

PARTNERSHIP ŠMARTINSKA CityBTCity

CONCEPT LIGHT CAPITAL

Ljubljana has a unique historic opportunity to seize the benefits of national independence, EU membership and strong economic development and to start a sustainable urban development with a long time horizon. Instead of wholesale change and large redevelopments, the city should focus on a process of phased urban renovation supported by the implementation of new multimodal, sustainable infrastructure and the coordinated redevelopment of areas in a transparent and synergistic cooperation between private and public interests. The development needs to be based on a long-term and stable overall strategy and shared vision in order to succeed.

This proposal aims to

- create a recognizable urban quarter from a patchwork of different forms and interests stretching from Fabiani's inner city ring to the highway ring.
- change the modal split and incorporate the BTC area in an urban infrastructure connected to the city center while maintaining its accessibility by car.
- increase overall accessibility of the site through a distributed urban network.
- define a network of public open spaces and attractors in the appropriate locations as catalysts and armature for new development.
- create new potential and value for all parties involved through coordinating spatial development with urban structure.

URBANITY

The proposal is based on two different urban patterns and their associated functions: the extension of the city fabric with the clarity, accessibility, flexible program mix and long life cycle of its main typology the perimeter block; and the extension of the BTC area with its generous spaces, large volumes, ease of movement (albeit at the moment mostly by car) and shorter building life cycles with high commercial returns. The proposal aims to strengthen the existing qualities of the two patterns and connect them to a larger whole. It allows for mixed use on large and small scales and the subsequent development of urbanity around a variety of new places and program clusters.

ARMATURE

The new multimodal boulevard in between these two areas is the infrastructural backbone and main organizing element of the redevelopment area. It connects the area to the central station and the city center. While long for pedestrian flows to be experienced over its entirety, it contains areas of interest that induce pedestrian traffic: The BTC Boulevard is the pedestrian axis for the BTC retail area with BTC Plaza as its main focus. The proposed Central Park is the green heart of the entire redevelopment area. Kalinška Square is the new entrance to the quarter and acts as a cultural and commercial attractor drawing visitors both from the center and the surrounding neighborhoods. Larger distances can be traveled by tram that runs on the boulevard from the central train station to the outer ring.

URBAN NETWORK

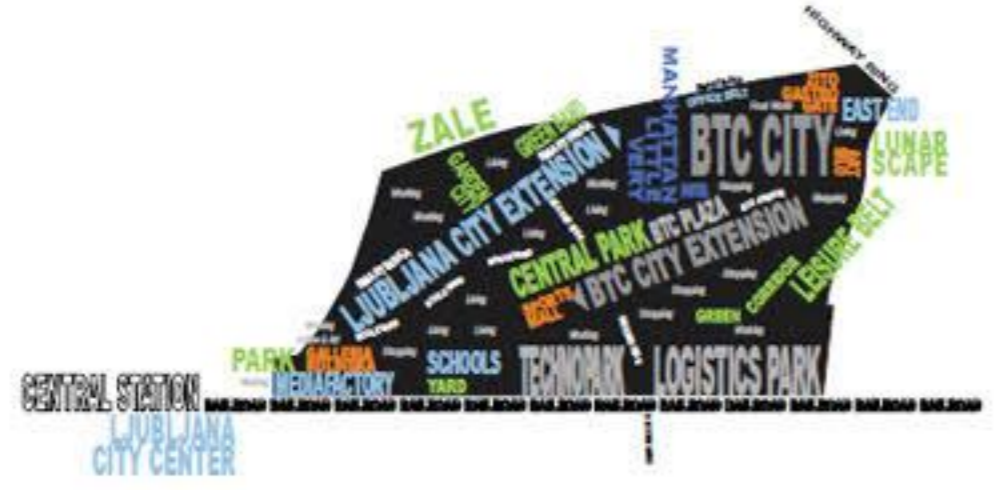
The urban network has been reorganized to optimize accessibility and connectivity both internally and with the rest of the city. The aim is to use the network to generate urban activity potential which is appropriate to the strategic importance of this site. This has been achieved by "restitching" the site with its context on both the local and global scales. As a result the site will feel to be part of the city centre and will attract people from the surrounding areas to pass through it, generating vibrancy and social surveillance of the public realm as well as benefiting economic sustainability.

OPEN SPACE

The proposed Central Park is the new heart of the area. It is connected to the Zale Cemetery to the north and the river to the south by green corridors. A green band transverse the site on the south side and contains the leisure activities. It starts at the Lunar Park which is a proposal for depositing contaminated soil and waste generated by the redevelopment as a piece of land art and leisure park. This master plan aims to provide strong physical and visual links between the new green infrastructure and the overall route network to support the use of the green spaces and social surveillance.

