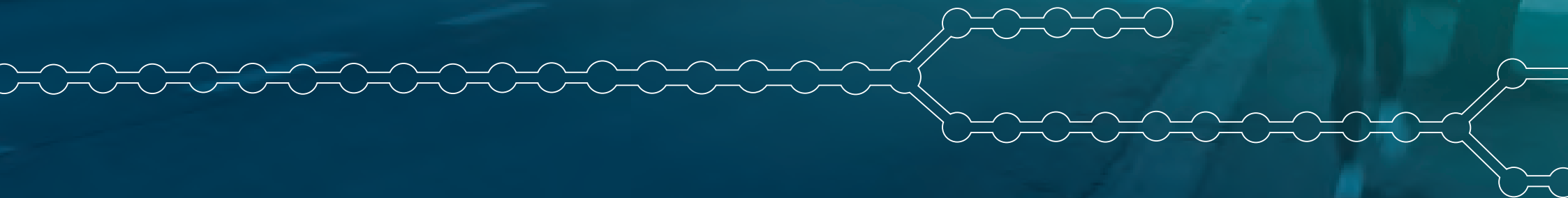


RAITIOTIEALLIANSSI

# Tampere Tramway Implementation Plan

Section 1: Hervanta–City Center–Tays



## Implementation Plan - Abstract

To meet the needs of the growing city and urban area, a modern tram-line system has been designed for Tampere. The key goals of the tram-line system include making the everyday life and transportation easier in the municipality, supporting the growth and development of the urban area, and increasing the appeal of the city.

The construction of the tramline has been divided into two sections. Section 1 covers the construction of the eastbound two-branch line from Pyyrikintori to Hervantajärvi and to Tampere University Hospital as well as the depot area in Hervanta. Section 2 covers the line westbound from Pyyrikintori to Lentävänniemi via Lielähti. The rough design and construction schedule of the sections is presented in the chart on the adjacent page.

The Tram Line Alliance formed by the client, i.e. the City of Tampere, and the service providers, i.e. YIT Construction Services, VR Track Oy and Pöyry Finland Oy, will be in charge of designing and constructing the tramline infrastructure and the depot area. The city will acquire the tram cars as a parallel procurement. Interfaces between the tram car and the track have already been designed during the development phase, and coordination will continue to the implementation phase.

The Implementation content of the Alliance in section 1 includes the following tasks:

- construction of the tramline and the tramline stops
- earthworks and roadwork required by the tramline
- construction of the depot area and the power supply stations
- the necessary lead and cable transfers
- construction and alteration work of bridges and supporting wall structures
- technical systems, including the overhead line, traffic lights, information networks, and surveillance and control systems

The Tram Line Alliance has also drafted street designs on all the tram-line streets of section 1, with the exception of Hämeenkatu, the design of which the client will procure separately. The street designs depict the division of space on the streets in terms of traffic and functionality in the objective situation. In addition to the implementation content of the Alliance, the designs present other procedures to improve the quality of the street environment and alter the division of space in traffic. The City of Tampere will implement these changes to the street environment in accordance with the annual construction budget of

common areas. Some of these procedures are already underway, and the rest will be carried out before, during or after the construction work of the tramline.

The construction of section 1 of the tramline will take about four years. The intention is to start the construction work in 2017 on a number of sites: Hämeenkatu, Itsenäisyydenkatu, Sammonkatu, Hervannan Valtaväylä, Insinöörintie, Atomipolku, Hermiankatu and the depot area. The Alliance will be in charge of the design and implementation of traffic arrangements during the work as required by the construction of the tramline. Guaranteeing smooth and safe day-to-day travel to all means of transportation throughout the construction is the key principle between designing and optimising the phasing of the work.

The tramline will be adapted to the current urban environment. The values of the cityscape will be assessed particularly thoroughly in nationally significant cultural environments (RKY areas) that feature along the tramline in the city centre, Kaleva and Hervanta.

The progress and effects of the construction work will be communicated openly and proactively. Public events, themed workshops and worksite visits, among other things, will be used to inspire active dialogue.

A total cost estimate, consisting of the objective cost that is binding to all the parties of the Alliance, as well as the client's procurements, the client's risk reserve and the bonus pool, has been specified for section 1 of the Tram Line Alliance. The cost estimate of section 2 has been specified for the route in accordance with the general plan as well as four optional routes in the Hiedanranta area. A binding objective cost for section 2 will be determined in the next development phase.

The total cost estimate for the construction of the infrastructure and the depot of the tramline when using the most cost-effective route via Hiedanranta is EUR 282.9 million, of which the share of section 1 is EUR 238.8 million and the share of section 2 is EUR 44.1 million.

The city will be in charge of operating the tramline, and the line will be accommodated as a part of the public transportation system of Tampere. The bus lines will be coordinated with the tram lines. The objective is to start the tramline traffic from the city centre to Hervanta and Tampere University Hospital in 2021.

