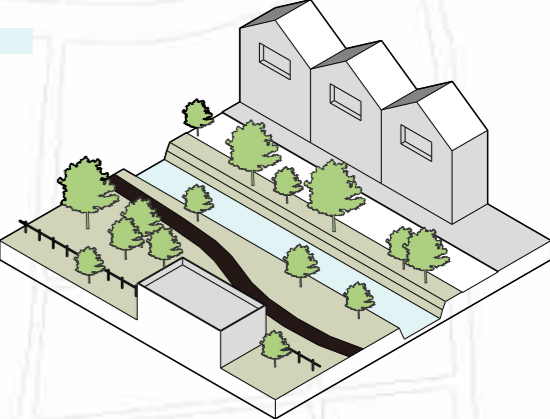
2000 1/50000

BLUE SPACE



1. HARD PAVEMENT

- 48m
- 36m
- 23m
- 12m
- 6m



2. SOFT PAVEMENT

- 9m
- 4m

GREEN CONTINUITY



Giardino Nascosto

Parco Baden-Powell

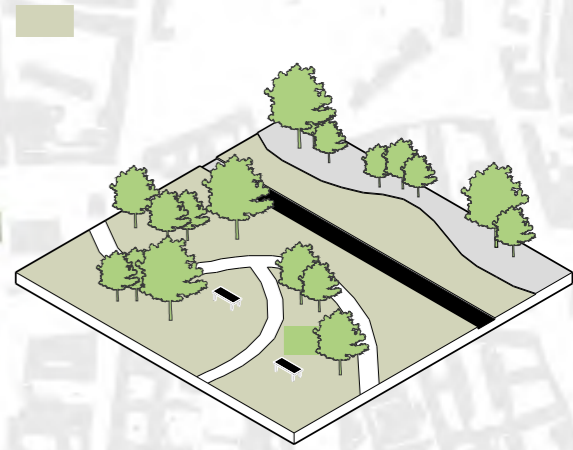
Parco Segantini

Parco Argelati

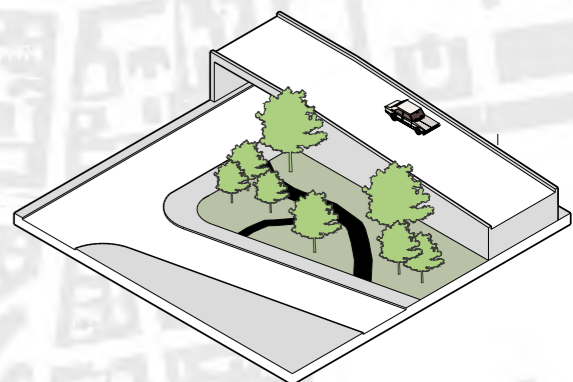
MilanoGreenWay

Giardino IULM

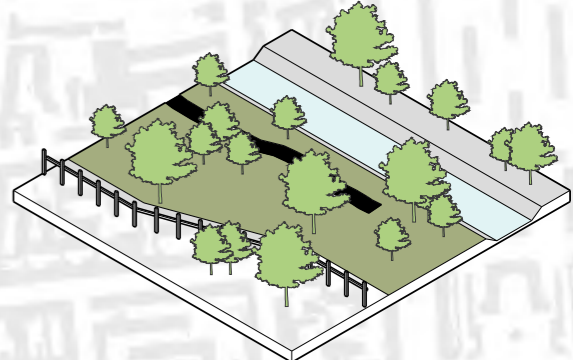
Parco Russoli Franco da Liscate



1. PUBLIC PARK



2. INFRASTRUCTURE
BUFFER ZONE



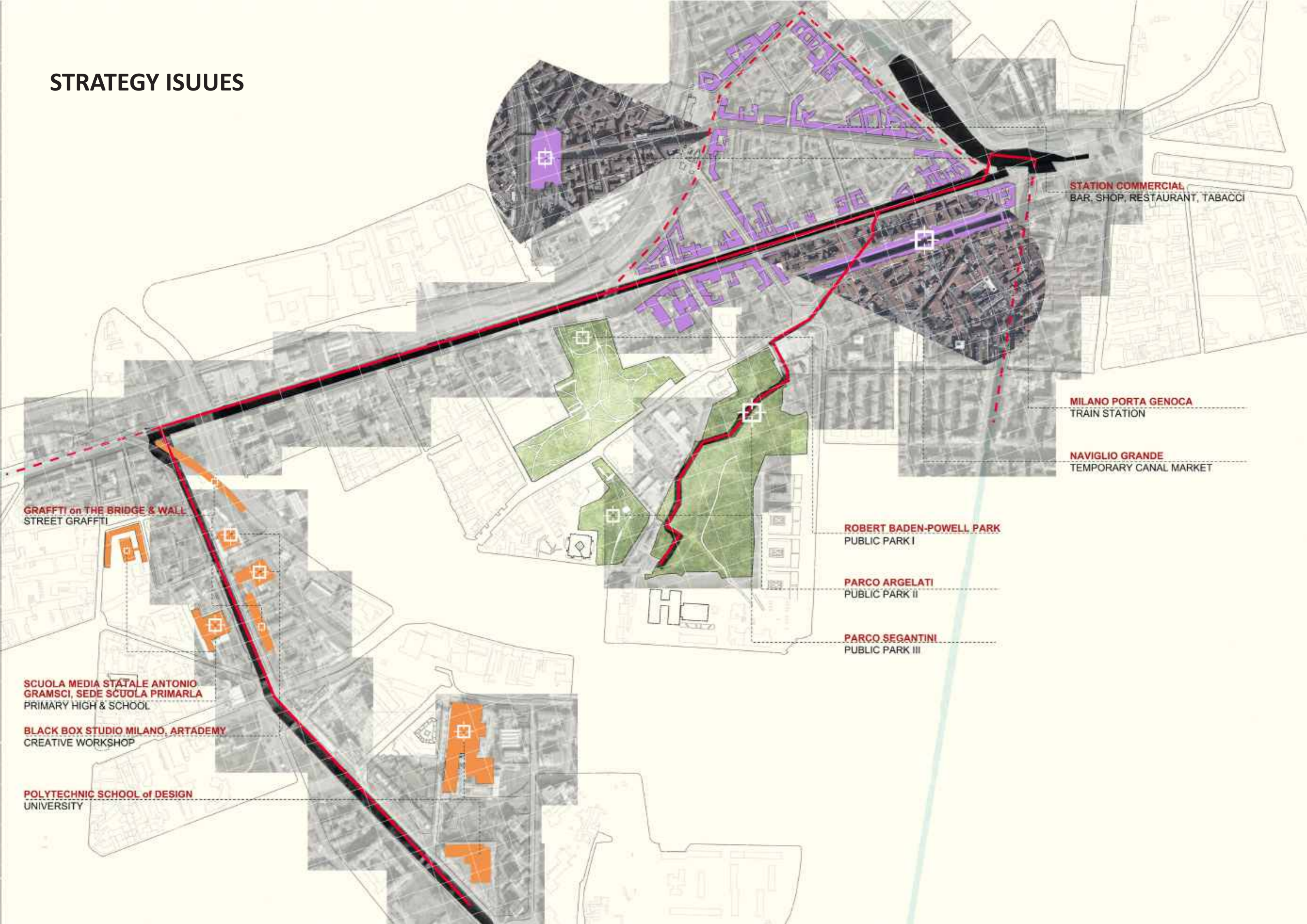
3. CANAL OPEN SPACE

RAILWAY SYSTEM

Milano Porta Genova



STRATEGY ISSUES



STATION COMMERCIAL
BAR, SHOP, RESTAURANT, TABACCI

MILANO PORTA GENOVA
TRAIN STATION

NAVIGLIO GRANDE
TEMPORARY CANAL MARKET

ROBERT BADEN-POWELL PARK
PUBLIC PARK I

PARCO ARGELATI
PUBLIC PARK II

PARCO SEGANTINI
PUBLIC PARK III

GRAFFTI on THE BRIDGE & WALL
STREET GRAFFTI

SCUOLA MEDIA STATALE ANTONIO
GRAMSCI, SEDE SCUOLA PRIMARIA
PRIMARY HIGH & SCHOOL

BLACK BOX STUDIO MILANO, ARTADEMY
CREATIVE WORKSHOP

POLYTECHNIC SCHOOL of DESIGN
UNIVERSITY

CONCEPT

" FUXION, IN CHARGE OF FLEXIBLE AND CRATIVE SPACE "