IDENTITY

Different points of identity have been defined. Yet all are subordinated to the overall identity of the area. Kalinška Square is the new face of the area; the Central Park the green heart; BTC Plaza and the boulevard the new urban artery for BTC; the Zno Area is the gate to the city and definition of the urban edge towards the outer ring road. Strategically placed high buildings and public spaces at important intersections and angle changes of the main routes create landmarks, help with navigation and contribute to the identity of the area. The perimeter edge defines inside and outside of the neighborhood. Within the global structure set out in this proposal there is flexibility for the development of areas with different character which can be developed independently and in different phases, but the overall structure will define the success of the master plan.



CHARACTER MAP

In the redeveloped area, various new functions can be accommodated resulting in a rich and urban whole with mixed program on a local and global scale.

SUSTAINABILITY

Excessive car traffic is one of the main burdens of contemporary cities. It favors peripheral developments and sprawl over inner city locations and density. The Ljubljana City Extension should feel like a part of the city, both in terms of scale and accessibility on foot. The central axis of the BTC retail area will be mostly pedestrian and linked with a tram to the main station and city center. Shared Space design principles can be applied where the needs of pedestrians and motor vehicles need to be balanced.

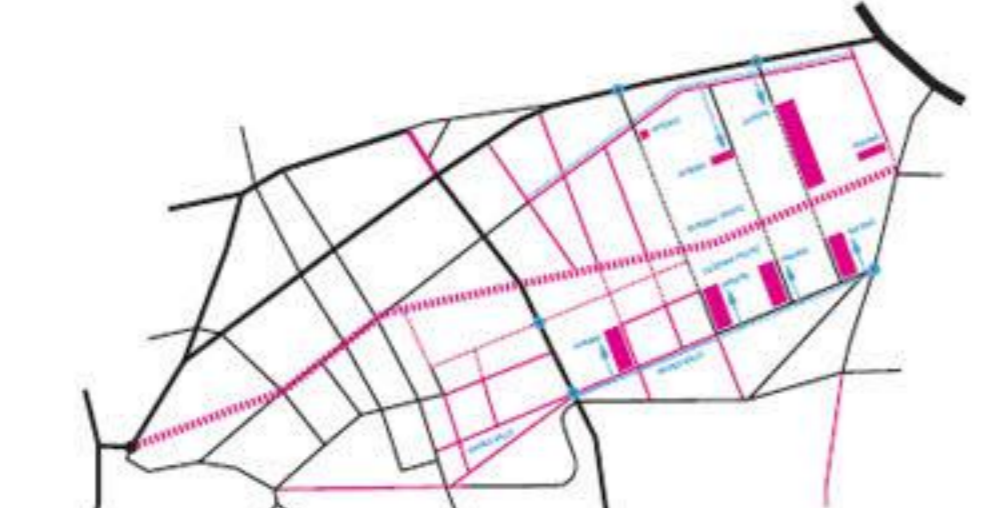
The master plan proposes a finer road grid allowing for a denser grid of services and minimized distances between locations. This grid will help to encourage walking, cycling and dilute vehicular movement and its distribution from the site in order to avoid congestion and bottlenecks at key entry points to the area. Car parking will be managed in a decentralized manner. On the large roof areas of BTC renewable energy could be generated by wind or sun. Developments in the Kolinska Area would need to comply with EU energy standards or more. Passive buildings (no heating energy) are possible so that over time an oil free society could be envisioned.

IMPLEMENTATION

The implementation is proposed to be coordinated by a public private partnership. The development will be implemented in four main phases: 1. Development of the armature and green systems; 2. Realization of attractors; 3. Realization of the value created by developments along the edge of the armature; 4. Internal densification and potential completion of the total master plan volume. Yet various scenarios can unfold and the typologies proposed are flexible. The plan can also be operative when only executed in parts as long as the urban network and armature is implemented.

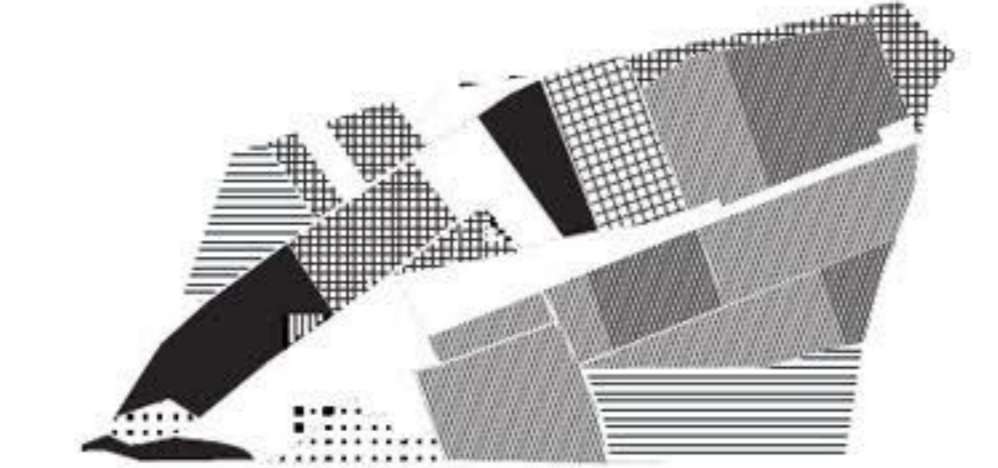
IDENTITY

Two urban systems both with their specific qualities, ...