Tracks of section 1 in numbers	
Total length of the line tracks	15 km
Length of ballasted track	5,24 km
Length of slab track with a separate lane	5,87 km
Length of slab track with a mixed-traffic lane	3,89 km
Total length of depot tracks (one track)	2,80 km
Length of ballasted track	1,25 km
Length of indoor slab track	1,55 km
Width of tracks	1 435 mm
Number of power supply stations	10 pcs
Nominal voltage of drive power	750 Vdc
Number of rail switches	45 pcs
Number of rail switches along the tramline	30 pcs
Number of rail switches in the depot area	15 kpcs
Number of stops (+stop reserves)	23 (+3) pcs
Number of transfer stops	9 pcs
Length of a stop platform	47 m
Height of a stop platform (measured from the rail top)	35 cm
Number of new bridges to be constructed	7 pcs
Number of bridges to be renovated	9 pcs

Operation	
Number of lines	2 pcs
Maximum speed	70 km/h
Running interval on weekdays in day	7,5 min
Operating hours on weekdays	4 a.m.–11 p.m.
Length of the Hervanta line	11,53 km
Length of the TAYS line	4,74 km
Length of the depot branch in Hermiankatu	0,99 km

Cars	
Width of the car	2,65 m
Length of the car (optional increased length)	37 (47) m
Passenger capacity of the car	240 passengers
Number of cars	14 pcs