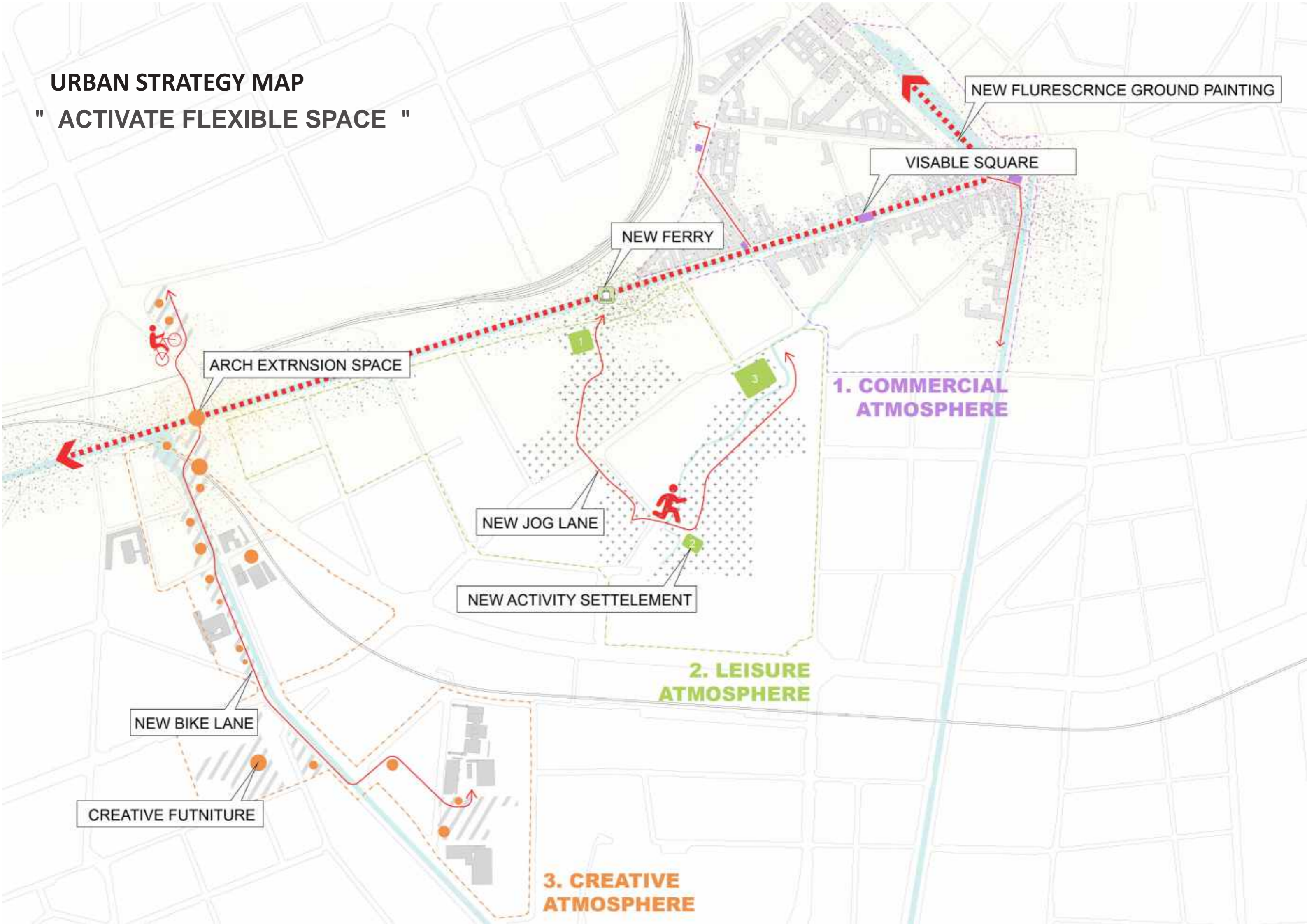
1.MUTI-FUNCTIONAL

2.MOVABLE FURNITURE/FACILITIES

3.FLEXIBLE

URBAN STRATEGY MAP

" ACTIVATE FLEXIBLE SPACE "



NEW FLUESCENCE GROUND PAINTING

VISABLE SQUARE

NEW FERRY

ARCH EXTRNSION SPACE

1. COMMERCIAL
ATMOSPHERE

NEW JOG LANE



NEW ACTIVITY SETTELEMENT

2. LEISURE
ATMOSPHERE

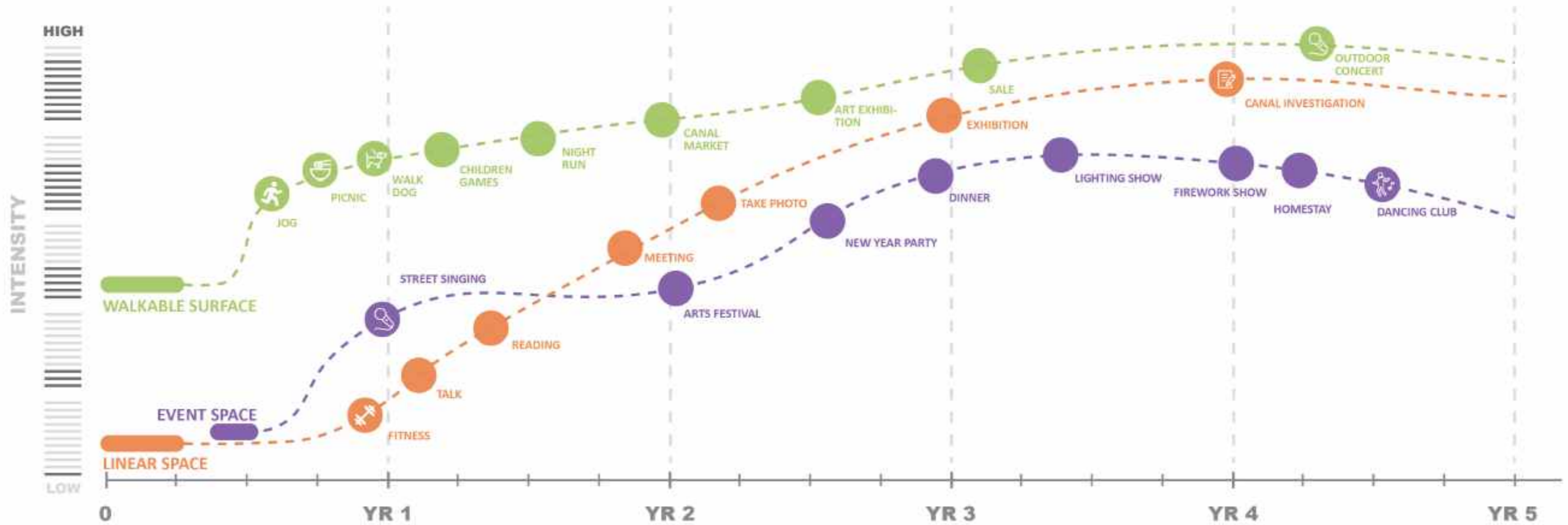
NEW BIKE LANE

CREATIVE FUTNITURE

3. CREATIVE
ATMOSPHERE

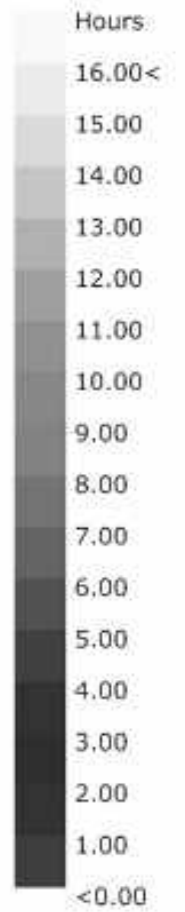
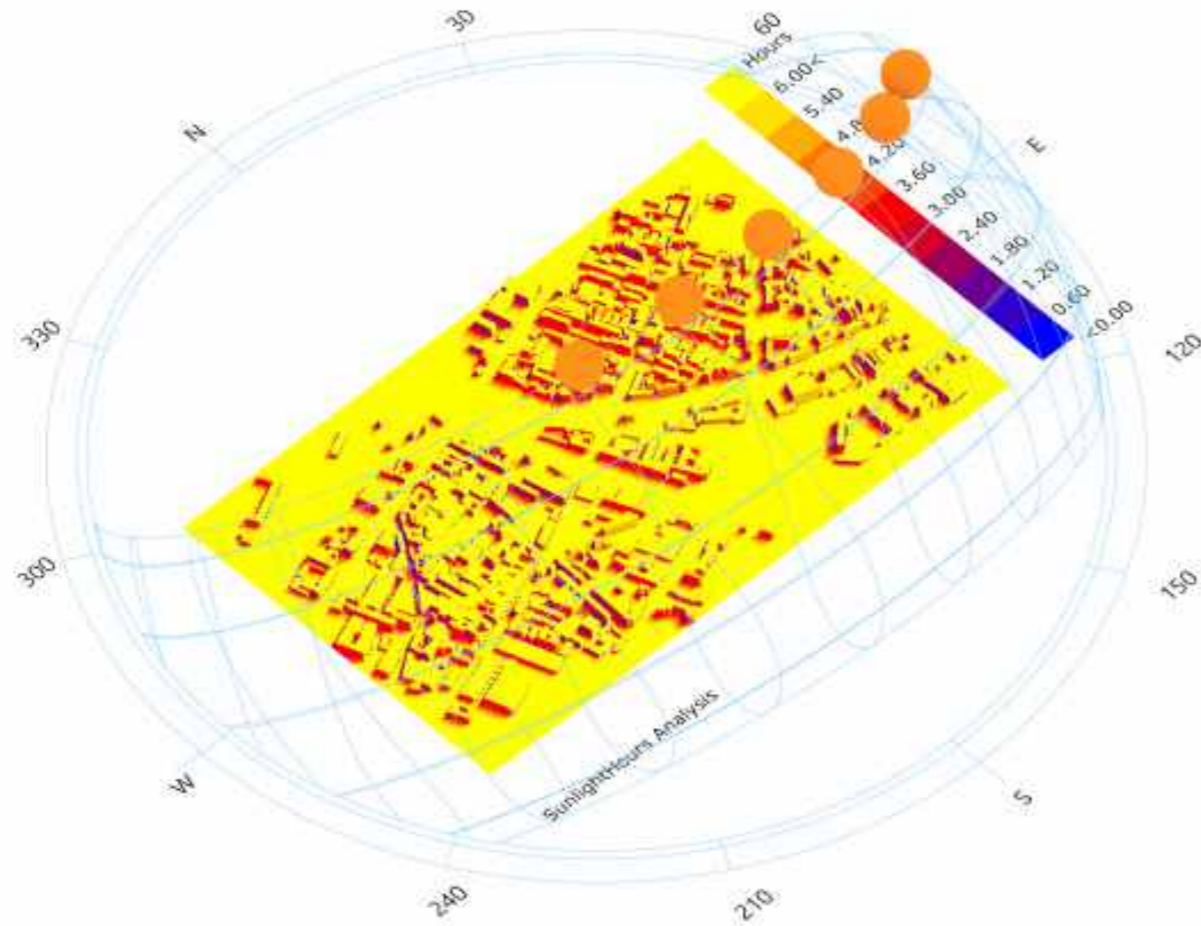
ACTIVITIES EFFECT

