



# TRAMS FOR TAMPERE

**As an efficient public transport system, trams will enable significant infill development within the growing city and the municipalities of the city region. Tram project will be part of a long-term development project of the entire urban structure.**

Tampere will grow sustainably by directing its growth within the existing urban fabric. There will be a significant number of infill development areas along the tramline.

## **Reliable and fast**

According to the plans, trams will replace currently the busiest bus routes in Tampere. The tram system will combine light rail system's speed and easy use of traditional trams. Public transport signal priority and the high-quality segregated track, which will cover most of the route, will further ensure that the Tampere tram system will be rapid. In accordance with Tampere's master plan (2014), the tramline will operate

for 3/4 of the route in a segregated lane, i.e. separate from the other vehicles.

## **Easy and accessible**

The trams will be easy to reach thanks to the frequent street-level stops. In addition to offering a rapid journey, the aim will also be to shorten the time spent travelling by providing a reliable service and ensuring short walking distances and quick transfers. The tramline and the overall development of the public transport system along with improved walking and cycling opportunities will create a strong basis for the implementation of a sustainable transport system and urban structure.

## **Attractive option**

The aim of the tramline will be to improve the accuracy and quality of public transport, thus increasing modal share of public transport. People will feel encouraged to choose public transport more often when it is well operated and easy to use.

## **Accessible**

One of the benefits of a tram network is its accessibility. Trams arrive promptly, without fail and irrespective of weather, right next to the platform and level with it. The tram runs smoothly on any street surface and in any weather.

### Tram routes Hervanta–city centre–Lentävänniemi and city centre–central hospital/ Campus area Kauppi (in accordance with general plan)

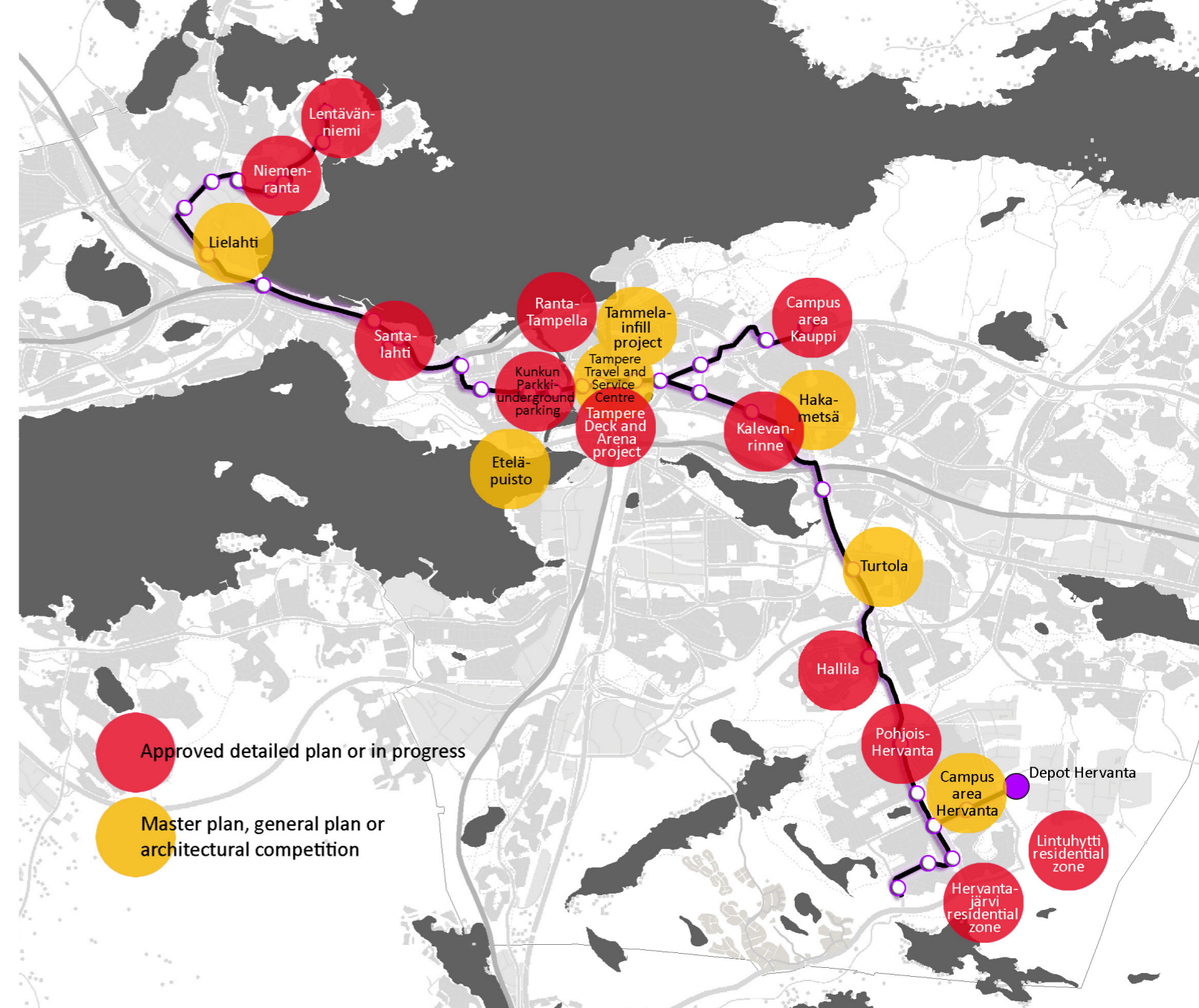
Full length of the route	23,5 km
Segregated lanes separate from other street traffic	17,8 km
Shared lanes with buses	1,4 km
Shared lanes with other street users	4,3 km
Stops (+reservations)	33 (+2) in total
Passenger capacity of the vehicles	~210 person
Width and length of vehicles	2.65 m, approx 30 m
Fleet (+ reserve vehicles)	23 (+3) in total
Track width	1,435 mm
Headway	7.5 min
Passengers, weekday / year (2030)	47,700/ 13,2 million
Cost of building the track (including depot, automatic train control and information system)	€250 M
Fleet cost estimate	€83 M

