

**ISOVER**  
**MULTI-COMFORT HOUSE**  
**„VISION & REALITY - GLÜCKSTEIN QUARTIER“**



M<sub>3</sub> U<sub>1</sub> L<sub>1</sub> T<sub>1</sub> I<sub>1</sub> SQUARE  
CULTURE  
COMFORT



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COMFORT



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**CULTURE**  
**COMFORT**

**SQUARE**

"QUADRATESTADT", IS THE NICKNAME OF MANNHAIM AND MEANS "CITY OF SQUARES"

THE CITY CENTRE IS CHARACTERISED BY LETTERS AND NUMBERS INSTEAD OF STREET NAMES.



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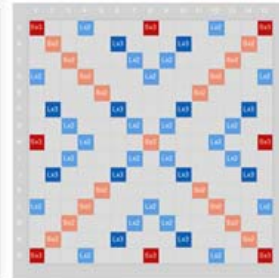


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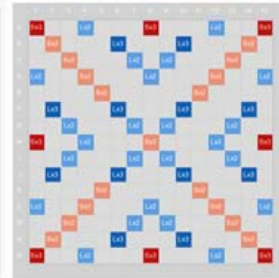


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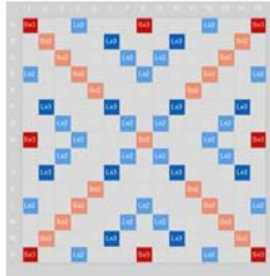


# M<sub>3</sub> U<sub>1</sub> L<sub>1</sub> T<sub>1</sub> I<sub>1</sub> **SQUARE** CULTURE COMFORT

## SQUARE

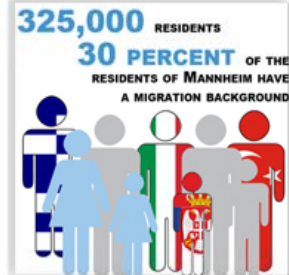
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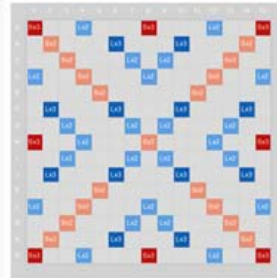


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ORTHOGONAL NETTING 20x20M WITH THE SPECIAL POINTS:

EDUCATIONAL PILLARS ABOUT DIFFERENT CULTURES

**325,000** RESIDENTS  
**30 PERCENT** OF THE RESIDENTS OF MANNHEIM HAVE A MIGRATION BACKGROUND



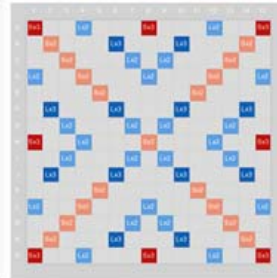


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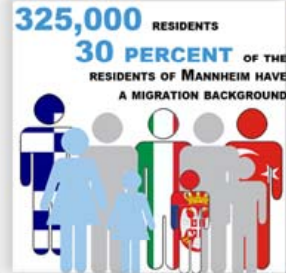


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## COMFORT

**ISOVER**  
ISOVER MULTI - COMFORT  
HOUSE DEFINITION, WHICH MEANS HIGH THERMAL PERFORMANCE, ACOUSTIC COMFORT CLASSES AND FIRE PROTECTION

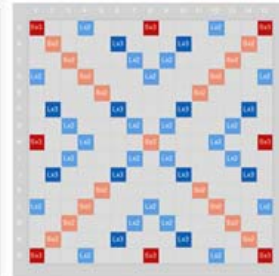


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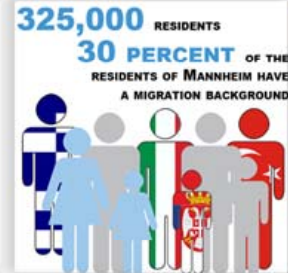


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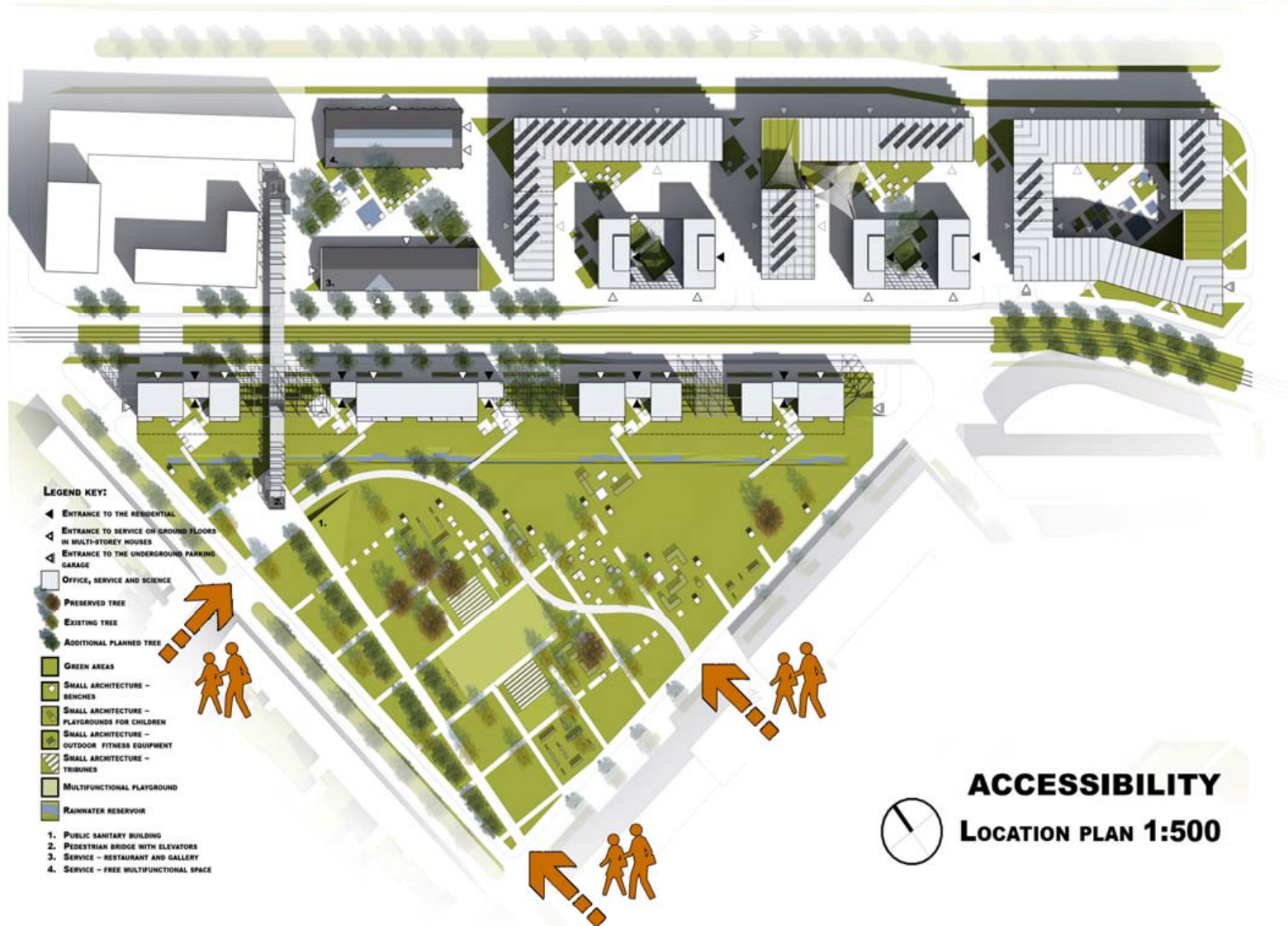