COMMERCIAL ASPECT
LEISURE ASPECT
CREATIVE ASPECT



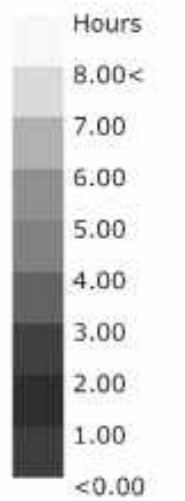
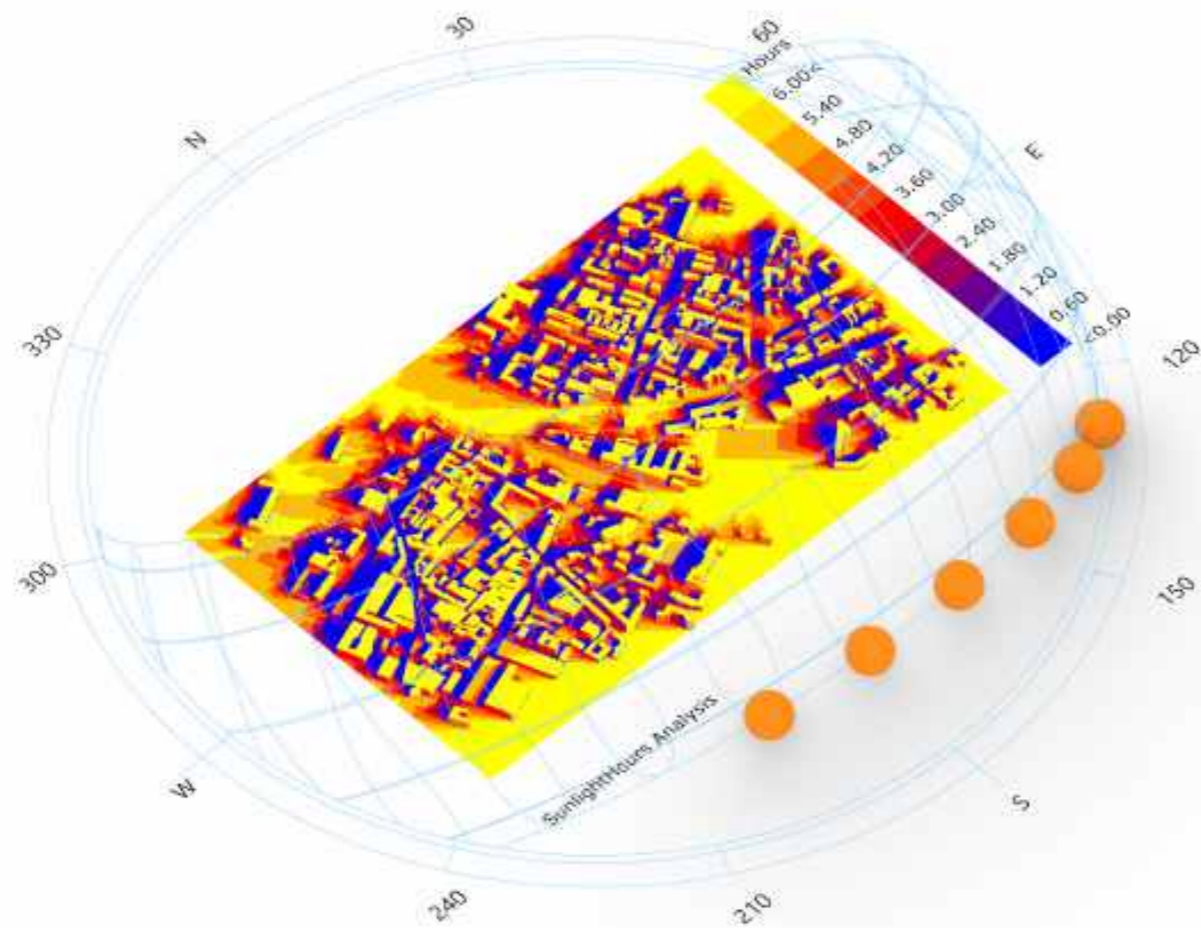
DICERSIFICATION IN TIME (DIVERSIFIED PERFORMANCE / INCREASED POTENTIAL)

Solar Radiation Analysis(June solstice)



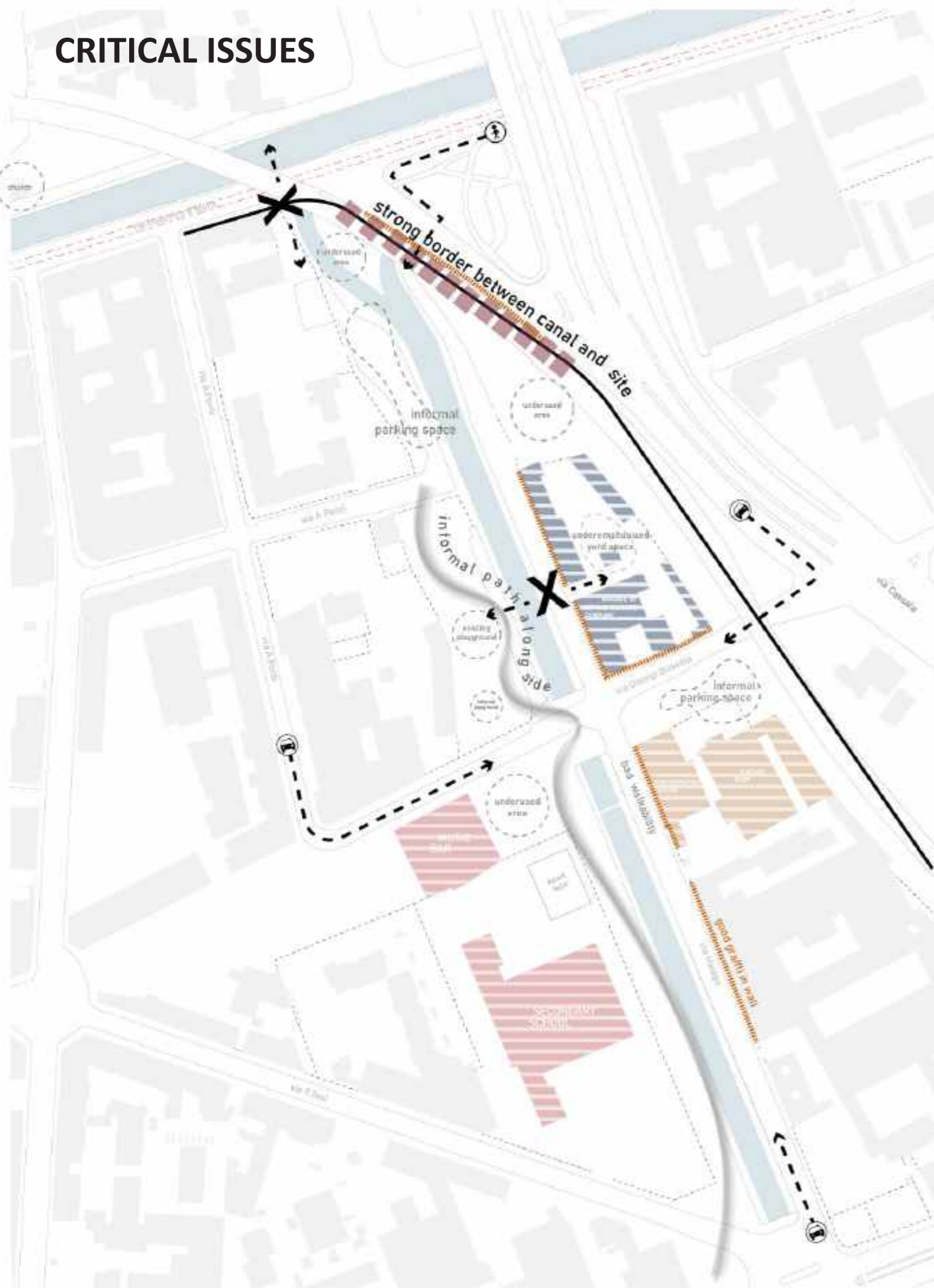
SunlightHours Analysis

Solar Radiation Analysis(Winter solstice)