### EFFECTS

There are 108,700 residents and more than 65,000 workplaces within the catchment area of the tramline – as it is defined in the master plan. It is possible to house another 35,000 to 45,000 people within that catchment area. Core sites along the tramline include Tampere Region Central Hospital, a nationally important railway station, and four university campuses with 40,000 students in total.

The tramline and the infill development to support it:

- will integrate the Tampere Region's largest and most dense residential and employment areas
- will increase the number of population within the public transport corridor
- will enable a more efficient development of public transport, compared to buses alone
- will add an extra 4.4 million public transport journeys to the annual total
- will improve the cost-efficiency of public transport
- will increase public transport ticket sales
- will improve access to Tampere city centre, Hervanta suburb and the central hospital within the city as well as access to the surrounding municipalities and the rest of the Tampere Region
- will improve access from other areas of Finland to the central hospital and Hervanta suburb
- will reduce the environmental load caused by traffic
- will increase the modal share of public transportation in the overall flow of traffic by approximately 2 %
- will support the implementation of a more pedestrian friendly city centre, for example reduces number of buses on the main street Hämeenkatu
- will improve the image of the city region and its public transport system.



Tampere will introduce a tram network. When the general plan was completed, the city had 19 active land use planning projects along the proposed tram tracks.

### ADVANTAGES AND COSTS OF THE PROJECT

Building tram line system is a socio-economically sound investment. The project's benefit-cost ratio is 1.48.

When the benefit-cost ratio is more than one, the project is socio-economically lucrative. Furthermore, when the benefits of the increased value of the city's real estate and the savings made through infill development are taken into account, the benefit-cost ratio for the city will increase to somewhere between two and four.

The greatest economic benefits will be created through a denser urban structure (€105-405M); public transport operating cost savings (€120M), and an increase in ticket revenue (€115M).

The cost of the infrastructure construction, carried out in accordance with the master plan, will be €250M based on the price level in October 2013, Cost index

of civil engineering works 137.0 (2005=100). The tram service will need a fleet of 26, and their cost estimate in the master plan is €3.2M per vehicle. The cost estimate for the first implementation phase is €170M, for the second €20M and the third €60M. A fleet of ten trams will be needed to run the first implementation phase of the tramline.

## PROJECT TIMELINE

The aim is that the construction will start in 2016 or 2017 with the first phase, that will be open for operation from 2018 to 2019.

In accordance with the master plan, the view is to implement the tram line network in three phases. The first implementation phase consists of the track from Hervanta suburb to the city centre, the depot, and an automatic train control and information system. The second phase will consist of constructing the track from the city centre to the central hospital, and third phase will see the track

extended from the city centre to Lentävänniemi suburb.

In accordance with the decision made by Tampere City Council on 16 June 2014 (48 votes out of 67), a tendering process will be carried out in 2014 and 2015 to find the core construction and implementation parties. A construction plan for the development phase will be drawn up in cooperation with them. The parties cho-

sen for the development phase will also be the final construction and implementation parties. The aim is for the plans to be accurate enough in 2016 for the City Council to make a decision on initiating the construction.

The plan is made on the basis that the State of Finland will participate in the project planning and the construction of the infrastructure by sharing 30% of the cost.

### A SOLUTION FOR A GROWING CITY REGION

Tampere is the centre of Finland's second largest metropolitan area and the Tampere Region. The city's population is 220,000 (31 Dec 2013), and the combined population of the city region's municipalities is 353,000. Since 1991, the city has grown by more than 2,000 inhabitants a year – 46,600 inhabitants in total. Simultaneously, the surrounding municipalities have experienced even stronger population growth in relative terms.

Population growth is predicted to continue so that by 2040 there will be almost 280,000 inhabitants in Tampere and more than 460,000 in the city region.

The proposed tram network is the result of a long-term regional cooperation project to achieve a modern public transport oriented city. The capacity of the tram network will match the demand for increased public transportation due to increased population growth and will do so for long into the future.

