Green corridors development programme

Project indicative: CJ6.2
Project type: development programme
Project starting point: 0-5 y
Project ending point: 10-15 y
Linkages: CJ 6.1, CJ6.3

NBS 6

FC Cluj-Napoca

Typology of the intervention

NBS6 Green corridors development programme for greening the post-industrial neighbourhoods. The planned green corridors represent vegetation alignments along the streets, railway corridor and along the secondary river courses. The new corridors act as strategic connectors, linking inner city green system with the natural landscapes. The purpose is also to increase the greenery of the neighbourhoods, providing shade and creating a more comfortable urban environment, while also mitigating the pollution resulting from traffic.

Description of the planned interventions

New plantations are planned for the existing green patches along the mobility corridors and along streets planned for restructuring/modernization. For each typology of corridor (residential areas, high traffic areas, railway infrastructures) the green corridors will be realized customely, accordingly to each specific set of environmental, social, and landscape challenges.

Scenario

Do-it-all (extract)

New green corridors are being developed following a participatory approach, involving citizens in both the design of landscape projects and the implementation of plantations. The chosen vegetation is tailored to the local context and addresses the specific challenges of each site, including heavy traffic, inadequate public spaces, pedestrian areas, as well as landscape disparities between residential and industrial areas. These new green spaces are designed to minimize the need for extensive maintenance and incorporate resilient and locally adapted vegetation, realizing a balanced composition between grasses, shrubs, and trees.

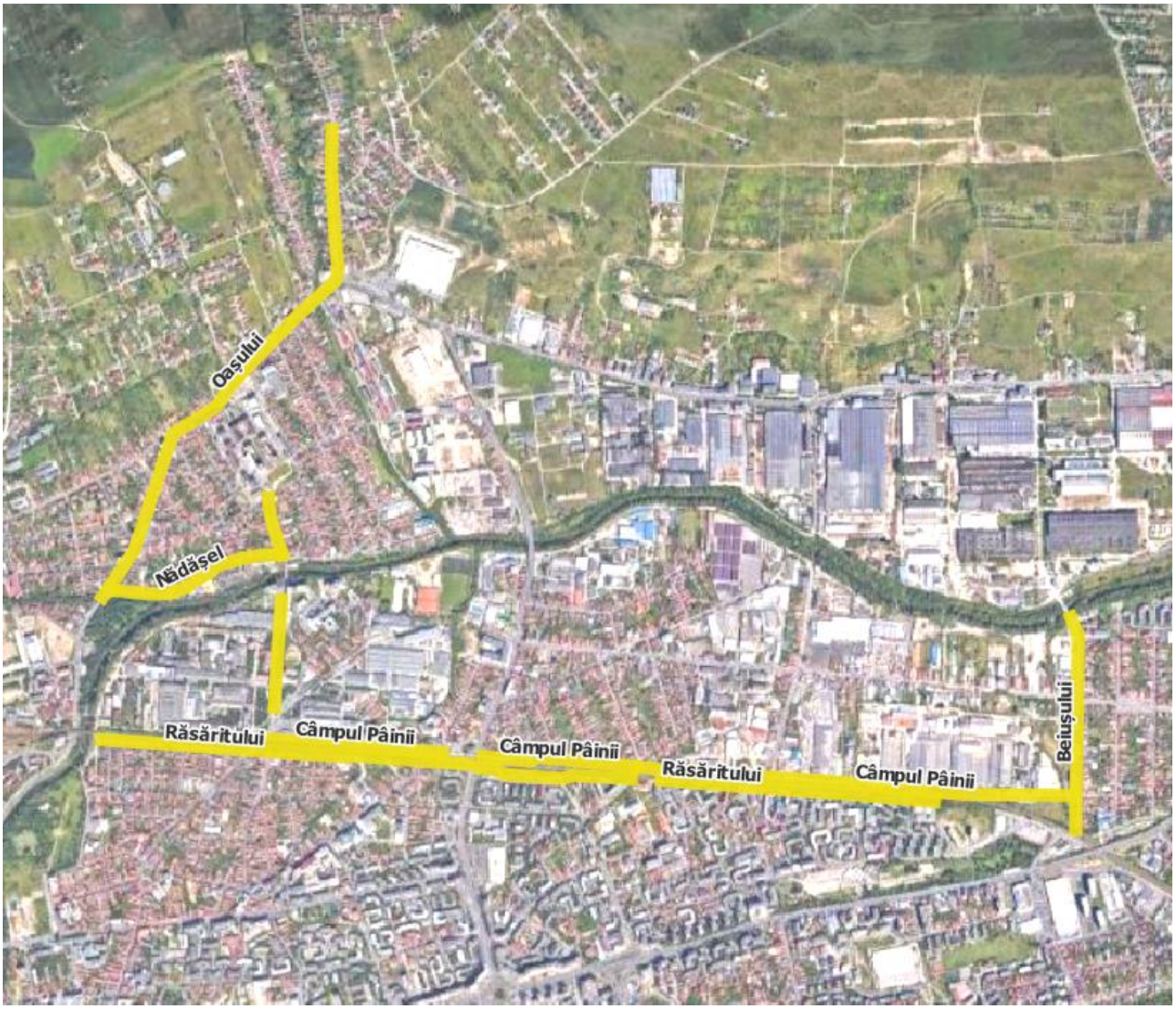
Do-something-meaningful (extract)

