

"TOWARDS A HUMANE CITY"
Reshaping Mobility
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CRITICAL REVIEW OF THE IMPLEMENTATION OF UNDERGROUND PUBLIC GARAGE IN THE CENTER OF NOVI SAD

Keywords

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Abstract

Solving parking in city centers is a big challenge. In Novi Sad, this is a long-standing problem. For many years, temporary parking areas and prefabricated public garages in spare locations have been alternative solutions to unrealized planning solutions. Today, public parking garages are being built in the city center in accordance with the planning documentation. This paper analyzes whether the locations of parking garages in the city center are the only and optimal solution, taking into account several factors. First of all, it is the danger of the consequences of demanding construction works in the vicinity of old buildings, then the need for a parking solution in dense multi-family residential construction in the wider scope of the city center, then the potential for further urban transformations, as well as other urban topics related to the functionality of the space and the urban context.

1. INTRODUCTION

The concept of building public parking garages in the strict center of the city is characteristic of the circumstances in which cities functioned in previous decades. At the level of Novi Sad, a whole series of planning documents from the previous cycle planned public parking garages in the city center. This is being realized today. The question arises whether such a system for solving parking in the city center is justified in terms of the optimal functioning of the city and urban development?

An alternative approach to the current solution assumes that the city center will be freed from car traffic, so that public parking garages are planned in the wider area of the center. Such garages would be easier to access by cars. Also, such garages would have a larger number of users, given that they would be used by those who use the central facilities from the inner core of the city, but also by those who live in the wider area of the city center. In the city center of Novi Sad, there are few residents compared to other areas of the city.

By analyzing planning documentation and urban planning principles for the design of functional public spaces and urban units, this work should determine whether the existing solutions for parking in the center of Novi Sad enabled further urban development and functioning of the city or whether additional interventions in the urban fabric are necessary. This paper should also determine the advantages and disadvantages of the current realization of public parking garages and how they are reflected on the example of Novi Sad.

2. ANALYSIS OF THE EXISTING SITUATION

The scope of research of this work is the center of the city of Novi Sad. The inner-city center is the area defined by the streets: Mihajla Pupin, Ignjat Pavlas, Žarko Vasiljevića, Republic Square, Daničićeva, Nikola Pašić, Jovan Subotić and Uspenska streets. The wider scope of the city center is shown in Figure 1.

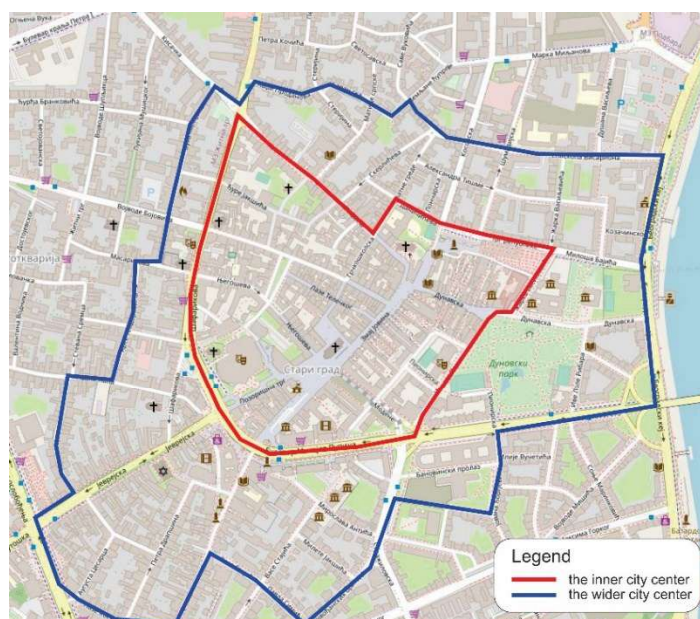


Figure 1. The inner city center and the wider scope of the city center of Novi Sad

For many years, the question of where to locate public parking garages in the central part of the city figured. At the end of the 20th century, Novi Sad experienced a

demographic and construction boom, so the need itself became many times greater. For decades, the lack of public parking garages in the city center was compensated by alternative parking locations [1]. These are temporary garages and parking areas at the locations (Figure 2). Street parking in almost all streets in the central city area represents the largest share of parking space capacity. The total number of street parking spaces in the central zone is more than 1,000 parking spaces [5].