## COMFORT

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**ACCESSIBILITY**  
**LOCATION PLAN 1:500**

**THE NEW CENTER  
OF THE AREA**



- LEGEND KEY:**
- ◀ ENTRANCE TO THE RESIDENTIAL
  - ◀ ENTRANCE TO SERVICE ON GROUND FLOORS IN MULTI-STORY HOUSES
  - ◀ ENTRANCE TO THE UNDERGROUND PARKING GARAGE
  - ◻ OFFICE, SERVICE AND SCIENCE
  - 🌳 PRESERVED TREE
  - 🌳 EXISTING TREE
  - 🌳 ADDITIONAL PLANNED TREE
  - 🌿 GREEN AREAS
  - 🪑 SMALL ARCHITECTURE - BENCHES
  - 🎡 SMALL ARCHITECTURE - PLAYGROUNDS FOR CHILDREN
  - 🏋️‍♀️ SMALL ARCHITECTURE - OUTDOOR FITNESS EQUIPMENT
  - 🏟️ SMALL ARCHITECTURE - TRIBUNES
  - 🏟️ MULTIFUNCTIONAL PLAYGROUND
  - 🌊 RAINWATER RESERVOIR
1. PUBLIC SANITARY BUILDING
  2. PEDESTRIAN BRIDGE WITH ELEVATORS
  3. SERVICE - RESTAURANT AND GALLERY
  4. SERVICE - FREE MULTIFUNCTIONAL SPACE