ARMATURE

are structured by a green boulevard with various and differentiated points of interest ...



ROAD NETWORK

It is connected by an efficient, reorganized road network to the city beyond, ...

GREEN NETWORK

and are permeated by a green network. Conceptual diagrams

PATCHES

so that its heterogeneity becomes an asset rather than a burden.



NETWORK CONNECTIVITY AND PATCH DEVELOPMENT TO THE ADJACENT AREAS

- Road connections
- Thematic circular path/ POT
- River
- Green areas and corridors
- New buildings within competition perimeter
- Existing building within competition perimeter





Perspective spatial representation - Central Park: Green heart and main component of the armature

TRAFFIC STUDY

Spatial Layout

Spatial layout plays a pivotal role in generating and sustaining accessible, well-used urban areas - places where people want to live, work, and spend their leisure time. The majority of informal space use in urban areas is movement, and the majority of movement is through-movement. To be successful, urban areas must be clearly integrated into the movement network of the surrounding city.

Spatial analysis of the existing road network in the Šmartinska Area reveals the road hierarchy of the area and shows the lack of accessibility from the city center and in the area itself. As a result, the BTC retail area is largely disconnected from the city and dependent entirely on traffic from the urban ring road. Accessibility bottle necks result in traffic jams, the absence of viable public transport in the lack of parking spaces.

In this proposal the road network has been considerably improved and completed, resulting in a much better accessibility of the entire area with the consequent ecological and economic benefits.

Šmartinska Street will continue to be the address and main artery connecting vehicular traffic with the site from both the city and the ring road. However, access from the city center will be improved by more direct and more intuitive and legible connections entering the site from the station and Kolinska Square.

Kajuhova Ulica will continue to play an important role in connecting the site in north-south direction with the river and Zaloška Cesta, linking back into the southern part of the city center. Another important north-south connection is emerging between Šmartinska and Letalska Cesta and will contribute to the vibrancy to the eastern part of the site.

These major routes help to structure the site into its different character areas and distribute movement in an efficient way along their edges as well as support local movement within the quarters themselves. It is the relationship between the more quiet areas and the highly accessible routes which is determining if an area feels spatially connected with the wider city or isolated. The analysis highlights that in the proposal zones of increased activity, mostly pedestrian, alternate with quiet areas for housing and leisure. Roads are planned with enough width for pedestrians, bicycles, and curb parking.

The strategic accessibility maps displayed show the "through movement" potential of the site, or the most likely routes which people take on their journeys to and from destinations within the site itself, and into the surrounding areas. In addition to layout, environmental factors such as the quality of the urban realm do impact on space usage, and indeed so do attractors and urban catalysts. The model displayed is a "strategic model" and assumes a shared public realm for pedestrians, cyclists and vehicles as a starting point.