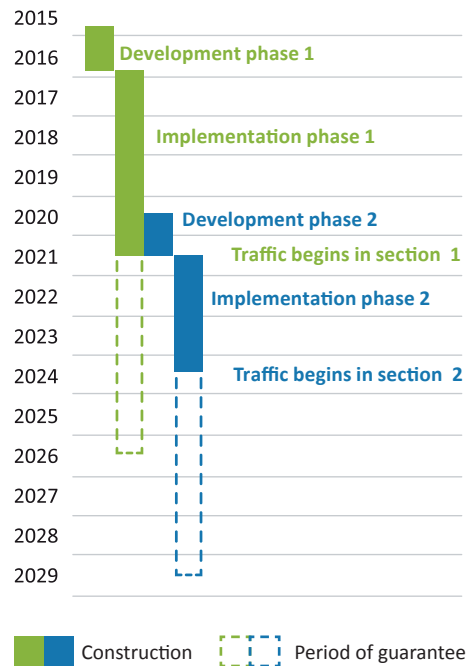
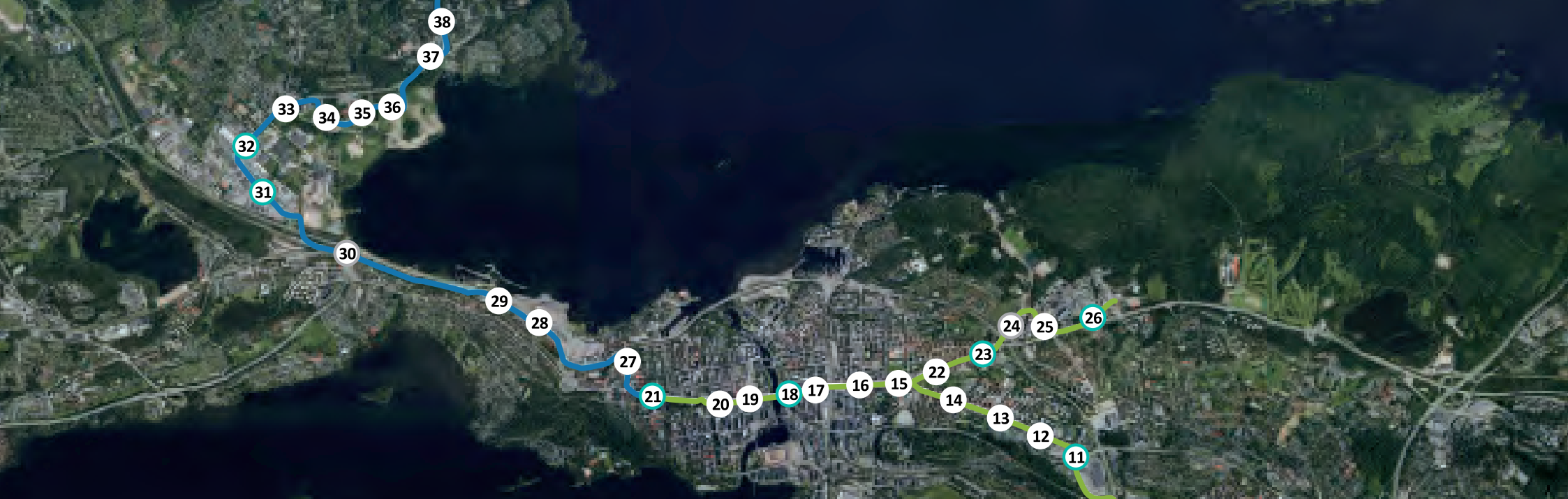
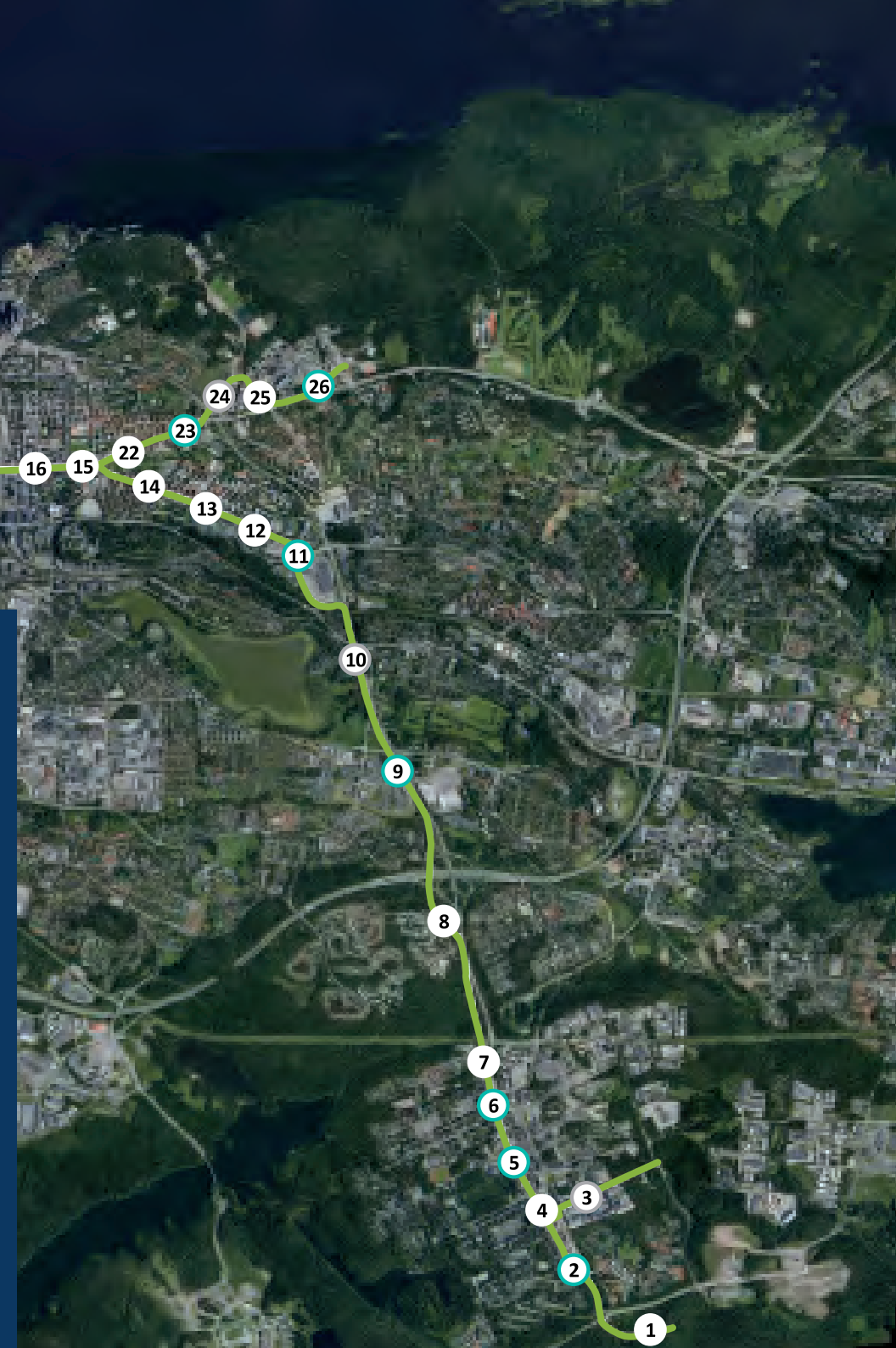


Image: Phases of the tramline project

- |                   |                    |
|-------------------|--------------------|
| 1 Hervantajärvi   | 22 Kalevan kirkko  |
| 2 Etelä-Hervanta  | 23 Hippos          |
| 3 Hermia          | 24 Tekunkatu       |
| 4 Mikontalo       | 25 Tays            |
| 5 Hervantakeskus  | 26 Vieritie        |
| 6 Opiskelijankatu | 27 Amuri           |
| 7 Kanjoni         | 28 Tikkutehdas     |
| 8 Hallila         | 29 Santalahti      |
| 9 Turtola         | 30 Lielahden asema |
| 10 Vuohenoja      | 31 Sellu           |
| 11 Hakametsä      | 32 Lielahdi        |
| 12 Kalevanrinne   | 33 Pohtola         |
| 13 Uintikeskus    | 34 Niemenranta     |
| 14 Kaleva         | 35 Niemen kartano  |
| 15 Sampola        | 36 Niemenkylä      |
| 16 Tammela        | 37 Männistö        |
| 17 Rautatieasema  | 38 Lentävänniemi   |

- 7 Stop
- 9 Transfer stop
- 10 Stop reservation

Image: Sections and stops of the tramline project





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