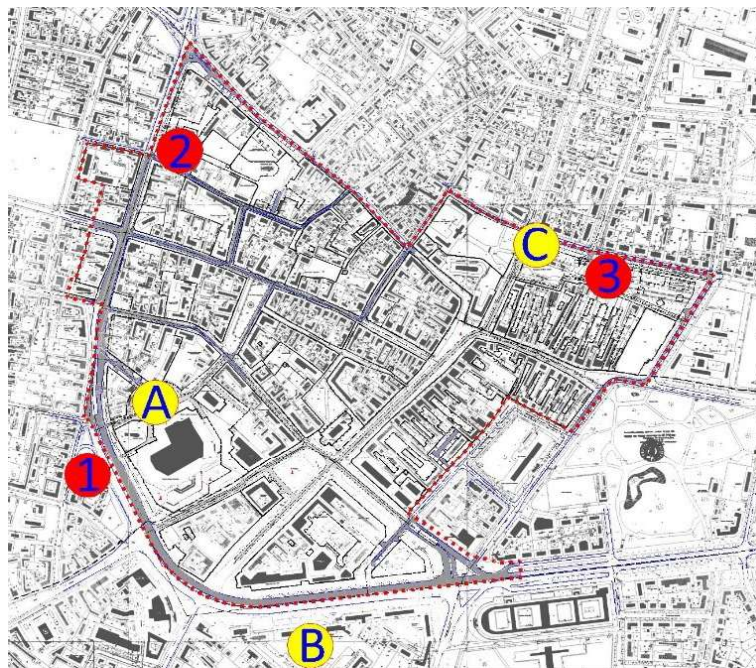


Figure 2: Arrangement of planned public garages (red circles) 1. The corner of Uspenska and Šafarikova streets 2. The corner of Jovana Subotića and Đure Jakšića streets and 3. Trg republike/Riblja pijaca (the Republic Square/Fish Market) and temporary parking spaces (yellow circles): A. Plateau from the Serbian National Theatre, B. Trg galerija/Erste banka (the Galleries` Square/Erste Bank) and C. Trg republike (the Republic Square).

3. CURRENT SOLUTION

Solving parking in the city center is based on the construction of public parking garages in the city center. The location of the first garage is in Modene Street, next to the pedestrian zone itself. The second location is near the Banovina building. The locations of the parking garages are shown in Figure 3. In addition to the locations of the parking garages, the figure also shows the gravity area of both garages (radius of about 300 m, which is an acceptable walking distance to the final destination of the trip). All garage locations are planned as underground facilities.

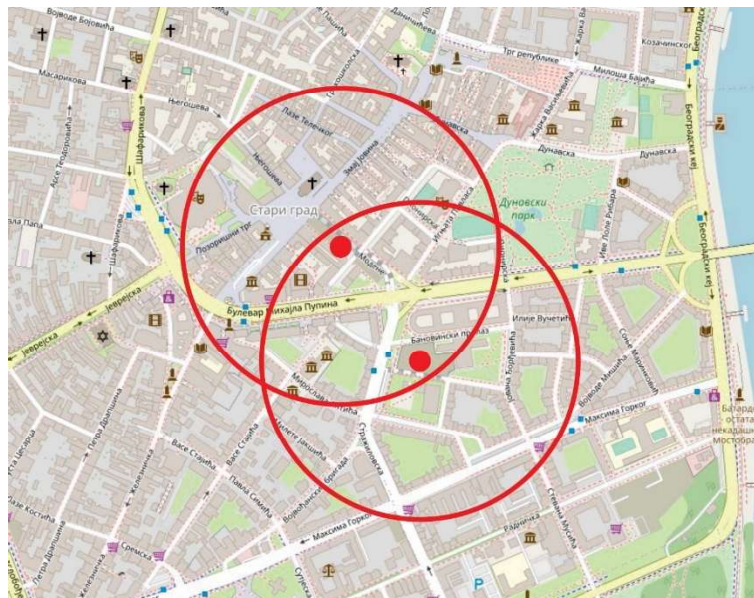


Figure 3. Locations of parking garages in the central zone of the city, with a marked gravity area

This solution was recorded in the general urban plan of Novi Sad from the previous period [2]. Current realization of this is allowed by new plans of more detailed elaboration. For these localities, the rules of arrangement and construction are determined by the current plans, for the garage in Modene Street by the Detailed Regulation Plan of the Protected Old City Core Zone in Novi Sad [3], and for the garage near Banovina by the Detailed Regulation Plan for Mali Liman in Novi Sad [4].

