On issue of justification for implementation of construction project of sports complex for residential district turā in city of Tyumen

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Abstract. The basic principles of implementing the projects of construction of sports facilities are stated in the article, the necessity of application of the project documentation of reuse is proved. The authors list the purposes and tasks of the Government of the Tyumen region for improving the quality of people existence in the region and consider laws, concepts and programs of development of the Tyumen region and the city of Tyumen. The advantages of public-private partnership are defined, the standard project of a sports complex which will form the basis for updating the offered business idea is presented. The land plot for implementing the construction project of a sports complex is presented. In the article the possible consequences of non-compliance with standards at design of sports constructions are also briefly described. In addition, the authors note the importance of analyzing all possible sources of the generation of profit and need of the maximum optimization of construction cost for the purpose of reducing a payback period of the project.

1. Introduction

Current global trends in the welfare sphere and, in particular, in the industry "physical culture and sport" show the need of active development of the accompanying infrastructure. Huge amounts of money are spent for design, construction, equipping, operation and reconstruction of sports constructions. The industry of sports constructions includes thousands of the companies and tens of thousands of experts of the most various profile today: architectural, consulting, construction, industrial, administrative, sports and some others. Experienced businesspersons mark out several basic principles of implementation of projects of construction of sports facilities: primary arrangement in environmentally friendly areas, harmonious arrangement of constructions in a natural landscape and also use of ecologically safe materials at construction. For many people the sport and leisure activities are the most important way of recovering of forces from a daily stress. The quality of life and social balance in towns and megalopolises to a large extent is defined by those opportunities which they give for sports and leisure activities.

2. Literature Review

Since September 1, 2016 the Federal law "About Introduction of Amendments to the Town-planning Code of the Russian Federation" of July 3, 2016 came into force. This law provides establishment of a concept of the cost-effective project documentation of reuse, formation and updating based on the
established criteria of a databank of the most cost-effective project documentation of reuse. The changes approved by this law allow to reduce terms of construction of facilities of capital construction, to reduce expenses of budgets of the Russian Federation on design and construction of such objects and also to motivate authorities of various levels on application of such project documentation of reuse.

Four projects of construction of a sports complex with the pool are posted on the website of the Ministry of Construction, Housing and Utilities of the Russian Federation [1] in the register of the standard project documentation. After its assessment, we stop the choice on the standard project of a sports complex with the pool "Blue whale" (Figure 1) developed for implementation of the Federal target program "Development of Physical Culture and Sport in the Russian Federation for 2016-2020"[2-12]. The project includes the architectural and planning and layout decision at the level of the two-storey building of a sports complex that represents a combination of gym and the hall with the pool for swimming. This project will form base for updating of the business idea offered by us, according to the developed commodity policy of the projected business.

![Figure 1. Standard project of a sports complex.](image)

3. **Theoretical model**

Strategic objectives of the Government of the Tyumen region on improvement of quality of life of the population in the region are increasing the level of health and life expectancy, creation of the health saving environment, ensuring needs for quality education. So and a main objective of social policy of the Tyumen region on prospect till 2030 [13] is defined by the Concept of long-term social and economic development of the Tyumen region till 2020. It is "formation of the competitive human capital of area by improvement of quality of life and health of its population". A necessary condition of achievement of this purpose is increasing a role of physical culture and sport providing strengthening of health, full education and personal development – it defines competitiveness of the person, creates favorable starting conditions for development of the human capital. Priority tasks are formation of a healthy lifestyle, involvement of the population to regular trainings by physical culture and sport (at the place of residence, educational and work), improvement of preparation of a sports reserve and development of elite sport, ensuring the maximum availability of services of additional education to various categories and the places of residence. All this promoted decision-making by authors of article to carry out complex justification of expediency of development and implementation of the investment project of construction of a sports complex with the pool.
One of signs of modern reality is the interest of people in a healthy lifestyle. The popularity of sports complexes, the fitness centers and other similar institutions remains steadily high, and their activity makes notable profit. Meanwhile, capital construction of sporting venues on traditional technologies is rather expensive process, and investments into such construction pay off long enough. Construction of sports complexes – very important task. Day by day, solving it, the construction enterprises create the developed sports infrastructure at all levels: from small qualitative school platforms to huge professional stadiums and sport centers [14]. Both amateur and professional sport demand the high level of comfort so modern sports constructions cannot be limited only to the arena for competitions and a tribune for the audience. Today it have to be comfortable and beautiful constructions with the high level of life support systems of the building and automation. Large stadiums, platforms of regional scale, multipurpose sports complexes or small sports club mean mass stay of a quantity of people. Therefore, the planned object has to meet modern fire-prevention and sanitary standards and also provide the necessary level of safety.

Construction of sports facilities is supported by the state in every possible way [15,16] and significantly influences improvement of the general health of the nation that is now one of the important purposes for most of people separately and for all state in general. Taking into account inquiries of society and state to the system of physical training, level of the global sports competition and also the available resource restrictions against the background of structural reforms in the Russian economy the potential of the model which is mainly leaning on possibilities of the state on development of physical culture and sport (93% of objects of sport are owned by state (municipal)), is in many respects exhausted. Further modernization of material and technical resources of physical culture and sport demands qualitatively a different approach to management of investments into this direction and expansions of participation of private partners in implementation of infrastructure projects at all stages, including design. Improvement of mechanisms of the public-private partnership (PPP) in the sphere of physical culture and sport pursues three priority aims: to raise funds of private investors, including subjects of small and medium business, contributing to the development of network of low budget sports constructions in the residence, studies and works; to reduce costs of budgets of the budgetary system of the Russian Federation of maintenance and the maintenance of network of sports constructions; to increase cost efficiency of operation of objects of sport, including objects of heritage of the largest sporting events.