Ljubljana segment map existing content



Ljubljana segment map existing CH global



Ljubljana segment map existing CH R200



Ljubljana segment map proposal content



Ljubljana segment map proposal CH global



Ljubljana segment map proposal CH R200

Traffic analysis and proposed new road network

PHASING

Differentiated spatiotemporal development

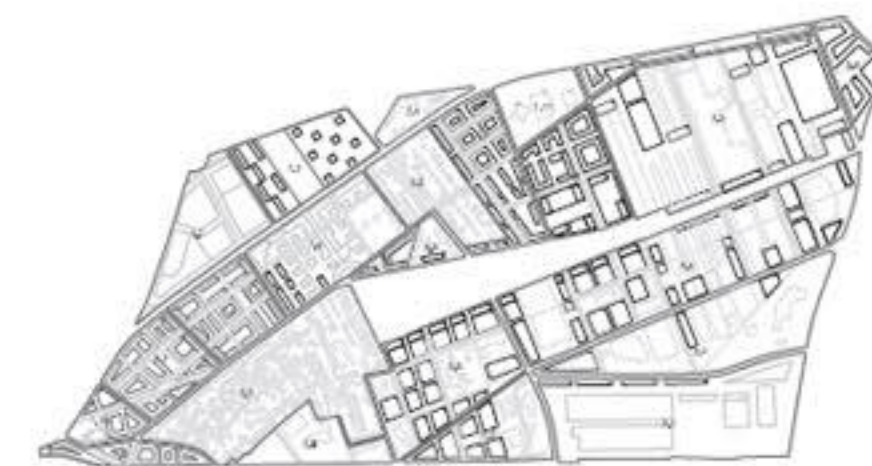
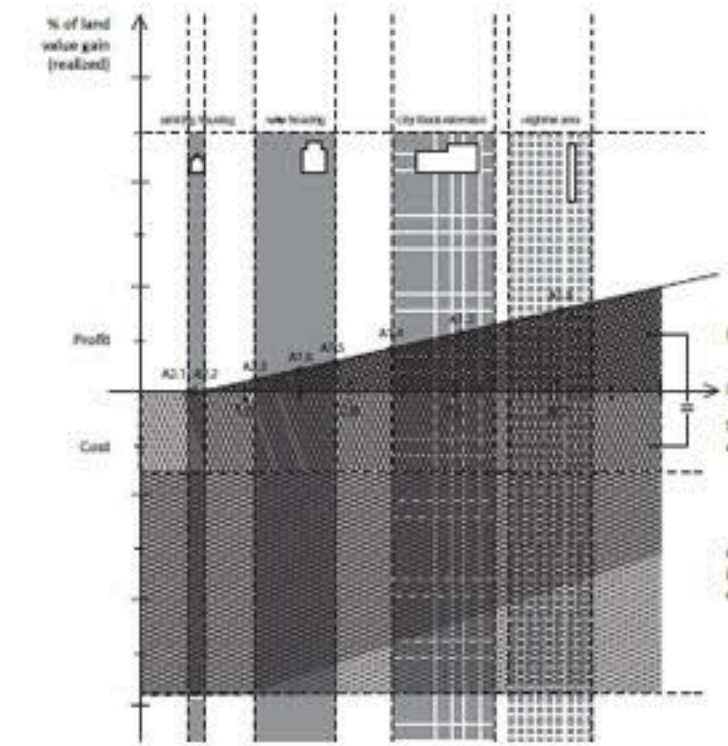
01 Short-term



Plan scale 1/10 000

01. Short-term development (Initialization)

The armature is implemented and financed by the city as an upfront investment (possibly with EU structural funds). In a first step, the Central Park is developed without the areas of SCT Srova (SCT Srova), Teol and Močna Krmila. Soil (with light to medium contamination) is whenever deposited in the Lunarcape to the east of the development area where it will be the beginning of a new type of green area.



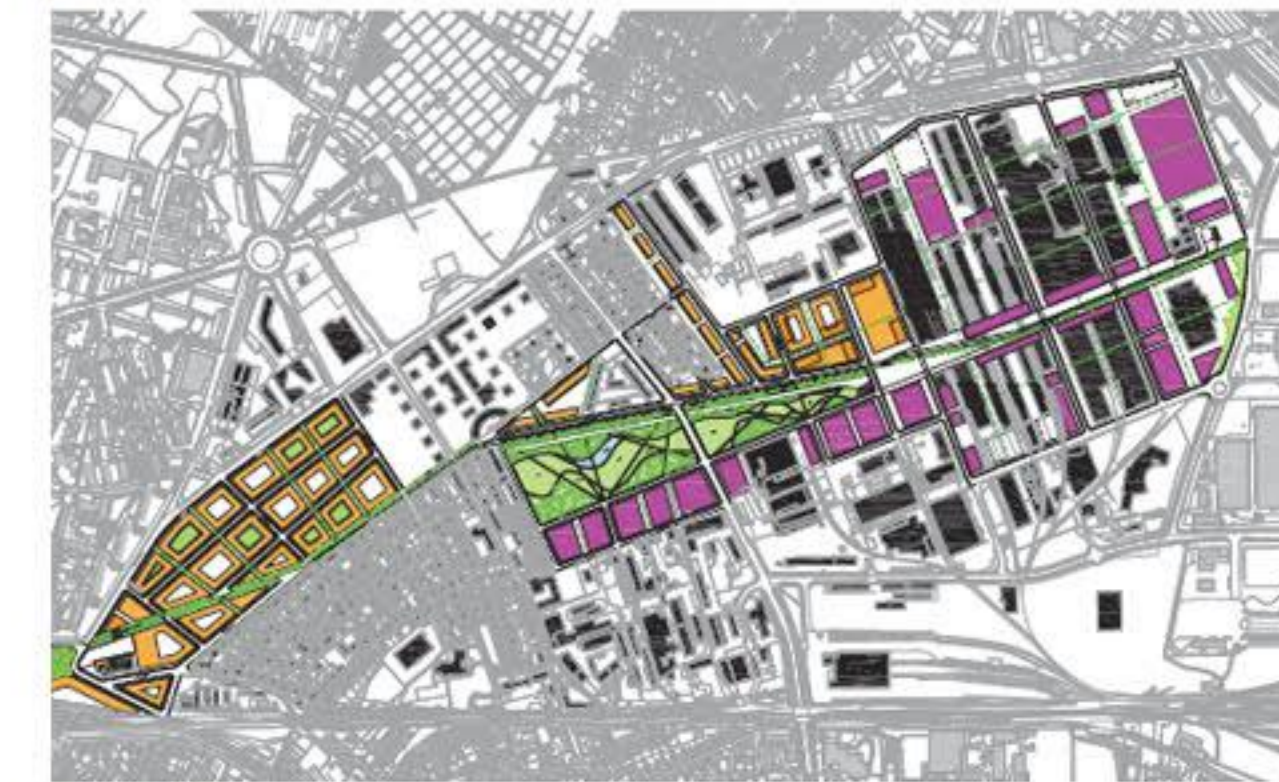
Patches

Implementation and Financing

The implementation is proposed to be coordinated by a public private partnership. The partnership is run by a steering committee and supported by perimeter contributions of the parties involved.

