

KARLOVAC (PRODU) CITY

1. KARLOVAC

The city of Karlovac is founded in 1579, at the intersection of the Kolpa and Korana rivers, with a geometric star-shaped layout designed by the architect Martin Gambon. This layout superimposes a hexagon that defines the pits and perimeter bastions, with a square mesh that defines the urban layout. The extension of one of the axes of this urban grid, together with the layout of the railway and road infrastructure and the banks of both rivers, shape the general layout of the city.

CO634 2. PRODUCTIVE CITY

Karlovac has an important industrial heritage, as a result of the industrialization experienced by the city throughout the twentieth century, especially after World War II. Karlovac's position, at a communications junction, was the basis for the creation of an "industrial city", where dozens of factories emerged.

The main proposal of the project consists in the creation of a productive city. University centers will play an important role in the training of the people who will participate in it. For the production "incubator areas" will be created: spaces for new companies. Some of these spaces will be located in abandoned factories, which will be renovated for this new use.

Tourism will be a fundamental element in the creation of this productive city. Karlovac's military past, as well as its attractive natural spaces and numerous parks, are necessary to understand the identity of the city. The bike paths will contribute to the links of the city with natural areas and places of historical interest. The connection between Karlovac and Lušćić will be improved thanks to the new underground motorway and railway, and thanks to the creation of a new boulevard.

As for energy and sustainability, charging points will be available for electric cars, and geothermal energy will be used for heating homes and sports centers.



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3. STRATEGIC SITE

The main urban axis will connect the city centre (Zvijezda) with the project site, to enhance the places of interest that develop around the axis. Abandoned factories near the axis will be reused to create learning and production spaces, as a fundamental part of the productive city.

New roads, linked to existing ones, will be designed to create a network that connects the entire city. A new network of bike lanes will contribute to a more fluid circulation and a decrease in pollution, and will connect the city with parks and river banks, where new piers and walks will be installed. There will be stations for bicycle rental.

The highway and the railway line that crosses the axis will be buried, to facilitate pedestrian mobility from the historic center and the project site. Above them, a boulevard for vehicles, bicycles and pedestrians will be created.

Geothermal energy will be used for heating homes and sports centers, and solar energy for hot water in homes, as well as for electric car charging points.

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4. PROJECT SITE

A grid that is born directly from the plot that composes the city centre (Zvijezda) is established. The mesh used on here is triangular, and is based on the dimensions of the orthogonal plot of the ancient city of Karlovac. This triangular grid overlaps the project site and aligns with the main urban axis, deforming at the edges of the perimeter of the area. Residential, commercial, sports, tourist and catering, educational and cultural buildings are developed on this zone. The height of the buildings oscillates between two and ten stories, placing the tallest buildings next to the existing residential buildings in height, and the smallest buildings next to the existing single-family houses, creating a degradation in height and forming three cores or nucleus of tall residential buildings.

The roads inside the project site follow the triangular pattern and connect with all the perimeter roads, as well as with the central urban axis. Priority will be given to pedestrian areas over roads, which are complemented by bike lanes. Two public parking areas will be included at the crossroads, and all buildings will have underground parking.

A large green space will be created in the central area of the project site, where public, commercial and tourist buildings will be placed. The existing grove will be preserved, as far as possible.

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PROJECT SITE PARAMETERS

Project site area	257.994 sqm (25,80 ha)
Housing density	100 inhabitants/ha
Project site inhabitants	2.580 inhabitants
Average number of inhabitants per housing unit	2,7 inhabitants
Project site housing units	956 housing units
Average gross floor area per housing unit	90 – 120 sqm

RESIDENTIAL BLOCK TYPES

BLOCK TYPE	H10	O2	O4	D2	D4	C2	C4	F
Number of blocks	8	2	2	3	2	2	1	14
Stories	10	2	4	2	4	2	4	2
Plot area (sqm)	1.576	1.576	1.576	1.576	1.576	1.576	1.576	812
Ground floor area (sqm)	818	1.115	1.115	912	912	781	781	90
Block gross area (sqm)	7.362	2.230	4.460	1.824	3.648	1.562	3.124	180
Housing units per block	81	21	42	16	32	14	28	1
Total housing units	648	42	84	48	64	28	28	14

SURFACES PER PURPOSE

PURPOSE	Plot area (sqm)	Ground floor area (sqm)	Building gross area (sqm)
RESIDENTIAL			
Block type H	12.608	6.544	58.896
Block type O2	3.152	2.230	4.460
Block type O4	3.152	2.230	8.920
Block type D2	4.728	2.736	5.472
Block type D4	3.152	1.824	7.296
Block type C2	3.152	1.562	3.124
Block type C4	1.576	781	3.124
Block type F	11.368	1.260	2.520
Total	42.888	19.167	93.812
COMMERCIAL			
Local market	-	6.544	6.544
Commercial buildings	6.949	6.949	21492
Total	6.949	13.493	28.036
CATERING AND TOURISM			
Total	6.304	6.304	22.064
PUBLIC AND SOCIAL			
Pre-school education	1.576	1.576	3.152
Sport facilities	4.345	4.345	8.690
Cinema and theatre	1.576	1.576	6.304
Total	7.497	7.497	18.146
GARDEN AND LANDSCAPE	87.155	-	-

SHARES PER PURPOSE

PURPOSE	PLOT AREA	SHARE
RESIDENTIAL	42.888	16,62%
COMMERCIAL	6.949	2,69%
CATERING AND TOURISM	6.304	2,44%
PUBLIC AND SOCIAL	7.497	2,92%
GARDEN AND LANDSCAPE SURFACE	87.155	33,78%
ROADS AND SIDEWALKS	107.201	41,55%
TOTAL	257.994	100%