



Laminated Wooden Structure of the Gipsy Entertainment Centre in Moscow

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Summary:

This paper presents the built glulam wooden structure of the Gipsy entertainment centre in Moscow. It is a rounded framework consisting of laminated frames with different shapes and spans covering a total area of around 1350 sq m with an irregular plan.

The investor required the structure to be completed as soon as possible so that the centre could be put back into operation. Construction activity was planned to last during October and November 2012. The dead line was extended for only 15 days because it was very difficult to meet the investors' requirements.

The architectural solution was changed several times and was finally adopted late in September 2012. The structural analysis was carried out simultaneously with workshop drawings which were made within 12 days. By the end of October until the 10th of November all glulam wooden elements of the structure were made in factory in Slovenia. Assembly at the building site began in the in mid-November and was completed in early December when the cover membrane was mounted. The centre reopened on 14th of December, 2012. This paper presents details of the structural analysis as well as proofs of the buckling stability of the structure modelled using COSMOSM FEA software. Also the joints for continuation of girders that were necessary due to transport in the trucks measuring 13.65 m will be shown. All elements had to be smaller than the length of the cargo space.

Online Access: Free

Resource Link

http://schr.ws/hosted_files/wcte2014/44/ABS043_Haiman_web.pdf