- 1. Creation of an official master plan as an instrument to coordinate the interests of the different private and public parties that defines the urban network and armature, lot structure, density, program, and transport infrastructure (tram).
- 2. Process that combines all landowners and the city. Creation of a common fund that supports planning and coordination activities (perimeter contributions).
- 3. Investments by the city (traffic infrastructure, park, services) or by public private partnerships (schools, sport facilities, leisure and entertainment venues).
- 4. Individual developments by large (and small) landowners per lot. A percentage of the realized additional value, proportional to the FAR defined in the master plan, will be due to the city to repay the initial infrastructural investments.
- 5. Quality assurance by a steering committee of the landowners. Adaptation of the master plan when necessary.

01 Mid-term



Plan scale 1/10 000

02. Mid-term development first step

Along the armature, attractors are implemented, such as the Kolinska Square (1), the Gradis (high-rise) Area (5) and the commercial portion of the Zito Area (7). The tram line is implemented and the BTC Boulevard pedestrianized. The tram line is preferred over bus as it generates a reliable accessibility potential and will spur higher investments in the adjacent areas. The green belt to the south adds value to the leisure areas.

Parking contribution	Required parking		Realized parking		Total parking
	Area (m²)	Capacity	Area (m²)	Capacity	
Parking lot 1	1000	30	1000	30	30
Parking lot 2	2000	60	2000	60	60
Parking lot 3	3000	90	3000	90	90
Parking lot 4	4000	120	4000	120	120
Parking lot 5	5000	150	5000	150	150
Parking lot 6	6000	180	6000	180	180
Parking lot 7	7000	210	7000	210	210
Parking lot 8	8000	240	8000	240	240
Parking lot 9	9000	270	9000	270	270
Parking lot 10	10000	300	10000	300	300
Sum	50000	1500	50000	1500	1500

Parking calculation

01 Mid- to Long-term



Plan scale 1/10 000

03. Mid-term development second step

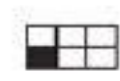
The value increase in the land along the armature is realized by different land owners (2, 3, 4, 5). The park is completed by the areas of SCT Srova (SCT Srova), Teol and Močna Krmila. The rail workshop next to the central train station is developed on one end of the boulevard, the residential portion of the Zito Area (7) on the other. The city should regain a large part of its initial investment through a profit sharing of the land owners.

04. Long-term development

The total master plan volume is completed over time with infill structures where allowed.

Area	Area		Total Area	Total Density	Total Capacity
	Area (m²)	Density (PS)			
Area 1	10000	1.0	10000	1.0	10000
Area 2	20000	2.0	20000	2.0	20000
Area 3	30000	3.0	30000	3.0	30000
Area 4	40000	4.0	40000	4.0	40000
Area 5	50000	5.0	50000	5.0	50000
Area 6	60000	6.0	60000	6.0	60000
Area 7	70000	7.0	70000	7.0	70000
Area 8	80000	8.0	80000	8.0	80000
Area 9	90000	9.0	90000	9.0	90000
Area 10	100000	10.0	100000	10.0	100000
Sum	500000	5.0	500000	5.0	500000

Area calculation



Area of detailed urbanistic layout FE1 - FE4
 plan scale 1/1,000



Ljubljana City Extension (Kolinska Area: areas 1, 2, 3, 4)

Areas one to four are combined into one large development in order to generate a coherent urban fabric and by means of function and image link the area to the city center. A new grid of public roads and perimeter blocks is proposed. The blocks step down in height from Šmartinska Cesta to the Zelena Jama Housing Estate. The main Kolinska building is preserved and becomes the focal point of a square for art, culture and commercial functions to draw also visitors from the BTC area. Together with an iconic tower on Šmartinska Cesta it gives the new quarter a face. The square forms a larger open space together with the small park to the west.

The Kolinska Area should contain an urban mix of activities, mainly housing including options for live-work, and offices along Šmartinska Cesta. In order to allow for new uses and typologies the block structure can be interpreted with some freedom.

Ljubljana City Extension East and BTC Extension (areas 5, 6, 7)

The Gradis area (5) contains the highest density in order to create a focus on the new BTC Plaza. It is the culmination of the Ljubljana City Extension and forms an urban market. The area contains mostly offices. Retail and restaurants on the ground floor relate to the BTC area. The prominent corner tower on BTC Plaza could contain a hotel.