4. URBAN REVIEW OF THE CURRENT SOLUTION

The positioning of public parking garages in the city center should be analyzed from several aspects. The first is realization. The second is the impact of this concept on the functioning of the pedestrian zone in the city center and its further development. The third is the possibility of using these garages by users from a wider area of the city center, and primarily residents of those areas. The existing solution, which is in the implementation phase, will solve parking in the city center. The question is what are the consequences of implementing that project, and what are the advantages.

From the aspect of realization, it can be stated that there are more consequences in terms of construction and urbanism in the early phase of this process. Tanurdžić's palace, which is a symbol of the city and a cultural and historical asset, has cracked due to the consequences of the works. During the works, the foundations of the first building of the Serbian Motherland were removed.

The works are carried out in the strict center of the city in the surroundings of old buildings protected by regulations. They are often statically quite unstable. They are

located on terrain that is quite unfavorable for construction works. The terrain is sandy with groundwater. Very aggressive underground interventions are and will be performed on such terrain.

Another aspect from which the current solution was analyzed is the impact of this concept on the functioning and development of the pedestrian zone. The existing pedestrian zone in the very center of the city (Figure 4) was created in 1981 and corresponded to the city's functioning conditions and needs at that time. Since then, 42 years have passed and the demographic, urban, economic, political and other circumstances, as well as the needs for the functioning and development of the city, have changed significantly. In all those years, the pedestrian zone did not expand. It needs to be done in a planned manner in accordance with the densification of construction, the distribution of new programs and content, and the construction of new urban values and projects.

The current construction of public parking garages is taking place in the very center of the city, on the very edge of the already existing pedestrian zone (Figure 4). By expanding it, these garages would remain deep inside the pedestrian zone instead of being planned on the perimeter of the future expansion, thus relieving the city center from the movement of cars even more on the one hand, and on the other hand, they would have the same function as now but in the planned wider scope.

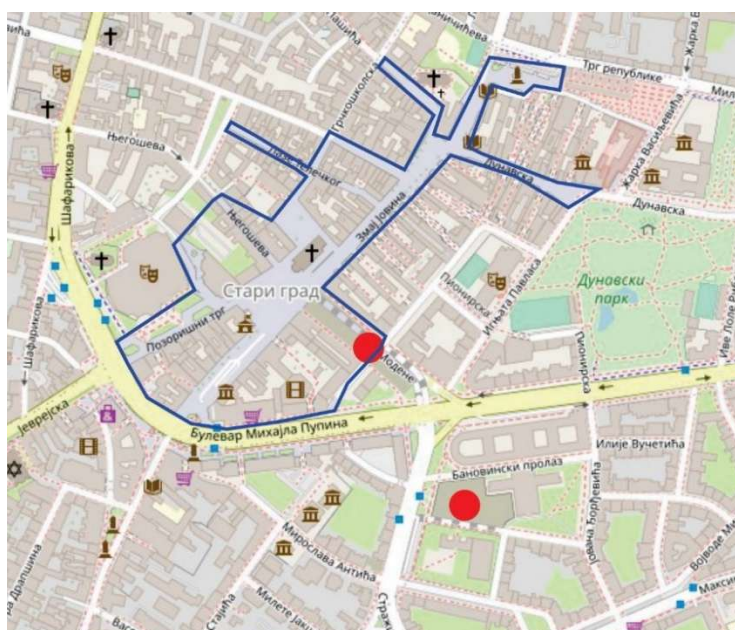


Figure 4. Pedestrian zone in the city center of Novi Sad and marked parking garage locations under construction

The third aspect is the question of the users of these public parking garages. They primarily cover a large number of users who come to the city center to fulfill a wide range of daily needs within a large number of central contents from a multitude of activities, and which in Novi Sad are significantly concentrated in the very center of

the city, i.e., the old core of the city. However, a small number of tenants live in this area. A large number of tenants live in the wider area of the city center (Figure 1). From the perspective of their needs, garages should be planned in this area as well.

5. CONCLUSION

The current parking solution based on two parking garages (on Modene Street and near the Banovina building) will meet current parking needs in the city center. However, for the reasons stated in this paper, it is necessary to continue with the construction of parking garages. New garages should be built around the perimeter of the wider center of Novi Sad. In addition to meeting the downtown parking needs of those who visit the center due to the wide range of programs and central amenities, these garages will serve a large number of people who live in the wider downtown area and beyond. Also, this parking concept will enable the expansion of the existing pedestrian zone through the wider center. These pedestrian zones, as well as the parking garages to which they would lead, will serve the purpose of easier access to the city center, as well as forcing pedestrian traffic in comparison to car traffic.

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