

Bridges in Lithuania

GEDIMINAS VIRŠILAS HEAD OF BRIDGE DIVISION, M.SC.

Basanavičiaus str.36/2, Vilnius, Lithuania +370 5 2333 642, fax. +370 5 2333 642, e-mail: gediminas.virsilas@lra.lt HEAD OF BRIDGE DIVISION, M.SC. LITHUANIAN ROAD ADMINISTRATION



Lithuania is an Eastern European country on the Baltic Sea. From the regional point of view, Lithuania is often described as a Baltic state. It is situated in the geographical centre of Europe. The area of the country is comparable to that of Ireland and Latvia. The coastal line of Lithuania is 99 km long.

The road network of national significance consists of main roads (1,700 km, including 420 km of motorways), national roads (4,900 km) and regional roads (14,700 km). 59 % of roads have asphalt or concrete pavement. The total number of vehicles in the country amounts to 1.52 million. Lithuania is situated at the crossroads and has international transport corridors extending from the north to the south and from the east to the west. Hence the development of road network and its maintenance is among the country's top priorities.

BRIDGES

The number of bridges was 1 543 on state roads (609 606 m^2) in 2005.01.01. On main roads -303, national roads -421, regional roads -819. Total length -50.8 km.

The distribution of construction materials is: reinforced concrete -1 459 (94,6%), steel bridges -81 (5,2%), timber -3 (0,2%).

The biggest number of bridges was built in period 1960 - 1980 - 823 units (53%). Due to the fact that the firs complete major repair is generally needed after 30-40 years from completion of the bridge, the need for the repairs started and will be considerably increased in the near future.

Typical bridges – concrete slabs or beams, simply supported, from prefabricated elements. The biggest span of those bridges – 24 meters. The bigger spans are used in continuous concrete box cross section girder bridges – up to 84 meters. The average length of bridge – 33 meters. The longest bridge – over our biggest river Nemunas – 494 m was constructed in 1978.

In year 1992 LRA started develop their own Bridge Management System and the support from Danish Road Administration was very useful.

The increasing of traffic flow, mistakes of construction or design, de-icing salts are the biggest problems on bridges. The combination of leak of money and good job quality, durability - is the first question we must solve.

Most common repair type – replacing of all deck elements: asphalt surface, waterproofing, edge beams, expansion joints, railings and crush barriers. Economical benefit we calculate, when the condition of superstructure is poor and the question is to replace it or repair.