BTC (6) today is largely dominated by cars that limit its development potential. Different areas such as the south are not very accessible resulting in large differences in economic potential.

The master plan proposes to reduce vehicular traffic on the main axis, the new boulevard. Cars should move around the axis to the north and south where a series of new parking structures are proposed. These structures ("parking follies") act as markers of the area and contribute to the generation of renewable energy. Additional parking on the ground is possible based on the shared space principle. Yet overall the car should be less dominant in the urban space. Made possible by a reduction and rerouting of car traffic, the area's density can be increased both in plan and section, mostly with new program that diversifies the program mix such as office space, restaurants, leisure and two hotels. New cross connections in a smaller, more pedestrian grid, suitable for a commercial area, are proposed to cut through the malls and warehouses and provide additional accessibility.

To the south side of the Central Park the large scale urbanism of BTC is proposed to allow for a Techno Park with new high value add manufacturing and R&D. Also large scale public facilities such as sports halls are possible.

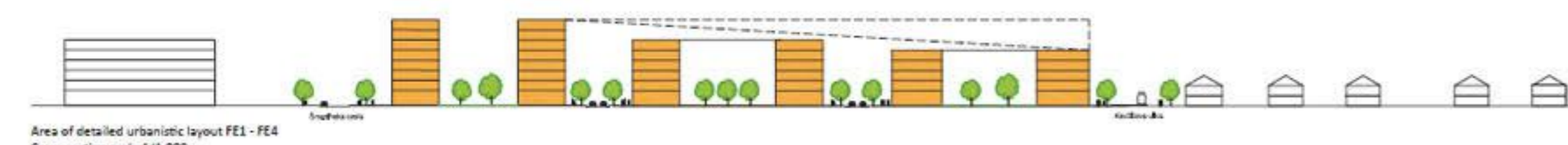
The Zito Area (7) finally, is proposed to be the Upper East Side of the development, an area overlooking the open land. It contains a strong commercial attractor such as an upscale gastronomy area and housing. The grain silo could be turned into an art silo and serve as a landmark at the end of the boulevard. The Lunar Scape is a proposed park made from the soil and waste excavated in the area. Sealed and green it can be put to new uses.



Axonometric view from east



Axonometric view from west

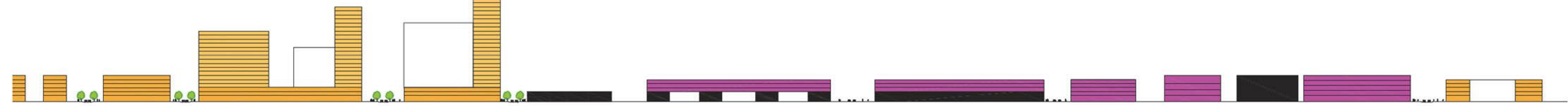
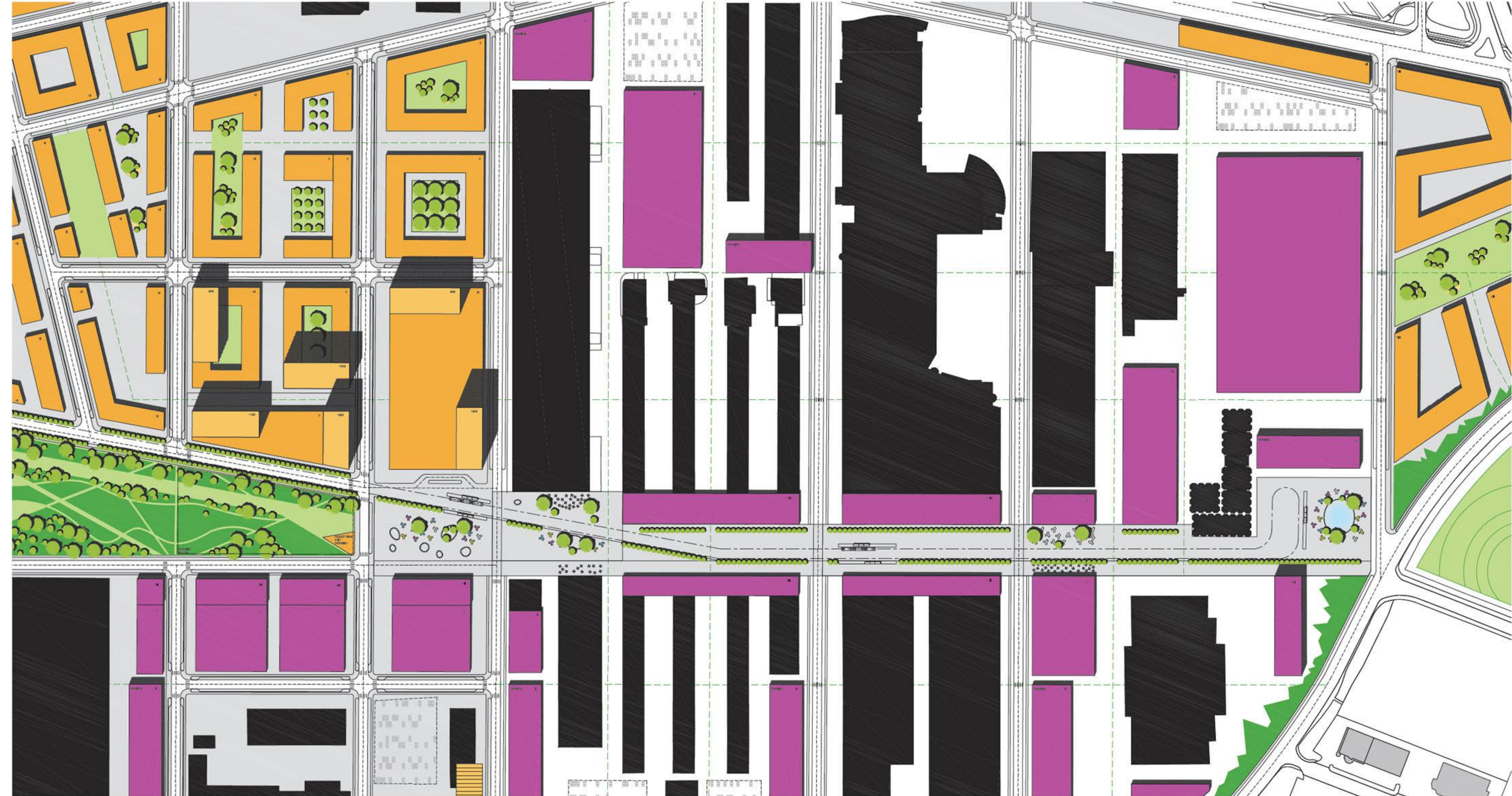