**ACCESSIBILITY**  
**LOCATION PLAN 1:500**

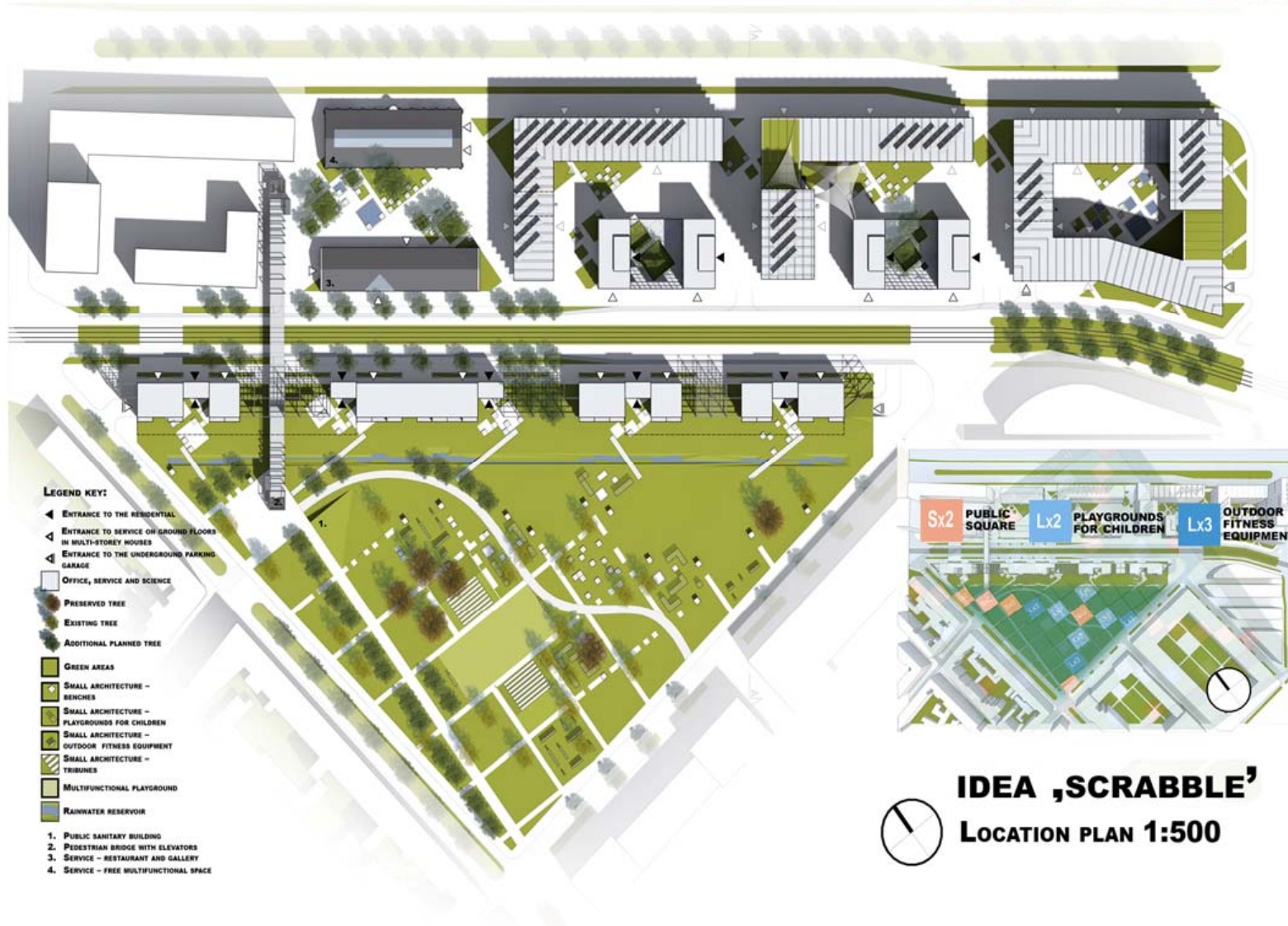


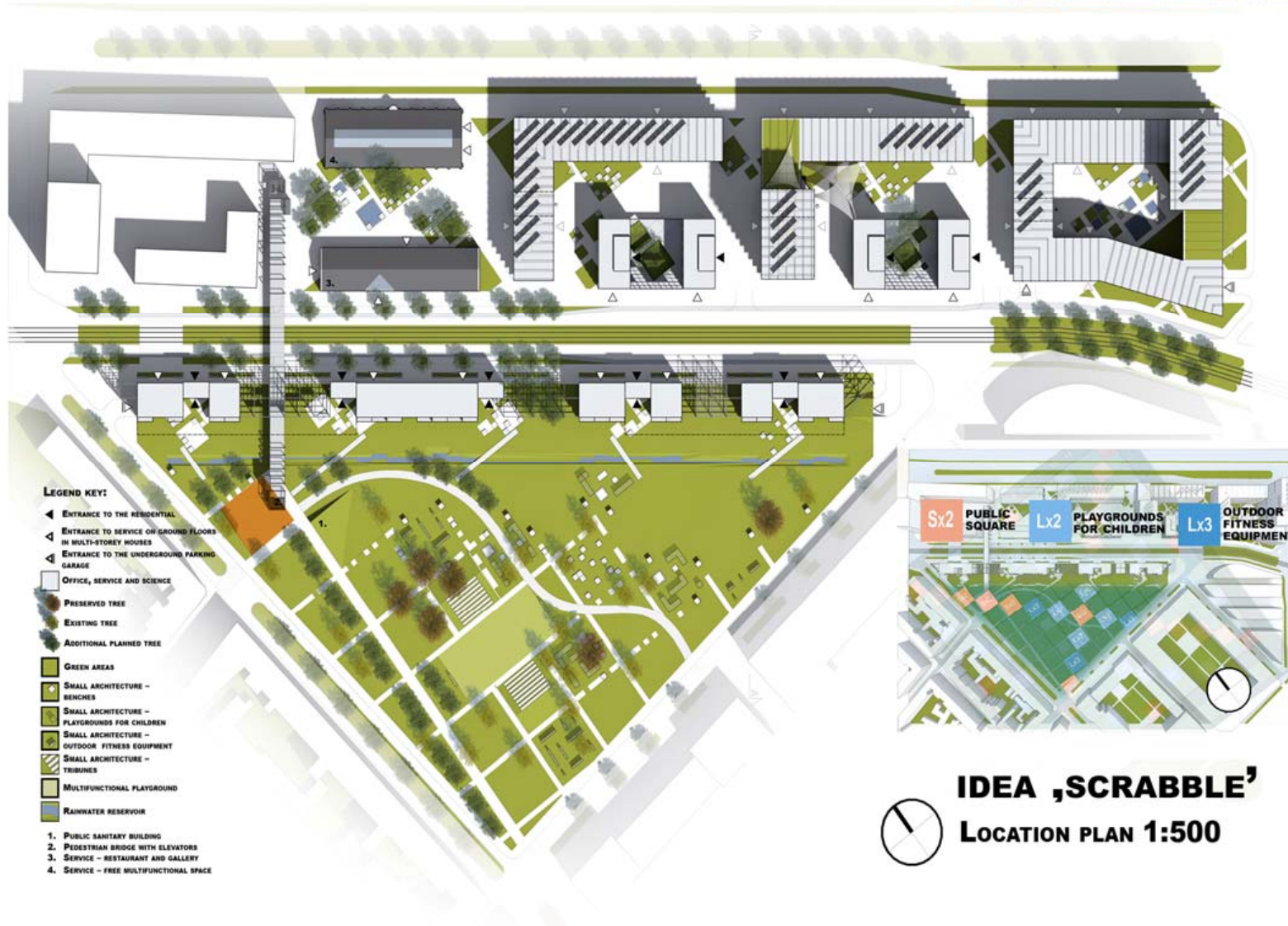
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