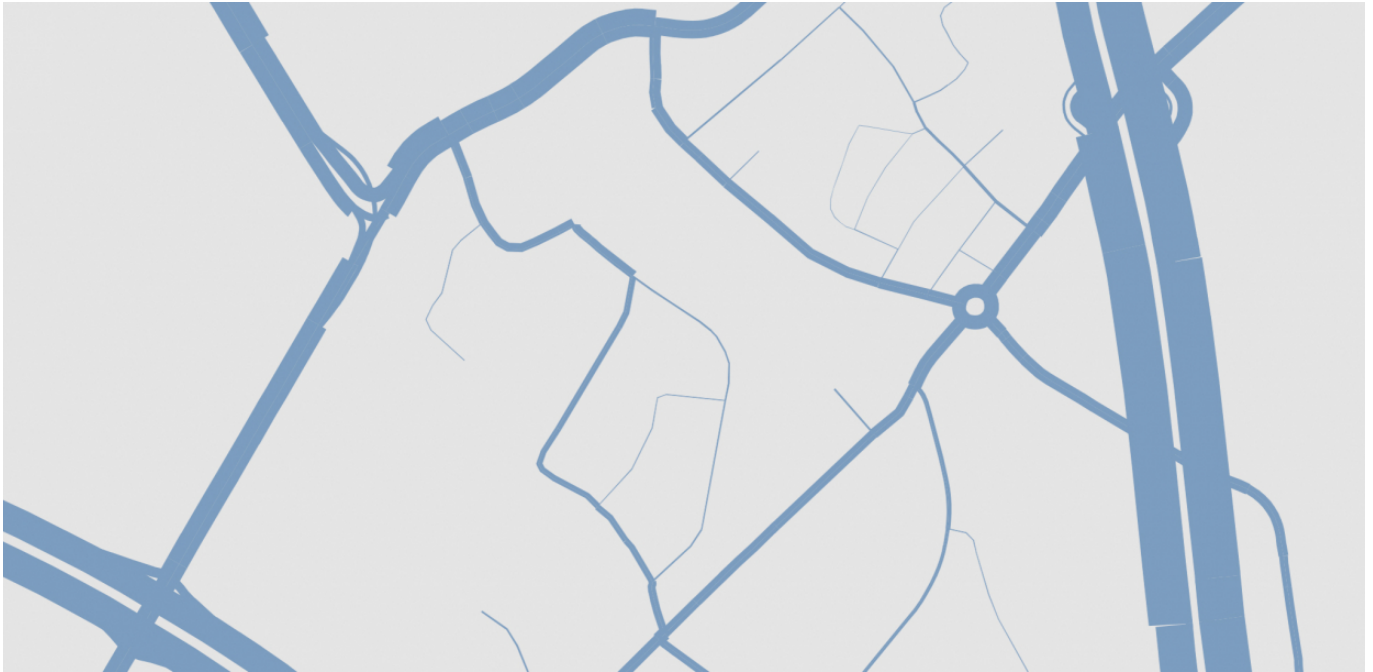


License plate survey and refinement of transportation planning model



Working in the context of a project to evaluate various transportation measures in the dynamic Zurich Airport region, EBP developed a traffic-survey plan and analyzed the survey data upon the survey's completion. The scope of EBP's work also included a refinement and calibration of the Canton of Zurich's Transportation Planning Model so as to account for new transportation data.

Making sure the transportation network meets existing and future demands

Encompassing the municipalities of Kloten, Opfikon and Rümlang, as well as the 11th and 12th districts of the city of Zurich, the Zurich Airport region has been designated as a region of national significance. It has also seen considerable development in recent years. Moreover, with a number of high-profile development projects set to begin, the region is expected to continue growing and attract a considerable number of new jobs. This growth will necessitate capacity improvements in what is already a heavily used transportation network.