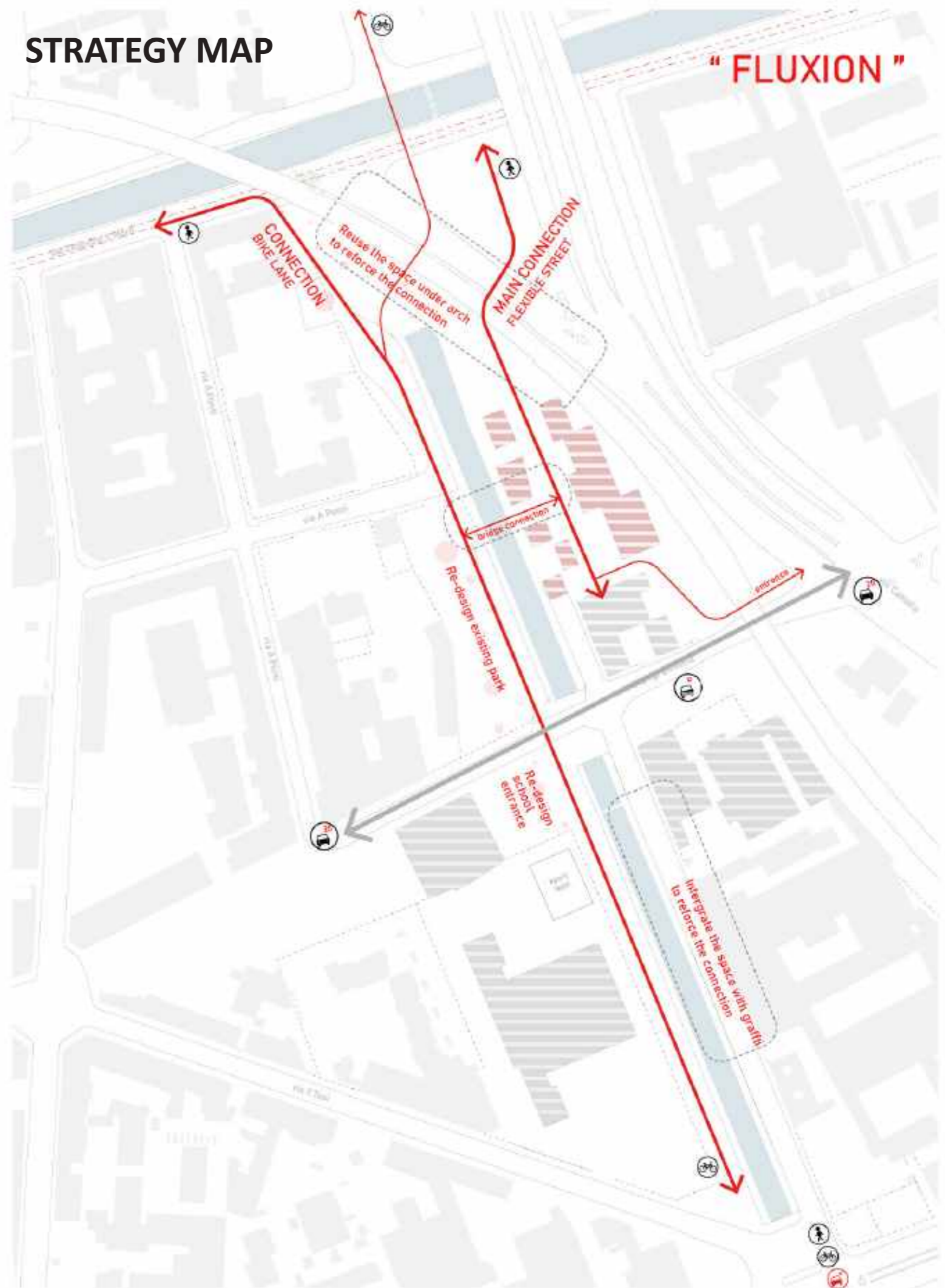


SunlightHours Analysis

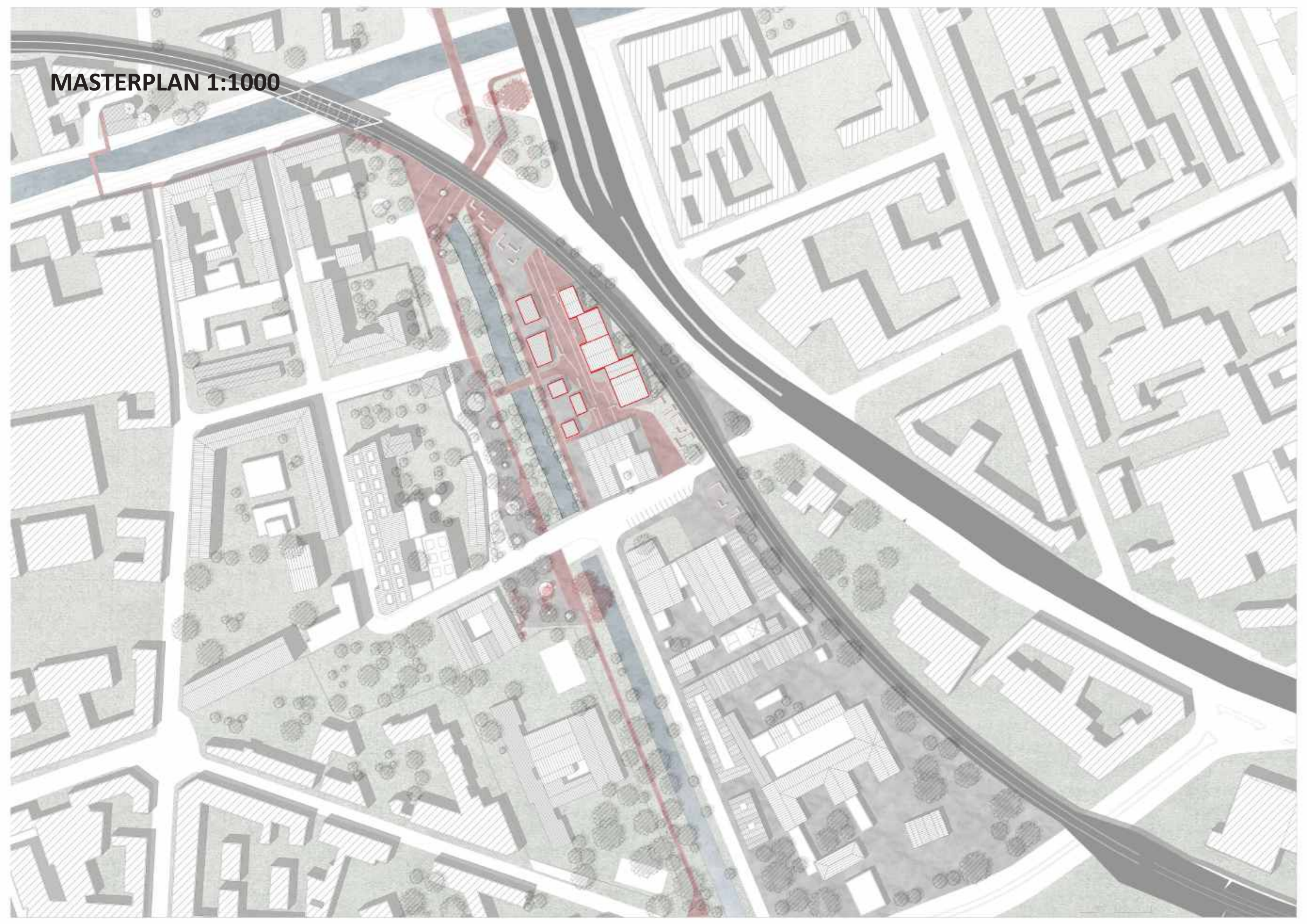
CRITICAL ISSUES



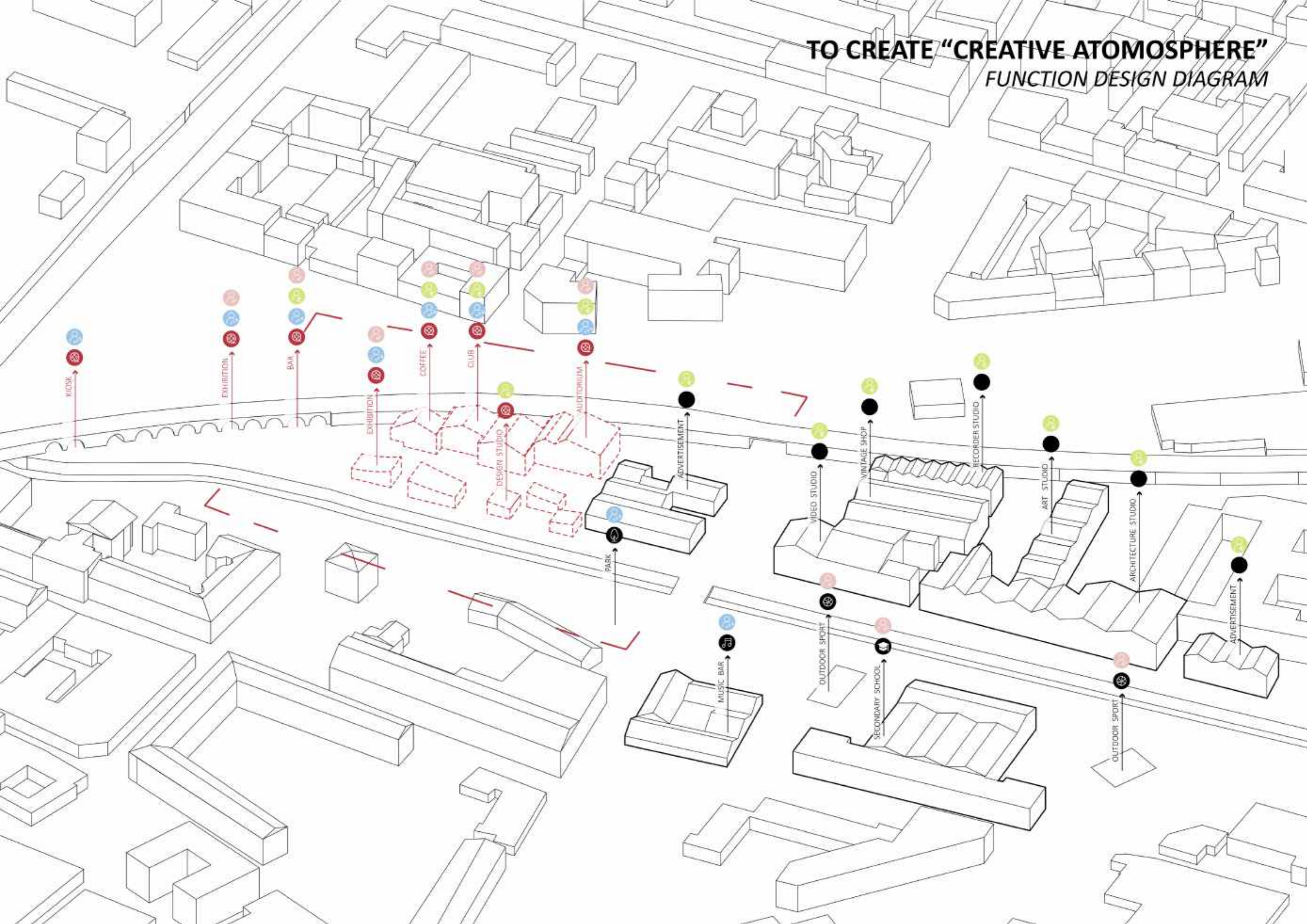
STRATEGY MAP



