Pedestrian Traffic Simulation at ShopVille in Zurich's Main Railway Station

The opening of the Löwenstrasse railway station with its pedestrian thoroughfare will alter the patterns of pedestrian traffic at ShopVille in Zurich's main railway station. Using various methods of pedestrian traffic simulation, EBP shows which areas must be left unimpeded.

Serving a very large volume of passengers, the main railway station in Zurich is a major public transport hub that also offers various shopping opportunities in two separate areas known as RailCity and ShopVille. The patterns of pedestrian traffic at ShopVille will be altered by the construction of the Diameter Line's and the opening of a second underground through station at Löwenstrasse. This will have an impact on connection routes and the required pedestrian zones.

A detailed pedestrian traffic simulation model was used to simulate ShopVille's current and future (i.e. after the opening of the railway station at Löwenstrasse) walkway to the city. The Social Force Model used in the simulation enabled realistic representations of the relevant patterns of pedestrian traffic.

The pedestrian demand scenario is based on the arrivals and departures of several trains at any one time. The sensitivity of the results for the future scenario was tested with a 10% increase in pedestrian traffic. All of the simulated conditions were evaluated in terms of pedestrian density and the entire area was represented according to different levels of pedestrian traffic quality. This provided a basis for demarcating zones that would have to be left free for pedestrian traffic and zones that could be furnished with, for example, benches or seating

Client

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Facts

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