Starting with the Canton of Zurich's Transportation Planning Model

One of the region's central goals is to secure a smart alignment of settlement development with the development of the transportation network. Achieving this goal will require an in-depth examination of hard factors such as infrastructure and soft factors such as parking regulations, i.e. given their

Client

Canton of Zurich Transportation Agency

Facts

Period	2017
Project Country	Switzerland
Number of survey stations	14
Recorded license plates	137'558

Contact persons

Bence Tasnády
bence.tasnady@ebp.ch

Dr. Nadine Rieser
nadine.rieser@ebp.ch

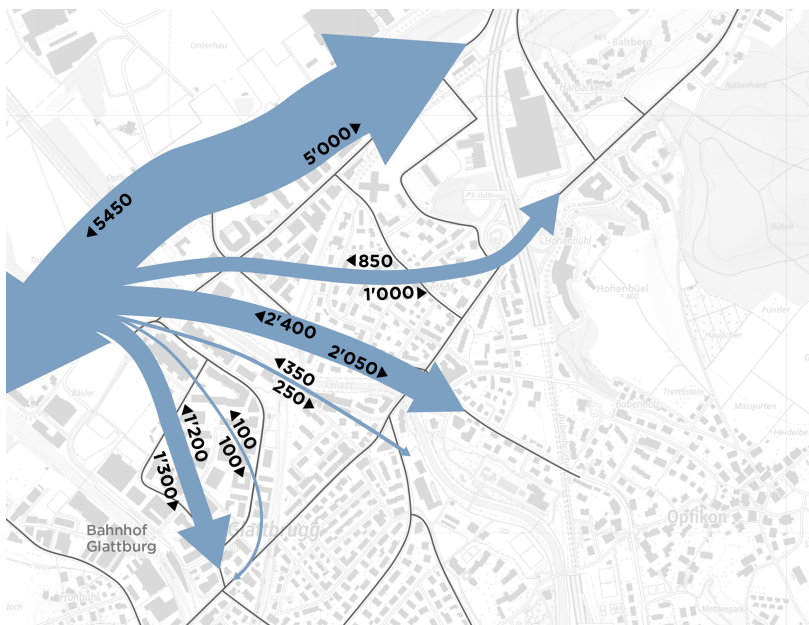
Marco Rothenfluh
marco.rothenfluh@ebp.ch

relevance to the proper coordination of settlement development and the development of the transportation network. Critical information for impact analyses is available in the form of the Canton of Zurich's Transportation Planning Model (GVM-ZH).

Conception and evaluation of the traffic survey

EBP developed an extensive traffic survey plan to assess traffic flow at the perimeter of the Zurich Airport region. The plan's implementation then provided answers to questions concerning both traffic volume and modes of transportation. Additional questions to be answered included the following: What are the common external-external routes (through routes)? What percentage of all trips is accounted for by external-external traffic? What key travel relationships exist between origins and destinations? The survey itself was carried out by the Germany-based company Mehl Messtechnik GmbH.

To evaluate the data gathered in the context of the license-plate survey, EBP drafted scripts that were devised to provide answers to the various survey questions.



Representation of external-external travel via Birchstrasse (vehicles/day)

Planning model refinement and calibration

EBP refined the transportation planning model so as to enable an appropriate representation of the impact that small variations in the transportation grid would have on the perimeter of Airport City. In cooperation with the local municipalities, we disaggregated the model and added new network elements such as routes and links. Using the results of the traffic survey, we then calibrated the refined model.

Transportation network diagrams and cross-sectional data served as benchmarks. We undertook the calibration using targeted matrix corrections (e.g. extrapolations based on network diagrams) and network corrections (e.g. hindrances at traffic hubs). We placed great emphasis on the plausibility of all

steps.

Using the calibrated current state as a basis, we then integrated two forecast scenarios based on different job and population-growth rates into the model.

Results

In the end, we were able to present a refined and calibrated transportation planning model for the area comprised by Opfikon, Kloten and Rümlang for evening peak hours in 2016 and a forecast reference year of 2030. The model provides the right tool for carrying out an examination of network variations in order to arrive at specific transportation solutions.

EBP has presented the most important survey results in the form of an intuitively illustrated report.



Route selection between Birchstrasse and Schaffhauserstrasse (vehicles/day)