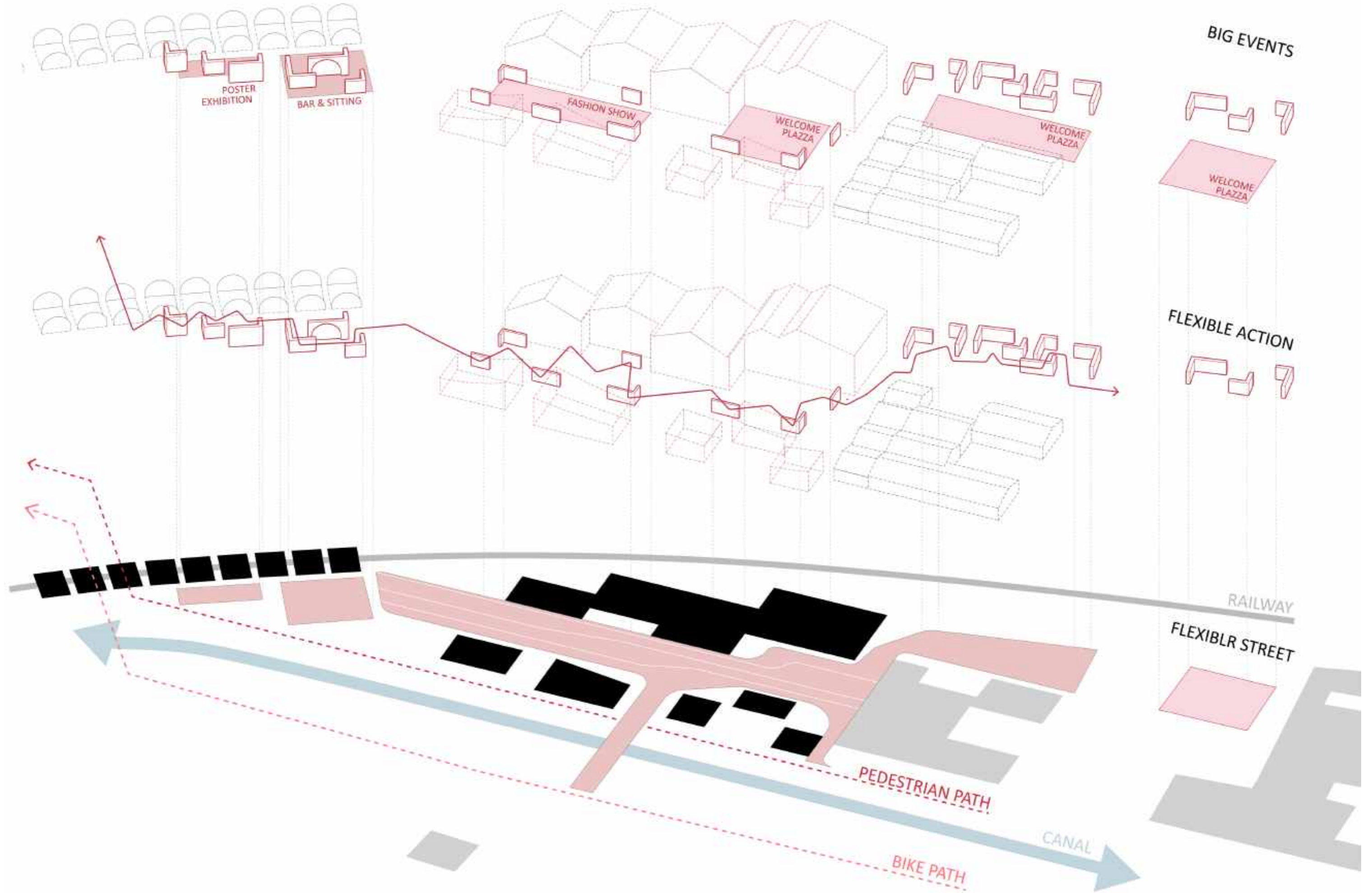
MASTERPLAN 1:1000



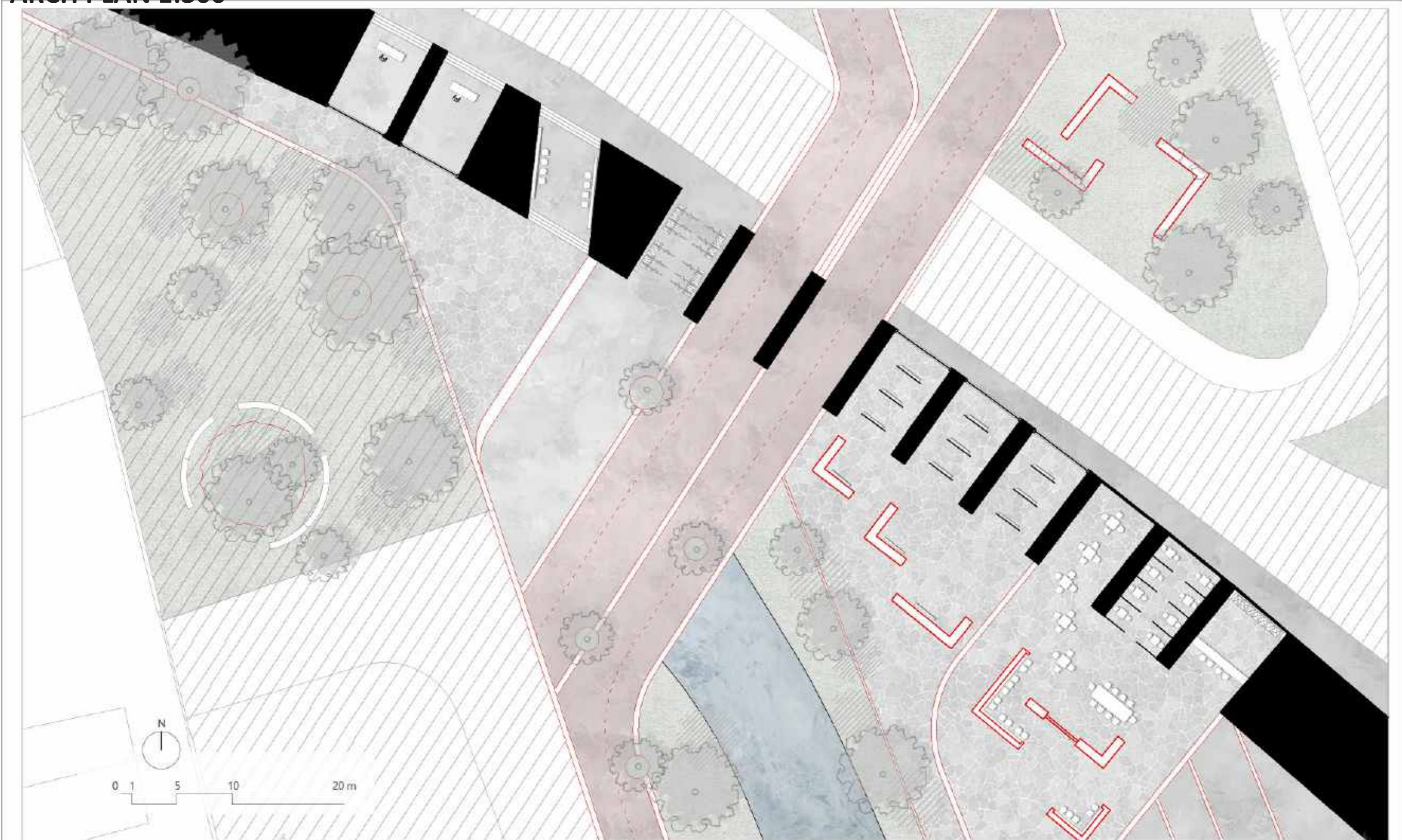
TO CREATE "CREATIVE ATMOSPHERE"
FUNCTION DESIGN DIAGRAM



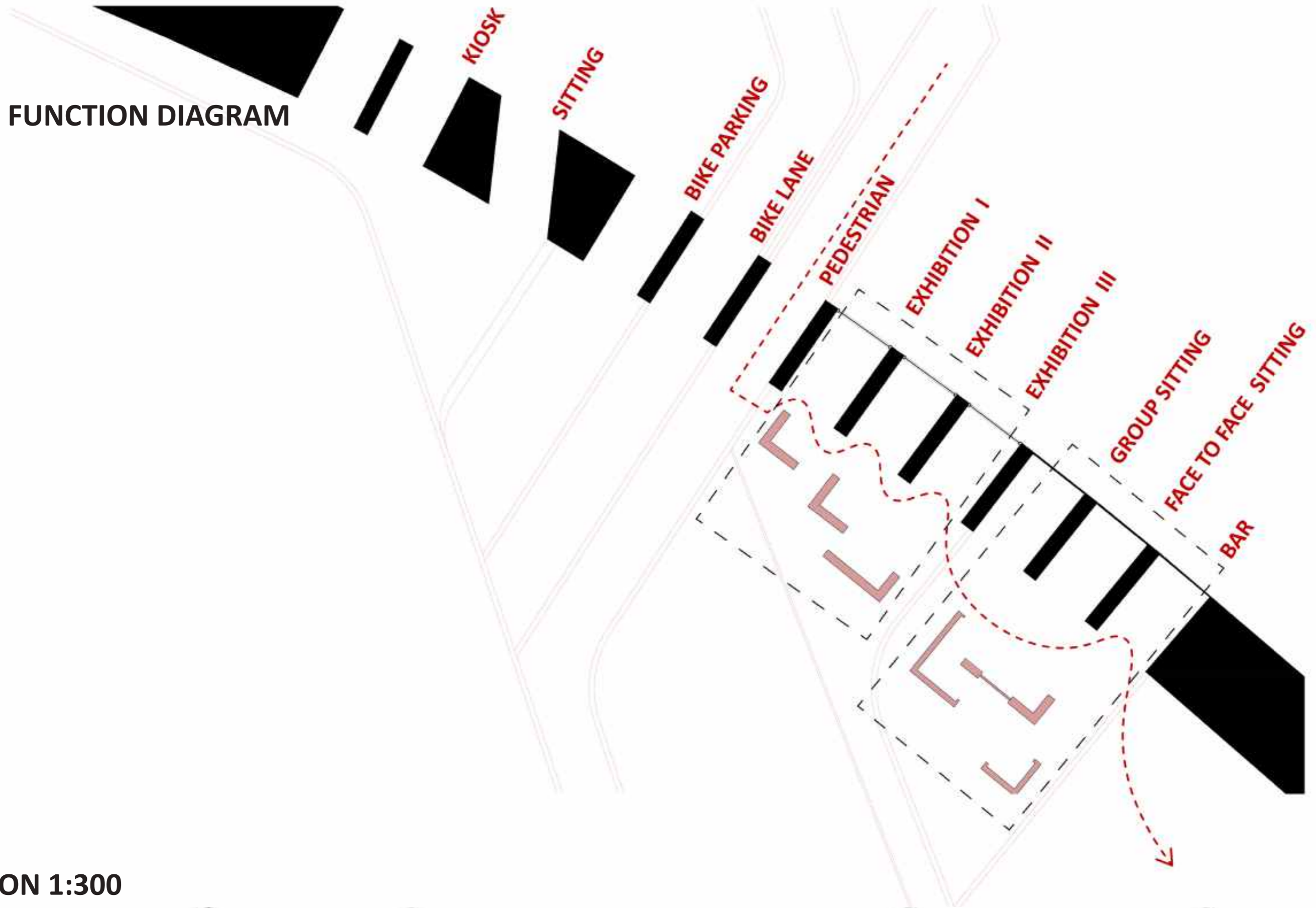