Street green corridors are being developed in conjunction with road infrastructure projects. This integration enhances the connectivity of the inner-city green system, promoting biodiversity and enhancing the local landscape.

Vision

Source: https://unalab.eu/en/node/166

Current situation: valuable natural area that can connect the city with the connected suburbia.



Proposed green corridors – east side of the city

Proposed green corridors – west side of the city

Study areas

The proposed intervention areas are alongside relevant transportation axes, local streets, or green areas alongside the railway infrastructure. The locations of these interventions have been selected based on the availability of space for new greenery and their strategic connections with the existing green infrastructure system. The intervention areas are:

- **Street Beişului** (approx. 650 m long). Conversion of the existing green patches alongside the street represents valuable interventions for the improvement of the residential neighbourhood landscape (individual housing).
- **Street Câmpul Păinii** (approx. 2 km long) and street Răsăritului (approx. 2.5 km long) - acting as one corridor. The area features sloped terrain with significant potential in terms of landscape and ecological value. A new green corridor will serve as a protective zone against the noise and dust generated by train traffic. Simultaneously, the axis traverses important areas within the city, making a new green corridor pivotal in enhancing the local landscape of the surrounding neighbourhoods and functioning as a promenade area.
- **Street Porţelanului** (approx. 250 m long). The site is situated in an area of recent mixed-use developments. The former railway line has left behind a linear green space with significant value, with potential for adapting a green space with leisure and socializing activities.
- **Street Nădăşel** (approx. 580 m long) and Street Alexandru Sahia (approx. 190m long). Situated within a residential area, both streets possess substantial greenery that can be reconfigured to cater to the preferences of the residents.
- **Street Oaşului** (approx. 1.5km long). The street experiences heavy traffic and lacks any existing vegetation or green spaces suitable for new tree plantations. It is deemed crucial to prioritize the redesign of the pedestrian curb area to accommodate additional greenery, thereby enhancing pedestrian safety and comfort. Given that Oaşului Street serves as a link between the urban and rural landscapes in the north, establishing a new green corridor is viewed as beneficial. This undertaking will enhance the connectivity and resilience of the inner-city green system while fostering biodiversity.
- **Street Septimiu Mureşan** (approx. 700m long). The narrow, sloped terrain necessitates green interventions, including the removal of invasive vegetation and the establishment of a pedestrian pathway along the south side of the street, adjacent to the blue-green corridor.
- **Street Corneliu Coposu** (approx. 1700m long). Due to heavy traffic, the existing greenery needs to be redesigned to mitigate noise and dust pollution.
- **Street Tăietura Turcului** (approx. 300m long, and 1500-2000 sqm surface area proposed for integrated landscape project). The street serves as a linkage between significant neighbourhoods and connecting localities from the northern side to the city centre. The terrain is hilly, featuring steep slopes, and suffers from insufficient pedestrian infrastructure, including deteriorated sidewalks that are narrow, lacking vegetation or resting spots. The site's notable attributes include relevant green spaces (currently lacking vegetation) and a distinct panoramic viewpoint.

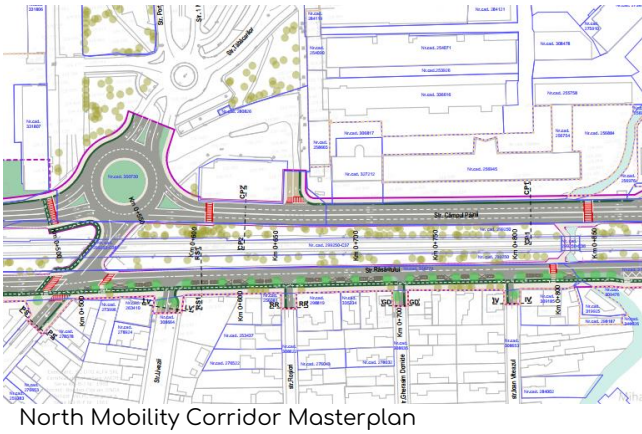
Overall, the area's streets are subjected to high traffic (Corneliu Coposu, Tăietura Turcului, Oasului, Câmpul Păinii, Porţelanului), which would greatly benefit from new green areas. In these cases, the implemented vegetation must possess dust and pollution retention capabilities. For corridors adjacent to residential zones (Beişului, Nădăşel, Alexandru Sahia, Răsăritului/Câmpul Păinii, Septimiu Muresan), a priority is also enabling local communities to redesign the street-side vegetation, considering their needs and interactions with the urban environment: potential ornamental and ecological value, along with productive value (such as alignments of fruit tree).