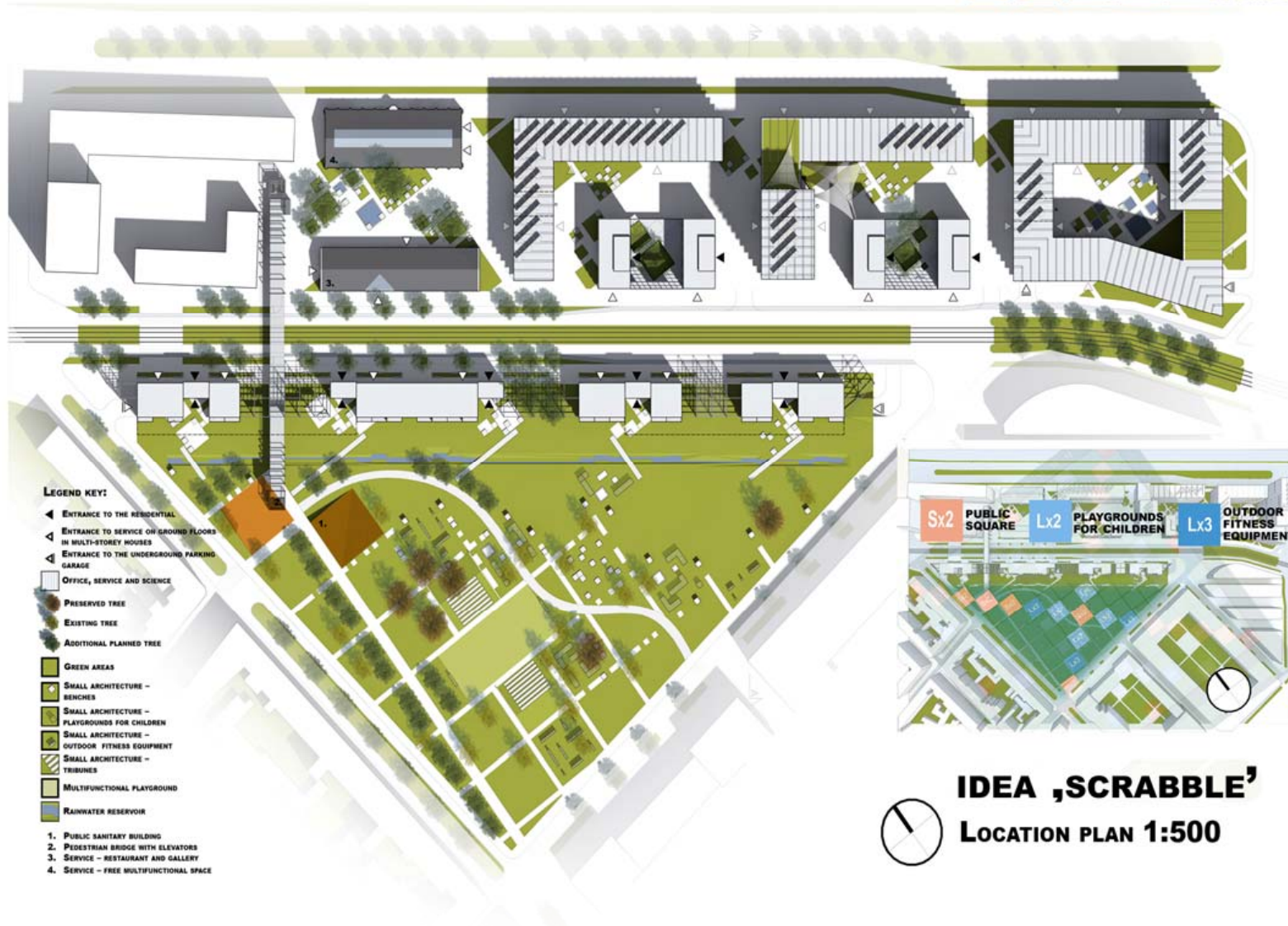
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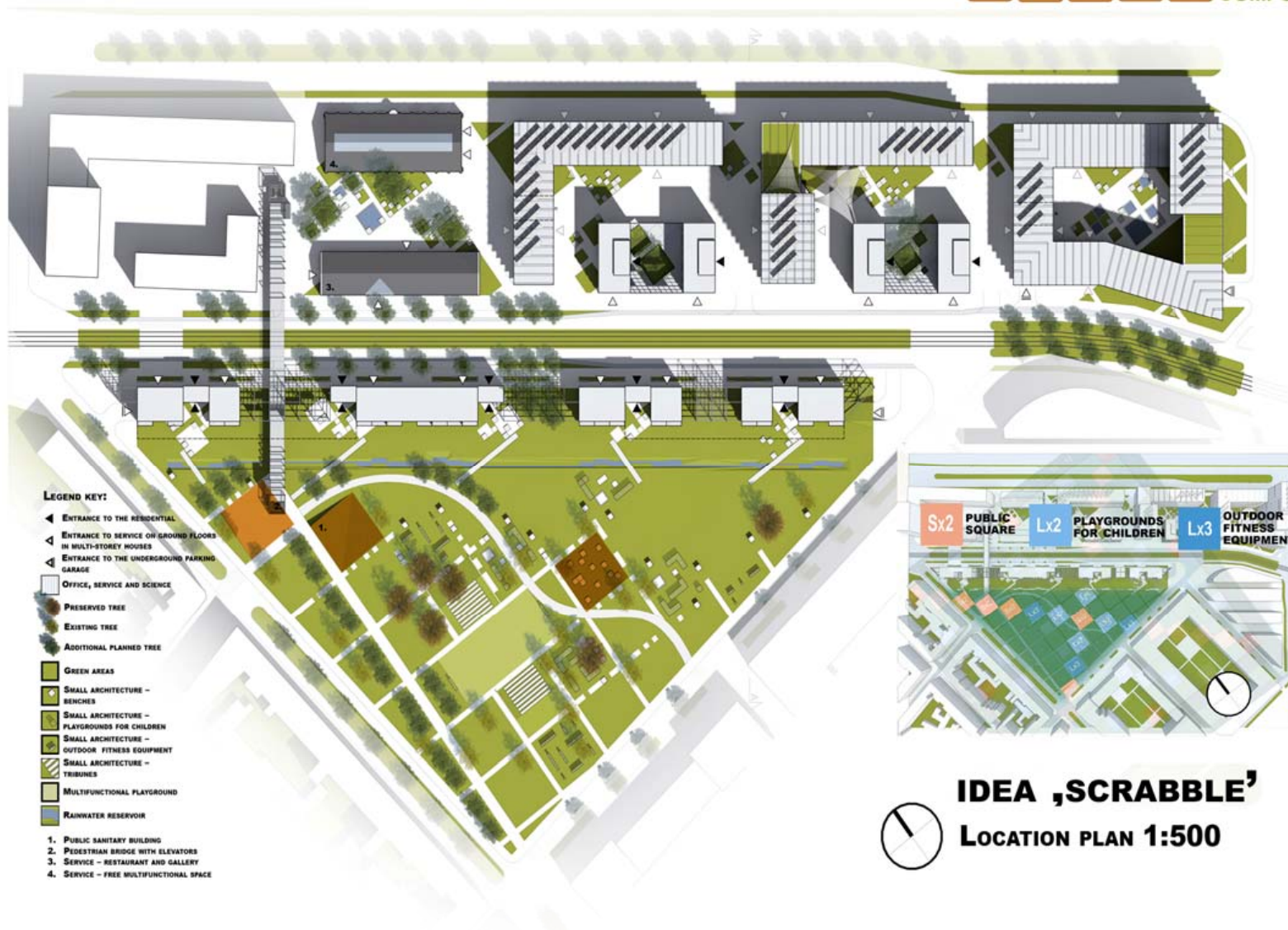