Area of detailed urbanistic layout FE1 - FE4
 Cross section scale 1/1,000



Area of detailed urbanistic layout FE5 - FE7
 Cross section scale 1/1,000

Area of detailed urbanistic layout FE 5 - FE7
plan scale 1/1,000



Area of detailed urbanistic layout FE 5 - FE7
Longitudinal section scale 1/1,000

Perspective spatial representation - Kolinska Square: Entrance to the site and its new face



ZONING

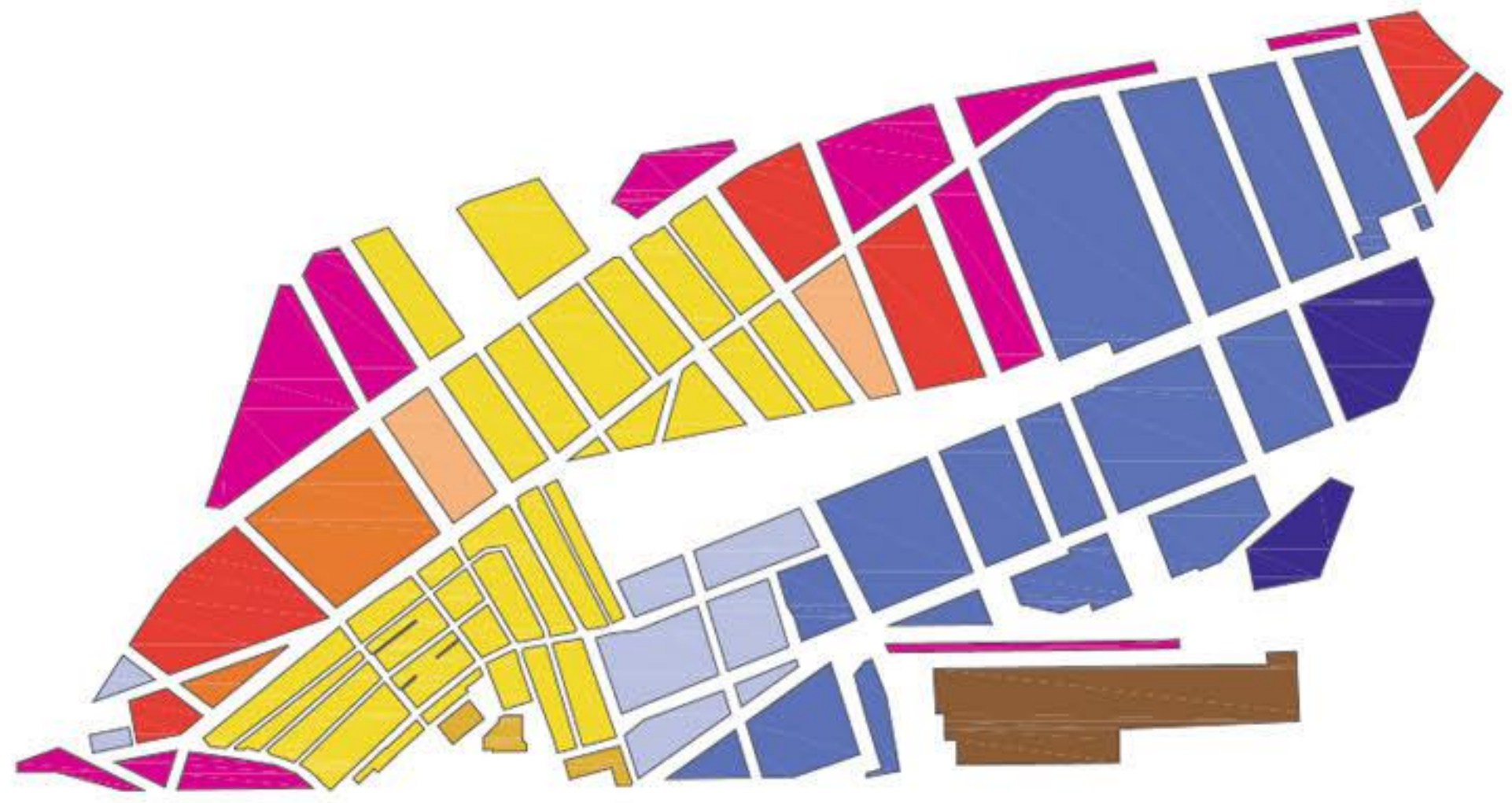
The functions are defined by a zoning plan. The plan is based on existing qualities of the site and the potential generated by the improved urban network and armature. It is encouraging mixed use in small and large programmatic clusters so that the Ljubljana City Extension will have an urban quality with activity at day and night time. With this area bracketing BTC on the northern edge, increasingly also BTC should become more urban over time.

