

Example of a Beamways system for Linköping

On the next page you can find an example of how a complete Beamways system for Linköping could look like. As you can see the network is well developed and therefore it can fulfill most of the local person transport needs. The total length of the network is 90 km of double track and the total number of stops is 118.

As the entire city will get very good PRT service through the Beamways system you can assume that a fair share of today's car traffic will be replaced by PRT trips just by passengers choosing the quickest and cheapest mode of transport. This is a huge difference compared to regular bus transit which cannot compete at all with car traffic.

Of course a big PRT network like this will not be built in one go, but in several stages. It is important to remember, however, that like other types of networks the PRT system will be really attractive only when a large share of the demand can be satisfied within the network.

A simulation of this Beamways system shows a mean speed in a real traffic situation of about 40 km/h (stop to stop). This is about double the speed of a bus line. And then this comparison is still not fair as the 40 km/h speed of the Beamways system can be achieved between any pair of stops, while the bus's figure of 20 km/h is only valid for trips along the bus line. The waiting for the bus and at any changeover is not taken into account. In the Beamways System only about 25 % of passengers have to wait at all in rush hour traffic, and for those who have to, the wait is only around two minutes.

To improve the accuracy of the simulation information of the number of households and work places and the amount of shopping and other activities adjacent to each stop would have to be entered into the simulator. A more careful planning of the size of each stop would also be required. Despite the lacking input data you can see from the simulation that a Beamways system would have the capacity to handle the traffic in the rush hour (0.1 trip per inhabitant in the rush hour). This means that a Beamways system would be a very advantageous way of giving Linköping an environmentally sound and efficient transport system!