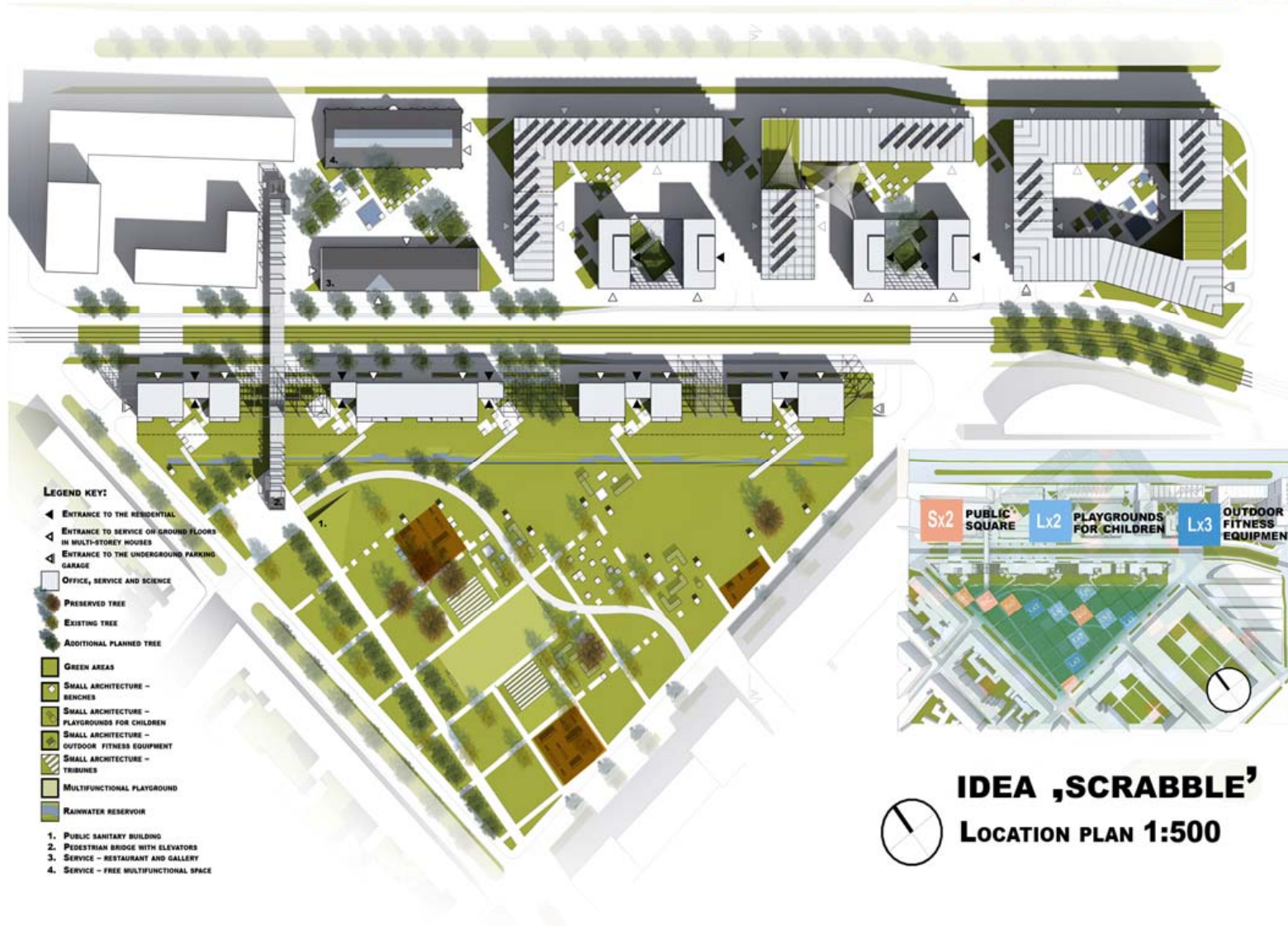
**IDEA ,SCRABBLE'**

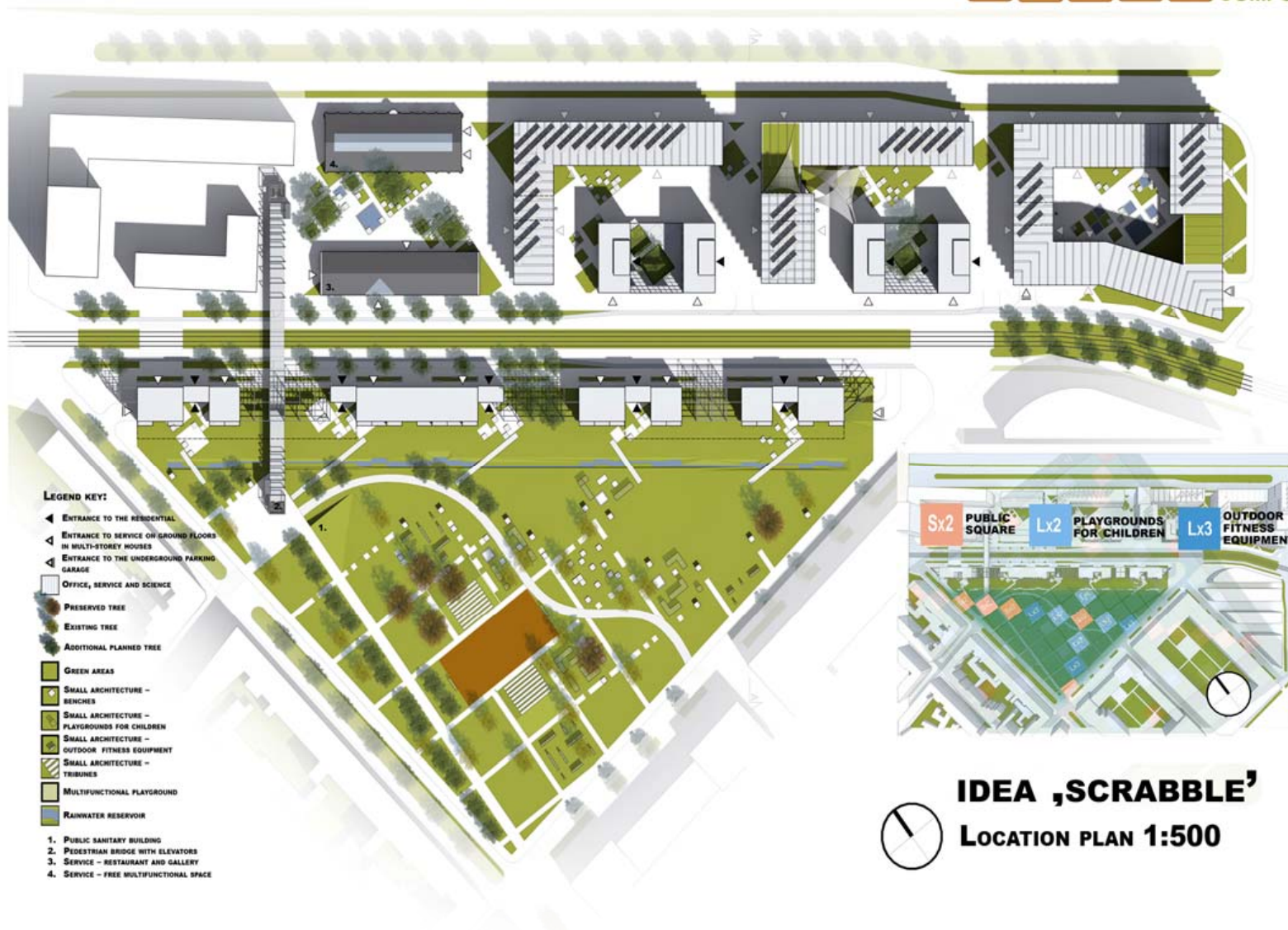
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**ECOLOGICAL QUALITY**