FLEXIBLE STREET



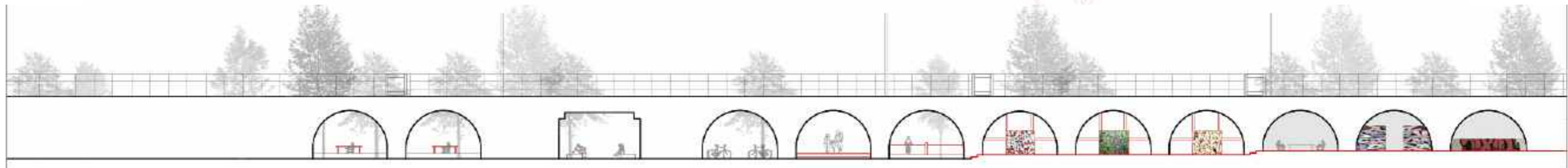
ARCH PLAN 1:300



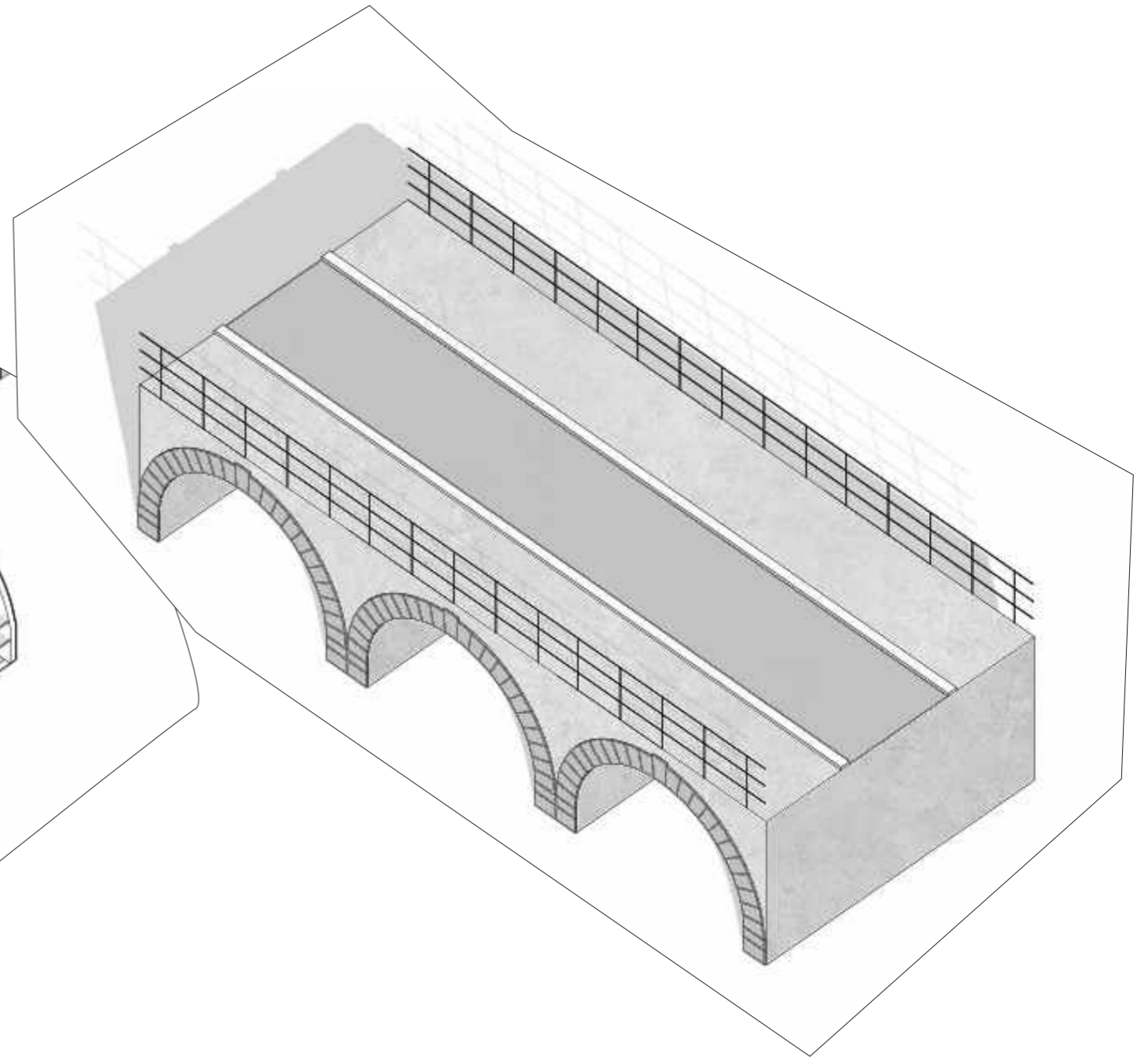
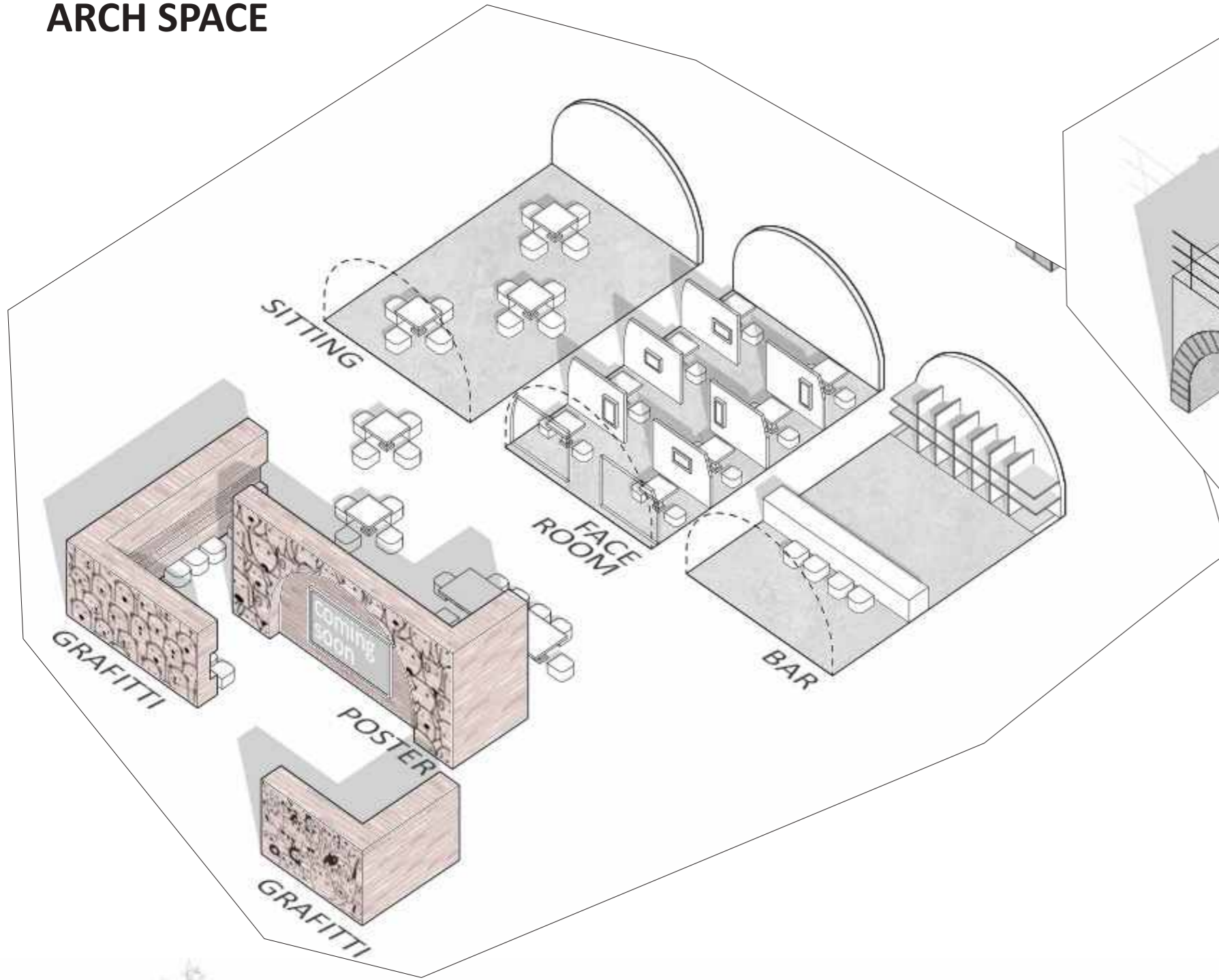
ARCH FUNCTION DIAGRAM