4. Results of approbation
The sports complex should be considered at the same time as economic entity and a specific physical object where a practical training is directly given by physical culture and sport, the special type of social management ensuring the current functioning and development of a sports construction is implemented, the economic activity is carried out providing services to the consumer of a certain category is carried out. The competently developed concept of such buildings lies at the heart of successful implementation and stable work of similar objects. Here accounting of the budget, population in the residential district, the city or the settlement, the level of income of inhabitants and their preferences, a land relief, its ecological state, location of roads, educational institutions, houses and other objects of physical culture and sport is necessary [15-19]. Sports constructions at which design standards and standards were not observed risk not only not to fit into the environment, but also not to pay off in the future because of inconvenient arrangement, too big area or inaccessibility to visitors. Various sports directions have the specifics in terms of commercialization, so in certain cases revenue is formed due to hourly delivery of the equipped halls directly to clients, sometimes it is hourly leasing to trainers who gather groups, in certain cases sale of subscriptions or entrance tickets and also delivery of not equipped rooms for long-term rent.

As the purpose of development of the project of construction of a sports complex with the pool we offer the site located in the territory of the residential district Tura around crossing of streets Vereskovaya and Mebelschikov (Figure 2).
Figure 2. The alleged land plot for construction of a sports complex.

This location of a sports complex is caused by lack of similar objects in this area and great demand of the population on filling of a sports and leisure component. The survey for residents of the residential district Tura about need of construction of a sports complex for this area was conducted on social networks. For 18.04.2019 966 people have taken a part in the poll, and 95% of them consider implementation of the project of construction of a sports complex in the residential district Tura necessary (Figure 3).

Figure 3. The results of the poll.

According to the data of medical institutions of the residential district Tura, about 34 thousand people live in this territory. Having studied age and sex structure of the population of the Russian Federation for 01.01.2018, we calculated the approximate structure of the population of the residential district Tura (Table 1).

A big share, namely 56%, is the able-bodied population, that is men at the age of 16-59 years and the women at the age of 16-54 years, therefore, the main emphasis at implementation of the project will be put on them. The construction of a sports complex in the recommended territory of the city will allow to provide needs of the population for the organization of own leisure, namely sports activities. And as a result, the residential district will improve in the long term medical and social characteristics.
due to introduction of a healthy lifestyle as standard of behavior taking into account features and the state of health of people.

Table 1. The approximate structure of the population of the residential district Tura.

| Age (years) | All population | \( \begin{array}{ccc} 
\text{men and women} & \text{men} & \text{women} \\
\% & \text{number} & \% & \text{number} & \% & \text{number} \\
\end{array} \) |
|--------------|----------------|------------------|
| All population | 100 | 34000 | 46,378 | 15768,5 | 53,622 | 18231,48 |
| including aged, years: | | | | | | |
| under 1 year | 1,1 | 390 | 1,3 | 200 | 1,0 | 818 |
| 1-4 | 5,2 | 1774 | 5,8 | 912 | 4,7 | 3726 |
| 5-9 | 6,0 | 2054 | 6,7 | 1054 | 5,5 | 4320 |
| 10-14 | 5,2 | 1759 | 5,7 | 900 | 4,7 | 3708 |
| 15-19 | 4,6 | 1578 | 5,1 | 806 | 4,2 | 3332 |
| 20-24 | 5,0 | 1698 | 5,5 | 867 | 4,6 | 3592 |
| 25-29 | 7,6 | 2574 | 8,3 | 1309 | 6,9 | 5463 |
| 30-34 | 8,7 | 2955 | 9,4 | 1482 | 8,1 | 6365 |
| 35-39 | 7,8 | 2645 | 8,3 | 1305 | 7,4 | 5789 |
| 40-44 | 7,1 | 2420 | 7,4 | 1167 | 6,9 | 5412 |
| 45-49 | 6,5 | 2199 | 6,7 | 1052 | 6,3 | 4953 |
| 50-54 | 6,4 | 2169 | 6,4 | 1006 | 6,4 | 5028 |
| 55-59 | 7,5 | 2558 | 7,2 | 1137 | 7,8 | 6136 |
| 60-64 | 6,7 | 2265 | 6,0 | 939 | 7,3 | 5728 |
| 65-69 | 5,4 | 1837 | 4,5 | 707 | 6,2 | 4883 |
| 70 and older | 9,2 | 3126 | 5,9 | 926 | 12,1 | 9507 |
| From total number population aged: | | | | | | |
| younger than able-bodied\(^a\) | 18,6 | 6309 | 20,5 | 3236 | 16,9 | 3072 |
| able-bodied\(^b\) | 56,0 | 19043 | 63,2 | 9961 | 49,8 | 9082 |
| older than able-bodied\(^c\) | 25,4 | 8649 | 16,3 | 2571 | 33,3 | 6077 |

\(^a\) Men and women at the age of 0-15 years.  
\(^b\) Men at the age 16-59 years, women at the age 16-54 years.  
\(^c\) Men at the age of 60 years and older, women at the age of 55 years and older.

5. Conclusion
Anyway, while creating a sports complex, it is necessary to analyze possible sources of generation of profit carefully. Other important point is the cost of construction. It is obvious that on profitability sport centers concede to shopping and office centers for this reason it is important to optimize as much as possible construction cost for the purpose of reduction of a payback period of the project. As for public-private partnership, widespread introduction in practice of its mechanisms in the sphere of physical culture and sport will allow to provide: improvement of quality of construction, operation and management, broader access to the markets of the private capital, growth of quality of the rendered services to the population, decrease in the budgetary loading and release of additional resources,
growth of reliability of the state investments and increase in probability of obtaining the expected result (existence of interest of the private partner in the project allows to reduce risks of dishonesty of the state customer).

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