**LOCATION PLAN 1:500**







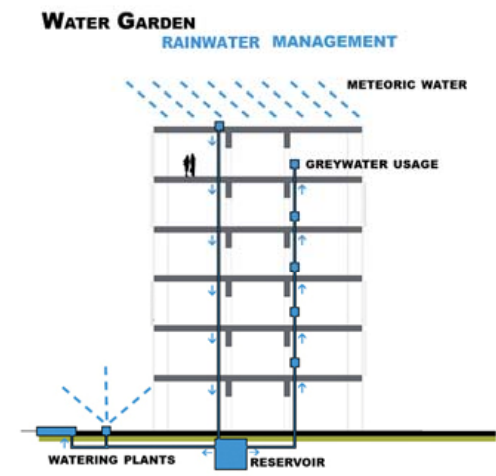
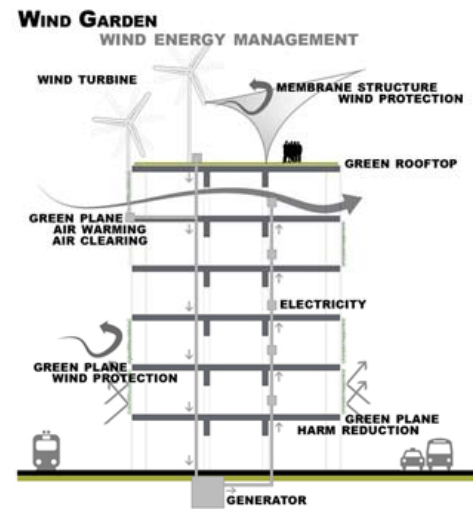
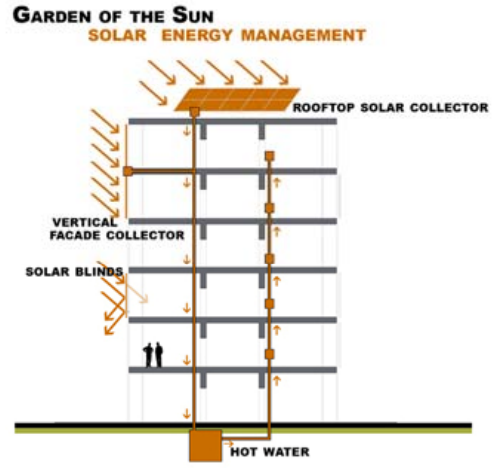


