Problems of transferring penitentiary facilities in the context of sustainable urban development

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Abstract. The article examines the impact of the location of penitentiary institutions in the historical center of urbanized cities on the sustainable development of the urban environment. The purpose of the research is to analyze the foreign practice of solving the problem in relation to the peculiarities of the Russian legislation, the current norms and rules of the urban development regulations for the development of the territory. The result of this study should be recognized as a generalization of international experience in the field of transferring prison facilities outside of urban development with the re-profiling of penitentiary institutions to meet the needs of urban infrastructure, which allows minimizing the costs of the organization-project Builder, as well as reducing the labor costs of representatives of legislative and Executive authorities when involving departmental lands in economic and commercial turnover. The authors emphasized the importance of applying an integrated approach to solving the raised problem from the point of view of assessing all the risks and possibilities of applying foreign experience in domestic practice. The importance of involvement in the active circulation of problem areas has been proved, which allows you to create a comfortable urban environment that meets the concept of sustainable development of the city in urban planning, economic, social and cultural terms.

Keywords: penitentiary institutions, urbanization, development, urban environment.

1 Introduction
The territories designated for the penitentiary system are an integral part of the history of the city's development. The process of urbanization is associated with the fact that many protected objects that were previously located on the outskirts of cities have ended up in densely populated Central areas, which contradicts the foundations of modern urban planning policy and has a negative impact on the sustainable development of urban systems. Security facilities are located directly in the city center, next to objects of social and consumer services, which does not correspond to the provisions of modern urban planning policy. Moving the penitentiary system facilities outside the city limits will significantly improve the quality of the urban environment.

The historical and genetic method allows us to study the world experience of changing the functional purpose of penitentiary facilities in modern society. Using the methods of focus groups and sociological research makes it possible to determine public opinion about the prison facility itself and its location when planning urban development activities. Methods of morphological analysis aimed at identifying stable hierarchical structures and elements can be used in the design of the urban environment, taking into account the rational placement of penitentiary institutions. Thus, the authors...
of the article A. Romanova, O. Maksimchuk et al. reveal that the features of using "matrix methods are based on linear and vector-matrix algebra and are convenient for analysis" in construction [1].

The matrix method allows us to identify cause-and-effect relationships between explicit and hidden factors of territory development and to choose the optimal management solution that would meet the interests of both society and the state. A special preference for the developer at the current stage of development of society is BIM (Building Information Modeling or Building Information Model) and SMART technologies [2, 3], such as Smart cities: "The concept of a "smart city", for example, in management consulting for complex systems consists of such key components as: integrative model, or framework; architecture (architecture); maturity model; roadmap". The authors of the article used BIM and Smart cities in justifying the decision to move facilities of the penitentiary system.

In order to ensure sustainable development of urban areas, an integral requirement for the development of investment documentation for the construction of new or reconstruction of existing real estate is the preservation of existing or the creation of new eco-systems in the developed territory. This requirement must be fulfilled in parallel with such requirements for the building as ensuring its reliability, safety, functionality, which will ensure compliance with environmental quality criteria and the quality of life of citizens. The problems of environmental quality and the quality of life of citizens are given special attention in the publications of the following authors [4-7].

The planned territory is located in the Central district of the city of Tyumen in the 6th planning district "Central" in the block of Maurice Torez, Zapolnaya, Miusskaya, Korolenko, Dostoevsky, Yalutorovskaya streets. A General view of pre-trial detention facility № 1 and Correctional colony № 1 is shown in Figure 1, which demonstrates that the residential development directly borders correctional facilities along the perimeter of the territory, and high school № 25, and kindergarten № 110 (Figure 1).

To solve this problem, the existing historical experience was studied. Based on the analysis of the development of major cities of the Russian Federation at the beginning of the XXI century, it was found that in the Central part of almost every city (Moscow, St. Petersburg, Vladimir, Yekaterinburg, Astrakhan, etc.) there are operating regime objects, the city of Tyumen is no exception in this regard. The construction of a prison on a vacant lot on the outskirts of the city of Tyumen dates back to 1783-1786. Archival documents do not allow us to establish the exact date of construction. At the beginning of the XIX century, the correctional institution received a new name "Prison castle", a whitewashed brick quadrangular building three stories high. After a while, a transfer (convict) prison was built opposite the Prison castle. For many years, the Siberian highway passed between the buildings, thus forming the gates of the city. The main purpose of the Tyumen Prison was to hold political prisoners and criminal offenders. At present, the Prison lock and transfer prison – detention facility № 1 and Correctional colony № 1. Tyumen, located in close proximity to the resting places of the urban population, but also to objects for educational purposes.

Figure 1. The planned territory is located in the Central district of the city of Tyumen.
High-quality urban planning assessment of the Central parts of the city is based on the balance of historical and modern development, at the junction of which public spaces and recreational areas are created. The location of penitentiary institutions in the city center is an untapped opportunity to realize the development potential of the most valuable part of the city territory, to create a new recreational space necessary to improve the quality of the urban environment, in particular the development of tourism in the city of Tyumen.

