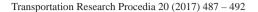


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Methods of Placement of Business Tourism Centers in Large Cities as Means Providing Traffic Safety (on the Example of St. Petersburg)

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Abstract

Selection of areas for business tourism center (BTC) placement allows redistributing traffic streams and facilitates providing road traffic safety (RTS). The historical part of St. Petersburg sustains a significant traffic load. In order to increase the RTS level, it is necessary to observe the concept of city polycentric development to select the optimal area for BTC placement. BTCs can be a core of new public and business spaces outside the historical center and be of enough quality and attractive enough to be able to meet competition with the development of central districts and to draw a part of the flow of people. The polycentric development concept will allow to partially reducing the load on the city center and this will result in increasing of RTS: reduction of road traffic accident (RTA) risk and road traffic congestion.

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Keywords: Road traffic safety, traffic network, business tourism center, historical center, polycentric city structure, traffic load, RTA risk, road traffic congestion.

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1. Introduction

Road traffic safety (RTS) depends on the quality of the urban environment planning. Urban environment should be planned so that it does not cause dangerous traffic situations [Brindle (2001)].

Any large city, such as Saint Petersburg, is constantly developing: new territories are being developed and existing quarters are being upgraded. New types of buildings appear depending on social needs of the society and these new types of buildings shall be placed within the already existing urban environment [Mityagin (2012)] with account of the RTS provision factor.

Business tourism centers (BTCs) are a typological group of public buildings that just start to appear in St. Petersburg. A BTC means a complex, which include a group of facilities used to hold congresses, conferences, exhibitions, as well as lodging and servicing facilities for participants of the above mentioned events. BTCs are also city community centers designed for local population. Flexibility and multifunctional origin of BTCs contribute to the most effective use of the facilities within the intervals when the center is not used completely to fulfill its primary purpose.

Thus, BTCs are urban clusters, which attract both business tourists and local population. BTCs generate significant traffic streams that are why RTS provision is a higher priority task while creating a BTC placement system. This article analyses the existing BTC location in St. Petersburg and Hamburg, includes recommendation for further development of the St. Petersburg BTC system, which is connected to improving the transport infrastructure and solving the city problems relating to RTS provision. Such problems include traffic congestion of certain streets or whole districts, which causes traffic jams and increases RTA risk.

2. Location of the Existing BTCs in St. Petersburg with Account of the Traffic Network

The comprehensive analysis of placement of St. Petersburg existing facilities, which fulfill business tourism functions (fig. 1) with account of the traffic network, has allowed identifying the following problems: business tourism complexes in Saint Petersburg are placed monocentrically and the possibilities provided by the General City Plan to develop the system of business tourism facilities are insufficiently used. The majority of the facilities are located within the historical center [Lavrov (2008)]. This is so due to a high percentage (79%) of buildings, which are suitable for business tourism. This distinguishes St. Petersburg from the market, which offers venues for congresses in many European and world cities.

As a result, the historical part of Saint Petersburg suffers from traffic load and is excessively used to fulfill the following functions: business, tourism, culture and entertainment, shopping and communication [Perova (2015)]. Within the scope of the research "Comprehensive Traffic Scheme of Saint Petersburg", the City Planning Laboratory has completed the work to identify problem nodes of St. Petersburg street and road network. Problem nodes of the street and road network include nodes where RTA regularly occur and nodes where traffic congestion is constantly formed. It has been identified 209 problem nodes in total; most of them are located in the city's historical center. As for transport speed, there are sections of St. Petersburg streets where transport speed is 5–10 km/hr or lower (Analytical note "Transport problems to be solved at the level of comprehensive planning of the territorial transport infrastructure", version dd. May 29, 2015) during morning and evening rush hours.

Positive tendencies in the St. Petersburg BTC placement system relate to solitary examples, mainly, in new development. In the course of construction of new large complexes, the city planning factor of higher priority is to provide for accessibility of a facility for vehicles from external nodes and the city center. Expoforum Convention and Exhibition Centre is located in close vicinity to the airport. Moskovskiy Avenue and the Ring Road connect it with the city center and historical suburbs. Lakhta Center public and business complex will be connected with key facilities by the Western Speed Diameter (WSD) (St. Petersburg Investment Portal, http://www.spbinvestment.ru).

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