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**ECOLOGICAL QUALITY**

🕒 **LOCATION PLAN 1:500**

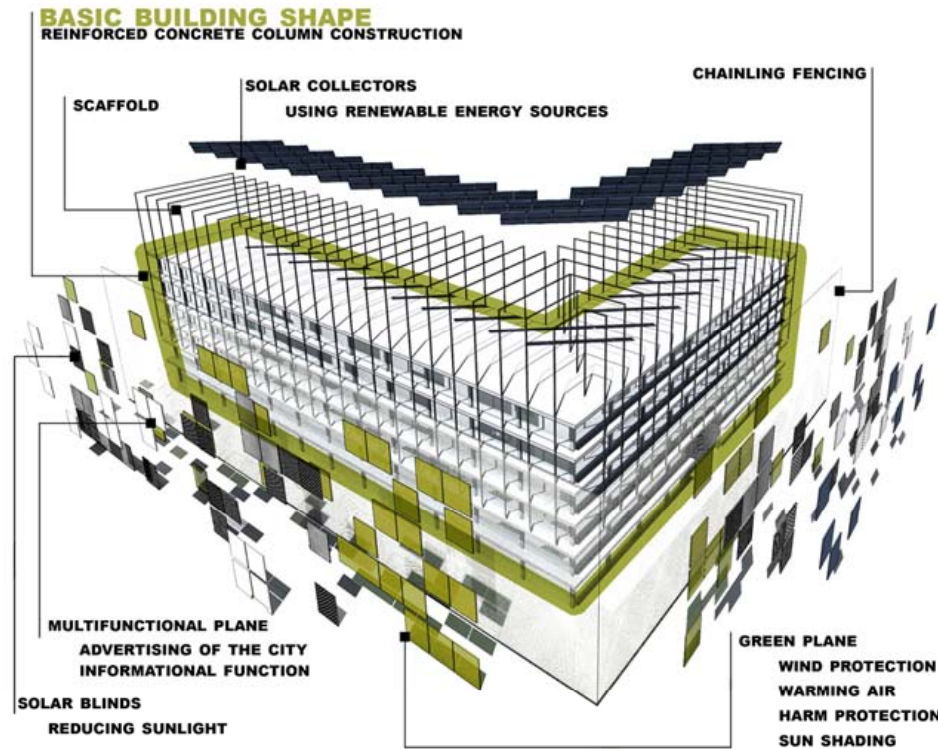




AREA "B" SOUTH ELEVATION 1:250

# AREA "B" - CONSTRUCTION SCHEME OF OFFICES' FACADE

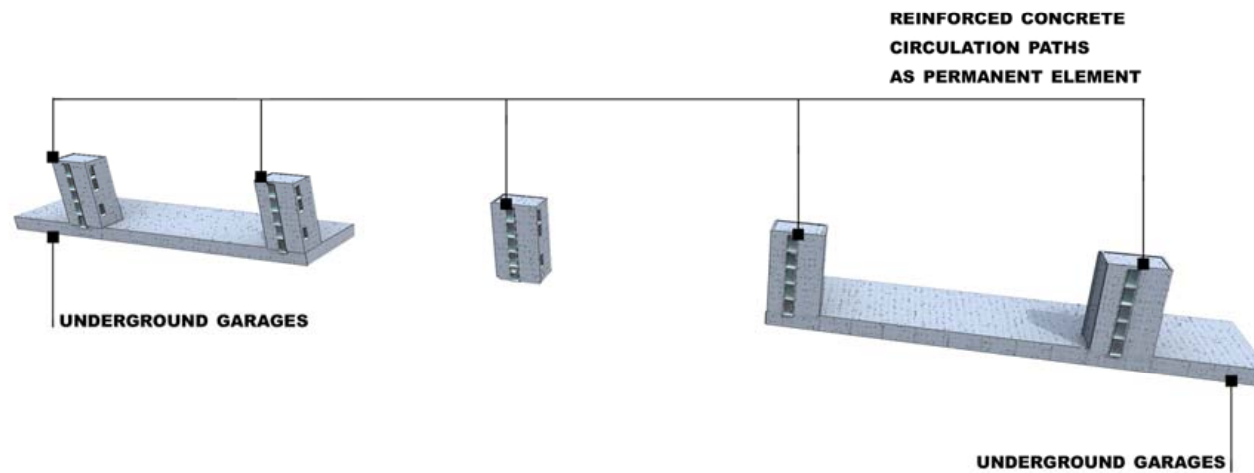
## MOSAIC MULTI - FACADE



AREA "B" SOUTH ELEVATION 1:250

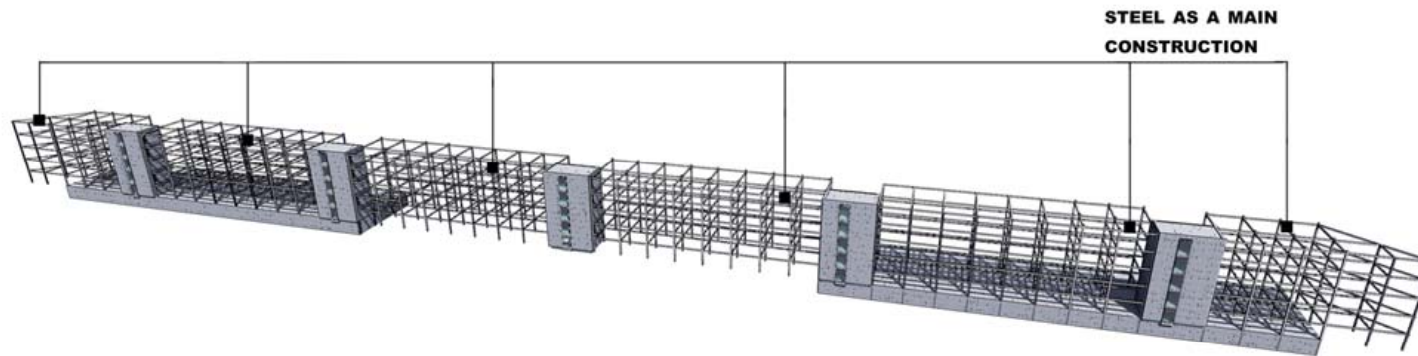


## AREA "A"- CONSTRUCTION SCHEME OF RESIDENTIAL



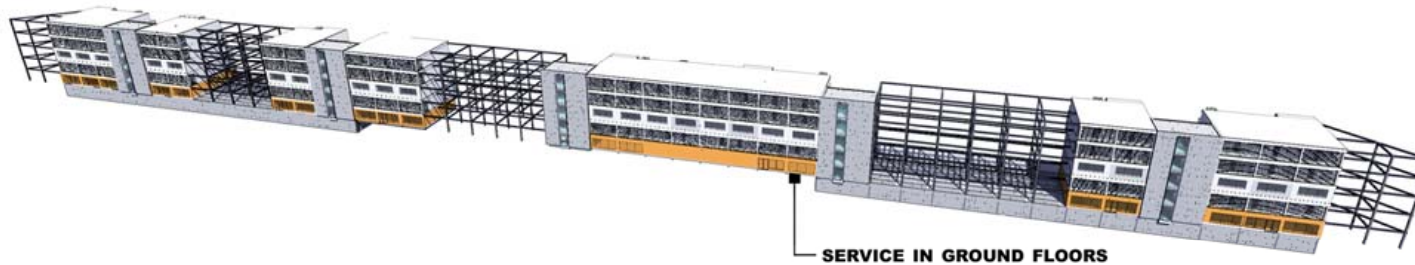
AREA "A" SOUTH ELEVATION 1:200

## AREA "A"- CONSTRUCTION SCHEME OF RESIDENTIAL



AREA "A" SOUTH ELEVATION 1:200

**AREA "A"- CONSTRUCTION SCHEME OF RESIDENTIAL  
SUSTAINABLE DEVELOPMENT = MIXED-USE DEVELOPMENT**



**HOUSING UNITS**  
**1 STAGE – 69 APARTMENTS**



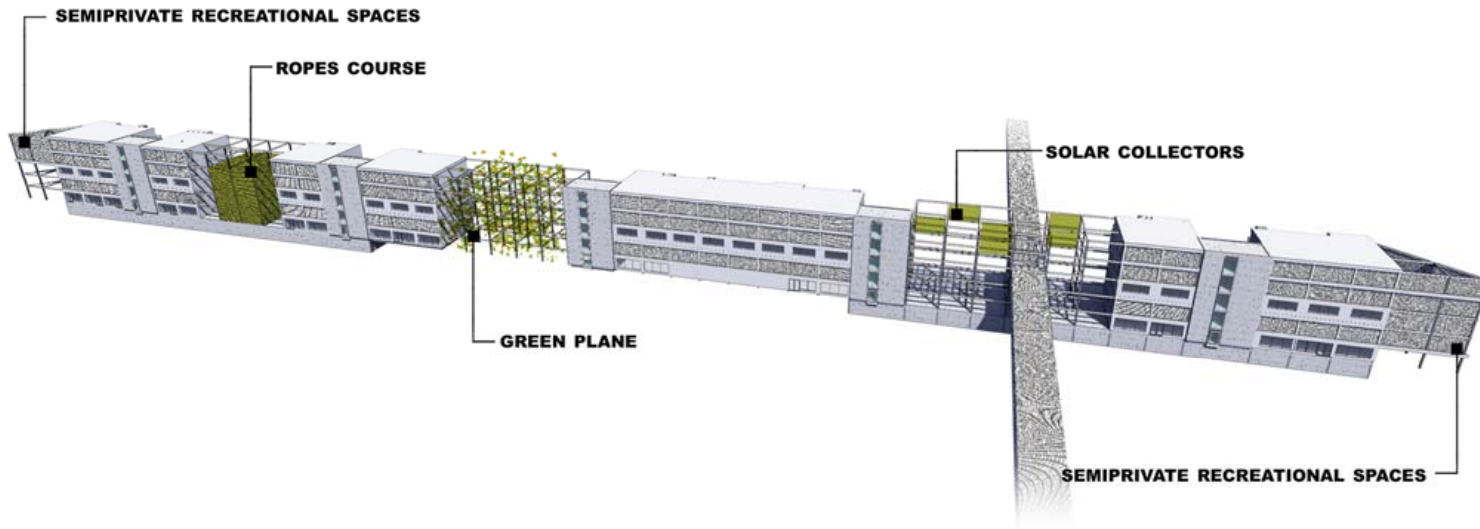
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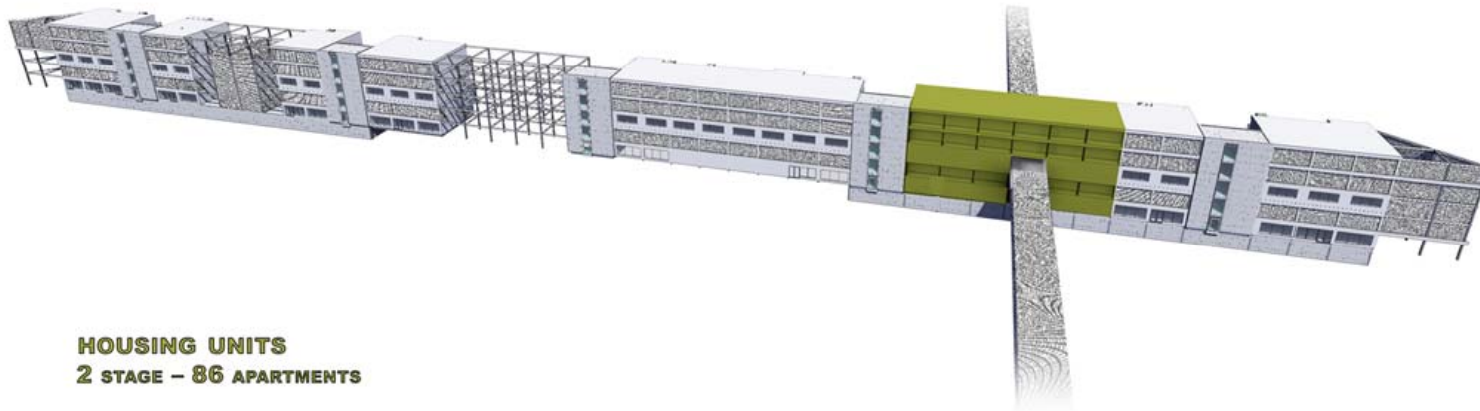
AREA "A" SOUTH ELEVATION 1:200