Local frameworks

1. SIDU (Integrated Sustainable Urban Development Strategy) indicators for 2030: (i) Length of river/lake banks with new/reinforced flood protection works - 30 km; (ii) Area of green infrastructure built/improved for climate change adaptation - 100ha; (iii) Investments in new/improved monitoring, preparedness, warning, and emergency response systems - 10 MEUR.

2. There are several local urban plans for the modernization of the road infrastructure, and improvement of mobility. The masterplan North Mobility Corridor includes proposal for Oasului bridge, street Câmpul Păinii and Răsăritului. The present project fiche elaborates recommendations for the restricted greenery.

3. Street Tăietura Turcului has planned a new underpass.



North Mobility Corridor Masterplan

Partners

Beneficiaries: Municipality departments: Green Spaces and Environment, Mobility, Strategic planning

Investors: real-estate developers that will develop of the former industrial sites

Users: Residents

Operational objectives

- Regeneration of the local landscape based on co-developed designs.
- Improved of environmental qualities: air, temperature and urban climate, biodiversity.

Targets:

- 200 residents from the 3 neighbourhoods to participate in co-implementation process.
- 9km of new green corridors / 2ha of biodiversity-friendly plantations.
- 10-30% reduction of air pollution.

Actions

Period 0-5 years
In the first stage of implementation, allocate resources directly for creating green corridors where no major infrastructural works are being planned: Beişului, Nădăşel and Alexandru Sahia, Septimiu Muresan, Corneliu Coposu, Porţelanului.

Period 5-10 years:
Create a new green corridor that accommodates pedestrian areas, bike pathways, relaxation spots, and observation places (panoramic area) on Tăietura Turcului Street. Perform plantations and seeding measures on Câmpul Păinii and Răsăritului on the sloped terrain.

Period 10-15 years:
Redesign Oasului Street to accommodate new greenery and improve the pedestrian area.

Design requirements

(up) Street Beişului (approx. 650 m long); (down) Street Nădăşel (approx. 580 m long) and Street Alexandru Sahia (approx. 190m long)

- Rehabilitate the existing green areas by adding fruit trees and locally adapted shrubs and grasses that require little to no maintenance.
- Involve the community in selecting the type of fruit trees and participating in planting activities.
- Allocate small plots to be planted and managed by local communities (an optimal solution could involve areas of 1x1m in front of their houses). Support the initiative by providing them with suitable plants from an extended list of vegetation at no cost.

Street Câmpul Păinii (approx. 2 km long) and street Răsăritului (approx. 2.5 km long) - acting as one corridor.

- Conduct seeding activities on the sloped terrain to transform the green area into a mixed vegetation of grasses and flowerbeds, supporting biodiversity.
- Plant additional tall trees to provide shade for pedestrian areas.
- Engage local communities in planting activities.

Street Porţelanului (approx. 250 m long).

- Transform the area into a green corridor with spaces for relaxation and socializing.
- Ensure that the new green spaces adhere to an ecological design, prioritizing pervious surfaces.
- Establish a dense vegetation "curtain" facing the former industrial site.

Street Oaşului (approx. 1.5km long)

- Redesign the street profile to enhance safety and conditions for pedestrians and bike commuters.
- Incorporate dense vegetation alignments to mitigate the heat island effect and reduce pollution resulting from traffic.

Street Septimiu Mureşan (700m long)

- Assess the possibility of transforming the current street into a shared-space street to address the challenge of narrow pedestrian curbs.
- Rehabilitate the natural blue-green corridor by removing invasive vegetation.
- Establish small-scale relaxation areas along the waterfront, adhering to ecological design principles.

Street Corneliu Coposu (approx. 1700m long)

- Mitigate the impact of intensive car traffic with dense vegetation, including a balanced composition of tall trees, shrubs, and grasses.
- Allocate several small-scale plots to be planted and managed by local communities.

Street Tăietura Turcului (approx. 300m long, and 1500-2000 sqm surface area proposed for integrated landscape project).

- The area requires a detailed public space design to ensure: a comfortable pedestrian pathway on the very steep slope, coherent landscape compositions mixing trees, shrubs, and grasses, and the realization of a leisure and relaxation spot (in respect to the panoramic views).