2 Materials and methods
When solving the problem of improving the efficiency of using the land of localities, in particular historical centers, representatives of local Executive authorities face unresolved issues regarding the land of Federal subordination of the relevant departments, in particular the Ministry of justice of the Russian Federation, which is subordinate to the Federal penitentiary service of the Russian Federation (FSIN of Russia). The transfer of penitentiary institutions from the historical centers of cities, as international practice shows, allows achieving sustainable development of the urban environment by involving land plots and capital construction projects of the last century in the economic turnover of the city.

The use of a wide range of scientific approaches, methods and tools allows us to justify renovation programs in relation to the strategic and urban development plans of Russian cities. In addition to classical heuristic, econometric methods and statistical tools that have earned the trust of analysts, we will focus on specific methods and approaches in relation to the features of the problem raised in this study. The authors used a synthesis of the following methods and technologies to justify the action plan for the renovation of the historical center of Tyumen.

3 Results
We will analyze the compliance of the solution to the problem under consideration with the provisions of existing legal acts in the field of urban development [8-13]:

1. General plan of the city district of Tyumen. The territory is located in the 6th planning district, the main part of which is the historical center of the city of Tyumen. Therefore, the territory is intended for multi-storey residential development and green areas of common use.
2. Rules for land use and development of the Tyumen city district. According to the provisions of the document and the map of urban zoning, the territory is divided into two functional zones: W-1 and OD-4. Zone Z-1 is allocated for the formation of blocks of multi-storey residential development with the placement of objects that do not have an adverse impact on the environment. Zone OD-4 is intended for the formation of local educational institutions. The object also marked on the map has the characteristics of a cultural heritage object that is of historical and cultural value in accordance with the Federal law "On cultural heritage objects (historical and cultural monuments) of the peoples of the Russian Federation". Currently, the objects located on the territory do not comply with urban planning regulations. Security objects must be located in the special purpose functional zone CH-3, for which additional security measures are installed.
3. Project planning of the 6th planning area "Central". According to this document, it is planned to continue Ordzhonikidze street to Dostoevsky street. Quarter 06:01:01:06 (01) is intended for placement of multi-storey residential buildings, within which areas are also allocated for a shopping zone and a zone for educational purposes, 06:01:01:06 (2) is intended for a green area of common use.
4. Public cadastral map. According to the public cadastral map land refers to land settlements, the permitted use in the allocation of production and administrative buildings, non-residential buildings.

Among the negative aspects of the location of penitentiary institutions in the city that affect the sustainable development of the urban environment, the following points are highlighted [14-20]: aesthetic-repulsive appearance, visually unfriendly environment, lack of architectural and figurative concept of buildings; economic-valuable reserves of land in the center are occupied by a correctional institution; psychological-depressing emotional impact on residents and visitors of the city; environmental-penitentiary institutions are often engaged in harmful production, which negatively
affects the environmental situation in the city; socio-cultural – the lack of public space for citizens, the lost opportunity to organize recreational space; security aspect – a threat to the safety of citizens [21-26].

In the twenty-first century, the topic of reforming penitentiary systems and modernizing existing penitentiary institutions is particularly relevant around the world, since prison castles built in the XVIII-XIX centuries are morally and physically outdated and cannot meet modern requirements for correctional institutions, as well as do not correspond to the urban environment of urbanized cities in aesthetic, economic, environmental and other aspects. In foreign practice, the most applicable options are changing the functional purpose of regime objects to Museum objects, as well as to hotel service objects.

Table 1 shows the most common scenarios of management decisions in terms of renovation of specific objects, including the territory on which they are located.