The plan has three focal points of urban commercial and service activity on the northern edge corresponding to the squares along the armature: the Kolinska Square, the BTC Plaza and the Zlo Square as the endpoint of the new boulevard. The aim is to have visitors move not only in but also in between these points.

The main programmatic clusters are retail in the east, commerce in the perimeter and exposed areas. Living areas are organized on the inside, protected and attractive.

The zoning should be flexible and allow for different scenarios and a dynamic development.

 H1 100% Housing	 H2 65% Housing, Office on lower levels	 O1 100% Office	 O2/H3 50% Office/ Housing
 P1 Public and social functions	 P2 Public and culture/ leisure activities	 C1/ H4 Commercial functions, Housing on top floors	 L1 Leisure activities
 O3 65% Office, Housing on upper levels	 P3 Production/ Logistics		



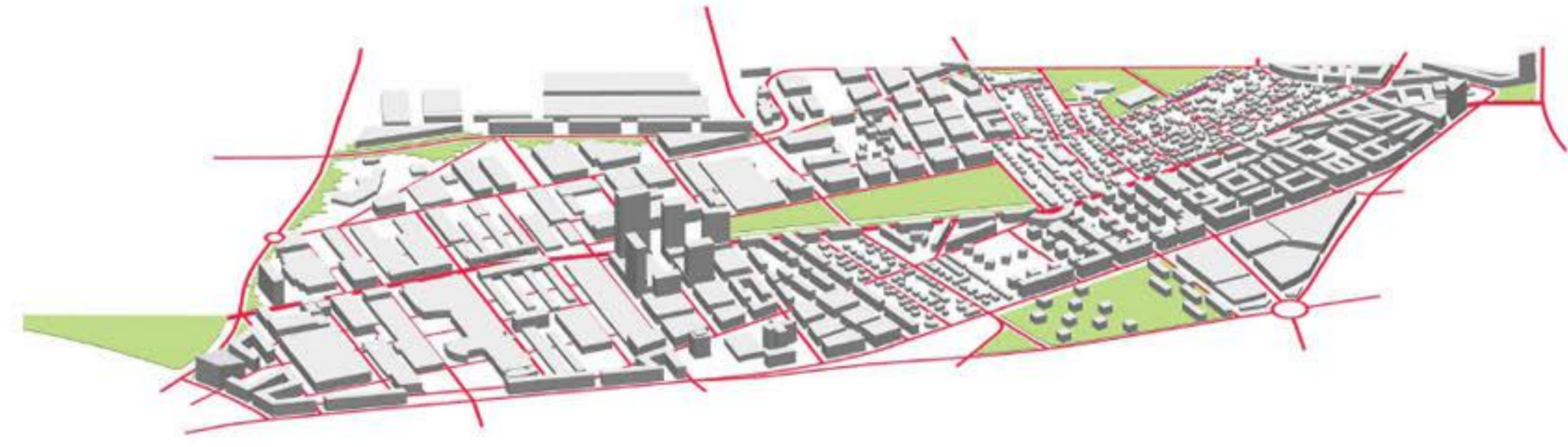
Organisation of program/ Zoning
 scale 1/7.500



Perspective spatial representation - BTC Plaza: Urban Focus of BTC and transition to the Central Park



Axonometric view from south



Axonometric view from north