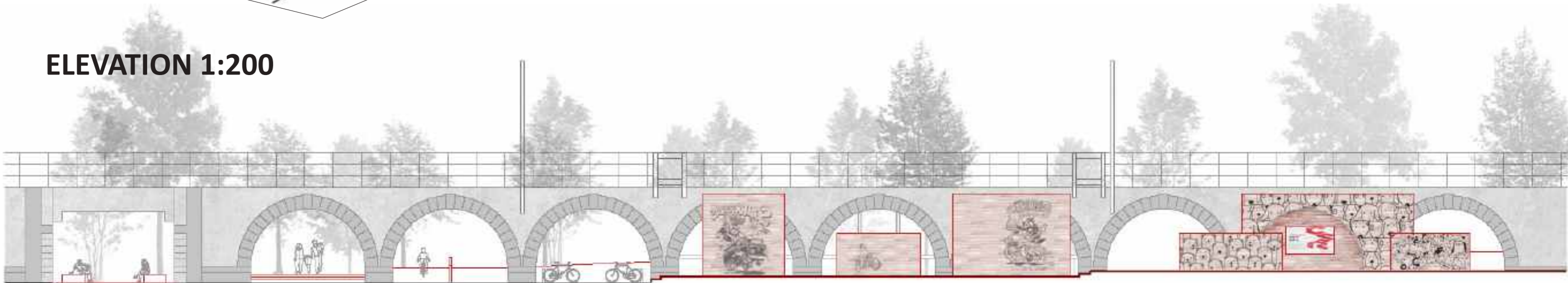
SECTION 1:300



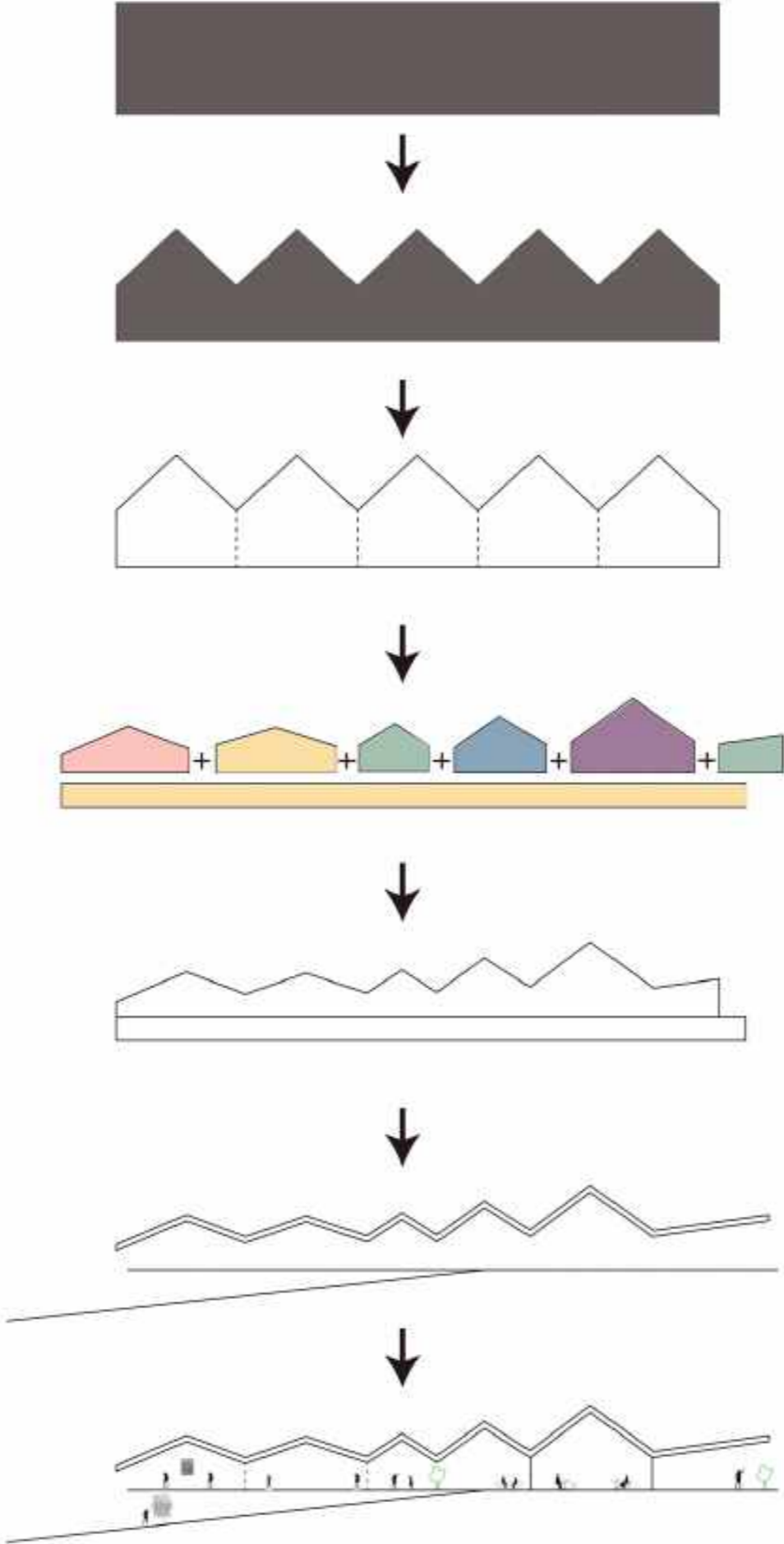
ARCH SPACE



ELEVATION 1:200



ROOF CONCEPT DIAGRAM



ROOF PROGRASS



Existing Roof



New Roof



Existing Fenstration



New Fenstration