| №   | Location                  | Name of the security object | Period of operation | Current functionality | Year of conversion |
|-----|---------------------------|-----------------------------|---------------------|-----------------------|--------------------|
| 1   | Great Britain, London     | Tower of London             | 1190-1952           | Museum                | 1952               |
| 2   | Australia, Pearl Fremantle| Fremantle                   | 1850-1991           | Historical monument   | 1991               |
| 3   | Belize, Belize Her Majesty's Prison | 1855-1993 | Museum            |
| 4   | USA, San Francisco        | Alcatraz                    | 1861-1963           | Museum island         | 1973               |
| 5   | USA, Ohio Mansfield Reformatory | 1886-1990 | Museum            |
| 6   | Cuba                      | Presidio Modelo             | 1926-1967           | National monument     | 1967               |
| 7   | Ireland, Dublin Kilmarnham Gaol | 1796-1924 | Museum            |
| 8   | Estonia, Tallinn City jail at the town Hall | founded in the 14th century | Museum of photography | 1980               |
| 9   | Vietnam, Hanoi Hoa lo     | 1896-1990                  | Museum              | the 1990s            |
|     |                           |                             | Hotel service facilities |                   |
| 10  | USA, Boston The Boston Prison | 1851-1990 | The Liberty Hotel | the 2000s |
| 11  | Germany, Kaiserslautern Kaiserslautern | 1867-2002 | Alcatraz Hotel | the 2000s |
| 12  | Turkey, Istanbul Sultanahmet | 1918- | Hotel Four Seasons | 1996 |
| 13  | Canada, Ottawa Carleton prison | 1962-1972 | Hostel Ottawa Jail | unknown |
| 14  | Slovenia, Ljubljana Hostel Celica | unknown until 1991 | Hostel Celica | 2003 |
|     | Cultural objects          |                             |                     |
| 15  | Chile, Valparaiso Valparaiso | 1973-1999 | Park of Culture | 2013 |
| 16  | Spain, Palencia Hostel Celica | 19th century | Cultural center | 2014 |
The above highlights the urgency of the raised problem of creating a comfortable urban environment by involving departmental lands in the economic turnover of Russian cities, especially since the existing penitentiary facilities, as practice shows, do not meet the modern requirements of urban planning and sanitary norms and rules.

Despite the obvious urgency of the problem raised and the need to move penitentiary institutions outside the city limits, there are certain risks that prevent the solution of this problem:

1. Risk associated with the ownership of a land plot. At the moment, the land on which the penitentiary facilities are located is in the Federal ownership of departmental organizations. It is necessary to transfer land from Federal ownership to municipal ownership, the legal basis in this case is regulated by article 39.31 of the Land code of the Russian Federation [8].

2. The risk associated with the legal basis for the transfer of penitentiary facilities in accordance with the Federal target program "Development of the penitentiary system 2017-2025" [9, 26]. For Federal budget funding, the facility must be included in this program.

3. The need to build new penitentiary facilities to replace those removed from the historical center, or the distribution of convicts to existing institutions of the penal system.

4. Economic risk associated with a lack of municipal financing, the need to attract private investment.

5. High capital investment in the project to move the prison facility, due to the large share of dismantling works in the overall funding structure.

The presented results of the implemented historical-genetic and focus-group methods are intermediate, the authors plan a series of publications on the raised problem of modern cities. To date, a number of requests to state bodies have been prepared and launched, including regarding access to statistics on offenses in the territory adjacent to the disputed land in the city of Tyumen. Since this institution of the penitentiary system is operational, citizens are serving time in it for serious offenses, the society of which most often refers to risk groups and ensures the preservation of the criminal situation in the area. Requests are aimed at obtaining evidence and testing matrix and econometric methods in substantiating the social and commercial effectiveness of moving an institution outside the urban environment. In particular, the available archival materials and the experience of domestic scientists allowed BIM and Smart cities to be used in the development of design estimates for the renovation of the existing material and technical base of the institution, which is located below the planning mark and for dismantling, followed by the installation of a modern building for exhibition halls, meeting the requirements of energy efficiency, ergonomics and functionality and taking into account the provisions, recommendations and conclusions of the following publications.

4 Discussions
The solution to the problem of the location of the penitentiary system in the historic city center should be based on a systematic approach. In this case, it is necessary to take into account all the most significant aspects that are influenced by the decision: aesthetic, economic, psychological, environmental, sociocultural, as well as the safety aspect. When substantiating the feasibility of transferring penitentiary facilities outside of urban development, a cost-benefit analysis should be used to evaluate the social costs and social benefits associated with the implementation of the project.
solution. In addition, it is necessary to use the methods of analysis and accounting of risks arising from the implementation of the project of transferring institutions of the penitentiary system.

Thus, we can conclude that the problem of transferring prisons holding valuable land in many aspects of the historic city center requires a comprehensive solution, including taking into account the assessment of all risk factors and the application of best foreign practices in domestic practice. To ensure the sustainable development of urban systems, it is necessary to determine the needs of a modern urbanized space from the point of view of society and the state. At the same time, the territory of the historical city center should be included in active circulation, since the withdrawal of land for the location of penitentiary facilities does not allow creating a comfortable urban environment, reflecting the concept of development of the territory in urban planning, economic, social and cultural terms.

The results of the study confirm the objectivity of the conclusions that society (society, population) can and should control and manage the territory in accordance with the current situation with a promising generation. As practice shows, what was objective is losing its relevance over time and requires adjustments and updating. The territories of settlements are not stationary due to the socio-economic processes taking place in society. Migration flows determine trends in the development of the urban environment, and as a result, megacities appear on the map due to ghost towns. A systematic approach to solving problems associated with the development of the urban environment should be of particular importance for Russian business at the present stage of the formation of an active civil position of society, and as a result, government officials should timely update the regulatory and legal framework in accordance with the principles of the International Standard ISO 26000: 20 “Guidelines for Social Responsibility” focused on the synthesis of the interests of society, ecology, business and the state.

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