## AREA "A"- CONSTRUCTION SCHEME OF RESIDENTIAL SUSTAINABLE DEVELOPMENT = MIXED-USE DEVELOPMENT



AREA "A" SOUTH ELEVATION 1:200

**AREA "A"- CONSTRUCTION SCHEME OF RESIDENTIAL  
SUSTAINABLE DEVELOPMENT = MIXED-USE DEVELOPMENT**



**HOUSING UNITS  
2 STAGE - 86 APARTMENTS**



AREA "A" SOUTH ELEVATION 1:200

**AREA "A"- CONSTRUCTION SCHEME OF RESIDENTIAL  
SUSTAINABLE DEVELOPMENT = MIXED-USE DEVELOPMENT**



**HOUSING UNITS  
3 STAGE – 101 APARTMENTS**



AREA "A" SOUTH ELEVATION 1:200

**AREA "A"- CONSTRUCTION SCHEME OF RESIDENTIAL  
SUSTAINABLE DEVELOPMENT = MIXED-USE DEVELOPMENT**



**HOUSING UNITS  
4 STAGE - 113 APARTMENTS**

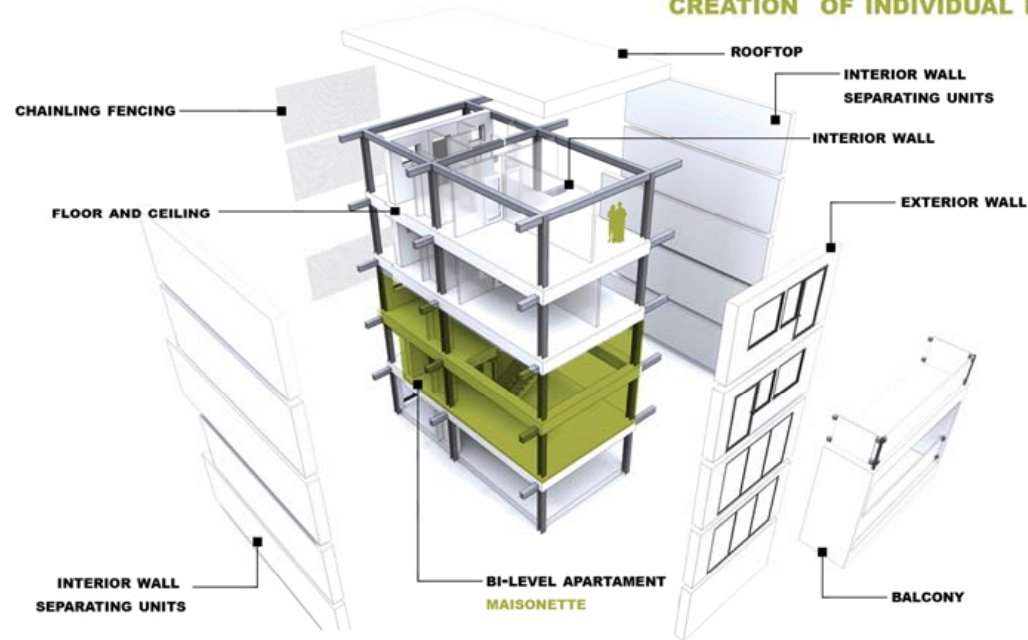


AREA "A" SOUTH ELEVATION 1:200



## AREA "A"- SCHEME CONSTRUCTION OF LIVING MODULE

USE OF INDEPENDENT BUILDING ELEMENTS  
CREATION OF INDIVIDUAL LIVING SPACE



Overview	
<b>A. Data input</b>	
<b>1. General project data:</b>	
Name of building proj:	Multi Housing
Name of developer:	Georgij Brubnek
Level of proj.: house no.:	Jako Dvaz (house)
ZIP/Post code, Town/City:	60100 Mladec
Climatic region:	DE-Munich
Planning phase:	-
Legal No.:	-
<b>2. Areas:</b>	
Energy reference area:	1350.00 m <sup>2</sup>
Thermal envelope area:	2002.62 m <sup>2</sup>
<b>3. Constructional U-values:</b>	
External wall to air:	0.100 W/m <sup>2</sup> K
External wall to ground:	0.290 W/m <sup>2</sup> K
Roof/flat floor ceiling:	0.110 W/m <sup>2</sup> K
Cellar ceiling / floor:	0.100 W/m <sup>2</sup> K
<b>4. Glazing U-values:</b>	
Mean U-value:	0.40 W/m <sup>2</sup> K
<b>5. Window U-value:</b>	
Mean U-value:	0.85 W/m <sup>2</sup> K
<b>6. Thermal bridge heat:</b>	
Roof/ceiling:	YES
<b>7. Forced ventilation:</b>	
Present:	20.00 %
<b>B. Calculations:</b>	
1. Transmission Heat Losses:	22.08 kWh/m <sup>2</sup> a
2. Ventilation Heat Losses:	8.73 kWh/m <sup>2</sup> a
3. Total Heat Losses:	30.81 kWh/m <sup>2</sup> a
4. Internal Heat Gains:	11.34 kWh/m <sup>2</sup> a
5. Available Solar Heat Gains:	10.99 kWh/m <sup>2</sup> a
6. Heat Demand:	20.47 kWh/m <sup>2</sup> a
7. Annual Heat Demand:	11266.77 kWh/a
<b>Spec. Heat demand:</b> 8.34 kWh/(m <sup>2</sup> a)	



AREA "A" NORTH ELEVATION 1:200

M, U, L, T, I, SQUARE  
CULTURE  
COMFORT



M, U, L, T, I, SQUARE  
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COMFORT



**THANK YOU FOR YOUR ATTENTION**