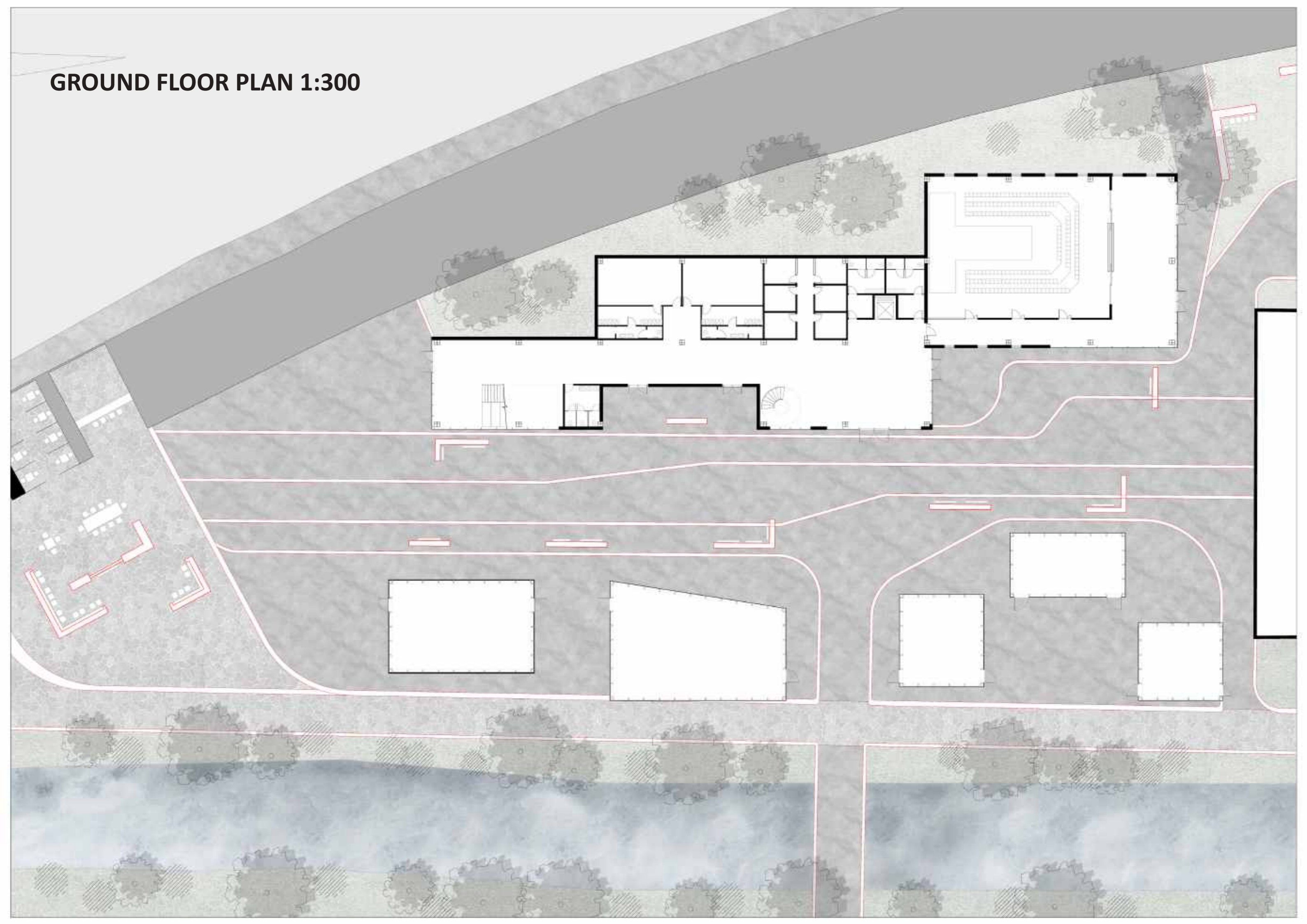


Existing Base

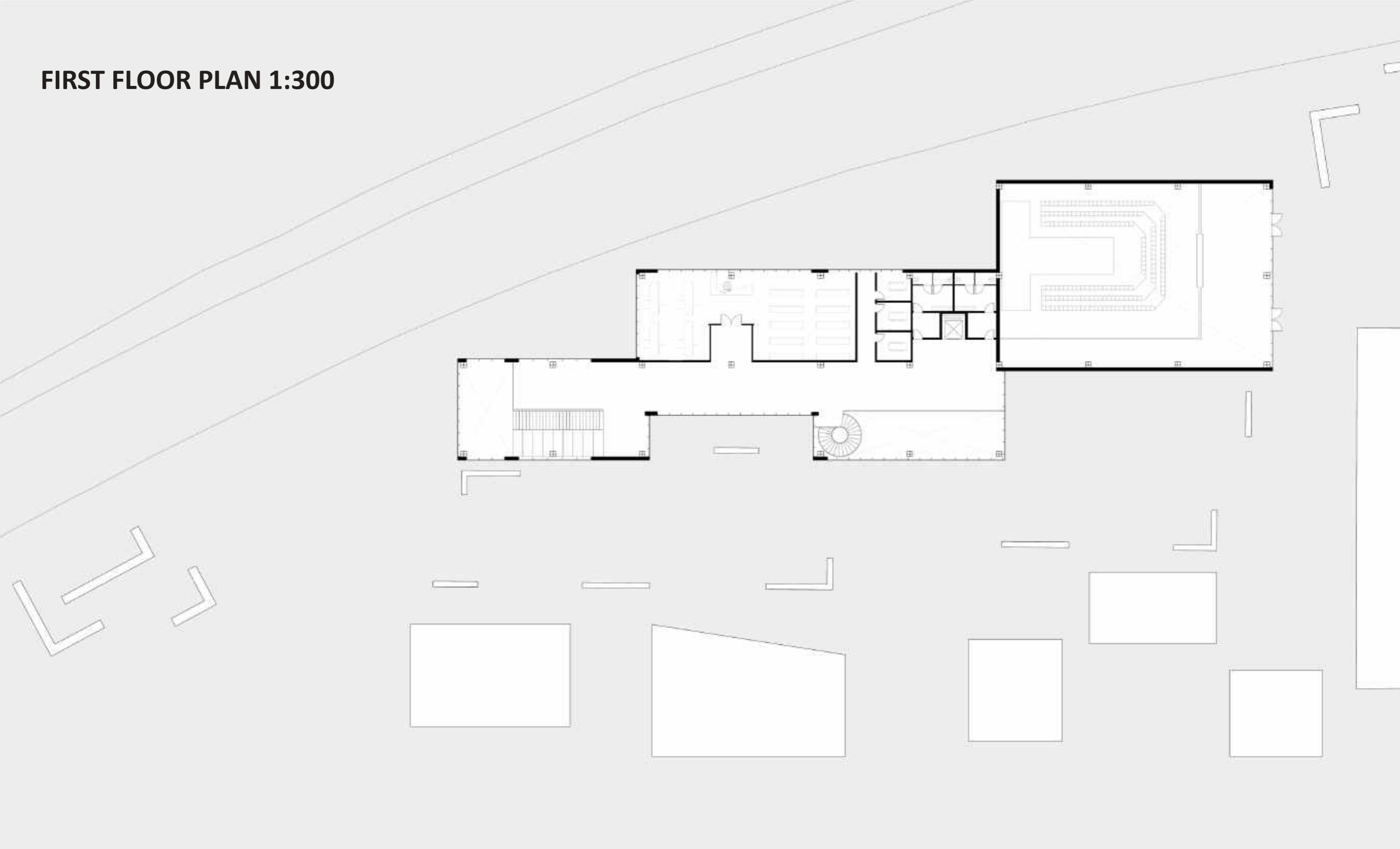


New Base

GROUND FLOOR PLAN 1:300

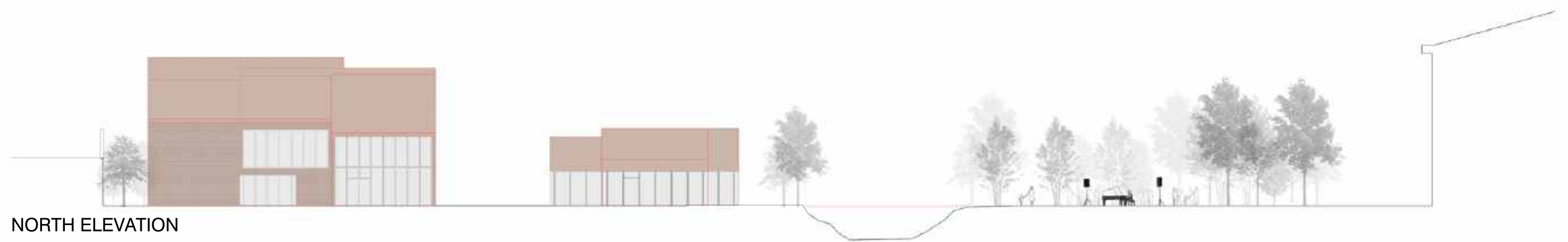


FIRST FLOOR PLAN 1:300





WEST ELEVATION



NORTH ELEVATION