P5 PRESENTATION
- STITCHING FRAGMENTS

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MASTERPLAN CONCEPT
Sint Jacobsplaats
Design approach

TRAFFIC DENSITY PROGRAM IN-BETWEEN

Existing Situation → Design Proposal → Design Scenario
Traffic

CONTINUOUS ROUTE
Density

same height

NEW
BLOCK

same height

NEW
BLOCK
In-between spaces - design scenario

ADD NEIGHBOUR PUBLIC SPACES

NEW TUNNEL LANDSCAPE

ADD TRANSITION ZONE IN-BETWEEN

INNER COURTYARD
MASTER PLAN
SITE DEVELOPMENT
Program development

- roof courtyard
- in-between square
- middle courtyard
- courtyard & in-between
- middle courtyard
- outdoor square
- terrace and stages
- court yard
- stages
- roof courtyard
- outdoor square
In-between spaces development
West building block development
East building block development
Neighbourhood public spaces development
Tunnel landscape development
Courtyard development
Design brief

Floor area: 2500m²

Dwelling area: 18100m²
Commercial area: 2200m²

350m² x 9 = 3150m²
2500m² x 6 = 15000m²
Dwelling area: 18150m²

Transition area: 2200m²

Commercial area: 2200m²
INDIVIDUAL DESIGN
SOUTH BUILDING PROJECT DESIGN

INDIVIDUAL DEVELOPMENT OF MASTERPLAN
ARCHITECTURAL DESIGN

Guideline
> following P2 building mass division: (Dwelling, Transition Zone, Small Commercial, Social Hub)

> exploring P2 design approaches (DENSITY, SLOW ROUTE, PROGRAM, IN-BETWEEN) in architectural scale
GROUND FLOOR DESIGN

LIVING

CLUSTER OF ACTIVITIES
PLAYING, RELAXING, STUDYING, WORKING

SHOPPING

EATING

DRINKING

SOCIAL

TUNNEL
> P2 strategy strengthen *SLOW TRAFFIC*
extent existing surrounded programs to site
> introduce small commercial on ground floor
design configuration
circulations
LIVING

CLUSTER OF ACTIVITIES
PLAYING, RELAXING, STUDYING, WORKING

SHOPPING
EATING
DRINKING

TUNNEL

SOCIAL
for different types of family

- Large family
- Small family
- Single/couple

- Maisonette
- Apartment
- Studio
> create small collective spaces
dwelling design proposal
studio level design for starters & students
studio with small collective spaces
programs & circulation
Roof top Maisonette & apartment
maisonette & apartment with small collective spaces
SOCIAL HUB

LIVING
CLUSTER OF ACTIVITIES
PLAYING, RELAXING, STUDYING, WORKING
SHOPPING
EATING
DRINKING
TUNNEL
SOCIAL
> design for surrounded neighbourhoods

> entrance for transition zone

> react to Binnerotter square
design proposal
ground floor kitchen space for surrounded neighbourhoods
multi-purpose room & public platform
youth club with exhibition room
> connect surrounded programs horizontally and vertically
> cluster of activities for different people

- working
- chatting
- eating
- relaxing
- exhibiting
- performing
> porosity for sunlight and backyard connection
design proposal _ two layers (ground & studio)
visual connection
vertical connection
vertical connection
horizontal connection
Program overview
courtyard side connection see physical model
CONSTRUCTION
concrete underground floor
concrete column
concrete beam
concrete floor
ground floor steel column
stair core for stability
primary beam direction
floor slab direction
floor construction zoom in
HEB 500 primary beam
HEB 300 secondary beam
welded steel plate for floor slab
metal deck concrete floor
transition level floor
transition level floor
steel column
stair core for stability
exterior walls & beams
multi-purpose room level
youth club level
Public platform, V-shape column
two direction beams connect to surrounded buildings for stability
truss
truss top
MATERIALIZATION
concept

SOLID

ATTRACTIVE
&
TRANSPARENT

TRANSPARENT

TRANSLUCENT

TUNNEL
GROUND FLOOR MATERIAL STUDY

STREET LEVEL, STOREFRONT WITH GLASSES
UPPER LEVEL, SOLID BRICK RESIDENTIAL FACADE
Facade Detail
The solar exposition is checked by a particular technological system. Each glass facade is made up of three glass layers; in the layer between the two glass panels, we find a white polycarbonate panel made from a special triangular matrix. This allows the light to reflect, thus checking the glare and storing heat. There are 8 panels with a different permeability, that give the building textural homogeneity and volumetric density with nuanced effect, from the ground floor until the last level.

Facade Detail
One of the strongest suggestions in the design approach is the presence in the area of high density buildings and the proximity to a ten-storey block occupied by the national telephone company. These contextual relations have pushed the project idea towards a dialogue with the urban scale, making the building like a “perspective block”, with a strong plastic impact.
TRANSITION ZONE MATERIAL REFERENCE

Optic Store in Olot / CUBUS Taller d’Arquitectura

Vivienda y local comercial en Ciudad Real
TRANSITION ZONE LIGHT UP FOR NIGHT ATTRACTION

Optic Store in Olot / CUBUS Taller d’Arquitectura
facade design sketch
TUNNEL SIDE MAIN FACADE
back side ground floor level switch percentage of transparency
Stuido Level use Metal mesh SLIDING PANEL
white steel panel edges for strengthen horizontal connection
Transition zone light up

- Insulated double glass, perforated metal sheet, sun shading screen
- Coloured fluorescent lighting tube, movable
- ACM solid polycarbonate sheet with 3mm radius edges
- Insulated double U-profile glass
CLIMATE DESIGN
Energy supply

-150m underground water supply thermal heat
Summer cooling
Winter heating

Summer cooling

Heat exchanger

Cold

Warm
Summer cooling
Heat exchanger
HP
cold warm

Winter heating
Heat exchanger
HP
cold warm
Ventilation

Dwelling:
- Mechanical ventilation: Heat recovery unit system
- Natural ventilation southwest prevailing wind

Office & restaurant
- Mechanical ventilation: Air handling unit
- Natural ventilation southwest prevailing wind

Community center & exhibition room:
- Mechanical ventilation: Heat recovery unit system
- Natural ventilation southwest prevailing wind

Youth club & social hub
- Mechanical ventilation: Air handling unit
- Natural ventilation southwest prevailing wind
Ventilation

Community center & exhibition room:
- Mechanical ventilation:
  Heat recovery unit system
- Natural ventilation
  southwest prevailing wind

Youth club & social hub
- Mechanical ventilation:
  Air handling unit
- Natural ventilation
  southwest prevailing wind

Office & restaurant
- Mechanical ventilation:
  Air handling unit
- Natural ventilation
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Youth club & social hub
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Ventilation

- Community center & exhibition room:
  - Mechanical ventilation:
    Heat recovery unit system
  - Natural ventilation
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- Youth club & social hub:
  - Mechanical ventilation:
    Air handling unit
  - Natural ventilation
    southwest prevailing wind

- Office & restaurant:
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IMPRESSION
multi-purpose room
studio level 01
studio level 02
studio level 03
studio level corridor
courtyard view
roof top square
THANK YOU