

Energy Intensity of a Historical Downtown: Estimating the Energy Demand of a Budapest District

Authors : Viktória Sugár, Attila Talamon, András Horkai, Michihiro Kita

Abstract : The dense urban fabric of the 7th district of Budapest -known as the former Jewish Quarter-, contains mainly historical style, multi-story tenement houses with courtyards. The high population density and the unsatisfactory energetic state of the buildings result high energy consumption. As a preliminary survey of a complex rehabilitation plan, the authors aim to determine the energy demand of the area. The energy demand was calculated by analyzing the structure and the energy consumption of each building by using Geographic Information System (GIS) methods. The carbon dioxide emission was also calculated, to assess the potential of reducing the present state value by complex structural and energetic rehabilitation. As a main focus of the survey, an energy intensity map has been created about the area.

Keywords : CO₂, energy intensity map, geographic information system (GIS), Hungary, Jewish quarter, rehabilitation

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